RESPONSE TO COMMENTS – NOVEMBER 21, 2008
REISSUANCE OF NPDES PERMIT NO. NH0100919
TOWN OF GREENVILLE WASTEWATER TREATMENT FACILITY
GREENVILLE, NEW HAMPSHIRE

From August 19, 2008 through September 17, 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 Town of Greenville, NH.

EPA-New England received comments from the Town of Greenville and the Souhegan River Local Advisory Committee. 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 TOWN OF GREENVILLE

COMMENT NO. 1:

The Town of Greenville is submitting the following comments with regards to the above referenced Draft Permit. In summary, the Town's existing WWTF was designed in 1974 to meet standard secondary effluent limits. Consequently, it was never intended to provide treatment to the levels as proposed in the draft permit and as designed will not be able to meet the stringent limits outlined in the draft discharge permit. Accordingly, the Town of Greenville would like to work with EPA and NHDES to develop a reasonable compliance schedule to provide adequate time for Greenville to secure financing, conduct a Facilities Plan, evaluate alternatives, prepare a Basis of Design report, design the upgrades, and complete construction. As you are aware, like most communities throughout the Northeast Region, Greenville is under extreme financial pressure due to tight budget constraints and reduced funding. Justifiably, the development of a financial plan is an important first step for the Town and must be done in detail.

RESPONSE NO. 1:

We understand that the existing treatment plant will be unable to achieve the new water quality-based limits in the reissued permit. However, Federal regulations found at 40

[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.

CFR §122.44(d)(1) require the inclusion of permit requirements necessary to achieve water quality standards established under Section 303 of the Clean Water Act, including State narrative criteria for water quality. Further, State of New Hampshire Surface Water Quality Regulations at Env-Ws 1703.01(b) and 1703.03(a) state that "All surface waters shall be restored to meet the water quality criteria for their designated classification including existing and designated uses, and to maintain the chemical, physical, and biological integrity of surface waters" and that "The presence of pollutants in the surface waters shall not justify the further introduction of pollutants from point and/or nonpoint sources." Given the requirements found at 40 CFR §122.44, Env-Ws 1703.01(b), and Env-Ws 1703.03(a), the permit was drafted using numeric water quality criteria found in Env-Ws 1703.21(b). Unless a less stringent criteria is developed through the process outlined in Env-Ws 1708.10, Demonstration of Economic or Social Development, the permit limit must be based on the applicable criteria at Env-Ws 1703.21(b).

Unless a State's Water Quality Standards specifically provide for compliance schedules, a compliance schedule may not be included in an NPDES permit. New Hampshire Water Quality Standards do not include such an authorization. We anticipate that following the effective date of the permit, EPA or NHDES will issue a reasonable compliance schedule in an administrative order. If you wish to discuss this matter with EPA's enforcement program you may contact Joy Hilton in the Region I Office of Environmental Stewardship at (617) 918-1877.

COMMENT NO. 2:

Total Recoverable Lead: The WWTF was not designed to remove lead. Recent effluent data shows lead concentrations in excess of the limit as proposed in the draft permit. In fact, we are not aware of a treatment technology available to meet this limit. Consequently, we suggest this limit be increased to reflect a limit based on the best available treatment technology. Regardless, an upgrade to the facility will be needed to meet these new limits.

RESPONSE NO.2:

As stated above EPA understands that the existing treatment plant will be unable to achieve the new water quality-based limit for total recoverable lead in the reissued permit. However, Federal regulations found at 40 CFR §122.44(d)(1) require the inclusion of permit requirements necessary to achieve water quality standards established under Section 303 of the Clean Water Act, including State narrative criteria for water quality. Accordingly, the total recoverable lead limit was based on numeric water quality criteria found in the State of New Hampshire's Surface Water Quality Regulations. As explained in the Fact Sheet, the dilution factor was not used to calculate the effluent limitation for total recoverable lead because monitoring data revealed that the Souhegan River upstream of Greenville's discharge has had numerous exceedances of water quality criteria for this pollutant. Therefore, the permit limit of 0.00054 mg/l remains in the permit.

Unless a State's Water Quality Standards specifically provide for compliance schedules, a compliance schedule may not be included in an NPDES permit. New Hampshire Water Quality Standards do not include such an authorization. We anticipate that following the effective date of the permit, EPA or NHDES will issue a reasonable compliance schedule in an administrative order. If you wish to discuss this matter with EPA's enforcement program you may contact Joy Hilton in the Region I Office of Environmental Stewardship at (617) 918-1877.

COMMENT NO. 3:

Total Recoverable Aluminum: Similar as above, the WWTF was not designed to remove aluminum. Recent effluent data shows aluminum concentrations in excess of the limit as provided in the draft permit. Again, we are not aware of a treatment technology available to meet this limit. Consequently, we suggest this limit be increased to reflect a limit based on the best available treatment technology. Regardless, an upgrade to the facility will be needed to meet these new limits.

RESPONSE NO. 3:

As with the effluent limit for total recoverable lead, EPA understands that the existing treatment plant will be unable to achieve the new water quality-based limit for total recoverable aluminum in the reissued permit. However, Federal regulations found at 40 CFR §122.44(d)(1) require the inclusion of permit requirements necessary to achieve water quality standards established under Section 303 of the Clean Water Act, including State narrative criteria for water quality. Accordingly, the total recoverable aluminum limit was based on numeric water quality criteria found in the State of New Hampshire's Surface Water Quality Regulations. As explained in the Fact Sheet, the dilution factor was not used to calculate the effluent limitation for total recoverable aluminum because monitoring data revealed that the Souhegan River upstream of Greenville's discharge has had numerous exceedances of water quality criteria for this pollutant. Additionally, New Hampshire's *Final - 2006 List of Threatened or Impaired Water that Require a TMDL* (NHDES, 2006), also referred to as the 303(d) list, lists the stretch of the Souhegan River below Greenville's discharge as not meeting aquatic life criteria due to (among other items) aluminum concentrations. Therefore, the permit limit of 0.087 mg/l remains in the permit.

Unless a State's Water Quality Standards specifically provide for compliance schedules, a compliance schedule may not be included in an NPDES permit. New Hampshire Water Quality Standards do not include such an authorization. We anticipate that following the effective date of the permit, EPA or NHDES will issue a reasonable compliance schedule in an administrative order. If you wish to discuss this matter with EPA's enforcement program you may contact Joy Hilton in the Region I Office of Environmental Stewardship at (617) 918-1877.

COMMENT NO. 4:

Total Phosphorus: Similarly the WWTF was not designed to remove phosphorus. Recent WWTF effluent data indicates that the existing facility is unable to meet the draft permit limit. An upgrade to the facility will be needed to meet these new limits.

RESPONSE NO. 4:

The New Hampshire Surface Water Quality Regulations – Chapter 1700 contain a narrative criterion which states that phosphorus contained in the effluent shall not impair a water body's designated use. Specifically, Env-Ws 1703.14(b) states that, "Class B waters shall contain no phosphorus or nitrogen in concentrations that would impair any existing or designated uses, unless naturally occurring." Env-Ws 1703.14(c) further states that, "Existing discharges containing either phosphorus or nitrogen which encourage cultural eutrophication shall be treated to remove phosphorus or nitrogen to ensure attainment and maintenance of water quality standards." Although numeric criteria have not yet been developed by the State of New Hampshire, a total phosphorus concentration of 0.05 mg/l is considered by the NHDES as a level of concern. As explained in the Fact Sheet EPA considered several recommended criteria for total phosphorus to implement State of New Hampshire narrative water quality standards. The final limit of 0.43 mg/l is based upon the 1986 Quality Criteria for Water (Gold Book) which recommends an instream total phosphorus concentration threshold of 0.1 mg/l.

EPA acknowledges that fact that the existing treatment plant will not be able to meet the total phosphorus limit of 0.43 mg/l and that an upgrade to the facility will be necessary. Unless a State's Water Quality Standards specifically provide for compliance schedules, a compliance schedule may not be included in an NPDES permit. New Hampshire Water Quality Standards do not include such an authorization. We anticipate that following the effective date of the permit, EPA or NHDES will issue a reasonable compliance schedule in an administrative order. If you wish to discuss this matter with EPA's enforcement program you may contact Joy Hilton in the Region I Office of Environmental Stewardship at (617) 918-1877.

COMMENT NO. 5:

Acute & Chronic Toxicity Testing: The Town of Greenville is requesting a reduction in the frequency of acute and chronic toxicity testing from 4 times per year to 1 time per year. Over the 10 quarters (10 tests), the Town has consistently maintained compliance. The Town suggests that with such consistent compliance, it is reasonable and appropriate to reduce the monitoring and appropriate to reduce the monitoring frequency from 4 times per year to 1 time per year.

RESPONSE NO. 5:

Results from the last 10 toxicity tests are shown in the table below. The previous permit contained a C-NOEC limit of 14.5% and an LC50 limit of 100%. The Greenville

Wastewater Treatment Facility discharge has consistently achieved the permit's toxicity limits. Therefore, EPA agrees with the Town and has reduced toxicity testing frequency to once per year. Toxicity testing shall be performed during the third quarter (July, August, September) following the protocol specified in the permit. Should future testing exhibit problems associated with toxicity more frequent monitoring may be required.

Summary of WET Testing Results from Greenville, NH (NH0100919)				
	Ceriodaphnia dubia		***Pimephales promelas***	
Test Date	**LC50**	**C-NOEC**	**LC50**	**C-NOEC**
3/4/08	**>100%**	**100%**	**>100%**	**100%**
10/23/07	**>100%**	**100%**	**>100%**	**100%**
8/21/07	**>100%**	**100%**	**>100%**	**100%**
6/5/07	**>100%**	**100%**	**>100%**	**50% - Survival** **100% - Repro.**
1/23/07	**>100%**	**100%**	**>100%**	**100%**
10/24/06	**>100%**	**100%**	**>100%**	**100%**
7/18/06	**>100%**	**100%**	**>100%**	**100%**
4/18/06	**>100%**	**100%**	**>100%**	**100%**
3/22/06	**>100%**	**100%**	**>100%**	**25% - Survival** **50% - Repro.**
11/8/05	**>100%**	**100%**	**>100%**	**100%**

COMMENT NO. 6:

Compliance Schedule: The Town of Greenville is requesting that a reasonable compliance schedule be included with the permit to allow for adequate time for Greenville to secure financing, conduct a facilities plan, evaluate alternatives, prepare a basis of design report, design the upgrades, and complete construction. The Town of Greenville would like to work with EPA and NHDES to develop this compliance schedule

RESPONSE NO. 6:

As stated above in Response No. 1, unless a State's Water Quality Standards specifically provide for compliance schedules, a compliance schedule may not be included in an NPDES permit. New Hampshire Water Quality Standards do not include such an authorization. We anticipate that following the effective date of the permit, EPA or NHDES will issue a reasonable compliance schedule in an administrative order. If you wish to discuss this matter with EPA's enforcement program you may contact Joy Hilton in the Region I Office of Environmental Stewardship at (617) 918-1877. EPA appreciates the willingness of the Town of Greenville to work with both EPA and the NHDES to resolve these issues.

COMMENTS FROM THE SOUHEGAN LOCAL ADVISORY COMMITTEE

COMMENT NO. 1:

The Souhegan River Local Advisory Committee would like to express its concerns for the discharges being allowed under the draft permit for the Town of Greenville Wastewater Treatment Facility.

The Souhegan River is a protected river under the NH Rivers Management & Protection Program and a very important river for many concerns along the river right now – it's being studied as a model for instream flow protection for the state – it's being monitored all over the country for the removal of the Merrimack Village Dam – it's an important breeding ground for the Atlantic Salmon Restoration of the Merrimack Watershed.

The water quality monitoring program of the Souhegan Watershed Association has been collecting water quality data for the last dozen years and we have notice high concentrations of some of the discharges being allowed. High levels of phosphorus have been seen throughout the length of the river. High levels of lead and high levels of copper have been monitored. Copper is toxic to salmon.

While the Greenville WWTF is not responsible for all these undesirables, it is contributing some. And while we would not ask to hold up this permit, we do ask the EPA to require this WWTF and others on the river (Milford) to take steps to remove these pollutants from their discharges before the next permit is issued in five years. This would go a long way to help with the continued long-range cleanup of the Souhegan.

RESPONSE NO. 1:

EPA appreciates the comments submitted by the Souhegan Local Advisory Committee. The draft permit included effluent limits for total recoverable lead and total phosphorus. As a result of comments submitted, EPA has examined copper data in the effluent from the Greenville Wastewater Treatment Faciliy and in the Souhegan River. This data is presented below and was compiled from samples collected for whole effluent toxicity testing.

Copper Results from Whole Effluent Toxicity Testing		
Test Date	**Receiving Water Concentration Upstream of Discharge (mg/l)**	**Effluent Concentration (mg/l)**
3/4/08	< 0.002	0.005
10/23/07	0.003	0.006
8/21/07	< 0.002	< 0.002
6/5/07	0.002	0.005
1/23/07	< 0.002	< 0.002
10/24/06	< 0.002	< 0.002
7/18/06	0.003	< 0.002
4/18/06	0.003	0.006
3/22/06	0.007	0.008
11/08/05	<0.002	0.008
8/11/05	0.0047	0.013
6/14/05	0.003	0.014
1/4/05	< 0.002	0.006
10/19/04	< 0.002	0.007
7/27/04	0.004	0.014
6/15/04	0.004	0.004
3/30/04	< 0.002	0.003
12/2/03	< 0.002	0.010
8/19/03	0.003	0.014
4/22/03	< 0.002	0.006
1/21/03	< 0.001	0.007

The State of New Hampshire acute and chronic water quality standards for copper are 3.6 ug/l (0.0036 mg/l) and 2.7 ug/l (0.0027 mg/l), respectively. Of the 21 whole effluent toxicity tests above, the chronic copper criteria was exceeded 9 times and the acute criteria was exceeded 4 times. Because the Souhegan River upstream of the discharge contains concentrations of copper in excess of applicable water quality criteria, no further degradation can occur. Therefore, a monthly average limit of 0.0027 mg/l and a daily maximum limit of 0.0036 mg/l have been added to the permit. The monitoring frequency shall be 2 times per month using a 24-hour composite sample.