

## Utilities Committee January 2016 Meeting

Present: David Crofoot, Dennis Wang, Steve Flowers, Judy Metcalf (by phone), Supt. Dick McElhaney, Bill Paige

Minutes: The minutes of the December meeting were unavailable. They will be reviewed at the following meeting in February.

### **SUPERINTENDENT'S REPORT NORTHPORT VILLAGE CORPORATION - UTILITIES DEPARTMENT**

January 8, 2016

#### **Sewer Department**

##### November 2015 Effluent Monitoring Data

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

November flow averaged 18,200 gpd compared to 15,803 gpd in 2014. Daily flow ranged from a low of 4000 gpd to a high day of 103,200 gpd during the month. Precipitation for the month was 3.64" versus 5.16" in 2014.

TSS and BOD<sup>5</sup> averaged 1.9 lbs. /day (18.5 mg/l) and 6.1 lbs. /day (49.8 mg/l), respectively compared to 2.1 lbs/day (11.5 mg/l) and 7 lbs/day (44.5 mg/l) in November of 2014.

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, BOD<sup>5</sup> and fecal coliform (May thru Sept), daily for pH and settleable solids (ss), and twice per day for total residual chlorine (May thru Sept).

Monthly Performance Table

Parameters	November	October	September	YTD Lo	YTD Hi	YTD Ave	2014 Ave	DEP Monthly Limit	Exceedances
Flow GPD	<b>18200</b>	12839	15533	2618	34,940	<b>15056</b>	16113	<b>&lt;63000</b>	0
Precip Inches	<b>3.64</b>	5.18	11.83	1.29	11.83	<b>3.78</b>	4.7	<b>n/a</b>	0
TSS lbs/day	<b>1.9</b>	1.9	15.1	0.3	15.1	<b>3.4</b>	2.43	<b>&lt;76</b>	0
TSS mg/l	<b>18.5</b>	33	39.2	9.7	55.0	<b>29.7</b>	22.7	<b>&lt;145</b>	0
BOD <sup>5</sup> lbs/day	<b>6.1</b>	4.3	24.9	1.6	24.9	<b>8.8</b>	8.8	<b>&lt;107</b>	0
BOD <sup>5</sup> mg/l	<b>49.8</b>	81.8	113.4	16.2	195	<b>106.3</b>	95.6	<b>&lt;203</b>	0
TSS% Removal	<b>93.6</b>	86.2	86.5	81.1	95.3	<b>89.5</b>	92.2	<b>&gt;50</b>	0
BOD% Removal	<b>82.8</b>	71.8	60.9	32.8	94.4	<b>63.3</b>	67.6	<b>&gt;30</b>	0
pH lo	<b>6.8</b>	6.8	6.8	6.8	7.0	<b>6.92</b>	6.95	<b>&gt;6.0</b>	0

pH Hi	<b>7.0</b>	7.0	7.1	7.0	7.3	<b>7.15</b>	7.23	<b>&lt;9.0</b>	0
S.S. ml/l	<b>&lt;0.1</b>	<0.1	0.1	<0.1	0.15	<b>&lt;0.1</b>	<0.1	<b>Report</b>	0
TRC mg/l	<b>na</b>	na	.02	.02	.02	.02	0.02	<b>&lt;.052</b>	0
F Col/100 ml	<b>na</b>	na	<1	<1	<3.16	<1..26	<1	<b>&lt;15-ave</b>	0
F Col/100 ml	<b>na</b>	na	<1	<1	<10	<1.58	<1	<b>&lt;50-max</b>	0

**Note:** The last exceedance for flow was *116 months ago (2/2006)*. The last exceedance for fecal coliform was *37 months ago (8/2012)*. The last exceedance for BOD was *14 months ago (9/2014)*.

December 2015 Snapshot

The NVC WTP was in full compliance with its license limits in December pending the DEP’s completed review of the NVC’s discharge monitoring report. Flow during the month averaged 19,200 gpd. The report for precipitation as measured by the Belfast Water District (BWD) at the Little River Station was 4.48 inches.

Draft Letter of Agreement – South Shore Road Culvert at Kelley Cove

The NVC Utility Department had prepared a proposed “Letter of Agreement” between the Town of Northport and the NVC to share equally in the cost to relocate a 100 foot section of 8-inch DI water main beneath the Kelley Cove culvert on Shore Road in case it should fail. This was occasioned by the Town’s replacement of the concrete rectangular culvert (so-called Devil Bridge”) in the fall 2014; the abutments of the widened and re-engineered bridge led to placement of bridge footings directly over the NVC water main. The Utility and Village officers were concerned that this might result in damage to the water main. The bridge engineer stated that the footing was modified with a slot cut out to prevent direct pressure on the water main; no one from the Utilities Committee directly witnessed this portion of the project.

The Selectmen of the Town of Northport, on the advice of the Town attorney, were not willing to enter into any legally-binding agreement to share costs in case of water main damage. Instead, the selectman suggested that NVC could approach the Town to discuss the issue if such a failure occurred. They would then put the issue to the voters of the Town as a warrant item. Trustee Chairman, Dr. David Crofoot, Overseer, Paul Nyren and Village Agent, Bill Paige were in attendance at the Town meeting.

**Drinking Water**

November 2015 Usage and Water Quality

Water consumption during November averaged 13,400 gpd compared to 11,963 in 2014. No leaks were reported. Seems people were hanging around the Village a little longer this year with the milder and more decent weather.

The average weekly chlorine residual in the drinking water was .14 ppm/Cl<sup>2</sup> compared to the recommended goal of >.20 to <1.0 ppm/Cl<sup>2</sup>. The EPA MCL is 4.0 ppm.

The monthly coliform water sample test result was negative.

New Business:

Courier service for BOD, TSS samples. This issue was discussed. The time frame from collection to delivery of samples to an accredited lab is time limited (six hours). Our previous courier has ceased operations. Other courier services were more expensive than the current option of having Bill Paige deliver the samples for testing.

There was a general discussion about the issue of tidal backflow falsifying our flow readings when extreme high tides raise the water level above our V-notch weir. Our entire system at the wharf is gravity fed. There is no simple solution for this problem other than to pump the effluent to the ocean or to relocate ~~the relocation~~ of the tanks uphill which will have to be a consideration within the next few decades as our existing tanks age and as ocean levels continue to rise. Long-term planning should keep this in mind as our current system of tanks, now 25 or more years old, will eventually have to be replaced.

The Maple Street project is on track. We expect the water main and the sewer line to be installed first followed by the more superficial storm drains.

Dick McElhaney has talked to Ted Berry regarding internal inspection of our tank trains as well as about performing replacement of the Bay Street sewer line using trenchless technology. We are awaiting a price. This work will be done in the fall of 2016.

Respectfully submitted,

David D. Crofoot