

**NVC UTILITIES MEETING**  
**MINUTES**  
**March 7, 2014**

**Present:** Chairman David Crofoot; Committee members: Marge Brockway by phone; Denis Wang; Ned Lightner; Judy Metcalf by phone; Office Manager Paul Bartels; Superintendent Richard McElhaney; Distribution Operator Bill E. Paige.

Chairman Crofoot called the meeting to order at 9:30 AM.

**Financials**

Financial reports were not available for this meeting.

**Minutes**

Ned Lightner moved to accept the minutes of the February meeting, seconded by Denis Wang – **Voted and approved.**

**SUPERINTENDENT’S REPORT**

March 7, 2014

**Wastewater Treatment Plant**

January 2014 Effluent Monitoring Data

The NVC Wastewater Treatment Plant was in full compliance with its discharge license in December. There were no license exceedances.

January flow averaged 26,135 gpd compared to 4,047 gpd in 2013 and 10,829 gpd in 2012. Daily flow ranged from a low of 3,300 gpd to a high of 172,800 gpd. Precipitation during the month measured 5.67” versus .86” in 2013 and 1.46” in 2012.

TSS and BOD<sup>5</sup> averaged 1.7 lbs/day (13 mg/l) and 1.5 lbs/day (31.9 mg/l), respectively compared to 0.8 lbs/day (23.8 mg/l) and 1.9 lbs/day (56.8 mg/l) in January of 2013.

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, and twice per day for total residual chlorine (May thru Sept).

Performance Table

Parameters	January	December	YTD Lo	YTD Hi	YTD Ave	2013 Ave	DEP Monthly Limit	Exceedances
Flow GPD	<b>26,135</b>	8584			<b>26,135</b>	9602	<b>&lt;63000</b>	0
Precip Inches	<b>5.67</b>	2.43			<b>5.67</b>	3.26	<b>n/a</b>	0
TSS lbs/day	<b>1.7</b>	1.0			<b>1.7</b>	1.9	<b>&lt;76</b>	0

TSS mg/l	<b>13</b>	11.2			<b>13</b>	25.7	<b>&lt;145</b>	0
BOD <sup>5</sup> lbs/day	<b>1.5</b>	6.0			<b>1.5</b>	7.0	<b>&lt;107</b>	0
BOD <sup>5</sup> mg/l	<b>31.9</b>	41.8			<b>31.9</b>	80.2	<b>&lt;203</b>	0
TSS% Removal	<b>95.5</b>	96.1			<b>95.5</b>	91.1	<b>&gt;50</b>	0
BOD% Removal	<b>89.0</b>	85.6			<b>89.0</b>	70.8	<b>&gt;30</b>	0
pH lo	<b>6.9</b>	6.8			<b>6.9</b>	6.8	<b>&gt;6.0</b>	0
pH Hi	<b>7.2</b>	7.0			<b>7.2</b>	7.0	<b>&lt;9.0</b>	0
S.S. ml/l	<b>&lt;0.1</b>	<0.1			<b>&lt;0.1</b>	<0.1	<b>Report</b>	0
TRC mg/l	<b>na</b>	na			<b>na</b>	.02	<b>&lt;.052</b>	0
F Col/100 ml	<b>na</b>	na			<b>na</b>	<1.4	<b>&lt;15-ave</b>	0
F Col/100 ml	<b>na</b>	na			<b>na</b>	<1.6	<b>&lt;50-max</b>	0

**Note:** The last exceedance for flow was *94 months ago (2/2006)*. No exceedance for pH, TRC, TSS and BOD<sup>5</sup> has occurred for *100 months (8/2005)*. The last exceedance for fecal coliform was *17 months ago (8/2012)*.

### February 2014 Snapshot

The NVC Wastewater Treatment Plant was again in full compliance with its discharge license in February. Flow during the month averaged about 5,000 gpd. The report for precipitation as measured by the BWD at the Little River Station was about 2.5 inches.

### Sewer Improvement Projects (SIP)

WARRANTY ITEMS – The NVC Board of Trustees agreed to the alternative NVC option proposed to and accepted by Sargent that allows the NVC to keep the remains of the \$1200 retainage payment in order for the NVC to replace the water service line to the Wharf themselves as worded below:

**“Sargent will agree to the alternative proposal of allowing NVC to keep their \$1,200 of retainage if Sargent is released of all current and future obligations related to the water line service to the wharf. If the board would like to have Sargent submit a price to replace the water line in the future we would be happy to submit a proposal. If the board accepts any proposal from Sargent the work will be performed under a new contract and be unrelated to any work previously performed.”**

The NVC Sewer Department will seek bids to replace the water line with a goal to complete the work before the Memorial Day weekend.

### 2009 Wastewater Discharge Permit/License Renewal Application

The DEP last month forwarded a question from the NVC over to EPA for an answer on whether or not it will become necessary for the NVC in 2014 to re-submit its 2009 renewal application for a new wastewater discharge license.

The EPA responded that another complete renewal application will not have to be filed, but that a 12 page questionnaire to reissue the 301(h) Modified NPDES permit will need to be answered and updated. The Utility Superintendent will coordinate the response to this questionnaire, with the help of Dirigo Engineering, Inc. A draft of the document will

be submitted to the Board for their review before forwarding the final document on to EPA and DEP.

Maine wastewater discharge licenses and EPA 301(h) permits, which waive the secondary treatment requirement, require renewal every five years. The NVC since 2009 has been operating on the license conditions of an expired 2004 permit while it waits for the EPA to reach a decision.

### Infiltration and Inflow Mitigation Progress Report

A review of flow, rainfall and water usage data was completed recently. The review was requested by Dr. David Crofoot (Chair) at an earlier committee meeting to update the Village on the work the Utility has done recently to mitigate the infiltration and inflow of storm water into the wastewater treatment plant and sewer collection system.

The data reviewed was for the period 2002 through 2013. The data shows a steady decline in the annual daily wastewater flow from 50,000 gpd in 2002 to a flow of 10,000 gpd in 2013 - a flow reduction of 80%. During this same time frame, water consumption remained constant while rainfall for the most part was up.

The reduction in flow is a result of the NVC's aggressive efforts over the last decade and before to replace about 1.5 miles of leaking sewer mains. While the majority of infiltration has been eliminated, some inflow still remains as is evident when heavy downpour occurs and typically during the non-growing seasons.

A very nice brochure entitled "The State of the Utility" was prepared by Dick Brockway, the Utility Dept's technical consultant, to show the trend lines of this data. The brochure also offers information on other performance measures, defines what I&I is, why it was necessary to reduce flow and provides a list of some of the major projects that were undertaken by the NVC Utility to stop the leaks.

### Water

#### January 2014 Usage and Water Quality

Water consumption during January averaged 13,289 gpd compared to 13,783 in 2012 and 12,489 in 2011. The average weekly chlorine residual in the drinking water was .23 ppm/Cl<sup>2</sup> compared to the recommended level of >.20 to <1.0 ppm/Cl<sup>2</sup>. The monthly coliform test result was negative. The NVC serves its customers with pre-chlorinated water it purchases from the Belfast Water District.

#### Birchcrest Water Leak

A 105 gpm break in the water distribution line at the end of Crest St. was discovered and brought to an end on February 14, 2014. Approximately 95,000 gallons of water was released over a 15 hour period between when the leak began and until it was found and stopped. The wholesale value of the water loss is \$210. It will be necessary for the NVC Water Department to return to the site of the leak later this year to finalize the repairs to the piping.

The leak in NVC's system was noted first by the Belfast Water District (BWD) and located by Billy within minutes after being notified by Keith Pooler, Supt. of the BWD. Dean Brown Construction Co. and the BWD assisted Billy with labor and equipment to stop the loss of water. The break occurred in the piping associated with a 2-inch blow-off system after it froze and then burst. Blow-off systems are installed strategically throughout the water distribution system to facilitate flushing, draining down lines for maintenance, and to release entrapped air. There are a dozen or so blow-offs associated with the NVC water distribution system.

### **Discussion**

Dr. Crofoot reported on a meeting he attended in Belfast about Penobscot Bay pollution source possibilities. They claimed that there were 31 overboard sewer discharges in the bay. Dr. Crofoot was quick to point out that many of these are abandoned and many are small individual users.

Dick Brockway discussed the new I & I brochure he designed. It was decided to include a copy of it in with the May bills.

Bill Paige will be attending a seminar about leak detection next month.

### **Sewer Application**

Scott Leadbetter submitted a sewer application for a property on Oak Street. Judy Metcalf moved to deny the application based on the fact that the utility can not bring two sewer services to one lot, in the event that the lot becomes subdivided with 50 foot of frontage on Oak Street, the application will be approved, seconded by Denis Wang – **Voted and carried.**

### **Adjourn**

Next meeting scheduled April 4<sup>th</sup> 2014 at 2:30 PM.

Judy Metcalf moved to adjourn at 10:35 AM, seconded by Denis Wang, **Voted - majority approved.**

Submitted by Paul Bartels