

Northport Village Corporation

April 13, 2018

Utilities Meeting Minutes

Attendees:

Superintendent: Richard McElhaney
Village Agent: William Paige
Office Manager: Amy Eldridge

Utilities Board Members Present:

Wendy Huntoon – Acting chair
Judy Metcalf
Gordon Fuller

Visitors: Judith Rohweder, Keith Pooler, Supt Belfast Water District.

Meeting Called to order: Wendy H. called the meeting to order at 2:30 pm

Approval of Minutes: Judy M. moved to approve the March Utility Minutes. Gordon F. seconded the motion, All in Favor.

Financials: None at this time.

Visitor Concerns: Judy R. was concerned about when construction on the Fish Farm was going to be happening and if Bayside water or sewer is going to go up. Dick M. introduced Keith Pooler and mentioned that he is available today to answer any questions. Keith P. mentioned that he has worked with Dick M. and Bill P. for a long time. He provided information about Nordic Aqua Farms and what their intentions were. Keith P. expressed that Belfast Water District has the capacity to provide Belfast, Northport Village Corporation and Nordic Aqua Farms with all of their water needed. Belfast Water District has a guaranteed 6 year contract with Nordic Aqua Farms as well as 10 one year options for a possible 16 year contract.

Keith P. answered Judy R. question about if rates will go up and he said no. He expressed that moving water is the best water and with the amount of water usage that Nordic Aqua Farms will be utilizing on a daily bases it will make the quality of the water better. Keith P. mentioned that they did do a flow test at the Belfast Water Office of 1,000 gallons a minutes and the results concluded that they saw less than a 5 psi reduction in the system pressure (98 to 93 psi) at the NVC inlet. Nordic Aqua Farms will only be allowed up to 500 gallons a minute which will be restricted by either pipe or meter size. He also commented that there will be no disruption in service during construction.

Report of the Superintendent: Dick M was able to contact Stevens Contracting to see if they still will be completing the work on the pump station and they confirmed yes. Stevens was unable to complete the job last year because there was digging needed and due to the winter weather the project was delayed. Dick M. requested that the \$4,000.00 in electrical work by Stevens be approved again since it was approved to be spent in last year's budget. Gordon F. moved to have Stevens complete the pump station work that they started last year. Judy M. Seconded the motion, All in Favor.

Dick M reported that he has not heard anything further from the EPA on our wastewater discharge renewal application as well as he sent correspondence to Jerry Reid about his concerns on billing. The Utilities Department has not received any additional questions or concerns regarding this matter.

Dick M. informed the Utilities Department that he will be sampling the drinking water for nitrates in the next couple of weeks. Sampling for nitrate will be done at the vault before distribution. He mentioned that next Friday Dick M. and Bill P. will be taking the NVC water meter out of the vault and bringing it up to Bangor to have it calibrated as well as Moore's Septic will be coming soon to clean out one train of septic tanks used over the winter.

Utility Superintendent's Report

April 13, 2018

Sewer Department

February 2018 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 16,921 gpd compared to 9,025 gpd in 2017. Daily flow ranged from a low of 6,400 gpd to a high of 40,800 gpd during the month. Precipitation for the month was 3.05" versus 3.17" in 2017.

TSS and BOD⁵ averaged 1.2 lbs/day (7.3 mg/l) and 2.8 lbs/day (17.6 mg/l), respectively compared to 0.6 lbs/day (17.8 mg/l) and 1.1 lbs/day (37.3 mg/l) in 2017.

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 and fecal coliform (May thru Sept), daily for pH and settleable solids (S.S.), and twice per day for total residual chlorine (May thru Sept).

Monthly Performance Table

Parameters	February	January	December	YTD Lo	YTD Hi	YTD Ave	2017 Ave	DEP Monthly Limit	Exceedances
Flow GPD	16921	21,181	7906	16921	21181	19051	12017	<63000	0
Precip Inches	3.05	8.05	3.63	3.05	8.05	5.55	3.33	n/a	0
TSS lbs/day	1.2	0.9	1.7	0.9	1.2	1.05	1.90	<76	0
TSS mg/l	7.3	13.8	14.8	7.3	13.8	10.6	27.0	<145	0
BOD ⁵ lbs/day	2.8	1.8	5.4	1.8	2.8	2.3	5.34	<107	0
BOD ⁵ mg/l	17.6	35.4	47	17.6	35.4	26.5	70.7	<203	0
TSS% Removal	97.5	95.3	94.9	95.3	97.5	96.4	91.3	>50	0
BOD% Removal	93.9	87.8	83.9	87.8	93.9	90.8	75.6	>30	0
pH lo	6.7	6.7	6.7	6.7	6.7	6.7	6.7	>6.0	0
pH Hi	7.0	7.0	7.0	7.0	7.0	7.0	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	na	na	na	na	na	na	0.02	<.052	0
F Col/100 ml	na	na	na	na	na	na	<1	<15-ave	0
F Col/100 ml	na	na	na	na	na	na	<1	<50-max	0

Note: The last exceedance for flow was **142 months ago (2/2006)**. The last exceedance for fecal coliform was **65 months ago (8/2012)**. The last exceedance for BOD was **40 months ago (9/2014)**. The record annual average low for flow was 12,017 gpd in 2017.

March 2018 Snapshot

The NVC WTP is expected to be in full compliance with its license limits in March pending the DEP's completed review of the NVC's discharge monitoring report. Flow averaged 21,742 gpd. The report for precipitation as measured by the Belfast Water District (BWD) at their Little River Station was 2.18 inches.

Effluent Pumping During Extreme High Tide Events

During the last decade, and again at last month's Board meeting, the Board has discussed the impact that extreme high tides and storm surges are occasionally having on the accuracy of flow metering when the metering manhole floods in response. Moreover, going forward, also how rising sea levels will only exacerbate this condition and finally, what the potential solution might be to stay ahead of this matter if and when one is needed.

The Superintendent reminded the Board that the best good option would be to pump the effluent into the outfall during these extreme tide events to prevent flooding by placing an automated submersible pump into the outfall manhole. Page (7) of a "white paper" prepared by Richard Brockway in 2016 shows a drawing to explain this concept that had arisen from discussions between Mr. Brockway and the Utility Superintendent regarding this subject

Page (7) of this report has been sent under separate cover to Board members ahead of this meeting for them to better understand the simplicity of this solution. While it is believed that it will be quite some time before this plan would be needed, it is nevertheless on file for when it might be. Copies of the full 11 page report can be made available to Board members and Village officials who might be interested by request.

Drinking Water Department

February 2018 Usage and Water Quality

Water consumption for the month averaged 16,916 gpd compared to 12,911 gpd in 2017. The weekly free chlorine residual in the drinking water ranged from 0.26 - 0.28 ppm/Cl² compared to the recommended goal of >.20 to <1.0 ppm/Cl². The EPA maximum concentration level (MCL) not to be exceeded is 4.0 ppm. The monthly total and e-coli water sample test results were negative.

A 15 gpm leak in the water distribution system during the last week of the month represented about 5,500 gpd of the average daily flow for February. The leak was identified at the bottom of Clinton Lane from a broken service drop owned by the NVC Water Department.

2019 Proposed Water and Sewer Projects

Attached under separated cover are Dirigo Engineering's Preliminary Project Cost Estimates for the replacement of the Cobe Road Water Main (\$108,625); for fire protection upgrades (\$30,085) and the upgrades/rehabilitation of the wastewater metering manhole and the installation of a tide gauge (\$18,975) in 2019.

Dirigo Engineering strongly discourages the NVC Water Department from incorporating the existing fire pond piping and the 3 associated fire hydrants to the drinking water system. Dirigo believes the old hydrants will not meet current regulation and accordingly recommends that new hydrants be "cut in where desired with all new materials". As a result of Dirigo's opinion on this matter, the Water Department recommends pulling this project from the engineering list for 2019 in favor of handling the fire protection upgrade project internally. (Two new hydrants and the systematic abandonment of the old hydrants and piping could be expensed out of the Water Department's annual operating budgets over the next two to three years for about \$15,000 if desired)

If the Board of Trustees approves to move forward with the proposed Cobe Road and sewer upgrades, the Utility Department suggests that the Board of Trustees and/or the Finance committee discuss a best method for making payment for the two projects either through, for example, the use of Utility Department reserves, a private loan and/or some hybrid combination of using both.

Judy M. asked what the degree of need on the 3 projects were and if they needed to be completed in 2019 and Dick M. said no. Dick M. believes that we have about \$153,000 in water reserves and

\$270,000 in sewer reserves and all three projects could be financed entirely by reserves without loans if they wanted. Wendy H. recommended that the 3 projects be looked at further to make sure there are no conflict with other projects in the village.

Dick M. went over the Fire Protection upgrades and as an example mentioned that we could put in one hydrant up where Merrithew Square is and they would take out the gravity hydrant at the corner of Griffin and Broadway. And secondly coordinate the installation of another new hydrant at the corner of Sea and Bay Street with the removal of the remaining two gravity hydrants associated with the fire pond. Wendy H. would like to have more input from other Utility members on the matter before proceeding forward. Wendy H. will speak with the Overseers on Sunday about the priority of the hydrant situation and rental fees. Gordon F. is for the Fire Project proceeding if possible sooner rather than later.

Discussions: Next meeting is May 11, 2018 in the conference room at the Community Hall.

Meeting Adjourned: at 3:37 pm.