

RESPONSE TO COMMENTS – JUNE 3, 2009
REISSUANCE OF NPDES PERMIT NO. NH0100960
WINNIPESAUKEE RIVER BASIN PROGRAM
WASTEWATER TREATMENT PLANT
FRANKLIN, NEW HAMPSHIRE

From June 26 through July 25, 2008 and from July 24 through August 15, 2008, the U.S. Environmental Protection Agency (EPA-New England) and the New Hampshire Department of Environmental Services, Water Division (NHDES-WD) solicited public comments on the draft National Pollutant Discharge Elimination System (NPDES) permit to be reissued to the Winnepesaukee River Basin Program Wastewater Treatment Plant located in Franklin, New Hampshire.

EPA-New England and NHDES-WD received comments from the Winnepesaukee River Basin Program (WRBP) Wastewater Treatment Plant, the Town of Belmont, the Town of Meredith, the Town of Gilford Department of Public Works, the Tilton Sewer Commission, the City of Franklin Municipal Services Department, the Northfield Sewer District, and Technical Assistance for Pollution Prevention, Inc. The following are joint responses on behalf of EPA-New England and NHDES-WD to those comments and descriptions of any changes made to the public-noticed permit as a result of those comments.¹

A copy of the final permit may be obtained by writing or calling Dan Arsenault, United States Environmental Protection Agency, 1 Congress Street, Suite 1100 (CMP), Boston, Massachusetts 02114-2023; Telephone (617) 918-1562. Copies may also be obtained from the EPA Region I web site at <http://www.epa.gov/region1/npdes/index.html>.

COMMENTS FROM THE WINNIPESAUKEE RIVER BASIN PROGRAM

COMMENT 1:

“Please correct the addressee’s name for the WRBP to Steven C. Dolloff.”

RESPONSE 1:

We have made this correction in our records. This correction does not require any changes to the permit.

¹ After EPA issues a final NPDES permit for a New Hampshire point source, the State interprets its water pollution control statute to authorize subsequent adoption of the federal permit as a state surface water discharge permit.

COMMENT 2:

“Please clarify the responsibilities of the permittee and co-permittees as they relate to compliance. Please clarify that only the “owner” of a particular facility or sewer system is responsible for permit compliance and that the co-permittees are not collectively responsible.”

RESPONSE 2:

The permittee and co-permittees are individually responsible for compliance with applicable permit conditions for the facilities and collections systems they own. A sentence has been added on the first page of the permit to clarify this condition. The sentence has been added to the paragraph that lists the specific conditions of the permit that apply to the co-permittees and is as follows: **Each co-permittee is subject to the requirements of these Parts only for those portions of the collection system it owns and operates.**

COMMENT 3:

“The NH Department of Corrections (State School) was not included as a co-permittee. This entity has historically been treated as a member of WRBP in the same manner (fees, support, funding, etc.) as the member communities.”

RESPONSE 3:

The NH Department of Corrections located in Laconia, NH has not been added to the permit as a co-permittee. Collection system plans for the facility obtained by EPA show that the facility encompasses a relatively small geographic area. Additionally, the permit application does not list the NH Department of Corrections as an entity in the permit application. EPA may reconsider this determination if it receives information showing that adding the NH Department of Corrections as a co-permittee is necessary because of overflows from its collection system, or because of problems that this facility creates in a permittee or co-permittee collection system or at the permittee’s treatment facility.

COMMENT 4:

“Ownership of the various facilities and sewer pipes represents a unique dilemma within the WRBP. There are NHDES state-owned and maintained portions that are paid for by the group through user fees apportioned over all participating communities, city/town owned facilities constructed and maintained by the individual city/town, and there are portions of facilities that were built with funds obtained on behalf of a community by the WRBP that are “owned” and maintained by only that single community. There are also privately owned/operated sewer systems that range from industrial locations (largely covered by I/I portions of the permit), mobile home parks, and subdivision developments that may tie into a city/town sewer system or directly to state-owned interceptors. The permit does not address these privately owned and operated entities, leaving their status

open to interpretation. There is also a Dept. of Corrections sewer system noted above, where a different state agency “owns” and operates their collection system.”

Please clarify the definition of ownership and the status of these various entities within permit requirements.

Please clarify who is responsible for mapping, O&M plans, etc. with each of these privately owned (or Dept of Corrections) entities.

RESPONSE 4:

Within the NPDES program the definition of owner is found at 40 CFR §122.2. Owner (or operator) means the owner or operator of any facility or activity subject to regulation under the NPDES program.

For the purposes of this permit, the permittee and each co-permittee are responsible for complying with the applicable sections of the permit for the portion of the collection system it owns. If it is unclear what portions of the collection system the permittee and co-permittees own, this will have to be resolved by the permittee and co-permittees in order to implement the operation and maintenance requirements of the permit. The permit does not include privately owned collection systems as co-permittees, but this obviously does not preclude local authorities from exercising appropriate controls.

COMMENT 5:

Reference to page 2 of 13 Part 1A of the permit. This reference cites a pH range sample type as a grab at a frequency of 1/day.

Requested Change: “Please change the pH range sample type cited to “continuous (electronic) with time interval between discreet pH entries every 15 minutes, with the pH meter calibrated according to the procedures established by the instrument manufacturer.”

Justification: “Per prior correspondence dated June 5, 2002 with Frederick B. Gay at USEPA and subsequent verbal approval of continuous pH monitoring given the following stipulation. Noncompliance with continuous pH monitoring is defined as three (3) consecutive 15 minute discrete readings outside the permit range following successful instrument calibration (see attached correspondence).”

RESPONSE 5:

The requested change regarding the pH sampling method has been included in the final permit. We have not added any language regarding compliance with the limit. We would not agree that compliance should be based on a number of consecutive readings outside of the permitted range. The only federal regulation that we are aware of that addresses the issue of compliance for continuous pH recorders is found at 40 CFR

401.17. This regulation does allow a certain frequency of excursions, but only from technology-based limits. The pH limit in this permit is based on water quality and so cannot be granted any excursion pursuant to this regulation.

COMMENT 6:

Reference page 3 of 13, Footnotes Applicable to Part I.A.1 Item 2. Item 2 cites in part, “The influent concentrations of both CBOD₅ and TSS.....”

Requested Change: Change CBOD₅ to BOD.

RESPONSE 6:

Pursuant to 40 CFR §133.104(4) CBOD₅ may be used in lieu of the parameter BOD₅. 40 CFR §133.102(4)(iii) specifies that the 30 day average percent removal of CBOD₅ shall not be less than 85 percent. Since this permit incorporates CBOD₅ as an effluent limit, this is the correct parameter to monitor in the influent in order to calculate the percent removal.

COMMENT 7:

Reference page 5 of 13 Part I.C.1. The language of C.1 Maintenance Staff indicates that adequate “staff” be provided to carry out the operation, maintenance, repair, and testing functions. Please confirm that this “staff” can include appropriate contractors and service personnel, as required, to ensure compliance with the terms and conditions of this permit.

Requested Change: “The permittee and co-permittees shall provide adequate personnel including appropriate contractors to carry out the operation, maintenance, repair, and testing functions, as required, to ensure compliance with the terms and conditions of this permit.

RESPONSE 7:

EPA understands that some requirements of the permit may be performed by contractors or other service personnel to ensure compliance with the terms and conditions of the permit. The use of contractors or other service personnel is acceptable to EPA to fulfill the permit provision that adequate “staff” be provided to carry out the operation, maintenance, repair, and testing functions.

The text for the adequate staffing requirement in the permit has not been changed. This Response to Comments serves to document that the use of contractors or other service personnel can be used to satisfy the staffing requirement of the permit.

COMMENT 8:

Reference page 5 of 13 Part I.C.2. The language of C.2 Preventative Maintenance Program contains similar language to what is contained in Section C.5.b. (preventative maintenance and monitoring program). The language of C.2 Preventative Maintenance Program also contains similar language to what is contained in Section C.5.e. and C.5.f. (identification and removal of I/I).

Please confirm that these are instances of duplicated language and not additional requirements. If there are additional requirements, please provide additional guidance and details regarding the requirements.

RESPONSE 8:

Part I.C.2 – Preventative Maintenance Program states “The permittee and co-permittees shall maintain an ongoing preventative maintenance program to prevent overflows and bypasses caused by malfunctions or failures of the sewer system infrastructure. The program shall include an inspection program designed to identify all potential and actual unauthorized discharges.”

Part I.C.5 of the permit requires the development and implementation of a Collection System O&M Plan. Parts I.C.5.b, I.C.5.e., and I.C.5.f. are three items included in this plan. Part I.C.5.b. states, “The plan shall include a preventative maintenance and monitoring program for the collection system.” Part I.C.5.e. states, “The plan shall include identification of known and suspected overflows, including combined manholes. A description of the cause of the identified overflows, and a plan for addressing the overflows consistent with the requirements of this permit.” Part I.C.5.f. states, “The plan shall include an ongoing program to identify and remove sources of I/I. The program shall include an inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and rood down spouts.”

The permittee is correct that the requirements in these two parts of the permit are instances of duplicated language are not additional requirements. To clarify the relationship between these two parts of the permit we have added language to Part I.C.2. referencing the requirements of Part I.C.5.

COMMENT 9:

Reference page 5 of 13 Part I.C.3. The language of C.3. Infiltration/Inflow contains similar language to what is contained in Section C.5.e. and C.5.f. (identification and removal of I/I).

Please confirm that these are instances of duplicated language and not additional requirements. If there are additional requirements, please provide additional guidance and details regarding the requirements.

RESPONSE 9:

Part I.C.3 of the permit states, “The permittee and co-permittees shall control infiltration and inflow (I/I) into the sewer system as necessary to prevent high flow related unauthorized discharges from their collection systems and high flow related violations of the wastewater treatment plant’s effluent limitations.”

Part I.C.5.e. states, “The plan shall include identification of known and suspected overflows, including combined manholes. A description of the cause of the identified overflows, and a plan for addressing the overflows consistent with the requirements of this permit.” Part I.C.5.f. states, “The plan shall include an ongoing program to identify and remove sources of I/I. The program shall include an inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and rood down spouts.”

Similar to the issue raised in the previous comment, the requirements in the two referenced parts of the permit do not contain different requirements. Part I.C.3 of the permit requires the permittee to control I/I into the sewer system to prevent high flow related unauthorized discharges and high flow related violations of the wastewater treatment plant’s effluent limitations. However, Part I.C.3 does not require the development of an I/I plan. Parts I.C.5.e. and f. require the I/I control measures to be incorporated into the Collection System O&M Plan. We have added a sentence to Part I.C.3. to clarify the relationship between the two parts of the permit.

COMMENT 10:

Reference page 6 of 13 Part I.C.4. Reference cites in part, “Within 30 months of the effective date of the permit the permittee and co-permittees shall each prepare a map of the sewer collection system it owns...”

Please amend the timeline requirements to reflect state funding availability and the administrative processing time to implement this new permit requirement. Proposed permit language should also include contingencies for State funding and a reasonable time to specify, initiate and then complete the mapping requirement. These documents should be developed to be useful to the operations and easily updated as changes occur. Additionally, please provide guidance as to acceptable criteria (ex. format, accuracy, etc.).

Justification: The WRBP has funding allocations based upon the biennial State budget cycle and the processes currently in place for requesting and receiving funds. The current State budget runs through June 30, 2009. No funding was budgeted for this permit item in the current State budget, as this is a new requirement presented in the draft permit received for review on or about June 24, 2008. Funding requests for implementation of the new permit requirements to comply with the specified collection system mapping details will need to be incorporated into the FY 2010 - 2011 budget, based upon cost estimates developed by independent consultants over the next several months. Capital

and operating budget appropriations require legislative approvals, usually occurring by June 30th or the end of biennium. Therefore, any funds approved in the FY 2010 – 2011 budget will not be available until after July 1, 2009. 30 months from the permit effective date does not allow sufficient time to prepare the RFP for professional engineering services, to develop and finalize contractual agreements, and then to complete the work tasks. Language similar to item 5 could be incorporated such that “For each of the above activities that are not completed and implemented as of the submittal date, the place shall provide a schedule for its completion.

As discussed in comment 4, there are parts of the collection system where clear ownership is not well defined. In several cases, release of easements must be made from SRBP to a municipality. There are other facilities within the collection system where “ownership” transfer to municipalities has not been completed. These ownership transfers need to be completed in order to establish “ownership” responsibility for collection system mapping.

Proposed Alternative/Additional Language: Within 30 months of the effective date of the permit, the permittee and co-permittees shall each submit a plan including milestone dates to prepare a map of the sewer collection system it owns.

For each of the above activities that are not completed and implemented as of the submittal date, the plan shall provide a schedule for its completion. Permittees and co-permittees will notify EPA as to completion of milestones and/or any significant changes to the planned schedule.

RESPONSE 10:

EPA recognizes the issues associated with the State budget cycle and the permittee’s and co-permittees abilities to secure funding to fulfill the permit requirement found in Part 1.C.4. (Collection System Mapping) of the permit. To assist the permittee and co-permittees in fulfilling the requirements in Part 1.C.4 of the permit, EPA will allow an additional 18 months to comply. Therefore, the collection system mapping should be completed within 48 months of the effective date of the permit.

Also, several communities outside of the WRBP service area have recently noted the cost and difficulty of collecting the required catch basin rim and pipe invert data and have questioned its overall usefulness. While EPA and NHDES believe that this information is useful and should be collected if possible, we have removed this specific requirement as a component of the required collection system O&M plan.

COMMENT 11:

Reference page 6 of 13 Part I.C.5. Reference cites in part, “The permittee and co-permittees shall each develop and implement a collection system operation and maintenance plan. The plan shall be submitted to EPA and NHDES within 6 months of the effective date of the permit.”

Please amend the timeline requirements to reflect state funding availability and the administrative processing time to implement this new permit requirement.

Please provide guidance as to minimum acceptable criteria.

Justification: The WRBP has funding allocations based upon the biennial State budget and the processes currently in place for requesting and receiving funds. The current State budget runs through June 30, 2009. No funding was budgeted for this permit item in the current State budget, as this is a new requirement presented in the draft permit received for review on or about June 24, 2008. Funding requests for implementation of the new permit requirements will need to be incorporated into the FY 2010-2011 budget, with cost estimates to comply with the specified collection system mapping details developed by independent consultants over the new few months. Capital and operating budget appropriations require legislative approvals, usually occurring by June 30th or the end of the biennium. Therefore, any funds approved in the FY2010-2011 budget will not be available until July 1, 2009. Proposed permit language should include contingencies for State funding and a reasonable time to specify, initiate and then complete the O&M plan requirement, especially the public outreach program and I/I identification and source removal program.

These plans, programs, and documents should be developed to be useful to the WRBP, beneficial to the public and easily updated as changes occur.

As discussed in comment 4, there are parts of the collection system where clear ownership is not well defined. These ownership transfers need to be completed in order to establish responsibility for operations and maintenance.

RESPONSE 11:

EPA recognizes the issues associated with the State budget cycle and the permittee's and co-permittees abilities to secure funding to fulfill the permit requirement found in Part 1.C.5. (Collection System O & M Plan) of the permit. To assist the permittee and co-permittees in fulfilling the requirements in Part 1.C.5 of the permit, EPA will allow an additional 18 months to comply. Therefore, the Collection System O & M Plan should be completed within two (2) years of the effective date of the permit. However, while the completed Collection System O & M Plan is not due until two years after the effective date of the permit, within six (6) months of the effective date of the permit the permittee and co-permittees are required to submit the following information:

1. A description of the collection system management goals, staffing, information management, and legal authorities;
2. A description of the overall condition of the collection system including a list of recent studies and construction activities; and

3. A schedule for the development and implementation of the full Collection System O & M Plan including the elements in paragraphs b.1. through b.7. below.

This language has been added to the permit.

COMMENT 12:

Reference page 7 of 13 Part 1.D. This reference cites a requirement for an alternate power source sufficient to operate the wastewater facility. This requirement conflicts with waivers that may be granted for NHDES Administrative Rule Env-Wq-705; last amended 3-25-06.

Please specify when a waiver is allowed and how to obtain such waiver from EPA in keeping with waivers that may be granted by NHDES.

Justification: WRBP has backup generators installed at key facilities where a power disruption would adversely affect system operations. However, some WRBP pump stations were designed and built in compliance with NHDES Administrative Rules prior to their amendment on 3-25-06. These pump stations have, and can be, compliantly operated by deploying septic pump trucks or portable generators from other locations. WRBP is pursuing a NHDES waiver since pumping stations were constructed prior to the amendment of the NHDES Administrative Rule Env-Wq-705 on 3-25-06, in order to allow continuation of the use of these alternative means for pump station operations in the event of power disruption.

Proposed Alternative/Additional Language: “In order to maintain compliance with the terms and conditions of this permit, the permittee and co-permittees shall provide an alternate power source or an alternative means described in the Collection System O&M Plan with which to sufficiently operate the wastewater facility.”

RESPONSE 12:

Waivers from the requirement to have alternate power sources are not available from EPA. The intent of the language in the permit is for the permittee and co-permittees to have adequate alternate power so that the effluent limits and conditions of the permit are not violated. EPA understands that alternate power may not be necessary for all portions of the collection system and the treatment plant to maintain compliance with the permit. As described in the comment, some pump stations do not have alternate power and in times of power outage these facilities are serviced by septic pump trucks or portable generators from other locations. Provided that these actions allow the permittee and co-permittees to maintain compliance with the permit then these kinds of actions would fulfill the requirement to have alternate power “with which to sufficiently operate the wastewater facility....”

The language in the permit remains unchanged. However, the permittee and co-permittees should note that the intent of the language is not to necessarily require on-site alternate power for all facilities. Alternate power is required for those facilities necessary for the permittee and co-permittees to meet the conditions of the permit.

COMMENT 13:

Reference page 7 of 13 Part I.E.1. Reference cites in part, “Within 90 days of the effective date of the permit, the permittee shall prepare and submit a written technical evaluation to the EPA analyzing the need to revise local limits....Should the evaluation reveal the need to revise local limits, the permittee shall complete the revisions within 120 days of notification by EPA and submit the revisions to EPA for approval.”

Please amend the timeline requirements to reflect that changes in local limits proposed by the WRBP and approved by EPA are subject to the New Hampshire Administrative Rule Making process which typically can take up to six months to finalize.

Justification: Timeline should reflect the NH Rule Making process.

Proposed Alternative/Additional Language: “Within 90 days of the effective date of the effective date of the permit, the permittee shall prepare and submit a written technical evaluation to EPA analyzing the need to revise local limits under WRBP jurisdiction.....Should the evaluation reveal the need to revise local limits, the permittee shall propose revisions within 120 days of notification by EPA and submit the revisions to EPA for approval. Following EPA approval, the permittee shall submit the proposed changes to the New Hampshire Legislature for approval.”

RESPONSE 13:

EPA agrees with this comment and has incorporated the suggested language into the final permit.

COMMENT 14:

Reference page 9 of 13 Part I.E.2.f. Reference cites in part, “Within 60 days of the effective date of the permit, the permittee must submit to EPA all required modifications of the Streamlining Rule...”

See comments for item 13 above. Please amend the timeline requirements to reflect that modified local limits proposed by the WRBP are subject to the New Hampshire Administrative Rule making process which typically can take up to six months to finalize.

Justification: Timeline should reflect the NH Administrative Rule Making process.

Proposed Alternative/Additional Language: “Within 60 days after permit approval, the permittee shall prepare and submit a written technical evaluation to the EPA delineating any required modifications to the Streamlining Rule in order to be consistent with the provisions of this newly promulgated Rule. Following EPA approval of proposed modifications, the permittee shall submit the proposed changes to the New Hampshire Legislature for approval.”

RESPONSE 14:

EPA agrees with this comment and has incorporated the suggested language into the final permit.

COMMENT 15:

Reference Fact Sheet page 8, Part IV.e.i. Reduction of 7Q10 dilution factor from 28.8 to 24.2.

Please provide clarification of the actual dates whereby the reduction in 7Q10 flow was calculated. Was the dataset skewed by historically low flow volume episode(s)?

Justification: The dilution factor effects all discharge permit limits and the data and calculations used for obtaining the new value should be defensible.

RESPONSE 15:

The 7Q10 for WRBP was calculated by the NHDES and was developed using the same 7Q10 methodology that is applied to all facilities being reissued NPDES permits. EPA’s review of the 7Q10 calculations, done to prepare this response, has not resulted in any changes to the 7Q10 flow or the dilution factor used to calculate the water quality-based limitations in the permit. The following explains the 7Q10 methodology.

The 7Q10 value was derived using low flow frequency statistics which are based on the 7-day, 10-year frequency statistics of daily mean flow. This statistic is the minimum consecutive 7-day mean stream flow expected to occur once in any 10-year period, or that has a probability of 1/10 of not being exceeded in any given year or season. The annual series for the determination of low flow was based on the climatic water year from April 1 to March 31. In New Hampshire, the minimum 7-day mean discharge for most streams occurs in August or September (though it may occur in winter). The recurrence interval for an individual 7-day minimum mean flow is typically determined by fitting the 7-day minimum mean flows to a log-Pearson Type III distribution (Riggs, 1982). The log-Pearson Type III distribution related the mean, standard deviation, and skewness of the logarithm of a flow statistic Y_g , to the logarithm of the value of that flow statistic with a particular exceedance or non-exceedance probability p , Y_{pg} . The Y_{pg} values are commonly expressed as the minimum 7-day mean discharge with an average recurrence interval of 10 years. The following equation describes the log Pearson Type III analysis:

$$\text{Log}(Y_{pg}) = E[\log(Y_g)] + K\{\text{SK}[\log(Y_g)],p\} * S([\log(Y_g)])$$

where:

$\text{Log}(Y_{pg})$ = the logarithm of the Y-year low flow with a particular exceedance or non-exceedance probability.

$E[\log(Y_g)]$ = the mean of the logarithm of the low flows.

$S([\log(Y_g)])$ = the standard deviation of the logarithm of the low flows, and
 $K\{\text{SK}[\log(Y_g)],p\}$ = a frequency factor that is a function of skewness of the logarithms of low-flow and exceedance probability.

For the WRBP, USGS gage no. 1081500 was used to calculate the 7Q10 low flow and dilution factor. The period of record for this gage is 1943 – 2006. The Merrimack River has been regulated by the Franklin Falls Dam since 1942. The record contains no unusual flows that would significantly skew the resulting 7Q10 value.

COMMENTS FROM:

**TOWN OF LACONIA
TOWN OF MEREDITH
CITY OF FRANKLIN
TOWN OF GILFORD
NORTHFIELD SEWER DISTRICT
TOWN OF TILTON**

COMMENT 1:

The Town of Laconia, Town of Meredith, City of Franklin, Town of Gilford, the Northfield Sewer District, and the Town of Tilton each provided comments on the draft permit. Each of these municipalities is listed as co-permittees in the permit. The comments from each entity are essentially the same and raise issues with the requirements of the permit to develop a sewer collection system map and a collection system operation and maintenance plan. Each entity also requested that EPA conduct a public hearing on the permit. The comments are as follows:

“Attached please find public comment responses to our NPDES Draft Permit. We are requesting that USEPA conduct a public hearing to consider the content in the draft permit and proposed amendments. The issues proposed to be raised at the public hearing include:

1. Timeframes identified in the draft permit with respect to Sewer Collection System Mapping and development of an Operation and Maintenance Plan.

2. Responsibilities of ownership by each political entity/co-permittees.
3. The issue of non-compliance and its impact on other co-permittees.
4. Privately owned extensions to the municipal sanitary sewer system for which we have no legal jurisdictional authority and how these can not be covered by permit.
5. Sewer collection system mapping requirements a-k. A discussion should take place relating to minimum acceptable requirements and the timeframe given from the effective date of the permit to complete this task.
6. Availability of Guidance in documents from USEPA. These documents are essential in assisting each municipality to develop its O&M plan.
7. Collection system O&M Plan requirements a-g. A discussion should take place relating to minimum acceptable requirements and the timeframe given from the effective date of the permit to complete this task.
8. Funding availability and administrative processing time required to successfully implement permit requirements will vary among co-permittees. Discussions should take place with respect to a co-permittee's ability to achieve goals and timeframes listing in the draft permit given these budgetary and administrative capabilities of each government entity.
9. A public hearing will allow elected municipal officials the opportunity to attend an open forum discussion. Such a discussion will be beneficial to co-permittees when their staff is making a case to fund increased operating budgets to cover permit requirements.

Given the fact that this is the first permit of this type to be issued to the co-permittees, a public hearing would allow us, as co-permittees, the opportunity to obtain a full understanding of the NPDES program and to understand the objectives. We look forward to working with you in order to make this program successful.”

RESPONSE 1:

After the close of the public comment period the co-permittees that requested the public hearing were contacted. It was explained that an EPA public hearing is not a forum where an open dialog takes place. Rather, the public is given opportunity to publicly comment on the draft permit. In lieu of a public hearing, EPA met with the WRBP and the co-permittees on November 17, 2008 to discuss the permit requirements to develop a collection system map and a collection system operation and maintenance plan. Subsequent to this meeting, the co-permittees who had requested a public hearing did not feel that holding a public hearing was warranted.

As discussed in Response 10 above, in order to address issues raised by the WRBP and the co-permittees the timeframe to develop sewer collection system maps has been extended by 18 months. Therefore, the WRBP and each co-permittee have 48 months from the effective date of the permit to complete sewer collection system mapping. With respect to the Collection System O & M Plans, the timeframe to develop these plans has also been extended by 18 months. Consequently, the Collection System O & M Plans need to be completed with two years of the effective date of the permit.

With respect to minimal acceptable standards for the sewer collection system mapping and the O&M plans, EPA and NHDES held a training session on December 8, 2008 that covered this information. This training session was attended by the WRBP and the co-permittees.

**COMMENTS FROM TECHNICAL ASSISTANCE FOR POLLUTION
PREVENTION INC.**

COMMENT 1:

Page 2/13 under Whole Effluent Toxicity, add the following:

Total Recoverable Arsenic (mg/l)	Report	4/Year	24-Hour Composite
Total Recoverable Mercury (mg/l)	Report	4/Year	24-Hour Composite

Reasons:

- a. The Merrimack River is a recreation river and a public drinking water supply source river; Canterbury, NH, town beach is immediately (5 miles) downstream from the WRBPWTP as are several canoe rental facilities. Manchester, NH and Concord, NH have identified the Merrimack as a secondary drinking water source as have several downstream cities in Massachusetts. Arsenic and mercury are known carcinogens with extensive EPA-directed elimination programs in place in New Hampshire.
- b. The Merrimack River downstream from WRBPWTP has been identified as a mercury “hot spot”. See “Mercury Contamination in the Forest and Freshwater Ecosystems in the Northeastern United States and Canada”, Bioscience, January, 2007. Mercury will never be eliminated from the environment until sources are identified for removal. During 1999-2003, the NH legislature directed comprehensive tests for mercury and arsenic, interalia, at NH POTW’s and identified mercury and arsenic as significant toxics in effluent and sewage sludge. These annual tests continue in 2008.
- c. NH Department of Environmental Services (NHDES) tests of waste water treatment plants (WWTP) sewage sludge (including WRBPWTP) has detected significant amounts of mercury and arsenic in the sludge which is then land applied in the Merrimack River watershed and available for leaching to the Merrimack River. Since activated sludge treatment plants remove 60% of available mercury and 45% of available arsenic, it is obvious that WWTP effluent can contain the remaining 40% of mercury and 55% of arsenic identified in sewage sludge.

- d. Testing for mercury and arsenic on a frequent, already-required other-toxic-metal-testing, basis costs no more than regular required testing in the existing program and provides a “tracking” capability to determine the effectiveness of WRBPWTP pollution prevention programs as well as providing long range data for determining if Merrimack River “hot spots” can be sourced to particular facilities. 40 CFR 122 requires the incorporation into NPDES permits of “any more stringent limitations, treatment standards, or schedule of compliance requirements established under Federal or State law or regulations...” In 1985, EPA stated “...the POTW or Approval Authority must identify other pollutants of concern (Ed. Note: Other than the originally identified 7 metals of concern – cadmium, chromium, copper, lead, nickel, and zinc). 40 CFR 403, 40 CFR 503, NH Env-Ws-800 and NH Env-Ws 1700 all recognize arsenic and mercury as “pollutants of concern”.
- e. Further, EPA publication “Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program” (December 1987) states “POTWs should use toxicity based approaches and chemical-specific approaches involving applicable water quality standards or criteria in order to comply with such (regulatory) standards” (pg 2-2) and goes on to state “Even if there are no identifiable chemicals or concern in a POTW discharge, it is desirable to test effluents for toxicity (pg 2-30).”
- f. EPA’s Best Management Practices (40 CFR 125-100, Federal Register Vol. 64, No 149, July 22, 1999, page 30590), clearly states the need to identify and control pollutants that are inimical to public health, such as those in POTW effluents; identifying and eliminating/reducing these pollutants is the purpose of Discharge Monitoring Reports.
- g. It is impossible to know if the toxicity valued cited in 40 CFR 403, 40 CFR 503, NH Env-Ws 800 and NH Env-Ws 1700 are being met is no testing is done. Recent inquiries into the effectiveness of local pollution prevention programs and wastewater treatment processes can only be answered if quantitative values are determined and documented.
- h. WRBPWTP accepts leachate from the Penacook, NH Waste to Energy plant ash dump on Punch Brook Road in Franklin, NH; this leachate meets Domestic Sewage Exclusion criteria by being routed to the WRBPWTP location via Webster Valve, Inc. and the Franklin Industrial Park, South Main Street, Franklin, NH (Note: Webster Valve is a frequent violator of NHDES regulations). This leachate is high in arsenic and mercury content – annual tests of WRBPWTP sewage sludge indicate that the WRBPWTP usually tests in the top three of New Hampshire WWTPs for arsenic and mercury. The location of the Punch Brook Road ash dump is visible on the Fact Sheet, Attachment A, page 18, and should be so identified.

RESPONSE 1:

All of the New England states have issued state-wide advisories concerning the consumption of fish due to bioconcentration of mercury in fish tissue. In response to this water quality problem, a regional TMDL was prepared that outlines steps to be taken by each state to reduce mercury levels in surface waters throughout each state. EPA approved the EPA approved the Northeast Regional Mercury TMDL on December 20, 2007. This TMDL addressed mercury emissions in the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. The TMDL identifies atmospheric deposition as the major source of mercury loading to the region's waters. According to Section 7.5 of the TMDL, the existing point source load from wastewater treatment plants for the entire region is 2.1% of the total source load for mercury. This percentage is small and is expected to further decline based on enacted mercury products legislation and increasing required use of dental amalgam separators throughout the region. According to EPA's *Draft Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion*, point source discharges are considered insignificant if the loading or cumulative loading of all point sources to the receiving water are expected to account for a small or negligible portion of the total mercury loadings (U.S.EPA 2006a).

New Hampshire's 2008 List of Threatened or Impaired Water that Require a TMDL (the Section 303(d) list) does not list stretches of the Merrimac River downstream of the WRBPWTP as being impaired due to mercury (for uses other than fish consumption) or for arsenic.

In response to this comment EPA contacted WRBP for mercury and arsenic monitoring results, which the facility has been doing itself on a monthly basis. Results since May 2008 are presented below.

WRBP Arsenic and Mercury Effluent Concentrations				
Date	Arsenic	Mercury	Arsenic RDL	Mercury RDL
June 2008	ND	ND	0.001 mg/l	0.0005 mg/l
August 2008	ND	ND	0.001 mg/l	0.0005 mg/l
Sept. 2008	0.001 mg/l	ND	0.001 mg/l	0.0005 mg/l
Oct. 2008	ND	ND	0.001 mg/l	0.0005 mg/l
Nov. 2008	ND	ND	0.001 mg/l	0.0005 mg/l
Dec. 2008	ND	ND	0.001 mg/l	0.0005 mg/l
Feb. 2009	ND	ND	0.001 mg/l	0.0005 mg/l
March 2009	ND	ND	0.001 mg/l	0.0005 mg/l
May 2009	ND	ND	0.001 mg/l	0.0005 mg/l

* ND = Non Detection

** RDL = Reliable Detection Limit

To determine whether the effluent data supported the need for effluent limitations for these pollutants or for the need to collect additional data, EPA reviewed the water quality criteria for each pollutant and calculated effluent limitations that would be required to maintain an instream concentration of the pollutant less than the water quality criteria. Please note that because the human health criteria for arsenic is based on carcinogenic effects, the dilution factor used in the calculations is based on the harmonic mean stream flow, rather than the 7Q10 flow (see Env-Wq 1705.02(d)).

	Arsenic	Mercury
Aquatic Life Criteria		
Chronic	0.15 mg/l	0.00077 mg/l
Dilution factor	24.2	24.2
Aquatic Life Limits		
Chronic	3.63 mg/l	0.0186 mg/l
Human Health Criteria		
Chronic	18 ng/l (0.000018 mg/l)	0.05 ug/l (0.00005 mg/l)
Dilution Factor	76	24.2
Human Health Limits		
Chronic	1368 ng/l (0.001 mg/l)	1.21 ug/l (0.001 mg/l)

Comparing the calculated limits with the effluent monitoring data, it is clear that effluent concentrations of arsenic and mercury are consistently less than the calculated limits, showing that there is no reasonable potential for the discharge to cause or contribute to an exceedance of water quality standards, and therefore no need to include effluent limits on either pollutant. Because the effluent monitoring results for mercury are consistently low, with all results less than detection limits, EPA does not believe that there is any need for the permit to require routine monitoring of mercury. The effluent results for arsenic do include a single value near the calculated human health limits, so EPA has decided to require routine monitoring of arsenic, so that additional data will be collected to confirm that a limitation is not necessary. The final permit requires quarterly sampling of arsenic, but does not require that the monitoring be done in conjunction with WET testing, as requested by the commenter, because the arsenic concentrations in the effluent are well within aquatic life criteria and so would not be expected to affect the WET test results.

COMMENT 2:

Part I.E. Industrial Pretreatment Program, Paragraph 1.a., page 7/13, is impossible to perform as written.

“a. Pollutants introduced into POTWs by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works.”
WWTPs and POTWs cannot remove all pollutants. The mixed sewage exclusion identified in RCRA 40 CFR 261.4 encourages industry to use this “exclusion” to dispose of small quantities of hazardous waste – the original assumption was that mixing with domestic sewage would eliminate the classification of hazardous water – the often quoted “dilution is the solution to pollution”. The fact that various sewage treatment processes only remove portions of toxic pollutants is evident from sewage sludge tests. It is obvious that the requirement that “pollutants shall not pass through the POTW” is an impossible requirement.

The related requirement in the draft Manchester, NH (NPDES NH0100447) permit issued for comment on Bastille Day (7/14/08) is more correct and should be substituted:

“A user may not introduce into a POTW any pollutant(s) which cause Pass Through or interference with the operation or performance of the treatment works. The terms “user”, “pass through”, and “interference” are defined in 40 CFR Section 403.3.”

RESPONSE 2:

EPA agrees. The language in the final permit has been modified to read as follows:

“A user may not introduce into a POTW any pollutant(s) which cause Pass Through or interference with the operation or performance of the treatment works. The terms “user”, “pass through”, and “interference” are defined in 40 CFR Section 403.3.”

COMMENT 3:

Attachment B.VI, Page 7, add the following:

<u>Metal</u>	<u>Minimum Quantification Level (mg/l)</u>
As	0.005
Hg	0.0025

RESPONSE 3:

See Response 1 above concerning mercury.

The minimum quantification level (MQL) for arsenic has been set at 2 ug/l. This MQL has been added to footnote 6 on page 3 of the permit. Because no mercury monitoring requirement has been added to the permit, there is no need to specify a minimum quantification level for that pollutant.

COMMENT 4:

Fact Sheet, Section J., Essential Fish Habitat and Endangered Species.

On July 9, 2008, the NH Fish and Game Department held a public hearing to consider adding Atlantic salmon (sea run) to the State endangered species list. This supports a Fish and Game program that raises Atlantic salmon fry to stock in NH streams that feed the Merrimack River. The Section J discussion states “spawning, breeding, feeding, or growth to maturity covers all habitat types utilized by a species throughout its life cycle.” Obviously, the Merrimack River from Franklin, NH downstream to the Gulf of Maine, including the portion used for effluent release by the WRBPWTP are included as essential fish habitat and should be so addressed; pH, inter alia, is of major concern.

RESPONSE 4:

EPA considers the conditions in the permit to be sufficient to protect the EFH species of concern, Atlantic salmon (*Salmo salar*). The permit limitations and conditions are designed to protect all aquatic species and therefore it is unlikely the discharge will adversely affect the federally managed Atlantic salmon, their forage, or their habitat in the receiving water. As noted in the Fact Sheet, the National Marine Fisheries Service (NMFS) will be notified and EFH consultation will be reinitiated if adverse impacts to EFH are detected as a result of this permit action or if new information becomes available that changes the basis for these conclusions.

COMMENT 5:

Fact Sheet, Section J., Essential Fish Habitat and Endangered Species, 3rd paragraph, line 4 states: “Adult Atlantic salmon returning to the river from the ocean do not make it up this far because they are trapped at a dam in Lawrence, Massachusetts.”

Question. The Audubon Center at the Amoskeag Fishway in Manchester, NH states that “salmon have been counted transiting the Lawrence dam and have been seen in the Amoskeag Dam fish ladder.” Which statement is correct?

RESPONSE 5:

In response to this comment EPA contacted the New Hampshire Department of Fish and Game (NHDFG) for further clarification. NHDFG confirmed that adult Atlantic salmon returning to the Merrimack River are trapped via a fish lift in Lawrence, Massachusetts and it is unlikely that returning adults would be able reach the Amoskeag Fishway. However, NHDFG stated that brood stock Atlantic salmon are released to the Merrimack River and that is it likely that these fish could show up in the Amoskeag Fishway.

ADDITIONAL ITEMS

ITEM 1:

The public notice of the permit failed to include an annual reporting requirement under Part I.C. (Operation and Maintenance of the Sewer System). This requirement has been added to the permit for final issuance and reads as follows:

Annual Reporting Requirement:

The permittee and co-permittees shall each submit a summary report of activities related to the implementation of its Collections System O&M plan during the previous calendar year. The report shall be submitted to EPA and the NHDES annually, by March 31. The summary report shall, at a minimum, include:

- a. A description of the staffing levels maintained during the year.
- b. A map and a description of inspection and maintenance activities conducted and corrective actions taken during the previous year.
- c. Expenditures for any collection system maintenance activities and corrective actions taken during the previous year.
- d. A map with areas identified for investigations/action in the coming year.
- e. A calculation of the annual average infiltration, the annual average flow, the maximum month infiltration and the maximum month inflow for the reporting year.

A report of any corrective actions taken as a result of unauthorized discharges reported pursuant to the Unauthorized Discharges section of the permit.

ITEM 2:

The Town of Sanbornton has been deleted as a co-permittee since the Town does not own any of the sewer which runs through the municipality. This determination is supported by the fact that the permit application lists the Sanbornton collection system as being owned by the State.