

**ATTACHMENT 5**

**CITY OF NASHUA COMMENTS  
Draft NPDES Permit  
No. NH0100170**

**Dated: November 18, 2013**



# City of Nashua

Public Works Division  
9 Riverside Street  
Nashua, NH 03062

Fax (603) 589-3169

November 18, 2013

Mr. Ken Moraff  
Office of Ecosystem Protection  
U. S. Environmental Protection Agency – Region 1  
Water Permits Branch (OEP06-1)  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

Reference: NPDES Permit Number NH0100170  
Nashua Wastewater Treatment Facility  
Draft Permit Renewal Public Comments

Public Notice Number: NH-005-13

Dear Mr. Moraff:

The City of Nashua Division of Public Works has received the draft National Pollutant Discharge Elimination System (NPDES) Permit NH0100170 for the Nashua Wastewater Treatment Facility (NWTF). The receiving waters for the NWTF are the last segment of the Merrimack River for the NWTF (Outfall #001) and combined sewer overflows (CSOs) #002-005, which are located downstream of the confluence with the Nashua River and the Merrimack River. The NWTF is also permitted to discharge CSOs #006-009 to the Nashua River. The NWTF discharges secondary treated effluent, blended effluent, and wet weather effluent to Outfall #001.

This letter documents our comments on the draft permit NH0100170 as issued by the Environmental Protection Agency (EPA) Region 1 in August 2013. We respectfully request that our comments be addressed by Region 1. We have provided comments in order of appearance in the permit with the exception of the discussion related to 7Q10, which affects several issues in the permit. This letter is organized as follows:

1. 7Q10 Determination
2. Part I.A.1 Effluent Limitations and Monitoring Requirements
3. Part I.B.1 Combined System Overflows
4. Part I.B.2 Nine Minimum Control Implementation Levels
5. Part I.B.3 Nine Minimum Controls Annual Reporting Requirement
6. Part I.B.5.a and Part I.B.5.b Wet Weather Flow Treatment Facility and Screening and Disinfection Facility
7. Part I.D.4 Collection System Mapping
8. Part I.D.5 Collection System Operation and Maintenance Plan
9. Part I.H Monitoring and Reporting
10. Part I.I State Permit Conditions
11. Request for New Permit Condition Regarding Flow through Treatment Units

## 7Q10 Determination

EPA Region 1 used the S.L. Dingman Method to calculate the 7Q10 in the Merrimack River. EPA estimated the 7Q10 of the Merrimack River to be 784.1 cubic feet per second (cfs) using USGS gage station data from the Merrimack River below Manchester (01092000), the Souhegan River at Merrimack (01094000), the Nashua River at East Pepperell (01096500), the Concord River below R Meadow Branch (01099500), and the Merrimack River at Lowell, MA (01100000). The S.L. Dingman Method uses ungaged drainage areas to estimate a 7Q10. In this case, the ungaged drainage area between Manchester and Nashua and between Lowell and Manchester was used. EPA Region 1 also adjusted the upstream 7Q10 by subtracting the NWTf design flow; however, a more appropriate methodology is to subtract the NWTf's long-term average flow.

After consultation with the United States Geological Survey (USGS) in Massachusetts, it was determined that the log Pearson Fit Method for calculating the 7Q10 was more appropriate than using the S.L. Dingman Method. Hazen and Sawyer obtained station statistics for USGS gages 01092000 and 01100000. Using this data, a 7Q10 of 791 cfs was derived at Nashua using the log Pearson Fit Method. The 7Q10 of 791 cfs should be used for all analyses related to the NWTf permit, including the Reasonable Potential Analysis (RPA).

## Part I.A.1 Effluent Limitations and Monitoring Requirements

### Language change for monitoring frequency

The previous permit required the measurement frequency for biochemical oxygen demand (BOD<sub>5</sub>) and total suspended solids (TSS) to be weekdays whereas the draft permit requires the BOD<sub>5</sub> and TSS measurement frequency to be 5 days/week. We request that the measurement frequency for BOD<sub>5</sub> and TSS be changed to "weekdays" or to "5 samples per calendar week."

### Reduction in Monitoring Requirements for TSS and BOD

We request the permit be modified to reduce the monitoring for BOD and TSS. Effluent data from March 31, 2007 through March 31, 2012 was evaluated to determine the potential for reduced monitoring for these pollutants. The April 1996 EPA *Interim Guidance for Performance-Based Reductions of NPDES Monitoring Frequencies* method was used to determine the appropriate reductions. The long-term average BOD<sub>5</sub> was 46 percent of the permit limit. There was only one violation in 2010; however, a single violation that is more than two years old does not prohibit the reduction in monitoring frequency. According to EPA guidance, the BOD<sub>5</sub> monitoring frequency should be reduced from five samples per week to three samples per week. The long-term average TSS was 31 percent of the permit limit. There were no violations of the TSS limit during the period of record. As a result, the TSS monitoring frequency should be reduced from five samples per week to two samples per week.

### Numeric Nutrient Criteria and Total Phosphorus Limit

EPA Region 1 has circumvented New Hampshire's narrative nutrient criteria by basing an effluent phosphorus limit on ecoregion reference conditions. In the Nashua NPDES permit, a phosphorus limit was imposed because the recreational chlorophyll-*a* standard of 15 µg/L has been exceeded in the Merrimack River. The phosphorus limit was established using a mass-balance wasteload allocation procedure using the 7Q10 as the basis. The use of this wasteload allocation procedure is inappropriate and should not be used to establish nutrient limits. The effects of nutrients are long-term and affected by many external factors. Numeric nutrient criteria should be established

with a site-specific study to establish the correlation between nutrients and a biological response. It does not appear that biological data has been collected in conjunction with chlorophyll-*a* data to evaluate a biological response in the Merrimack River.

Irrespective of a site-specific numeric nutrient study, there does not appear to be any justification for the proposed phosphorus limit in the Nashua permit. We reviewed the *Upper Merrimack and Pemigewasset River Study Field Program 2009-2012 Monitoring Data Report*, U.S. Army Corps of Engineers dated December 2012. A review of the report indicates that the upstream and downstream data for chlorophyll-*a* and total phosphorus appear to indicate that the NWTf discharge has no discernable impact on the receiving stream. For each sampling date, stream flow, along with upstream, downstream and NWTf effluent phosphorus concentrations were measured; however, a mass-balance relationship between effluent phosphorus and instream phosphorus could not be inferred from the data. These findings suggest that 'reasonable potential' does not exist for the Nashua discharge to cause or contribute to exceedences of the chlorophyll-*a* recreation-based criterion. Furthermore, the data from the study also indicates that the Nashua discharge does not have reasonable potential to cause or contribute to violations of the narrative criteria for nutrients.

The total phosphorus limit should be removed from the permit. A site-specific study and modeling effort will determine the nutrient input versus biological response relationship in the Merrimack River watershed. The study should take into account both the point and non-point source contribution.

#### Reasonable Potential Analysis for Metals

EPA Region 1 did not use the recommended method for the calculation of total recoverable permit limits from a dissolved criterion as outlined in EPA's *The Metals Translator: Guidance For Calculating A Total Recoverable Permit Limit From A Dissolved Criterion* (EPA 823-B-96-007, 1996). In this document, the EPA Office of Water advised that dissolved metal concentrations should be used for the application of aquatic life criteria for metals. With very few exceptions, the total recoverable-based criterion for each metal must be multiplied by a conversion factor to obtain a dissolved criterion that should not be exceeded in the water column. The wasteload allocation must be translated into a total recoverable metals permit limit. As such, the hardness dependent Criteria Continuous Concentration (CCC) and Criteria Maximum Concentration (CMC) should be calculated using the following equations:

$$\begin{aligned} \text{CCC} &= (\exp \{ m_c [ \ln (\text{stream hardness}) ] + b_c \} ) \times (\text{CCF}) \\ \text{CMC} &= (\exp \{ m_a [ \ln (\text{stream hardness}) ] + b_a \} ) \times (\text{ACF}) \end{aligned}$$

Where:  $m_c, b_c, m_a, b_a$  = Hardness dependent coefficients  
CCF = Chronic Conversion Factor  
ACF = Acute Conversion Factor

The translator converts the value for dissolved metal at laboratory conditions to total recoverable metal at ambient conditions as follows:

$$f_d = C_{\text{diss}} / C_{\text{total}} = 1 / [ 1 + \{ [K_{\text{po}}] [ss^{(1+a)}] [10^{-6}] \} ]$$

Where:  $ss$  = in-stream suspended solids concentration [mg/L]  
 $K_{\text{po}}, a$  = partition coefficients (from guidance)

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The instream allowable concentrations (IAC) are then calculated as follows:

$$\text{Chronic IAC} = \text{CCC} / f_d$$

$$\text{Acute IAC} = \text{CMC} / f_d$$

The calculated allowable effluent concentration is then:

$$C_w \leq (S_A) [C_m (Q_s + Q_w) - Q_s C_s] / Q_w$$

Where:  $S_A$  = percent "Stream Allocation"  
 $C_m$  = resulting in-stream concentration after mixing  
 $C_w$  = concentration of pollutant in wastewater  
 $C_s$  = stream background concentration  
 $Q_w$  = wastewater flow  
 $Q_s$  = stream low flow

**Table 1: Summary of Revised Reasonable Potential Analysis for Copper and Lead**

	Copper	Lead
Stream Background Concentration, ug/L	2.0	0.50
Fraction Dissolved ( $f_D$ )	0.35	0.18
Measured Effluent Concentration, 95 <sup>th</sup> percentile	30.2	2.58
<b>CHRONIC</b>		
Fish and Aquatic Life Water Quality Criteria	2.74	0.54
Instream Allowable Concentration	7.9	2.9
Maximum Allowable Effluent Concentration	172	71
Reasonable Potential (is Maximum Allowable < Effluent Concentration)?	No	No
<b>ACUTE</b>		
Fish and Aquatic Life Water Quality Criteria	3.63	13.9
Instream Allowable Concentration	10.5	75.5
Maximum Allowable Effluent Concentration	246	2,173
Reasonable Potential (is Maximum Allowable < Effluent Concentration)?	No	No

The facility effluent data is then compared with the allowable effluent concentrations to determine if reasonable potential exists for the discharge to result in a water quality exceedence. Typically, if the 95<sup>th</sup> percentile value exceeds the allowable concentration, then reasonable potential exists and a limit is applied. A revised Reasonable



Potential Analysis was performed for copper and lead using the recalculated 7Q10, stream background data from upstream monitoring, a hardness of 25 mg/L, and a suspended solids concentration of 10 mg/L. Table 1 provides a summary of the revised RPA for copper and lead. Reasonable potential does not exist for either copper or lead to exceed water quality criteria as a result of the NWWTF discharge. Limits for copper and lead should be removed from the permit.

#### Sample Type for Total Residual Chlorine

The monitoring sample type for total residual chlorine should be changed from a 24-hour composite to a grab sample.

#### Modification of pH Permit Limit

On August 24, 2012, the City of Nashua requested a modification of the pH permit limit from 6.5 to 8.0 standard units to 6.0 to 8.0 standard units. The City completed the required pH adjustment demonstration project, the results of which support the reduction of the lower range of the pH limit from 6.5 to 6.0 standard units. The permit should be revised to reflect this change.

#### Whole Effluent Toxicity Limit

Based on the revised calculation for 7Q10 and the procedures outlined in EPA's Guidance Manual, the 95<sup>th</sup> percentile LC<sub>50</sub> for *ceriodaphnia dubia* and *pimephales promelas* were calculated to be 92.9 percent and 63.9 percent, respectively. These values are different from the current permit values of 100 percent. Antibacksliding does not apply in the case, as the 2000 permit was written incorrectly. The LC<sub>50</sub> should be 11.69 percent based on a dilution factor of 28.5 with an instream allowable value of 0.3TUa. The permit should be modified to reflect the correct LC<sub>50</sub> values.

The NWWTF has passed 22 consecutive WET tests. Therefore, based on reasonable potential, WET monitoring should be changed from semi-annual monitoring to annual monitoring.

#### Whole Effluent Toxicity Monitoring

EPA Region 1 should not require monitoring for ammonia, hardness, aluminum, cadmium, copper, lead, nickel, or zinc as part of EPA-approved WET testing. Certified WET Laboratories are required to follow standard quality assurance and control procedures. Furthermore, the NWWTF has not had any recent WET violations that would require additional monitoring data as part of a Toxicity Identification/Reduction Evaluation (TI/RE). As such, the additional monitoring requirements included on the Effluent Limitations page and Footnote #14 should be removed from the permit.

#### Footnote #3

Footnote #3 should be deleted from the permit. Part I.B.5 of the permit outlines the requirements for Effluent Limitations and Monitoring Requirements for the Wet Weather Flow Treatment (WWFTF) discharge. The permitted compliance point for the NWWTF consists of the wet weather discharge, blended effluent, and secondary treated effluent. A separate monitoring requirement for the secondary treated effluent does not meet the intent of EPA's policy on wet weather discharges. The removal of this footnote is supported by the Eighth Circuit Decision Iowa League of Cities versus Environmental Protection Agency, filed March 25, 2013 (refer to Section 6 of this letter).

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Footnote #12

Footnote #12 should be deleted from the permit. Language for reopening the permit is contained in NPDES Part II.A.2, Standard Conditions. A reopener clause specific to the N WTF is not justified.

Footnote #15 (shown as Footnote #2 in draft permit on page 5/28)

Footnote #15 should be removed from the permit. The Effluent Limitations and Monitoring Requirements are intended specifically to protect water quality. An extra statement that "*The discharge shall not cause a violation of the water quality standards of the receiving stream*" is not warranted.

Footnote #16 (shown as Footnote #3 in draft permit on page 5/28)

This footnote should be revised to be consistent with the New Hampshire narrative criteria for foam, as follows:

*The discharge shall not contain substances that would settle so as to form harmful deposits or float as foam, debris, scum or other visible substances. The discharge shall not contain substances that produce odor, color, taste or turbidity in the receiving waters which is not naturally occurring and would render it unsuitable for its designated uses.*

Part I.A.1 Footnote #17 (shown as Footnote #4 in draft permit on page 6/28)

The language as currently stated in this footnote regarding 85 percent removal of TSS and BOD during dry weather is not protective of our facility due to the wet weather flow issues. EPA's definition of dry weather should not be used as a surrogate for dry weather flow conditions. CSO policy and guidance refer to dry weather flow as containing only non-precipitation flow. The N WTF requires at least 24 hours for the hydrograph from a storm event to leave the collection system and treatment facility. In addition, stored volumes from the Storage Facility and the Screening and Disinfection Facility will also impact influent flow totals. During this period, the facility meets all Effluent Limitation requirements; however, the influent flow is still dilute enough to violate the 85 percent removal requirement. As such, the following language changes are requested to this footnote:

*The permittees treatment facility shall maintain a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand during dry weather. Dry weather is defined as any calendar day on which there is less than 0.1 inch of rainfall, no snow melt, and at least 24-hours after a storm event to allow the storm-flow hydrograph to pass through the collection and treatment facilities. The percent removal shall be calculated as a monthly average using the influent and effluent BOD<sub>5</sub> and TSS values collected during dry weather days.*

Request for New Footnote to Part I.A.1

The operation of our secondary treatment facility is outlined in our High Flow Management Plan dated September 30, 2010 and approved by EPA Region 1. We request the following language be added as a footnote to Part I.A.1:

*The secondary treatment facility will be operated in accordance with the EPA-approved City of Nashua High Flow Management Plan.*

## Part I.B.1 Combined System Overflows

### Definition of Dry Weather

EPA's definition of dry weather should not be used as a surrogate for dry weather flow conditions. CSO policy and guidance refer to dry weather flow as containing only non-precipitation flow. For the purposes of determining the applicability of the 85 percent removal requirement and what constitutes a dry weather overflow, the EPA's definition is overly restrictive. Nashua should be allowed to determine on a case-by-case basis whether the system flows contain precipitation-derived flow. The language in the first paragraph of Part I.B.1 should be revised to read, "...*These discharges are authorized only during wet weather (i.e., any period in which there is greater than 0.1 inches of rain and/or snow melt and at least 24-hours after a storm event).*" For permit consistency, please refer to our comment in Section 2 of this letter regarding Footnote #17.

### Part I.B.1.c

We request that the language for reviewing and updating the Nine Minimum Controls (NMC) be changed to read "*within twelve months of effective date of permit.*"

### Part I.B.1.d

The Long Term Monitoring Plan requirements are intended specifically to protect water quality. If the CSO discharge is in compliance with the Long Term Monitoring Plan and the Effluent Limitations, then the City is in compliance with water quality standards. An extra statement that "*The discharge shall not cause a violation of the water quality standards of the receiving stream*" is not warranted and leaves the City and EPA vulnerable to third party lawsuits.

## Part I.B.2 Nine Minimum Control Implementation Levels

The Nashua NPDES permit contains provisions for Nine Minimum Controls (NMCs) for CSOs. A side-by-side comparison was performed with the year 2000 permit. The comparison indicated that Part I.B.2.a. to Part I.B.2.f are similar to the previous permit with the exception of the paragraph d, which addresses dry weather overflows and paragraph f, which includes the requirement for signs at CSO outfalls. Part I.B.2.g and Part I.B.2.h are new paragraphs to the 2013 draft permit addressing public notification and annual reporting, respectively.

The bulk of these requirements were carried over from the previous permit. These requirements are not consistent with either the *Combined Sewer Overflows Guidance for Nine Minimum Controls* (EPA, May 1995, 832-B-95-003) or the *Combined Sewer Overflows Guidance for Permit Writers* (EPA, August 1995, 832-B-95-008). The permit requires that Nashua review and update, if needed, its program for implementing the NMCs and that the program incorporate the Nine Minimum Control Implementation Levels outlined in Part I.B.2. of the permit as a threshold for EPA approval. These requirements are very prescriptive and could hardly be considered minimal. Additionally, some of the requirements are not appropriate given the circumstances of Nashua's CSO discharges. Appendix A of the CSO permit writers' guide provides example permit conditions for Phase II CSO permits. In this guidance, EPA organizes the permit conditions by each NMC element. The CSO NMC guidance lists suggested measures for implementation of each NMC along with the documentation necessary to evaluate compliance.



Part I.B.2 Nine Minimum Control compliance language should be revised for consistency with federal guidance. The Part I.B.2 language should be streamlined and appropriate for Nashua's system and CSO discharges, as follows:

- a. *The permittee shall implement the nine minimum controls in accordance with the documentation provided to EPA and NHDES under Part I.B.1. of this permit, or as subsequently modified to enhance the effectiveness of the controls. This implementation must include the items listed below (Part I.B.2.) plus any other controls the permittee can feasibly implement as set forth in the documentation.*
- b. *Properly Operate and Maintain the Collection System.*
  - i. *Adequate management, staffing and funding. The permittee's Nine Minimum Control Plan shall document in the resources allocated (manpower, funding, equipment and training) to system operations and maintenance.*
- c. *Inspection and maintenance. The permittee shall inspect each CSO structure/regulator, and/or pumping station at a frequency necessary to ensure good working condition and compliance with the NMC. The permittee's Nine Minimum Control Plan shall document the inspection procedures to include: frequency of inspections, date/time, facility condition and any maintenance performed. The permittee shall maintain records of all inspections for a minimum of three years.*
- d. *Maximize Use of the Collection System for Storage.*
  - i. *The permittee shall maintain all dams, diversion structures or regulator settings to minimize discharge from the CSO outfalls and shall keep them free from obstructions.*
  - ii. *The permittee shall evaluate measures that retard inflows and provide upstream detention.*
  - iii. *The permittee's Nine Minimum Control Plan shall document alternatives considered for maximizing storage and the actions taken to do so.*
- e. *Review and Modify Pretreatment Program.*
  - i. *The permittee shall evaluate the potential for non-domestic dischargers to impact CSO discharges and make necessary modifications to the pretreatment program.*
  - ii. *The permittee's Nine Minimum Control Plan shall document evaluations and any modifications to the pretreatment program.*
- f. *Maximize Flow to the NWTf.*
  - i. *The permittee shall operate the NWTf at the maximum level during wet weather flow conditions.*
  - ii. *The permittee's Nine Minimum Control Plan shall document the actions taken to maximize flow and describe any changes to further maximize flow.*
- g. *Prohibit Dry Weather CSOs.*
  - i. *The permittee shall monitor the system for dry weather overflows (overflows that occur in the absence of wet weather flow conditions). Should a dry weather overflow occur, the permittee shall immediately begin corrective action.*
  - ii. *The permittee's Nine Minimum Control Plan shall document and describe alternatives considered and actions taken to identify and correct dry weather overflows. The plan should also include procedures for notifying permitting authorities of dry weather overflows.*
- h. *Control Solid and Floatable Materials.*
  - i. *The permittee shall implement measures that could include baffles, trash racks, static screens, catch basin controls, nets, booms, etc. to control solids and floatable materials in CSOs.*
  - ii. *The permittee's Nine Minimum Control Plan shall document the procedures or technologies considered, a description of the controls implemented and plans for any future controls.*

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- i. *Implement a Pollution Prevention Program.*
  - i. *The permittee shall implement a pollution prevention program to reduce pollutants in CSO discharges. The program should include elements such as street cleaning, public education, product bans/use control and waste/refuse management.*
  - ii. *The permittee's Nine Minimum Control Plan shall document the alternatives considered, the measures implemented and the expected benefit of the selected controls.*
- j. *Notify the Public of CSOs.*
  - i. *The permittee shall implement a public notification plan to include adequate signage at CSO outfall points and other methods of notice including the use of media, mailers and the internet.*
  - ii. *The permittee's Nine Minimum Control Plan shall list and describe the measures planned for implementation, the location where signs are posted along with the information provided on the signs and the procedures for issuing notices.*
- k. *Monitor to Characterize CSO Impacts and the Efficacy of CSO Controls.*
  - i. *The permittee shall monitor CSO outfalls and determine any other information needed to properly characterize the system, CSO impacts and the effectiveness of control measures.*
  - ii. *The permittee's Nine Minimum Control Plan shall include relevant information and data as well as any evaluation of that information in terms of CSO impacts and control efficacy.*

#### Part I.B.2.g

The City requests the language for oral CSO discharge notification to NHDES-WD be changed from “*within 24 hours*” to “*the next business day.*”

#### **Part I.B.3 Nine Minimum Controls Annual Reporting Requirement**

The previous permit only required submittal of a certification that CSO discharges were recorded and records maintained. The draft permit contains extensive annual report requirements. The Fact Sheet does not provide a basis for these requirements. A few requirements are reasonable, such as records of activation frequencies and volumes of CSO discharged. Other reporting requirements are unclear, such as the requirement to report precipitation data for each day of the year as opposed to only days where a discharge actually occurred. Additionally, other parts of the permit require data collection at rainfall gages at one-hour intervals while the annual report requires 15-minute intervals in order to calculate peak rainfall intensity. The proposed monitoring requirements appear to attempt to characterize the operation of the collection system prior to the implementation of any controls with the expectation that CSO discharges from this system would not be consistent with the CSO Control Policy. However, the proposed monitoring requirements are not consistent with CSO Control Policy. CSO discharges are managed through use of the WWTF at the wastewater plant and the SDF, which are part of Nashua's Long Term Control Plan.

New Hampshire rule Env-Wq 1703.06(c) requires that all CSOs meet an *E. coli* limit of 1,000 colonies per 100 mL at the end of pipe. Additionally, the *New Hampshire Statewide Total Maximum Daily Load (TMDL) for Bacteria Impaired Waters*, September 2010 states, “*Although meeting ambient bacteria standards at the point of discharge for all sources is the goal of this TMDL, compliance will be based on ambient water quality and not water quality at the point of discharge (i.e., end of pipe). In addition, per Env-Wq 1703.06(c), for non-tidal CSO discharges in Class B waters, a bacteria criteria of 1,000 E. coli / 100 mL shall be applied at the end of pipe.*” It is clear that the disinfected CSO, WWTF, and SDF discharges will be in compliance with the TMDL and protective of instream uses, including downstream water supply.

Any monitoring and reporting requirements should be established to verify compliance with the effluent limitations, the NMC, and the TMDL. The Part I.B.1 requirement for annual *E. coli* monitoring from CSOs #002 – #009 for permit compliance serves this purpose. The annual reporting requirements in Part I.B.3 should be revised in the final permit to only include:

- Duration
- Volume
- Precipitation data (daily including the day prior to a discharge event)
- *E. coli* concentration (when measured)

#### **Part I.B.5.a and Part I.B.5.b Wet Weather Flow Treatment Facility and Screening and Disinfection Facility**

The NWTF utilizes Actiflo units as treatment for flows exceeding the hydraulic capacity of the biological treatment facilities. The draft permit includes a number of monitoring requirements for this facility prior to blending with the effluent from the biological portion. These requirements in their entirety should be deleted to be consistent with the recent case law pertaining to blending. In a March 25, 2013 decision, the Eighth Circuit United States Court of Appeals found that “*effluent limitations apply at the end of the pipe*” and “*There is no indication that the secondary treatment regulations established situations in which it would be impractical to apply effluent limitations at the end of the pipe...*” The Eighth Circuit Court ruled that “*The EPA may regulate the pollutant levels in a waste stream that is discharged directly into the navigable waters of the United States through a ‘point source’; it is not authorized to regulate the pollutant levels in a facility’s internal waste stream. Therefore, insofar as the blending rule imposes secondary treatment regulations on flows within facilities, we vacate it as exceeding the EPA’s statutory authority.*”

The draft permit also includes biochemical oxygen demand (BOD<sub>5</sub>) and total suspended solids (TSS) monitoring requirements for the Screening and Disinfection Facility (SDF). The facility was not designed for BOD<sub>5</sub> and TSS removal; therefore, technology-based monitoring requirements are not appropriate. Additionally, the receiving stream is not impaired for dissolved oxygen or suspended solids, so there is no water quality basis for the monitoring requirements. Furthermore, the only controlling criteria in the City’s Long Term Control Plan is monitoring and reporting for *E. coli*. EPA Region 1 should not be imposing effluent limitations other than total residual chlorine and *E. coli* on wet weather discharges per the Eighth Circuit Decision Iowa League of Cities versus EPA. The BOD<sub>5</sub> and TSS monitoring requirements should be deleted from the permit.

#### **Total Residual Chlorine**

EPA Region 1 used the Merrimack River 7Q10 for calculating the Water Quality Based Effluent Limit (WQBELs) for the CSO discharges. The CSOs will only discharge during wet weather. EPA’s *NPDES Permit Writers’ Manual* indicates that for most pollutants and criteria, the critical flow in rivers and streams is a measure of the low flow of that river or stream; however, the critical condition could be different under a different discharge situation (i.e., a high flow event where a CSO from wet weather are a significant issue). It is more appropriate to use the 30Q10 flow for reasonable potential during wet weather events. The RPA for total residual chlorine should be revised to reflect the correct dilution.

**Part I.B.5.a Footnotes #1, #2, #3, #4, #7, and #8**

The Effluent Limitations Table in Part I.B.5.a should not contain reporting requirements for flow discharged from the WWTF to the chlorine contact tank or flow drained back to the NWTF. These flows are internal process flows and are not flows discharged to the Merrimack River. Per the Eighth Circuit Decision *Iowa League of Cities versus EPA*, the Court ruled that the EPA may not impose arbitrary monitoring requirements on internal treatment processes and only end of pipe may be considered. As such, Part I.B.5.a Footnotes #1, #2, #3, #4, #7, and #8 should be removed from the permit. Additionally, Footnote #9 requiring the City to monitor and report rainfall precipitation should be removed from the permit. Rainfall monitoring is already required as part of the City's Long Term Control Plan.

**Part I.B.5.b Footnotes #1, #2, #3, #4, #5, #9, #10, and #11**

The Effluent Limitations Table in Part I.B.5.b should not contain reporting requirements for flow discharged into the SDF, discharged from the SDF, or flow drained back to the collection system per the Eighth Circuit Decision *Iowa League of Cities versus EPA*. As such, Part I.B.5.b Footnotes #1, #2, #3, #4, #5, #9, #10, and #11 should be removed from the permit.

**Part I.B.5.b Footnote #12**

The requirement to monitor and report rainfall precipitation should be removed from the permit, as rainfall monitoring is already required as part of the City's Long Term Control Plan.

**Request for New Footnote in Part I.B.5.a**

The operation of our WWTF facility is outlined in our High Flow Management Plan dated September 30, 2010 and approved by EPA Region 1. We request the following language be added as a footnote to Part I.B.5.a:

*The Wet Weather Flow Treatment Facility will be operated in accordance with the EPA-approved City of Nashua High Flow Management Plan.*

**Request for New Footnote in Part I.B.5.b**

The operation of our SDF is outlined in our High Flow Management Plan dated September 30, 2010 and approved by EPA Region 1. We request the following language be added as a footnote to Part I.B.5.b:

*The Screening and Disinfection Facility will be operated in accordance with the EPA-approved City of Nashua High Flow Management Plan.*

**Part I.D.4 Collection System Mapping**

Collection system mapping is a requirement of the Long Term Control Plan, and should not be included as part of this NPDES permit. Part I.D.4 should be removed from the permit.

**Part I.D.5 Collection System Operation and Maintenance Plan**

**Part I.D.5.a**

We request that the schedule for the Collection System Operation and Maintenance Plan be changed from 6 months to 30 months of the effective date of the permit.

Part I.D.5.b

We request that the schedule for the Collection System Operation and Maintenance Plan submittal to EPA and NHDES be changed from 24 months to 36 months of the effective date of the permit.

**Part I.H Monitoring and Reporting**

Part I.H.1.a

We request that the schedule for submitting Discharge Monitoring Reports (DMRs) electronically using NetDMR be changed from one year to two years of the effective date of the permit.

**Part I.I State Permit Conditions**

State Permit Condition #5 states that the final effluent pH must be maintained in the range of 6.5 to 8.0 standard units. Please refer to our comment in Section 2 regarding the pH adjustment demonstration project. We request that this note be revised to reflect the new pH effluent permit limit range of 6.0 to 8.0 standard units.

Thank you in advance for considering the City of Nashua's requests and comments for this permit renewal. If you have any questions, I can be reached at (603) 589-3140 or at [fauteuxl@nashuanh.gov](mailto:fauteuxl@nashuanh.gov).

Sincerely,



Lisa M. Fauteux  
Director, Division of Public Works

Copies:

Donnalee Lozeau, Mayor  
Ms. Meridith Timony, Environmental Protection Agency  
Brian Pitt, Environmental Protection Agency  
Harry T. Stewart, P.E., New Hampshire Department of Environmental Services Water Division  
Amy Clark, New Hampshire Department of Environmental Services  
Mario Leclerc, Wastewater Superintendent  
Stephen Dookran, P.E., City Engineer  
Frank Ayotte, Hazen and Sawyer