

Town of Hillsborough Water & Sewer Commission
April 23, 2019 Meeting Minutes

Meeting called to order 6:00 p.m. Present were Commissioners Peter Mellen, Chris Sieg, and Dave Lewis; Paul Dutton, Wastewater treatment facility operator; and, Penny Griffin, Administrator.

Also in attendance were Steve Clifton and Cole Melendy of Underwood Engineers.

The group discussed the draft National Pollutant Discharge Elimination System (NPDES) permit released on March 29, 2019, by the Environmental Protection Agency (EPA). They reviewed and discussed WWTF metals, ammonia, sampling protocol, and flow data. A response letter to Michele Barden of US Environmental Protection Agency commenting on the draft permit was reviewed and signed. (Copy attached). Mr. Clifton stated that hopefully the next step will be a meeting with USEPA to discuss the Commissions comments.

The group discussed the operational status of the chemical feed system at the WWTF. Chemical selection was discussed as well as possible other options; noting issues Paul has had with the Magnesium hydroxide. Cole stated Underwood Engineers recommends implement the system as originally designed for the pilot study and they will complete the jar testing process. He also advised the Commissioners that he will be obtaining price quotes for the needed chemical(s) and will forward the information to them.

OSRAM's industrial permit status was discussed. It was agreed that it would be appropriate to request an updated renewal application once the new NPDES Permit is finalized. Cole will contact OSRAM to advise them of the draft permit and forward them a copy of the public notice.

Cole Melendy stated that the evaluation of the filtration sand at the water plant will begin soon. He will be contacting Cody to schedule a visit to the water plant.

Cole Melendy reported that the groundwater permit samples were recently taken and the results are pending. Paul Dutton advised Cole that the person taking the samples for Eastern Analytical had some difficulties with sampling from the wells and will be calling Cole to discuss the issues.

7:30 p.m. Steve Clifton and Cole Melendy left the meeting.

Commissioner Mellen stated that Bill Goss, Highway Foreman, advised that he is revising the proposed area to be paved in the Bible Hill neighborhood. Paul Dutton stated that Mr. Goss relayed that information to him as well. Paul is coordinating work to be done in that area with Jim Card of On Top Masonry.

The group reviewed with Paul Dutton discussions held at last meeting regarding new sewer connection procedures and what is provided by the sewer department. All agreed to continue updating the procedures.

Commissioner Lewis noted that on the RH White quote to install a comminutor at West Main Street pump station lists the removal of a ladder and some grates but does not list

the reinstallation of the items. He asked Paul if this was an oversight. Paul Dutton stated that some items will need to be reinstalled. Paul will review the quote and forward the information to Commissioner Lewis as he is writing a request for proposal (RFP) draft for the project.

A discussion was held regarding the design for the lettering of the new truck and companies that provide that service. Paul Dutton will look into options.

Mr. Dutton stated that the few manholes on West Main Street that are in need of adjustment will be done as a midnight job as they require time to sit prior to heavy travel. Paul believes that this option will provide the least amount of traffic in the area.

8:30 p.m. Paul Dutton left the meeting.

Commissioner Sieg asked Penny to find out from Cody Boisvert if the bubbler in Butler Park is turned off so that he can remove it for repair. Penny will follow up and report back to Commissioner Sieg.

Follow up to the discussion held last meeting regarding purchasing screen printed t-shirts for the water and sewer, Penny Griffin advised the Commissioners about a current screen printing special deal from Premier Printing. The Commissioners authorized Penny to move forward with the process.

The Commissioners reviewed and authorized the April 11, 2019, meeting minutes; 2019 AP vouchers #8 for water and sewer; and, time cards.

The Commissioners reviewed a plan to replace a failed septic system at 50 Grimes Cottage Road. The building inspector, Mike Borden, had requested the opinion of the Commission. After review of the plan and the Loon Pond ordinance in the Code of the Town of Hillsborough, the Commissioners opined that the plan would require a variance from the Zoning Board because the tanks for the replacement system are within the 200 ft setback as outlined in the Loon Pond ordinance 160-8 J (2). The Commissioners asked Penny Griffin to advise the building inspector of their opinion.

The group discussed the scheduled May 28th meeting. Due to attendance conflicts all agreed to reschedule the May 28th meeting for the same time and place on May 30th. Penny Griffin will post the appropriate notices.

Commissioner Lewis motioned to adjourn the meeting. Commissioner Sieg seconded the motion.

All voted in favor.

Meeting adjourned 9:30 pm

Respectfully submitted,

Penny Griffin, Administrator

Water and Sewer Commissioners Meeting Minutes
Approved by:

Date:

Peter Mellen, Chairman

Chris Sieg

Dave Lewis
Water and Sewer Commissioners



Town of Hillsborough Water & Sewer Commissioners



April 23, 2019

Michele Barden
U.S. Environmental Protection Agency – Region 1
5 Post Office Square, Suite 100 (OEP06-1)
Boston, MA 02109-3912
Telephone: (617) 918-1539
Barden.Michele@epa.gov

Re: **NPDES Permit No. NH0100111**
Hillsborough Water and Sewer Commission
Hillsborough, New Hampshire

Dear Ms. Barden:

The Hillsborough Water and Sewer Commission in conjunction with our consultant, Underwood Engineers, Inc. (UE), offer the following comments regarding the Draft Permit for the Hillsborough Wastewater Control Facility released on March 29, 2019.

General Comments

1. The WWTF upgrade in 2012 provided for an increase in design flow from 0.475 MGD to 0.6 MGD on an annual average basis. The draft permit requires improved effluent quality for metals removal and BOD₅ and TSS on a mass basis due to the increase in flow requested.
2. We note that the facility was upgraded in 2012 to accommodate the increase in flow, however it has been seven years since the chemical systems have been operated. Time is needed to recondition the systems and optimize the WWTF to meet the new permit limits. Underwood Engineers is under contract to perform a one-year pilot study in order to assist with the reconditioning and optimizing of the chemical treatment system.
3. We are currently working with UE to review the overall plant operations to incorporate chemical addition to treat phosphorus and metals removal into the WWTF process. Jar testing of currently available chemicals will be performed, and the most effective chemical will be selected for full scale piloting.

Draft Permit Comments

PART I, A.1. Effluent Limitations and Monitoring Requirements

1. We interpret the first line of the table where we report the Average Monthly flow as a twelve-month rolling average as required in footnote 6. We interpret the second line of the table where we report the individual Average Monthly Effluent Flow. If the second line report is greater than 0.6 MGD, *please confirm that this will not be interpreted as a violation*. Since a 12-month rolling average is required, *please confirm that we should report the first value 12 months after the permit is finalized*.

4 Church Street
PO Box 2216
Hillsborough, NH 03244

water-sewer@hillsboroughnh.net
603-464-7982
Fax 603-464-2566

2. BOD₅ and TSS are listed as grab samples. There is no definition or procedure cited for obtaining grab samples in the footnotes. Footnote 1 requires a routine sampling program be developed to sample at the same time and same days of the week each month. *We ask that the definition of "same time" be within a 4-hour window of 6 am to 10 am to allow for some flexibility during the work day for the operators.* Lagoon effluent variability has been found to be low due to the long detention times in each lagoon.
3. The permit requires the effluent pH to lie between 6.5 to 8.0 Standard Units. *We ask that we be allowed to perform the necessary bench tests so that we can modify our pH limits to 6.0 to 9.0 should our testing demonstrate that the river pH is not significantly changed by our discharge.*
4. The permit reporting of Escherichia coli is shown as cfu (colony-forming units). We use IDEXX Colilert system, which provides results as MPN (most probable number). *Please change the E-coli permit units to match the IDEXX system results.*
5. Ammonia nitrogen is required to be tested 1/week or 1/month by a grab sample method. *We ask that when the quarterly nitrogen testing is performed, we be given authorization to use the composite sample to test ammonia so that it can be correlated to the TKN sample.*
6. The total phosphorus limit was calculated using a river average phosphorus concentration of 0.05 mg/L. All prior river testing results were found to lie below the detection limit and were reported as < 0.05 mg/L as P. *Can the analysis be changed to use zero (0) as the upstream background phosphorus concentration?* This would result in a permit limit of 3.09 mg/L.
7. Footnote 8 requires a chlorine and dechlorination alarm system to indicate system interruptions or malfunctions. *The WWTF does not have dechlorination facilities.* Chlorination alarms will require new equipment. (Flow switch, power on/off relay, etc.). *Please confirm that this footnote does not require chlorine residual continuous monitoring.*
8. Footnote 10 indicates that the nitrogen should be estimated using the number of days in the month. *Please confirm that the number of days used in the calculation is the number of days in the month that the sample was taken.* We ask this question because the mass to be reported represents an entire quarter of the year (90 days+/-), yet the sample is collected over a 24-hour period and the average flow is only for the month the sample was taken in.
9. Part I.A.7 states that the discharge shall not result in raising the natural turbidity in the river by more than 10 NTUs. *Can you define how the turbidity value should be measured?* For example, is a bench top test using the 7Q10L dilution factor of 30.9 parts river to 1 part effluent used in the determination or is the river sample 500 feet downstream measured against the upstream river turbidity used?

10. Part C.6.f indicates that if the annual average flow exceeds 80 % of the facility design flow, a report is required to implement a program to maintain compliance. ***Please confirm that the annual average flow value is based on the 12-month monthly rolling average.***
11. The Fact Sheet (page 16, section 5.1.1) indicates that if the flow rate exceeds 80% of the design capacity for three consecutive months, a report is required to implement a program to maintain compliance. ***This is not included in Part C.6.f. Please confirm this is not part of the permit requirements.***
12. Section G. Special Conditions allows a three-year window of monitoring for aluminum. We assume that the NHDES will adopt the EPA aluminum criteria within this time period. The permit allows for Hillsborough to request a revised permit limit for aluminum should this occur. ***Can EPA provide an estimate of the future aluminum limit using the new aluminum criteria for reference?*** Additional data for dissolved organic carbon (DOC), pH and hardness collected by the plant operator is attached. Metals (Al, Cu, Pb) removal and phosphorus removal will be performed using metal salts and pH adjustment. We expect that there will be competing goals to evaluate in order to optimize all metals removal. Knowing the future aluminum limit will assist in the optimization of chemical selection and chemical dosing.
13. Section G. Special Conditions calls out for an annual report. ***Please confirm that this report is not required until after the three-year period.***
14. The fact sheet indicates that application of acid soluble aluminum is the method approved by NHDES for water quality criteria. EPA has assumed a ratio of 1 since no data was collected on this ratio. This ratio can be estimated for both the river and the effluent. ***If we do comparison testing for acid soluble aluminum and total recoverable aluminum to determine the true ratio in the future, will EPA use this data to set a revised aluminum permit limit? Can acid soluble aluminum be the test method used for permit compliance?***
15. FACT SHEET General Comments:
 - a. Section 3.1.1 indicates diffuser tubing. The system was upgraded to “tube diffusers” manufactured by EDI. This section makes no mention of the sodium bisulfite system.
 - b. Section 4 indicates that EPA used proposed State criteria in preparing the permit. Should EPA be using proposed water quality limits to establish permit limits?
 - c. Section 5.1.9.2 indicates that the upstream phosphorus levels were found to be below the detection limit of 0.05 mg/L, however 0.05 mg/L was used in the calculations. If zero is used, the limit would be 3.09 mg/L TP. ***Please clarify threshold intent.***
 - d. Metals limits are based on four samples. Can additional samples can be taken over a longer time period in the future and limits be recalculated based on the new information?

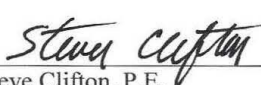
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Ms. Michele Barden
April 23, 2019

We ask that these comments be made part of the record. Thank you for the opportunity to submit comments prior to the final permit is issued. The Commission and Underwood Engineers are available to discuss the contents of these comments at your convenience.

HILLSBOROUGH WATER AND SEWER COMMISSION

Very truly yours,


Peter Mellen
Chairman


Steve Clifton, P.E.
Underwood Engineers, Inc.

cc: Paul Dutton, WWTF Operator
Thomas O'Donovan, P.E., NHDES
Cole Melendy, P.E., Underwood Engineers