

NVC UTILITIES MEETING
Minutes
September 7, 2012

Present: Treasurer Bill Cressey; Committee members: Dick Brockway; Ned Lightner; Judy Metcalf, and Denis Wang; Superintendent Dick McElhaney; D.O. Bill Paige; Office Manager Paul Bartels.

Absent: Chairman David Crofoot.

The meeting was called to order by the committee at 10:00 AM.

Minutes

Denis Wang moved to approve the minutes from the July 13th and August 10th utilities meetings, seconded by Ned Lightner – **Voted and approved.**

Treasurers Report

Bill Cressey presented the financial reports and reviewed the year to date P & L. Dick McElhaney pointed out that the number of hours budgeted for Billy Paige, DO was not going to be enough and that he has increased it for the remainder of the year and in the upcoming 2013 budgets for water and sewer.

The committee discussed Bill Paige's use of his personal vehicle for job related functions and felt he should be reimbursed. Dick McElhaney suggested a \$25 per week reimbursement. Ned Lightner moved to reimburse Bill \$25.00 a week for use of his truck effective September 1, 2012, seconded by Denis Wang – **Voted and approved.**

Ned Lightner and Judy Metcalf asked Dick on behalf of our constituents if the sewer rates will be going down since we retired a sewer bond this year. Dick said that the last sewer bond retired was actually in 2007 and that since then two new bonds have been taken on its place for other sewer improvement projects – one in 2009 and another one that will begin in 2013. Accordingly, he anticipates no relief in the sewer rates going forward for anytime soon, but that one could be possibly entertained on the water side after a large water bond is paid off in 2018. Bill Cressey reminded us that an aspect of qualification for federal grants and loans often is a requirement that the rates represent a certain percentage of the average income per household served.

Bill Paige wanted to know if we could finish the cement work in the Lab, which will cost another \$3,500 this year rather than in 2013 as planned. It was determined that there are enough funds available and we could finish the job now. Ned Lightner moved to approve no more than \$3,500.00 to finish the floor in the Lab, seconded by Denis Wang – **Voted and approved.**

SUPERINTENDENT'S REPORT

NORTHPORT VILLAGE CORPORATION - UTILITIES DEPARTMENT

September 7, 2012

Judy asked Denis (a Marine Biologist) about bright green algae on the beach. Denis Wang opined that it was naturally occurring Ulva and probably due to climate change. Dick McElhaney said that elevated levels of nutrients – nitrates and phosphates – could also be a contributing factor in the algae growth. Also that there was not likely to have any relationship to the village’s wastewater discharge. He hypothesized that it might be due to the run-off from the entire watershed area as a whole into the bay even with the use of more paving..

Sewer Department

July 2012 Effluent Monitoring Data

The NVC was in full compliance with its wastewater discharge license in July. There were no license exceedances. Monthly flow averaged 12,555 gpd compared to 13,081 gpd in July of 2011 and 16,065 gpd in July of 2010. Daily flow ranged from a low of 9,500 gpd to a high of 18,800 gpd. Rainfall measured 1.55” versus 1.73” in July of 2011 and 3.47” in July of 2010. TSS and BOD⁵ averaged 5.6 lbs/day (55 mg/l) and 13.8 lbs/day (131.8 mg/l), respectively.

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), and daily for pH, settleable solids and total residual chlorine (May thru Sept).

Performance Table

Parameters	July	June	YTD Lo	YTD Hi	YTD Ave	2011 Ave	DEP Monthly Limit	Exceedances
Flow GPD	12555	25110	5817	25110	14060	15277	< 63000	0
Precip Inches	1.55	8.31	1.46	8.31	4.04	3.89	n/a	0
TSS lbs/day	5.6	10.3	.8	10.3	3.2	2.4	< 76	0
TSS mg/l	55	24.6	11.7	55	16.5	25.3	< 145	0
BOD ⁵ lbs/day	13.8	29.1	2.5	29.1	8.9	6.3	< 107	0
BOD ⁵ mg/l	131.8	66	25.0	131.8	50.0	63.0	< 203	0
TSS% Removal	81	91.5	81	96	94.3	90.8	> 50	0
BOD% Removal	54.6	77.2	54.6	91.4	82.8	78	> 30	0
pH lo	6.7	6.7	6.7	6.7	6.7	6.8	> 6.0	0
pH Hi	6.9	6.9	6.9	7.0	6.9	7	< 9.0	0
S.S. ml/l	< 0.1	<0.1	<0.1	<0.1	< 0.1	<0.1	Report	0
TRC mg/l	.02	.02	.02	.02	.02	.02	<.052-max	0
F Col/100 ml	< 1	<18	<1	<18	< 5.6	<3.1	< 15-ave	1
F Col/100 ml	< 1	190	<1	190	< 12.4	<7.3	< 50-max	1

Note: The last wastewater discharge license exceedance was for fecal coliform *1 month ago (6/2012)*. The last exceedance for flow was *77 months ago (2/2006)*. No exceedance for pH, TRC, TSS and BOD⁵ has occurred for *83 months (8/2005)*.

August 2012 Snapshot

Despite having sufficient levels of residual chlorine in the final effluent, an August 21st and August 28th grab sample of effluent tested positive for fecal coliform exceeding the daily maximum limit of 50 colonies/100ml. The test results were 51 colonies/100 ml and

100 colonies/100 ml, respectively. The other weekly test results were all negative for coliform. Thanks to the long extension of the new deep ocean outfall pipe and the high dilutions of the treated effluent with the deep waters of the Bay, the threat to public health is believed to be highly unlikely, if any.

Discussion:

The two positive fecal coliform test results were most likely due to the increase in the suspended solids concentrations and the organic strength of the effluent which is typical of this time of year when the sewage system experiences heavy usage and there is little rainfall or I/I. Coliforms can “hide” within the suspended solids, making it more difficult for the chlorine to come in contact with the coliforms and organic compounds (BOD⁵) can “steal” the chlorine and allow coliforms to survive.

However, another potential for coliform discovery is the contamination of the sample during collection. At the Board's recommendation, the Department will take both a hand-dipped and a pumped weekly grab sample for fecal coliform analysis for the rest of the summer season to do a side-by-side comparison of the test results. Doing so, it is believed, will help the Department determine whether or not the equipment and tubing used for collecting the pumped sample may have somehow contaminated the sample to cause a false positive for fecal coliform given the high levels of chlorine residual still remaining in the treated effluent when the samples are taken just before de-chlorination. (The chlorinated effluent is de-chlorinated as a final step to eliminate chlorine's toxicity to aquatic species).

To do away with the potential for equipment contamination from occurring next year, the Department will use only the hand-dipped method for collecting samples for the fecal coliform analysis. To do so, the Department will look to purchase a couple of lighter weight manhole covers and a new dip sampler to make the new dip-sampling collection procedure safer and easier for the NVC operators. Pumped samples will continue to be used for all other parameter testing as has been historically the case.

All other parameters tested during the month of August were within their respective permit limits. Flow will average around 11,000 gpd. Precipitation as measured by the BWD at the USGS Little River Station is expected to be in the 3-4 inch range.

Consent Agreement Status

The DEP proposal to amend the August 28, 2003 Administrative Consent Agreement and Enforcement Order is currently under internal review. The proposal, which is expected any day now, follows the completion of the new deep ocean outfall pipe, tank repairs, I/I removal and other improvements to the sewage collection and treatment system this year and in prior years.

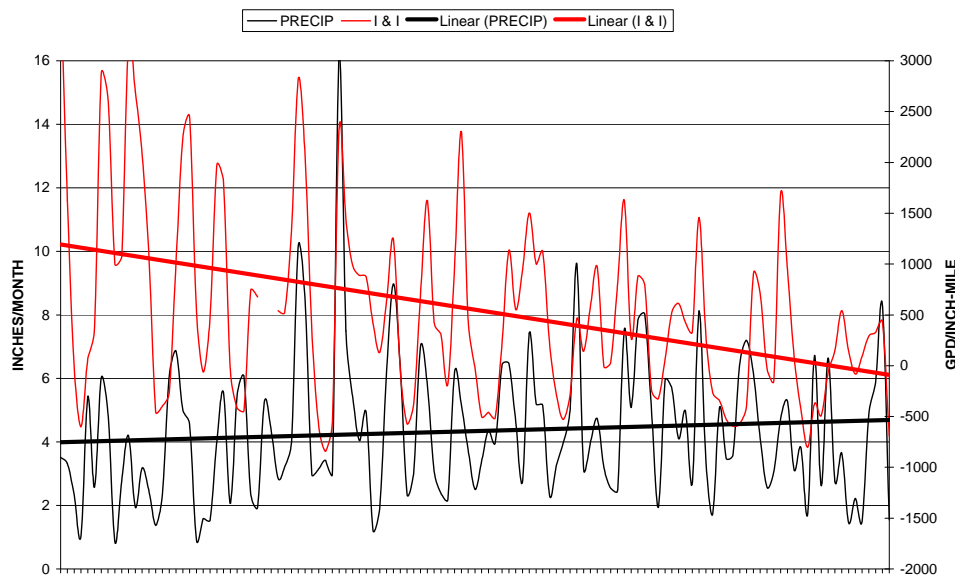
The NVC is hopeful the new DEP narrative will officially close out the original consent agreement, remove the semi-annual reporting requirement, end the planning and funding mandate to construct a \$6 million secondary treatment plant and thereby permanently grant uniformity with the federal EPA 301(h) waiver that has long been allowed the NVC from secondary treatment. Beyond this, EPA and DEP wastewater discharge permits and

the EPA waiver from secondary treatment expire and renew every five years although always with the potential of changes in the treatment and testing requirements.

Note: In 2005, the NVC negotiated a conditional letter of agreement with DEP which established a more practical and affordable alternative to the January 1, 2007 consent agreement deadline to have a new secondary wastewater treatment plant up and running. In its place, the NVC committed to DEP (subject to affordable funding availability) to eliminate egregious I/I, replace the outfall pipe and make operational and maintenance improvements to the existing primary wastewater treatment plant. The 2005 sewer rate increase produced the seed money and federal grant to make these improvements.

The trend chart below shows the NVC's 10 year progress toward eliminating I/I. The chart shows that since the year 2002 over 1200 gpd/inch-mile (one NVC inch/mile equals 20 gals) or 24,000 gpd in I/I has been removed from the sewage collection system while at the same time rainfall has trended upwards from 4"/month to almost 4.75"/month.

I/I REMOVAL PROGRESS CHART 2002-2012



Sewer Improvement Projects

PROJECT COST – \$600,000 (loan \$159,874 and grant \$440,126).

OUTFALL PIPE AND TANKS - Completed.

INTERIM BOND ANTICIPATION NOTE (BAN)/RD LOAN CLOSING – Completed.

COBE ROAD SEWER MAIN REPLACEMENT PROJECT – Completed

TREATMENT PLANT IMPROVEMENTS – Specifications for the project have been finalized for bidding by Manter and Sargent. Although it had been anticipated that bids would be accepted by Dirigo Engineering until 1 pm on September 6, 2012, that deadline was extended by one week to account for specification changes requested by the Utilities Department. The Trustees VOTED (JASM moved; Denis seconded): that they

recommend and advise to the OVERSEERS at their 9/9/12 meeting to award the contract to the lowest bid presented. Work on the project must be substantially complete in 20 days once the equipment is on site.

RD GRANT – The undisbursed balance on the grant to completion is \$82,414 of which about \$34,000 is already committed to pay for retainage and engineering expenses. The remains of about \$48,000 will be used to complete the treatment plant improvements and, if there are still enough leftover funds available, to smoke test two sewer laterals on Cobe Road and Bluff Road.

Water Department

July 2012 Usage and Water Quality

Water consumption during July averaged 42,161 gpd compared to 25,748 gpd in June, 46,459 gpd in July of 2011 and 42,479 gpd in July of 2010.

The average weekly chlorine residual in the drinking water was .17 ppm/Cl² compared to the recommended level of less than .2 ppm/Cl². The monthly coliform test result was negative.

2013 Proposed Water and Sewer Department Budgets

Under separate cover, a first draft of the 2013 Water and Sewer budgets was submitted to Utility Board members. Both zero based budgets propose to balance expected income with anticipated expenses.

Two new line items have been added to the water budget to recognize a need to properly compensate the Distribution Operator for the use of his personal vehicle in performing his O&M duties and to further his training and certification as the NVC's water treatment and distribution operator.

As has been the case since 2005, no increase in water or sewer usage fees will be required to complete the Utility Department's missions.

The committee moved to forward the 2013 water and sewer budget proposals to the Board of Overseers with a recommendation to approve – voted and approved.

Discussions

Judy Metcalf nominated David Crofoot for Chairman of the Utility Committee, **Voted all in favor. The Trustees each expressed their willingness to be reappointed to a new term if the President of the Village so chose at the next meeting of the overseers.**

Adjourn

Next meeting scheduled for October 5th at 2:30 PM.

Denis Wang moved to adjourn at 11:30 AM, seconded by Ned Lightner, **Voted - majority approved.**

Submitted by Paul Bartels