



POST OFFICE BOX 995
SPRINGFIELD, MASSACHUSETTS 01101-0995
413-452-1300

Established 1996

August 18, 2020

VIA ELECTRONIC MAIL

Doug MacLean
EPA New England, Region 1
5 Post Office Square, Suite-100 (06-1)
Boston, Massachusetts 02109-3912
maclean.douglas@epa.gov

Jennifer Wood
Surface Water Discharge Program, MassDEP
One Winter Street, 5th Floor,
Boston, Massachusetts 02108
jennifer.wood@mass.gov

Re: City of Gardner, Massachusetts: NPDES Permit No. MA0100994
Gardner Wastewater Treatment Facility
Springfield Water and Sewer Commission's Nitrogen Comments

Dear Mr. MacLean and Ms. Wood,

The Springfield Water and Sewer Commission ("SWSC") appreciates the opportunity to submit comments with respect to the draft NPDES Permit No. MA0100994 (the "Draft Permit"). Notably, the Draft Permit includes average monthly mass loading of 417 lbs/day for TN, and nitrogen "optimization" requirements. For the reasons stated below, SWSC requests that EPA remove, or provide legal justification for, the numeric limit for TN in the Draft Permit and remove the optimization requirements as well as address other comments provided herein.

I. COMMENTS ON TOTAL NITROGEN LOADING LIMITS

A. Background Regarding Nitrogen Limits

The Gardner WWTF discharges to the Otter River, which then flows into the Millers River, which then flows into the Connecticut River and eventually flows into the Long Island Sound ("LIS"). Gardner WWTF's current permit requires monthly monitoring for total Kjeldahl nitrogen, nitrate nitrogen and nitrite nitrogen, the sum of which provide the TN concentration. According to concentration and monthly average flow data cited in the Fact Sheet, the annual average total nitrogen loading discharged from the Gardner WWTF ranged from 377 to 470 lbs/day in 2014 to 2018 and averaged 424 lbs/day.

1. LIS TMDL for the Connecticut River

EPA states in the Permit Fact Sheet that the nitrogen-driven eutrophication impacts in the LIS are driving the proposed reductions in nitrogen in Massachusetts plants. The New York State Department of Environmental Conservation and the Connecticut Department of Energy and Environmental Protection (“CT DEEP”) developed a total maximum daily load (“TMDL”) to address low dissolved oxygen levels in the LIS and determined that nitrogen is the primary limiting nutrient for this condition, and as such should be controlled. Controlling nitrogen would also benefit “other eutrophication-related impairments...”¹. In accordance with the Clean Water Act, the LIS TMDL set individual waste load allocations (“WLAs”) for in-basin point sources, and a single, aggregate WLA for out-of-basin point sources. Those out-of-basin sources include wastewater treatment facilities in Massachusetts, Vermont, and New Hampshire discharging into the Connecticut, Housatonic, and Thames Rivers. For out-of-basin sources, the LIS TMDL requires a 25% aggregate reduction in the TN loading baseline established during the promulgation of the LIS TMDL.

For purposes of the Draft Permit, the LIS TMDL affects only discharges to the Millers River which drains into the Connecticut River, as the Gardner WWTF does not discharge to the Housatonic or Thames Rivers. As shown on Table 3 of the Fact Sheet, EPA calculated the LIS TMDL baseline for TN loadings in the Connecticut River at 21,672 lbs/day. EPA determined that the 25% reduction target from the baseline equals 16,254 lbs/day. That target remains unchanged, as the LIS TMDL is still effective and has not been modified or redeveloped. While EPA has further calculated the maximum loading to the Connecticut River during the period of 2013 to 2017, to be 14,395 lbs/day, this can be viewed as a beneficial marker to assess progress toward the TMDL goal, but does not, in and of itself, modify the TMDL WLA of 19,657 lbs/day for all out-basin-sources, for which the Connecticut River equitable share is 16,254 lbs/day.

The Connecticut River has achieved nearly a 34% reduction in TN loadings. Indeed, as can be seen from Table 3 of the Fact Sheet, the overall loading from Massachusetts, New Hampshire, and Vermont wastewater treatment plants discharging to the Long Island Sound is approximately 36% below the baseline for TN loadings.

Despite the fact the Connecticut River watershed, as well as the summation of all out-of-basin discharges, have exceeded the 25% TMDL target by nearly 40%, EPA has established a load-based TN effluent limitation in the Draft Permit which is not derived from the TMDL WLA. EPA received letters from commenters urging EPA to establish enforceable limitations for out-of-basin dischargers because TN loads may increase in the future. In response, EPA incorporated a TN load-based effluent limit in this Draft Permit Fact Sheet, at p. 22, n.25. These brief comments were in fact limited substance and did not provide any data, scientific evidence, or facts to substantiate the load based effluent in this and other draft NPDES permits recently issued in the LIS out of basin watersheds of Massachusetts.

This requirement is simply not legally valid. EPA has no statutory or regulatory authority to impose limits that are more stringent than the WLA for the out-of-basin dischargers requires.

¹ A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound. December 2000. p.9

2. LIS TMDL Relationship to Proposed Effluent Limits

Section 303(d) of the CWA requires states to develop a TMDL for waterbodies containing water quality limited segments. 33 U.S.C. § 1313(d), (e). The TMDL first estimates the assimilative capacity of the waterbody relative to a particular pollutant. The TMDL then allocates that assimilative capacity among point, “waste load allocations” (WLAs), and non-point pollutant sources, “load allocations” (LAs), taking into account natural background levels and a margin of safety. 40 C.F.R. § 130.7. Permitting authorities then develop limits for point sources that are consistent with the WLAs for each point source. *Id.*

SWSC understands that EPA’s objective is to achieve greater nitrogen reductions in order to address the hypoxia and eutrophication related issues afflicting the LIS. However, the CWA requires that permitting authorities implement the requirements of any TMDL, and in the case of the LIS, base limitations for out-of-basin point sources, like the Gardner WWTF, on the 25% *aggregate reduction* from the TN baseline. In support of the effluent limits contained in the Draft Permit, EPA broadly references the statutory and regulatory requirements authorizing the development of WQBELs, which include provisions to ensure implementation of any available WLAs to prevent further degradation of receiving waters that are already impaired. This authority alone, however, does not justify the imposition of numeric limits. As noted above, the overall loading from Massachusetts, New Hampshire, and Vermont wastewater treatment plants discharging to the Long Island Sound is approximately 36% below the TMDL baseline, despite the fact that many plants, like the Gardner WWTF, have no numeric limits for TN. EPA identifies no statutory or regulatory justification for applying a numeric limit to the Gardner WWTF in light of the fact that the WLA is already being met by a significant margin without such a numeric limit.

Further, EPA has identified no legal basis for the 10 mg/L concentration, upon which the 417 lbs/day limit in the Draft Permit is based. EPA merely presented its tiered approach to TN requirements for Massachusetts facilities based on design flow without any justification for the tiered concentrations. In other words, EPA has identified no rational relation between the tiered concentrations and the WLAs for the Housatonic, Connecticut, and Thames Rivers, which out-of-basin point sources consistently achieve by a wide margin. Accordingly, the CWA does not authorize the imposition of the proposed 417 lbs/day limit based on an arbitrary concentration that is wholly disconnected from achieving the WLA for the Connecticut River.

Proposed Permit Requirements Relating to Nitrogen

The Draft Permit currently contains a numeric limit of 417 lbs/day for TN. This bears no relation to the TMDL’s WLA for out-of-basin point sources of a 25% aggregate TN load reduction. Given the fact that the out-of-basin point sources, including those that discharge to the Connecticut River, have exceeded the reduction target by a large margin to meet the WLA, EPA has no basis to include a mass-based limit for TN in the Town of Gardner’s permit based upon the arbitrary choice of a concentration value. Additionally, if EPA determines that a limit for TN is necessary despite past achievement of the WLA, EPA needs to present an inclusive process whereby all out-of-basin point source discharges can be assigned an equitable share of the allowable load, taking into consideration plant upgrades since the baseline calculation, design flows, and allowance for facilities that accept combined wastewater flows. A piece-meal approach to WLA assignment, or modifying the adopted TMDL WLA as this permit does, is inconsistent with the LIS TMDL.

1. Mass-Loading Limit for TN

In setting the numeric limit in the Draft Permit, EPA appears to have considered the total annual aggregate nitrogen loadings from out-of-basin point sources discharging to the Connecticut, Thames, and Housatonic Rivers.

EPA itself estimates that the maximum nitrogen loadings for the Connecticut River from 2013 to 2017 was 14,395 lbs/day, which is approximately 11% below the 16,254 lbs/day target for the equitable distribution of the WLA for the Connecticut River. Fact Sheet, at p. 21, Table 3. This achievement benchmark measurement that EPA calculated clearly shows the TMDL WLA goal has been achieved in the Connecticut River. Plainly, the CWA does not authorize EPA to require the permittee to achieve, maintain, or surpass a 34% reduction from the baseline established by the LIS TMDL. Rather, the LIS TMDL established, through proper rulemaking procedure, a 25% aggregate reduction of TN, from the out-of-basin sources, of which a 16,254 lbs/day target is the equitable distribution for the Connecticut River. **The allocated TMDL for out of basin NPDES permittees has been and continues to be met.** EPA lacks the statutory and regulatory authority to impose WQBELs on the basis of an arbitrarily chosen concentration limit, on the basis of an arbitrary data set (2013-2017) and that clearly conflicts with the adopted TMDL WLA. Furthermore, EPA is only applying numeric limits to NPDES permittees that exceed certain design flows (see below). EPA provides no justification or scientific data that would suggest that impacts of TN are related to the size of a plant. EPA is creating an inequitable and arbitrary distribution of how TN is being included in draft NPDES Permits, how it is going to be enforced, and who is going to be paying for TN reductions. Equitable distribution of appropriate WLA in other examples has led to creative and beneficial programs such as pollutant trading scenarios. We request EPA to provide an explanation as to why not all TN is considered to contribute to compliance with the existing TMDL or as part of the current permitting approach for all of the out of basin permittees.

Facility Design Flow, Q_D (MGD)	Number of Facilities	Annual Average TN Limit (lb/day)
$Q_D \geq 10$	4	Q_D (MGD) * 5 mg/L * 8.345 + optimize
$5 < Q_D < 10$	5	Q_D (MGD) * 8 mg/L * 8.345 + optimize
$1 \leq Q_D \leq 5$	20	Q_D (MGD) * 10 mg/L * 8.345 + optimize
$0.1 \leq Q_D < 1$	17	Optimize
$Q_D < 0.1$	8	TN monitoring only

If EPA does include numeric limits “to ensure implementation of any available WLA,” those limits actually should reflect the 16,254 lbs/day Connecticut River share of the TMDL WLA. Here, however, the 417 lbs/day limit appears to be based on a concentration limit of 10 mg/L, which has no relation to the TMDL. Again, EPA has failed to identify how it established the numeric limit to meet the TMDL WLA, which requires only 25% reduction from the 21,672 lbs/day baseline. In this instance, no mass-based limit is necessary to meet the TMDL WLA.

i. Lack of Adequate Statement of Basis in the Fact Sheet

EPA has not provided an adequate statement of basis in the Fact Sheet for the TN effluent limitation. The Fact Sheet provides:

While substantial TN out-of-basin load reductions have occurred at some facilities by means of optimization requirements alone, concerns raised in recent public comments by the downstream state (Connecticut) and concerned citizens have highlighted the need for clearly enforceable, numeric, loading-based effluent limits to ensure that the annual aggregate nitrogen loading from out-of-basin point sources are consistent with the TMDL WLA for 19,657 lb/day and to ensure that current reductions in loading do not increase, given the continued impairment status of the LIS.

EPA also references:

- The implementation of WLAs pursuant to 40 CFR 122.44(d)(1)(vii)(B);
- Provisions to prevent further degradation (*see* Fact Sheet, at p. 22, n.1); and
- The consideration of water quality standards of downstream states (*see* Fact Sheet, at p. 22, n.2).

While EPA has cited various sections of the statute and rules, EPA has failed to provide an explanation regarding how each of these citations support the imposition of a TN limit in the Draft Permit.

We address each of these regulatory citations below:

- 40 CFR 122.44(d)(1)(vii)(B) provides that an effluent limitation shall be consistent with an assigned WLA. Because the WLA for out-of-basin dischargers is already being achieved, this provision does not provide support for the imposition of effluent limitations. Further, the development of a new WLA using an arbitrary data set, as EPA has done in this draft permit, is not consistent with the existing TMDL.
- The Federal regulation at 40 CFR 131.12(a)(1), and the corresponding MA state regulation, 314 CMR 4.04(1), merely require that existing instream water uses and the level of water quality necessary to protect existing uses shall be maintained and protected. EPA approved the LIS TMDL, which established WLAs necessary to protect and maintain the downstream water quality in the LIS, and that WLA has been achieved. Accordingly, these rules do not provide support for the imposition of effluent limitations based upon the arbitrary assignment of a concentration value translated in a load limit.
- 40 CFR 122.44(d)(4) references CWA Section 401(a)2, which provides that if a discharge in one state will affect the waters of a downstream state, EPA must notify the downstream state.

Additionally, if the downstream state requests a hearing on the permit, and the hearing officer determines that the discharge affects the water quality of a downstream state will be affected, the permitting authority must issue the permit in a way that protects downstream water quality.

Again, the LIS TMDL already addresses this issue by establishing individual WLAs for in-basin discharges and a single, aggregate WLA for out-of-basin dischargers that protects water quality and addresses downstream impairment.

If EPA and Connecticut believe the existing TMDL is not adequate to protect water quality, the regulators should consider a scientifically based solution, inclusive of all affected dischargers. SWSC objects to the imposition of an effluent limitation based upon the request of a third party, without a technical or regulatory basis. The appropriate update to the TMDL (as is required by the TMDL process) should be led by EPA and should follow statutory requirements including public comment.

ii. LIS TMDL Out-of-Basin Targets Met

The TMDL 25% target reduction for TN loading from out-of-basin dischargers has been met and substantially exceeded. EPA has not provided a basis in this Fact Sheet to support further reductions. Specifically, EPA has failed to provide the following information:

- EPA appears to have imposed a TN limitation based upon the concerns of commenters but provided no technical and legal basis for requiring a discharger-specific TN loading.
- Indicators, analyses, or other site-specific studies to support EPA's determination that 54% of Massachusetts treatment plants in the LIS watershed should have a TN limit and 46% of discharges should not have a TN limit despite the fact that the TMDL target has already been achieved.
- The regulatory basis for the determination that 417 lbs/day is the appropriate load for the Gardner WWTF when integrated into an aggregate reduction spread across a three-state region.

Absent such information, the Fact Sheet lacks a basis and background for the imposition of a TN loading for Gardner WWTF.

iii. Basis for Calculations of 2013–2017 Loads

Table 3 of the Fact Sheet states that the maximum loading from 2013 to 2017 across Connecticut, Housatonic, and Thames Rivers is 16,689 lbs/day.

EPA has not provided the data, analysis, or justification for the 16,689 lbs/day assignment. Accordingly, SWSC asks that EPA provide the following:

- The data used to calculate the maximum loading for each of the rivers,
- The justification used to estimate loadings for WWTPs that do not monitor for TN,
- The rationale for assigning an aggregate load for the three rivers, by choosing the highest load from the individual rivers based on different years,
- The rationale for choosing to measure loads from 2013 – 2017, and
- Explanation of whether these loads are calculated as weekly average, monthly average, annual average, rolling annual average, or some other calculation.

2. Concentrations for TN

Table 4 of the Draft Permit includes the tiered concentrations that EPA intends to apply to Massachusetts dischargers, based on facility design flow. Specifically, EPA proposes annual average total nitrogen mass loading limits for Massachusetts dischargers based on 5 mg/L, 8 mg/L, and 10 mg/L at design flow. The Draft Permit, again, provides no justification for such concentrations and fails to describe how the concentrations are related in any way to the WLAs for the Connecticut, Housatonic, and Thames Rivers. The Draft Permit provides only the following explanation for the tiered concentrations:

Therefore, EPA intends to include a total nitrogen rolling annual average mass-based loading limit (in lb/day) and a requirement to optimize current treatment systems to minimize the effluent nitrogen in all permits issued to wastewater treatment plants with design flow greater than or equal to one (1) MGD that discharge to the LIS watershed in Massachusetts. Table 3 summarizes the approach to update TN requirements for this and future permits in the LIS watershed in Massachusetts.

Figure 1 below compares the existing effluent TN concentration, EPA's proposed limit based on actual annual average daily flow, and a limit based on design flow as EPA has done in this draft permit, for Massachusetts POTWs with design flow greater than 1.0 MGD. Figure 1 shows that most of the Massachusetts POTWs with actual annual average daily flow greater than 2.0 MGD will NOT be able to meet the proposed limits, and will require costly plant upgrades to meet the proposed effluent limits. EPA must provide a scientific basis for requiring such limits, which will cause impacted communities unwarranted economic hardship.

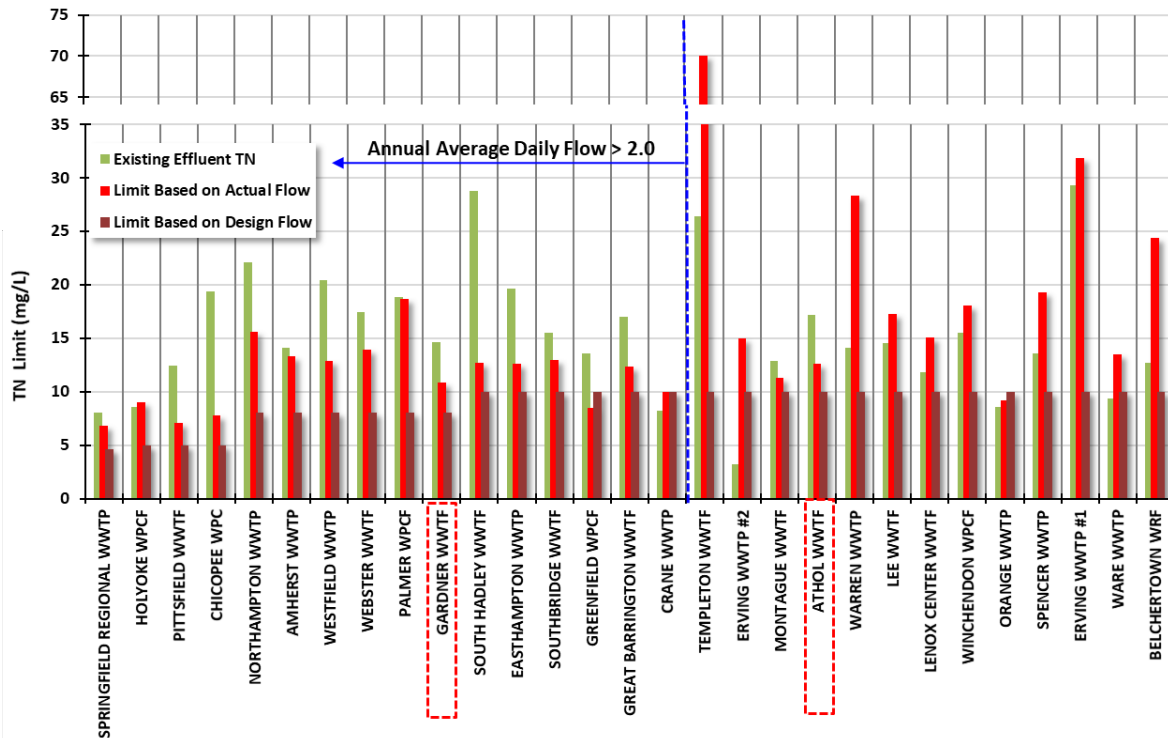


Figure 1. Comparison of Existing Plant Effluent TN Concentration with EPA Proposed Limits Based on Currently Annual Average Daily Flow and Design Average Daily Flow.

Accordingly, we request that EPA consider and address the following:

- What study has EPA based these concentration assignments on?
- How will these concentration assignments, in isolation of the TMDL, impact the LIS?
- What is the basis for concentration assignments that vary among the size of the treatment plant?
- What are the current levels of treatment at these facilities and what is the economic and social impacts of requiring upgrades?
- What specific environmental gains in terms of ambient water quality in the LIS are these concentrations projected to have?
- What is the balance of the environmental benefit versus the social and economic cost?
- Are these concentration values applicable to industrial dischargers as well?
- What is the basis used to determine that is it appropriate for 29 WWTF’s in Massachusetts to have TN effluent limitations, while 25 other WWTF’s should have no limit?

Absent further demonstration that the tiered concentrations are derived from the TMDL and are necessary to ensure the implementation of an available and approved WLA, the tiered concentrations—like the mass-based limits derived thereof—appear wholly unrelated to the LIS TMDL nitrogen targets. As discussed above, the current levels of TN loadings achieved a nearly 34% reduction from baseline loadings in the Connecticut River, which is well above the reduction required by the TMDL. Accordingly, EPA should revise the Draft Permit to maintain the current “report only” requirements and eliminate the mass-based limit for TN. If EPA seeks to impose an

effluent limit for TN, it must operate within its statutory and regulatory authority to develop limits utilizing the currently approved TMDL WLA of 19,657 lbs/day for the out-of-basin dischargers.

3. Optimization

EPA requires that the Gardner WWTF implement “optimization methods to ensure that the facility is operated in such a way that discharges of total nitrogen are minimized.”, Fact Sheet, at p. 24. Further, certain provisions of the CWA authorize EPA to require certain control measures and proper operation and maintenance, but the statutory scheme does not authorize EPA to prescribe how a plant operator must achieve those requirements as contemplated in the Draft Permit requiring an evaluation of alternative methods of operating “to optimize the removal of nitrogen.” *See* Fact Sheet, at p. 24. Here, “optimization” is not an applicable control measure or operation and maintenance requirement deriving from any statutory or regulatory CWA authority.

Even if the CWA authorized the imposition of an optimization requirement, the requirement as described in the Draft Permit is impermissibly vague. EPA has promulgated under the CWA no rule, issued guidance, nor defined what constitutes “optimization.” The Draft Permit includes a non-exhaustive list of optimization methods to be evaluated but lacks specificity as to what types of operational changes may be required. Absent a clear statutory or regulatory directive regarding optimization, permittees will have no opportunity to meaningfully comply with the requirement. For example, permittees have no guidance regarding whether or not evaluation of alternative methods to optimize the removal of nitrogen will require additional expenditures for operation and maintenance or capital improvements. Additionally, even if the Gardner WWTF meets the Draft Permit’s average annual TN loading requirement, the optimization requirement will still expose the permittee to liability in the form of potential permit violations or lawsuits from third-parties alleging that the permittee nonetheless failed to achieve some amorphous level of “optimization.”

Ultimately, EPA has not identified, and the permittee is not aware of, any statutory or justification authority for the “optimization” requirement. The requirement is both impermissibly vague and exceeds EPA’s authority where the out-of-basin point sources, including the Connecticut River, are already achieving the WLA as required by the LIS TMDL.

4. No Adequate Opportunity for Public Comment

During development of a TMDL, the public is provided an opportunity to comment on the development of individual WLAs, the distribution of WLAs, the allocation of the WLA versus load allocation (LA), and the economic impacts of the overall TMDL plan to attain water quality in the impaired waterbody segment.

During development and public notice of the LIS TMDL, EPA presented the public with a TMDL that provided for the overall attainment (and associated economic impacts) of the water quality criteria through (1) assigned WLAs to in-basin dischargers and (2) aggregate load target reductions from out-of-basin dischargers.

In this Draft Permit, EPA has effectively assigned an out-of-basin WLA to an individual discharger and provided public comment in isolation of the overall TMDL attainment plan, in isolation of all other out-of-basin dischargers, and in isolation of all other in-basin WLAs and LAs. By limiting public comment to an isolated WLA developed outside the TMDL process that should be applied

on a basin-wide level, EPA has prevented the public from effectively evaluating the overall impacts of this action on the TMDL's overarching strategy to attain water quality goals. EPA is effectively undertaking a water shed based rule making without following the required process.

5. Failure to Account for Reductions in Non-Point Source Loading

Due to the implementation of MS4 municipal stormwater permits, the many new and varied requirements for CSO communities, and the implementation of related TMDLs for stormwater and nutrients across the LIS sound watershed, a number of projects now exist that address nutrient reduction from non-point sources.

EPA has failed to provide, or even discuss, the resulting estimated reductions in nutrients (both phosphorus and nitrogen) loading. States, towns and authorities have implemented green infrastructure options, improved stormwater BMPs, or provided other means for nutrient reductions resulting from improved stormwater management across the five-state region. EPA has failed to acknowledge and account for these reductions in determining the WLAs for POTWs.

A. Failure to update LIS TMDL as Required

The LIS TMDL, dated December 2000, has not been revised or revisited in nearly 20 years. This is in direct contradiction to the TMDL itself, which states in Section F:

“A critical component of phased implementation is the reassessment of management goals and actions based on new information. The LISS Phase III Actions for Hypoxia Management also contains commitments to formally evaluate the 58.5 percent reduction target every five years...”

The TMDL goes on to identify specific items to be reassessed which include:

- The progress and cost of implementation, including a reevaluation of the knee-of-the-curve analysis used to establish the Phase III nitrogen reduction targets;
- Refined information on the ecosystem response to nitrogen reduction;
- The results of peer reviewed modeling; and
- Research on the impacts of hypoxia to living resources and their habitats

The LIS TMDL also requires that:

As identified in the TMDL schedule (Table 11), New York and Connecticut will review and revise the TMDL based on this assessment by August 2003.

Reassessment of the DO criteria, and the goals of the TMDL is particularly significant in consideration of the following:

- Significant progress toward attaining the DO water quality standard have already been obtained. As per the LIS Year in Review (2017), the average peak area of waters with “unhealthy” DO is less than half of the pre-TMDL levels. The area of water with less than 3 mg/L of DO in 2015 and 2017 were the second and third smallest recorded in the past 31 years of monitoring. In addition, there have been no open waters below 1 mg/L DO in

seven of the eight past years. As a result of nitrogen reduction efforts, there are 45 million fewer pounds of nitrogen discharged annually to the Sound from human sources (a 59% reduction).²

- The water quality results from the Connecticut River embayment sampling from 2017 are remarkable. Nitrate is well under natural background levels for streams (max observed = 0.36 mg/L). Ammonia is non-detect. TN is therefore also less than typical natural background levels (max = 0.61 mg/L). Total phosphorus and Ortho Phosphorus are also near detection levels and very low (max observed = 0.056 and 0.037 mg/L, respectively). There is little quality gradient from sampling location CTR01 to sampling location CTR07. Whatever nutrient loads are delivered to the Connecticut River, they are removed to background levels by the time the river reaches the estuary.

Water quality results from the Connecticut River could be indicative of the Housatonic River watershed as well, and a detailed assessment of this river would be beneficial. Such information is useful for determining the overall impact of TN from out-of-basin WWTPs, and whether other impacts such as stormwater, need to be further assessed.

B. Summary of Comments on TN Loading Limit

The SWSC continues to have considerable concerns with EPA's decision not to include the out-of-basin community in its strategy development as well as EPA's failure not to require the collection of new, relevant data in determining both the out-of-basin nitrogen impacts on LIS and the effectiveness of nutrient reduction programs in New York and Connecticut. Still, SWSC believes that an equitable distribution of loads among the out-of-basin dischargers can be achieved. The SWSC fully supports the LIS initiative in its clean water efforts and has proposed additional financial support to gather data and make informed decisions to that effect, and we reaffirm that commitment. However, to successfully implement NPDES conditions that will meaningfully reduce TN discharges, EPA must provide a scientific basis for permit conditions and limitations that considers all out-of-basin discharges.

To that end, SWSC requests that EPA develop annual average TN loading values that:

- Reflect advances WWTPs have made for TN removal since the LIS TMDL 1998 baseline;
- Allow for reasonable growth in the sewer service area up to the design flow of the affected plant;
- Allow for a reasonable trading scenario for economic efficiency; and
- Establish TN "goals" rather than enforceable limitations to allow for appropriate permit adjustments in the future without anti-backsliding issues.
- Utilize the existing, approved TMDL WLA of 19,657 or provide an opportunity to revise the TMDL based on new information.

²Newsletter of the Long Island Sound Study, Spring 2018). http://longislandsoundstudy.net/wp-content/uploads/2018/05/2017YearinReview_03-singles-second-printing-14-aug-18.pdf

Specifically, SWSC requests that EPA eliminate the concentration-based mass numeric limit and remove the optimization requirements. EPA has identified no basis for including a mass limit based upon arbitrary tiered concentration values. If EPA requires a mass-based limit, EPA must revise the arbitrary concentration-based mass limit included in the Draft Permit in favor of a limit that actually reflects the 25% reduction target required by the LIS TMDL. Additionally, SWSC requests that EPA establish the basis for its determination that 25 of 54 MA WWTPs in the LIS Watershed require no TN loading goal while 29 require enforceable limits.

Specifically, the adopted LIS TMDL supports a WLA of 19,657 lbs/day for out-of-basin dischargers, with an equitable share of 16,254 for the Connecticut River. EPA has not provided the technical rational or regulatory authority to modify the TMDL WLA through an individual NPDES permit. EPA has failed to demonstrate the authority to re-calculate the adopted WLA through the arbitrary choice of a concentration limit and the arbitrary choice of a data set.

We urge EPA to provide for a collaborative effort to determine the appropriate distribution of the approved WLA, or to provide the technical and regulatory avenue to revise this WLA

II. COMMENTS ON OTHER ISSUES

A. Numeric Limit on Effluent Flow

The Draft Permit contains a numeric limit on effluent flow. Understanding that this limit was in the previous permit, we believe that the limit is not authorized by the CWA or by EPA's NPDES regulations. In the Fact Sheet, EPA lays out a number of arguments as to why this limit is within its authority, but none of those claims has any support in the law or rules. Here are the claims raised by EPA, and the reasons why they are not correct:

- 1) EPA says that "sewage treatment plant discharge" is a "pollutant" and therefore subject to regulation under the CWA. While there are pollutants in a POTW discharge, that is not the issue here. EPA is trying to impose a limit on the amount of water discharged, regardless of whether any pollutants are present. That claim has already been rejected by a Federal court, which specifically held that "stormwater runoff is not a pollutant." *Virginia Dep't of Transp. v. U.S. E.P.A.*, No. 1:12-CV-775, 2013 WL 53741 (E.D. Va. Jan. 3, 2013) (copy attached). That court ruled that trying to regulate water, as a surrogate for a regulable pollutant, is not authorized. The same principle would apply here.
- 2) EPA also claims that it has authority to impose limits on flow because it uses effluent flow to determine if limits are needed, and to calculate limits themselves. The Agency states that it "may ensure the validity of its 'worst-case' wastewater effluent flow assumptions through imposition of permit conditions for effluent flow." However, the authority that EPA cites for that proposition provides no support at all. Those authorities – in the regulations and other cases – simply hold that EPA can consider "dilution of the effluent" and effluent flow levels in assessing "reasonable potential." While that is true, that does not mean that EPA can therefore impose limits on flow. It simply means what it says: that EPA can consider effluent flow in making effluent limit decisions.

- 3) The Agency also makes a general argument that a limit on effluent flow is within its authority to “condition a permit to carry out the objectives of the Act,” and is “consistent with the overall structure and purposes of the CWA.” But obviously, that authority must operate within some confines, and those are the confines established by EPA’s own regulations. If the regulations do not give EPA the authority to issue flow limits – which they do not – then EPA cannot do so.
- 4) Finally, EPA tries to argue that it can impose flow limits because they are needed to ensure that the permittee properly operates and maintains its system, minimizes infiltration and inflow (I/I), and mitigates the potential for sanitary sewer overflows. There is no basis for this argument. As EPA itself recognizes, the Draft Permit already contains specific provisions that require proper operation and maintenance, require development of an I/I program, and impose a duty to mitigate. These provisions are routinely imposed in permits, and there is no reason to believe that the permittee will not comply with them, or that the requirements imposed in those provisions are not adequate to address the issues that they are focused on.

For all of these reasons, the proposed flow limits are not authorized by the CWA or EPA’s NPDES regulations, and they should be removed before the Draft Permit is finalized.

B. PFAS

The proposed draft NPDES permit includes monitoring and reporting requirements for Per- and polyfluoroalkyl substances (PFAS) including the followings:

Perfluorohexanesulfonic acid (PFHxS)
 Perfluoroheptanoic acid (PFHpA)
 Perfluorononanoic acid (PFNA)
 Perfluorooctanesulfonic acid (PFOS)
 Perfluorooctanoic acid (PFOA)
 Perfluorodecanoic acid (PFDA)

The Draft Permit requires quarterly monitoring PFAS in WWTF influent, effluent and sludge. EPA states that the purpose of this monitoring and reporting requirement is to better understand potential discharges of PFAS from this facility and to inform future permitting decisions, including the potential development of water quality based effluent limits on a facility-specific basis.

This monitoring requirement is very concerning for the following reasons:

- a) Massachusetts water quality standards do not include numeric criteria for PFAS. EPA factsheet cited Massachusetts narrative criterion for toxic substances at 314 CMR 4.05(5)(e) as “All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife.” However, neither MassDEP nor EPA have established toxicity risk level of PFAS in the surface water for human, aquatic life or wildlife.

Even if Massachusetts passes a revision to 310 CMR 22.00: Drinking Water Regulation that set a new PFAS Maximum Contaminant Level (MCL) of 20 ppt

(ng/L) for the sum of the concentrations of six PFAS compounds, we believe that requiring monitoring of PFAS is premature at this time.

- b) Unnecessary testing requirement for influent, effluent and sludge as well as significant industrial dischargers. As EPA has failed to identify PFAS that would cause or contribute to an impairment, the Town does not understand how these additional expenditures to test PFAS in influent, effluent and sludge is warranted. If EPA is still determined to understand the impact of PFAS on the receiving water, it should be done through an ambient water quality study and effluent data as well as non-point sampling.

Testing influent, sludge and significant industrial dischargers is not necessary for the purposes stated in factsheet section 5.1.11. This is also evident in the state permit that only requires testing of WWTF effluent, and not influent and sludge. MassDEP draft permit Factsheet Supplement specifically limited testing of PFAS for residual land applied in Massachusetts. As such, MassDEP only requires testing of PFAS for holders of Approval of Suitability (AOS) which classifies residuals for different uses based on the chemical quality and treatment to reduce pathogens. The Town/City is not an AOS holder and currently is not using land application for sludge disposal. Therefore, it is not required to test PFAS in sludge.

- c) Prepare for a future PFAS limits that may be included in subsequent NPDES permits: This reason for EPA needing to require monitoring of PFAS for the facility is particularly concerning as science of PFAS in the environment and its impacts to humans, aquatic life or wildlife is still evolving. Therefore, it is against the purposes of CWA to impose of any numeric limitations before EPA provides clear, precise, and scientifically sound criteria of PFAS that would be toxic to humans, aquatic life or wildlife.
- d) Approved standard testing method: In the Draft Permit, EPA imposes sampling requirements for PFAS compounds in wastewater and sludge. EPA has not yet approved any analytical methods for PFAS in those media. Therefore, EPA provides a compliance schedule, so that the testing requirements do not apply until “6 months after EPA’s multi-lab validated method for wastewater and biosolids is made available to the public on EPA’s CWA methods program websites.” This requirement is problematic, because it is not tied to actual formal EPA approval of the analytical methods. The act of EPA making a method “available to the public” on its website is not sufficient to make that method legally enforceable. The Agency needs to issue a formal proposal to approve the method under 40 CFR 136, take public comments, and then make a considered decision as to whether that method should be approved as having met all of the requirements of 40 CFR 136. Until that process has been completed, the Agency cannot require the permittee to start monitoring, using an unapproved method. The Agency tries to justify this requirement by citing to a provision in its regulations that allows EPA to require monitoring using a method specified in the permit. That provision applies when the Agency actually specifies a specific method in the permit. It does not apply here, where the Draft Permit does not specify a particular method, because no method

exists that is ready to require in permits. EPA cannot, after the permit is issued, mention a method on its website and then claim that that method was somehow incorporated in the permit that was issued earlier. To address this problem, EPA should simply amend the Draft Permit to clarify that the PFAS testing requirements will not become effective until after EPA has formally approved applicable test methods under 40 CFR 136.

C. Alternate Power Source

EPA requires alternate power source(s) sufficient to operate the portion of the publicly owned treatment works it owns and operates. However, EPA did not include any explanation of what alternate power sources are and what portion of the plant requires an alternate power source(s).

SWSC requests EPA to define alternate power sources to at least include redundant connection(s) to the electric grid, backup power generator or any other sources of power that are different from the power source for normal operation. SWSC also request EPA to further define the portions of the plant that needs the alternate power source which would allow plant operation under emergency basis to power the critical units/equipment that would enable the plant to avoid flooding or damage to the process equipment.

The Springfield Water and Sewer Commission appreciates the opportunity to submit its comments to EPA and MassDEP regarding Draft Permit No. MA0100994. Please contact me with any questions concerning the issues and recommendations contained in these comments.

Sincerely,
Springfield Water and Sewer Commission



Joshua D. Schimmel
Executive Director

(413) 452-1333

josh.schimmel@waterandsewer.org



Established
1996

SPRINGFIELD WATER AND SEWER COMMISSION EXHIBIT Y

POST OFFICE BOX 995
SPRINGFIELD, MASSACHUSETTS 01101-0995
413-452-1300

August 28, 2020

VIA ELECTRONIC MAIL

Doug Maclean
EPA New England, Region 1
5 Post Office Square, Suite-100 (06-1)
Boston, Massachusetts 02109-3912
maclean.douglas@epa.gov

Jennifer Wood
Surface Water Discharge Program, MassDEP
One Winter Street, 5th Floor,
Boston, Massachusetts 02108
jennifer.wood@mass.gov

Re: Town of Templeton, Massachusetts: NPDES Permit No. MA0100340
Templeton Wastewater Treatment Plant
Springfield Water and Sewer Commission's Nitrogen Comments

Dear Mr. MacLean and Ms. Wood,

The Springfield Water and Sewer Commission ("SWSC") appreciates the opportunity to submit comments with respect to the total nitrogen ("TN") limit and conditions in draft NPDES Permit No. MA0100340 (the "Draft Permit"). Notably, the Draft Permit includes a nitrogen "optimization" requirements. For the reasons stated below, SWSC requests that EPA remove, or provide legal justification for and remove the optimization requirements as well as address other comments provided herein.

I. COMMENTS ON TOTAL NITROGEN LOADING LIMITS

A. Background Regarding Nitrogen Limits

The Templeton WWTP discharges to the Otter River, which then flows into the Millers River, which then flows into the Connecticut River and eventually flows into the Long Island Sound ("LIS"). Templeton WWTP's current permit requires monthly monitoring for total Kjeldahl nitrogen, nitrate nitrogen and nitrite nitrogen, the sum of which provide the TN concentration. According to concentration and monthly average flow data cited in the Fact Sheet, the annual average total nitrogen loading discharged from the Templeton WWTP ranged from 19 to 35 lbs/day in 2014 to 2018 and averaged 26 lbs/day.

1. LIS TMDL for the Connecticut River

EPA states in the Permit Fact Sheet that the nitrogen-driven eutrophication impacts in the LIS are driving the proposed reductions in nitrogen in Massachusetts plants. The New York State Department of Environmental Conservation and the Connecticut Department of Energy and

Environmental Protection (“CT DEEP”) developed a total maximum daily load (“TMDL”) to address low dissolved oxygen levels in the LIS and determined that nitrogen is the primary limiting nutrient for this condition, and as such should be controlled. Controlling nitrogen would also benefit “other eutrophication-related impairments...”¹. In accordance with the Clean Water Act, the LIS TMDL set individual waste load allocations (“WLAs”) for in-basin point sources, and a single, aggregate WLA for out-of-basin point sources. Those out-of-basin sources include wastewater treatment facilities in Massachusetts, Vermont, and New Hampshire discharging into the Connecticut, Housatonic, and Thames Rivers. For out-of-basin sources, the LIS TMDL requires a 25% aggregate reduction in the TN loading baseline established during the promulgation of the LIS TMDL.

For purposes of the Draft Permit, the LIS TMDL affects only discharges to the Otter River which drains into the Millers River which drains into the Connecticut River, as the Templeton WWTP does not discharge to the Housatonic or Thames Rivers. As shown on Table 2 of the Fact Sheet, EPA calculated the LIS TMDL baseline for TN loadings in the Connecticut River at 21,672 lbs/day. EPA determined that the 25% reduction target from the baseline equals 16,254 lbs/day. That target remains unchanged, as the LIS TMDL is still effective and has not been modified or redeveloped. While EPA has further calculated the maximum loading to the Connecticut River during the period of 2013 to 2017, to be 14,395 lbs/day, this can be viewed as a beneficial marker to assess progress toward the TMDL goal, but does not, in and of itself, modify the TMDL WLA of 19,657 lbs/day for all out-basin-sources, for which the Connecticut River equitable share is 16,254 lbs/day.

The Connecticut River has achieved nearly a 34% reduction in TN loadings. Indeed, as can be seen from Table 2 of the Fact Sheet, the overall loading from Massachusetts, New Hampshire, and Vermont wastewater treatment plants discharging to the Long Island Sound is approximately 36% below the baseline for TN loadings.

Despite the fact the Connecticut River watershed, as well as the summation of all out-of-basin discharges, have exceeded the 25% TMDL target by nearly 40%, EPA has established a load-based TN effluent limitation in the Draft Permit which is not derived from the TMDL WLA. EPA received letters from commenters urging EPA to establish enforceable limitations for out-of-basin dischargers because TN loads may increase in the future. In response, EPA incorporated a TN load-based effluent limit in this Draft Permit Fact Sheet, at p. 22, n.25. These brief comments were in fact limited substance and did not provide any data, scientific evidence, or facts to substantiate the load based effluent in this and other draft NPDES permits recently issued in the LIS out of basin watersheds of Massachusetts. 21, n.13.

This requirement is simply not legally valid. EPA has no statutory or regulatory authority to impose limits that are more stringent than the WLA for the out-of-basin dischargers requires.

2. LIS TMDL Relationship to Proposed Effluent Limits

Section 303(d) of the CWA requires states to develop a TMDL for waterbodies containing water quality limited segments. 33 U.S.C. § 1313(d), (e). The TMDL first estimates the assimilative

¹ A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound. December 2000. p.9

capacity of the waterbody relative to a particular pollutant. The TMDL then allocates that assimilative capacity among point, “waste load allocations” (WLAs), and non-point pollutant sources, “load allocations” (LAs), taking into account natural background levels and a margin of safety. 40. C.F.R. § 130.7. Permitting authorities then develop limits for point sources that are consistent with the WLAs for each point source. *Id.*

SWSC understands that EPA’s objective is to achieve greater nitrogen reductions in order to address the hypoxia and eutrophication related issues afflicting the LIS. However, the CWA requires that permitting authorities implement the requirements of any TMDL, and in the case of the LIS, base limitations for out-of-basin point sources, like the Templeton WWTP, on the 25% *aggregate reduction* from the TN baseline. In support of the effluent limits contained in the Draft Permit, EPA broadly references the statutory and regulatory requirements authorizing the development of WQBELs, which include provisions to ensure implementation of any available WLAs to prevent further degradation of receiving waters that are already impaired. This authority alone, however, does not justify the imposition of numeric limits. As noted above, the overall loading from Massachusetts, New Hampshire, and Vermont wastewater treatment plants discharging to the Long Island Sound is approximately 36% below the TMDL baseline, despite the fact that many plants, like the Templeton WWTP, have no numeric limits for TN. EPA identifies no statutory or regulatory justification for applying a numeric limit to the Templeton WWTP in light of the fact that the WLA is already being met by a significant margin without such a numeric limit.

Further, EPA has identified no legal basis for the tiered concentrations used to calculate TN limits based on design flow. EPA merely presented its tiered approach to TN requirements for Massachusetts facilities based on design flow without any justification for the tiered concentrations. In other words, EPA has identified no rational relation between the tiered concentrations and the WLAs for the Housatonic, Connecticut, and Thames Rivers, which out-of-basin point sources consistently achieve by a wide margin. Accordingly, the CWA does not authorize the imposition of the proposed limits based on an arbitrary concentration that is wholly disconnected from achieving the WLA for the Connecticut River.

B. Proposed Permit Requirements Relating to Nitrogen

The Draft Permit currently contains no numeric limit for TN since the design flow for the facility is in the range of 0.1-1 MGD. This bears no relation to the TMDL’s WLA for out-of-basin point sources of a 25% aggregate TN load reduction. Given the fact that the out-of-basin point sources, including those that discharge to the Connecticut River, have exceeded the reduction target by a large margin to meet the WLA, EPA has no basis to determining the limit among out-of-basin communities based upon the arbitrary choice of a concentration value. Additionally, if EPA determines that a limit for TN is necessary despite past achievement of the WLA, EPA needs to present an inclusive process whereby all out-of-basin point source discharges can be assigned an equitable share of the allowable load, taking into consideration plant upgrades since the baseline calculation, design flows, and allowance for facilities that accept combined wastewater flows. A piece-meal approach to WLA assignment, or modifying the adopted TMDL WLA as this permit does, is inconsistent with the LIS TMDL.

1. Mass-Loading Limit for TN

In the numeric limit approach presented in the Draft Permit, EPA appears to have considered the total annual aggregate nitrogen loadings from out-of-basin point sources discharging to the Connecticut, Thames, and Housatonic Rivers.

EPA itself estimates that the maximum nitrogen loadings for the Connecticut River from 2013 to 2017 was 14,395 lbs/day, which is approximately 11% below the 16,254 lbs/day target for the equitable distribution of the WLA for the Connecticut River. Fact Sheet, at p. 21, Table 3. This achievement benchmark measurement that EPA calculated clearly shows the TMDL WLA goal has been achieved in the Connecticut River. Plainly, the CWA does not authorize EPA to require the permittee to achieve, maintain, or surpass a 34% reduction from the baseline established by the LIS TMDL. Rather, the LIS TMDL established, through proper rulemaking procedure, a 25% aggregate reduction of TN, from the out-of-basin sources, of which a 16,254 lbs/day target is the equitable distribution for the Connecticut River. **The allocated TMDL for out of basin NPDES permittees has been and continues to be met.** EPA lacks the statutory and regulatory authority to impose WQBELs on the basis of an arbitrarily chosen concentration limit, on the basis of an arbitrary data set (2013-2017) and that clearly conflicts with the adopted TMDL WLA. Furthermore, EPA is only applying numeric limits to NPDES permittees that exceed certain design flows (see below). EPA provides no justification or scientific data that would suggest that impacts of TN are related to the size of a plant. EPA is creating an inequitable and arbitrary distribution of how TN is being included in draft NPDES Permits, how it is going to be enforced, and who is going to be paying for TN reductions. Equitable distribution of appropriate WLA in other examples has led to creative and beneficial programs such as pollutant trading scenarios. We request EPA to provide an explanation as to why not all TN is considered to contribute to compliance with the existing TMDL or as part of the current permitting approach for all of the out of basin permittees.

Facility Design Flow, Q_D (MGD)	Number of Facilities	Annual Average TN Limit (lb/day)
$Q_D \geq 10$	4	Q_D (MGD) * 5 mg/L * 8.345 + optimize
$5 < Q_D < 10$	5	Q_D (MGD) * 8 mg/L * 8.345 + optimize
$1 \leq Q_D \leq 5$	20	Q_D (MGD) * 10 mg/L * 8.345 + optimize
$0.1 \leq Q_D < 1$	17	Optimize
$Q_D < 0.1$	8	TN monitoring only

If EPA does include numeric limits “to ensure implementation of any available WLA,” those limits actually should reflect the 16,254 lbs/day Connecticut River share of the TMDL WLA. Here, however, the TN limit appears to be based on a concentration limit, which has no relation to the TMDL. Again, EPA has failed to identify how it established the numeric limit to meet the TMDL WLA, which requires only 25% reduction from the 21,672 lbs/day baseline. In this instance, no mass-based limit is necessary to meet the TMDL WLA.

i. Lack of Adequate Statement of Basis in the Fact Sheet

EPA has not provided an adequate statement of basis in the Fact Sheet for the TN effluent limitation. The Fact Sheet provides:

While substantial TN out-of-basin load reductions have occurred at some facilities by means of optimization requirements alone, concerns raised in recent public comments by the downstream state (Connecticut) and concerned citizens have highlighted the need for clearly enforceable, numeric, loading-based effluent limits to ensure that the annual aggregate nitrogen loading from out-of-basin point sources are consistent with the TMDL WLA for 19,657 lb/day and to ensure that current reductions in loading do not increase, given the continued impairment status of the LIS.

EPA also references:

- The implementation of WLAs pursuant to 40 CFR 122.44(d)(1)(vii)(B);
- Provisions to prevent further degradation (*see* Fact Sheet, at p. 21, n.15); and
- The consideration of water quality standards of downstream states (*see* Fact Sheet, at p. 21, n.16).

While EPA has cited various sections of the statute and rules, EPA has failed to provide an explanation regarding how each of these citations support the imposition of a TN limit in the Draft Permit.

We address each of these regulatory citations below:

- 40 CFR 122.44(d)(1)(vii)(B) provides that an effluent limitation shall be consistent with an assigned WLA. Because the WLA for out-of-basin dischargers is already being achieved, this provision does not provide support for the imposition of effluent limitations. Further, the development of a new WLA using an arbitrary data set, as EPA has done in this draft permit, is not consistent with the existing TMDL.
- The Federal regulation at 40 CFR 131.12(a)(1), and the corresponding MA state regulation, 314 CMR 4.04(1), merely require that existing instream water uses and the level of water quality necessary to protect existing uses shall be maintained and protected.

EPA approved the LIS TMDL, which established WLAs necessary to protect and maintain the downstream water quality in the LIS, and that WLA has been achieved. Accordingly, these rules do not provide support for the imposition of effluent limitations based upon the arbitrary assignment of a concentration value translated in a load limit.

- 40 CFR 122.44(d)(4) references CWA Section 401(a)2, which provides that if a discharge in one state will affect the waters of a downstream state, EPA must notify the downstream state.

Additionally, if the downstream state requests a hearing on the permit, and the hearing officer determines that the discharge affects the water quality of a downstream state will be affected, the permitting authority must issue the permit in a way that protects downstream water quality.

Again, the LIS TMDL already addresses this issue by establishing individual WLAs for in-basin discharges and a single, aggregate WLA for out-of-basin dischargers that protects water quality and addresses downstream impairment.

If EPA and Connecticut believe the existing TMDL is not adequate to protect water quality, the regulators should consider a scientifically based solution, inclusive of all affected dischargers. SWSC objects to the imposition of an effluent limitation based upon the request of a third party, without a technical or regulatory basis. The appropriate update to the TMDL (as is required by the TMDL process) should be led by EPA and should follow statutory requirements including public comment.

ii. LIS TMDL Out-of-Basin Targets Met

The TMDL 25% target reduction for TN loading from out-of-basin dischargers has been met and substantially exceeded. EPA has not provided a basis in this Fact Sheet to support further reductions. Specifically, EPA has failed to provide the following information:

- EPA appears to have imposed a TN limitation based upon the concerns of commenters but provided no technical and legal basis for requiring a discharger-specific TN loading.
- Indicators, analyses, or other site-specific studies to support EPA's determination that 54% of Massachusetts treatment plants in the LIS watershed should have a TN limit and 46% of discharges should not have a TN limit despite the fact that the TMDL target has already been achieved.
- The regulatory basis for the determination of an appropriate load for the Templeton WWTP when integrated into an aggregate reduction spread across a three-state region.

Absent such information, the Fact Sheet lacks a basis and background for the imposition of a TN loading for Templeton.

iii. Basis for Calculations of 2013–2017 Loads

Table 2 of the Fact Sheet states that the maximum loading from 2013 to 2017 across Connecticut, Housatonic, and Thames Rivers is 16,689 lbs/day.

EPA has not provided the data, analysis, or justification for the 16,689 lbs/day assignment. Accordingly, SWSC asks that EPA provide the following:

- The data used to calculate the maximum loading for each of the rivers,
- The justification used to estimate loadings for WWTPs that do not monitor for TN,

- The rationale for assigning an aggregate load for the three rivers, by choosing the highest load from the individual rivers based on different years,
- The rationale for choosing to measure loads from 2013 – 2017, and
- Explanation of whether these loads are calculated as weekly average, monthly average, annual average, rolling annual average, or some other calculation.

2. Concentrations for TN

Table 3 of the Draft Permit includes the tiered concentrations that EPA intends to apply to Massachusetts dischargers, based on facility design flow. Specifically, EPA proposes annual average total nitrogen mass loading limits for Massachusetts dischargers based on 5 mg/L, 8 mg/L, and 10 mg/L at design flow. The Draft Permit, again, provides no justification for such concentrations and fails to describe how the concentrations are related in any way to the WLAs for the Connecticut, Housatonic, and Thames Rivers. The Draft Permit provides only the following explanation for the tiered concentrations:

Therefore, EPA intends to include a total nitrogen rolling annual average mass-based loading limit (in lb/day) and a requirement to optimize current treatment systems to minimize the effluent nitrogen in all permits issued to wastewater treatment plants with design flow greater than or equal to one (1) MGD that discharge to the LIS watershed in Massachusetts. Table 3 summarizes the approach to update TN requirements for this and future permits in the LIS watershed in Massachusetts.

Figure 1 below compares the existing effluent TN concentration, EPA's proposed limit based on actual annual average daily flow, and a limit based on design flow as EPA has done in this draft permit, for Massachusetts POTWs with design flow greater than 1.0 MGD. Figure 1 shows that most of the Massachusetts POTWs with actual annual average daily flow greater than 2.0 MGD will NOT be able to meet the proposed limits, and will require costly plant upgrades to meet the proposed effluent limits. EPA must provide a scientific basis for requiring such limits, which will cause impacted communities unwarranted economic hardship.

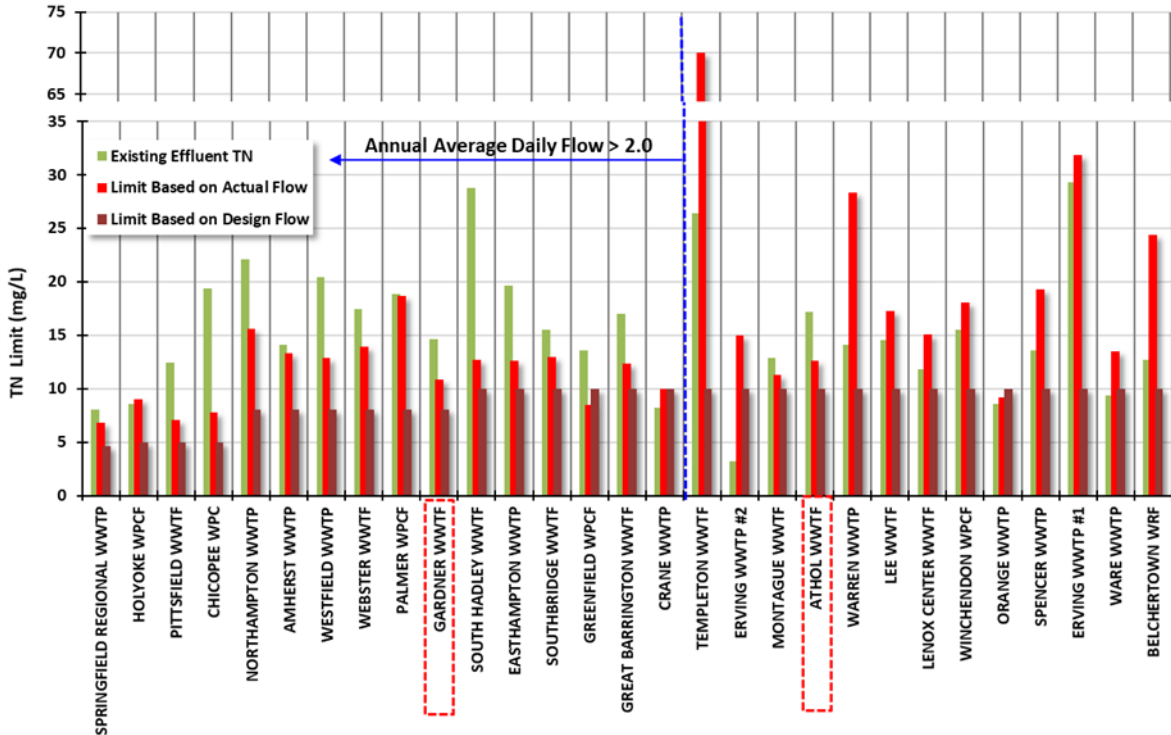


Figure 1. Comparison of Existing Plant Effluent TN Concentration with EPA Proposed Limits Based on Currently Annual Average Daily Flow and Design Average Daily Flow.

Accordingly, we request that EPA consider and address the following:

- What study has EPA based these concentration assignments on?
- How will these concentration assignments, in isolation of the TMDL, impact the LIS ?
- What is the basis for concentration assignments that vary among the size of the treatment plant?
- What are the current levels of treatment at these facilities and what is the economic and social impacts of requiring upgrades?
- What specific environmental gains in terms of ambient water quality in the LIS are these concentrations projected to have?
- What is the balance of the environmental benefit versus the social and economic cost?
- Are these concentration values applicable to industrial dischargers as well?
- What is the basis used to determine that is it appropriate for 29 WWTF's in Massachusetts to have TN effluent limitations, while 25 other WWTF's should have no limit?

Absent further demonstration that the tiered concentrations are derived from the TMDL and are necessary to ensure the implementation of an available and approved WLA, the tiered concentrations—like the mass-based limits derived thereof—appear wholly unrelated to the LIS TMDL nitrogen targets. As discussed above, the current levels of TN loadings achieved a nearly 34% reduction from baseline loadings in the Connecticut River, which is well above the

reduction required by the TMDL. Accordingly, EPA should revise the Draft Permit to maintain the current “report only” requirements and eliminate the mass-based limit for TN. If EPA seeks to impose an effluent limit for TN, it must operate within its statutory and regulatory authority to develop limits utilizing the currently approved TMDL WLA of 19,657 lbs/day for the out-of-basin dischargers.

3. Optimization

EPA requires that the Templeton WWTP implement “optimization methods to ensure that the facility is operated in such a way that discharges of total nitrogen are minimized.”, Fact Sheet, at p. 24. Further, certain provisions of the CWA authorize EPA to require certain control measures and proper operation and maintenance, but the statutory scheme does not authorize EPA to prescribe how a plant operator must achieve those requirements as contemplated in the Draft Permit requiring an evaluation of alternative methods of operating “to optimize the removal of nitrogen.” *See* Fact Sheet, at p. 24. Here, “optimization” is not an applicable control measure or operation and maintenance requirement deriving from any statutory or regulatory CWA authority.

Even if the CWA authorized the imposition of an optimization requirement, the requirement as described in the Draft Permit is impermissibly vague. EPA has promulgated under the CWA no rule, issued guidance, nor defined what constitutes “optimization.” The Draft Permit includes a non-exhaustive list of optimization methods to be evaluated but lacks specificity as to what types of operational changes may be required. Absent a clear statutory or regulatory directive regarding optimization, permittees will have no opportunity to meaningfully comply with the requirement. For example, permittees have no guidance regarding whether or not evaluation of alternative methods to optimize the removal of nitrogen will require additional expenditures for operation and maintenance or capital improvements. Additionally, even if the Templeton WWTP meets the Draft Permit’s average annual TN loading requirement, the optimization requirement will still expose the permittee to liability in the form of potential permit violations or lawsuits from third-parties alleging that the permittee nonetheless failed to achieve some amorphous level of “optimization.”

Ultimately, EPA has not identified, and the permittee is not aware of, any statutory or justification authority for the “optimization” requirement. The requirement is both impermissibly vague and exceeds EPA’s authority where the out-of-basin point sources, including the Connecticut River, are already achieving the WLA as required by the LIS TMDL.

4. No Adequate Opportunity for Public Comment

During development of a TMDL, the public is provided an opportunity to comment on the development of individual WLAs, the distribution of WLAs, the allocation of the WLA versus load allocation (LA), and the economic impacts of the overall TMDL plan to attain water quality in the impaired waterbody segment.

During development and public notice of the LIS TMDL, EPA presented the public with a TMDL that provided for the overall attainment (and associated economic impacts) of the water quality criteria through (1) assigned WLAs to in-basin dischargers and (2) aggregate load target reductions from out-of-basin dischargers.

In this Draft Permit, EPA has effectively assigned an out-of-basin WLA to an individual discharger and provided public comment in isolation of the overall TMDL attainment plan, in isolation of all other out-of-basin dischargers, and in isolation of all other in-basin WLAs and LAs. By limiting public comment to an isolated WLA developed outside the TMDL process that should be applied on a basin-wide level, EPA has prevented the public from effectively evaluating the overall impacts of this action on the TMDL's overarching strategy to attain water quality goals. EPA is effectively undertaking a water shed based rule making without following the required process.

5. Failure to Account for Reductions in Non-Point Source Loading

Due to the implementation of MS4 municipal stormwater permits, the many new and varied requirements for CSO communities, and the implementation of related TMDLs for stormwater and nutrients across the LIS sound watershed, a number of projects now exist that address nutrient reduction from non-point sources.

EPA has failed to provide, or even discuss, the resulting estimated reductions in nutrients (both phosphorus and nitrogen) loading. States, towns and authorities have implemented green infrastructure options, improved stormwater BMPs, or provided other means for nutrient reductions resulting from improved stormwater management across the five-state region. EPA has failed to acknowledge and account for these reductions in determining the WLAs for POTWs.

A. Failure to update LIS TMDL as Required

The LIS TMDL, dated December 2000, has not been revised or revisited in nearly 20 years. This is in direct contradiction to the TMDL itself, which states in Section F:

“A critical component of phased implementation is the reassessment of management goals and actions based on new information. The LISS Phase III Actions for Hypoxia Management also contains commitments to formally evaluate the 58.5 percent reduction target every five years...”

The TMDL goes on to identify specific items to be reassessed which include:

- The progress and cost of implementation, including a reevaluation of the knee-of-the-curve analysis used to establish the Phase III nitrogen reduction targets;
- Refined information on the ecosystem response to nitrogen reduction;
- The results of peer reviewed modeling; and
- Research on the impacts of hypoxia to living resources and their habitats

The LIS TMDL also requires that:

As identified in the TMDL schedule (Table 11), New York and Connecticut will review and revise the TMDL based on this assessment by August 2003.

Reassessment of the DO criteria, and the goals of the TMDL is particularly significant in consideration of the following:

- Significant progress toward attaining the DO water quality standard have already been obtained. As per the LIS Year in Review (2017), the average peak area of waters with “unhealthy” DO is less than half of the pre-TMDL levels. The area of water with less than 3 mg/L of DO in 2015 and 2017 were the second and third smallest recorded in the past 31 years of monitoring. In addition, there have been no open waters below 1 mg/L DO in seven of the eight past years. As a result of nitrogen reduction efforts, there are 45 million fewer pounds of nitrogen discharged annually to the Sound from human sources (a 59% reduction).²
- The water quality results from the Connecticut River embayment sampling from 2017 are remarkable. Nitrate is well under natural background levels for streams (max observed = 0.36 mg/L). Ammonia is non-detect. TN is therefore also less than typical natural background levels (max = 0.61 mg/L). Total phosphorus and Ortho Phosphorus are also near detection levels and very low (max observed = 0.056 and 0.037 mg/L, respectively). There is little quality gradient from sampling location CTR01 to sampling location CTR07. Whatever nutrient loads are delivered to the Connecticut River, they are removed to background levels by the time the river reaches the estuary.

Water quality results from the Connecticut River could be indicative of the Housatonic River watershed as well, and a detailed assessment of this river would be beneficial. Such information is useful for determining the overall impact of TN from out-of-basin WWTPs, and whether other impacts such as stormwater, need to be further assessed.

C. Summary of Comments on TN Loading Limit

The SWSC continues to have considerable concerns with EPA's decision not to include the out-of-basin community in its strategy development as well as EPA's failure not to require the collection of new, relevant data in determining both the out-of-basin nitrogen impacts on LIS and the effectiveness of nutrient reduction programs in New York and Connecticut. Still, SWSC believes that an equitable distribution of loads among the out-of-basin dischargers can be achieved. The SWSC fully supports the LIS initiative in its clean water efforts and has proposed additional financial support to gather data and make informed decisions to that effect, and we reaffirm that commitment. However, to successfully implement NPDES conditions that will meaningfully reduce TN discharges, EPA must provide a scientific basis for permit conditions and limitations that considers all out-of-basin discharges.

To that end, SWSC requests that EPA develop annual average TN loading values that:

- Reflect advances WWTPs have made for TN removal since the LIS TMDL 1998 baseline;

²Newsletter of the Long Island Sound Study, Spring 2018). http://longislandsoundstudy.net/wp-content/uploads/2018/05/2017YearinReview_03-singles-second-printing-14-aug-18.pdf

- Allow for reasonable growth in the sewer service area up to the design flow of the affected plant;
- Allow for a reasonable trading scenario for economic efficiency; and
- Establish TN “goals” rather than enforceable limitations to allow for appropriate permit adjustments in the future without anti-backsliding issues.
- Utilize the existing, approved TMDL WLA of 19,657 or provide an opportunity to revise the TMDL based on new information.

Specifically, SWSC requests that EPA eliminate the concentration-based mass numeric limit and remove the optimization requirements. EPA has identified no basis for including a mass limit based upon arbitrary tiered concentration values. If EPA requires a mass-based limit, EPA must revise the arbitrary concentration-based mass limit included in the Draft Permit in favor of a limit that actually reflects the 25% reduction target required by the LIS TMDL. Additionally, SWSC requests that EPA establish the basis for its determination that 25 of 54 MA WWTPs in the LIS Watershed require no TN loading goal while 29 require enforceable limits.

Specifically, the adopted LIS TMDL supports a WLA of 19,657 lbs/day for out-of-basin dischargers, with an equitable share of 16,254 for the Connecticut River. EPA has not provided the technical rationale or regulatory authority to modify the TMDL WLA through an individual NPDES permit. EPA has failed to demonstrate the authority to re-calculate the adopted WLA through the arbitrary choice of a concentration limit and the arbitrary choice of a data set.

We urge EPA to provide for a collaborative effort to determine the appropriate distribution of the approved WLA, or to provide the technical and regulatory avenue to revise this WLA

II. COMMENTS ON OTHER ISSUES

A. Numeric Limit on Effluent Flow

The Draft Permit contains a numeric limit on effluent flow. Understanding that this limit was in the previous permit, we believe that the limit is not authorized by the CWA or by EPA’s NPDES regulations. In the Fact Sheet, EPA lays out a number of arguments as to why this limit is within its authority, but none of those claims has any support in the law or rules. Here are the claims raised by EPA, and the reasons why they are not correct:

- 1) EPA says that “sewage treatment plant discharge” is a “pollutant” and therefore subject to regulation under the CWA. While there are pollutants in a POTW discharge, that is not the issue here. EPA is trying to impose a limit on the amount of water discharged, regardless of whether any pollutants are present. That claim has already been rejected by a Federal court, which specifically held that “stormwater runoff is not a pollutant.” *Virginia Dep’t of Transp. v. U.S. E.P.A.*, No. 1:12-CV-775, 2013 WL 53741 (E.D. Va. Jan. 3, 2013) (copy attached). That court ruled that trying to regulate water, as a surrogate for a regulable pollutant, is not authorized. The same principle would apply here.
- 2) EPA also claims that it has authority to impose limits on flow because it uses effluent flow to determine if limits are needed, and to calculate limits themselves. The Agency states that it “may ensure the validity of its ‘worst-case’ wastewater effluent flow

assumptions through imposition of permit conditions for effluent flow.” However, the authority that EPA cites for that proposition provides no support at all. Those authorities – in the regulations and other cases – simply hold that EPA can consider “dilution of the effluent” and effluent flow levels in assessing “reasonable potential.” While that is true, that does not mean that EPA can therefore impose limits on flow. It simply means what it says: that EPA can consider effluent flow in making effluent limit decisions.

- 3) The Agency also makes a general argument that a limit on effluent flow is within its authority to “condition a permit to carry out the objectives of the Act,” and is “consistent with the overall structure and purposes of the CWA.” But obviously, that authority must operate within some confines, and those are the confines established by EPA’s own regulations. If the regulations do not give EPA the authority to issue flow limits – which they do not – then EPA cannot do so.
- 4) Finally, EPA tries to argue that it can impose flow limits because they are needed to ensure that the permittee properly operates and maintains its system, minimizes infiltration and inflow (I/I), and mitigates the potential for sanitary sewer overflows. There is no basis for this argument. As EPA itself recognizes, the Draft Permit already contains specific provisions that require proper operation and maintenance, require development of an I/I program, and impose a duty to mitigate. These provisions are routinely imposed in permits, and there is no reason to believe that the permittee will not comply with them, or that the requirements imposed in those provisions are not adequate to address the issues that they are focused on.

For all of these reasons, the proposed flow limits are not authorized by the CWA or EPA’s NPDES regulations, and they should be removed before the Draft Permit is finalized.

B. PFAS

The proposed draft NPDES permit includes monitoring and reporting requirements for Per- and polyfluoroalkyl substances (PFAS) including the followings:

- Perfluorohexanesulfonic acid (PFHxS)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorononanoic acid (PFNA)
- Perfluorooctanesulfonic acid (PFOS)
- Perfluorooctanoic acid (PFOA)
- Perfluorodecanoic acid (PFDA)

The Draft Permit requires quarterly monitoring PFAS in WWTF influent, effluent and sludge. EPA states that the purpose of this monitoring and reporting requirement is to better understand potential discharges of PFAS from this facility and to inform future permitting decisions, including the potential development of water quality based effluent limits on a facility-specific basis.

This monitoring requirement is very concerning for the following reasons:

- a) Massachusetts water quality standards do not include numeric criteria for PFAS. EPA factsheet cited Massachusetts narrative criterion for toxic substances at 314 CMR 4.05(5)(e) as “All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife.”

However, neither MassDEP nor EPA have established toxicity risk level of PFAS in the surface water for human, aquatic life or wildlife.

Even if Massachusetts passes a revision to 310 CMR 22.00: Drinking Water Regulation that set a new PFAS Maximum Contaminant Level (MCL) of 20 ppt (ng/L) for the sum of the concentrations of six PFAS compounds, we believe that requiring monitoring of PFAS is premature at this time.

- b) Unnecessary testing requirement for influent, effluent and sludge as well as significant industrial dischargers. As EPA has failed to identify PFAS that would cause or contribute to an impairment, the Town does not understand how these additional expenditures to test PFAS in influent, effluent and sludge is warranted. If EPA is still determined to understand the impact of PFAS on the receiving water, it should be done through an ambient water quality study and effluent data as well as non-point sampling.

Testing influent, sludge and significant industrial dischargers is not necessary for the purposes stated in factsheet section 5.1.11. This is also evident in the state permit that only requires testing of WWTF effluent, and not influent and sludge. MassDEP draft permit Factsheet Supplement specifically limited testing of PFAS for residual land applied in Massachusetts. As such, MassDEP only requires testing of PFAS for holders of Approval of Suitability (AOS) which classifies residuals for different uses based on the chemical quality and treatment to reduce pathogens. The Town/City is not an AOS holder and currently is not using land application for sludge disposal. Therefore, it is not required to test PFAS in sludge.

- c) Prepare for a future PFAS limits that may be included in subsequent NPDES permits: This reason for EPA needing to require monitoring of PFAS for the facility is particularly concerning as science of PFAS in the environment and its impacts to humans, aquatic life or wildlife is still evolving. Therefore, it is against the purposes of CWA to impose of any numeric limitations before EPA provides clear, precise, and scientifically sound criteria of PFAS that would be toxic to humans, aquatic life or wildlife.
- d) Approved standard testing method: In the Draft Permit, EPA imposes sampling requirements for PFAS compounds in wastewater and sludge. EPA has not yet approved any analytical methods for PFAS in those media. Therefore, EPA provides a compliance schedule, so that the testing requirements do not apply until “6 months after EPA’s multi-lab validated method for wastewater and biosolids is made available to the public on EPA’s CWA methods program websites.” This requirement is problematic, because it is not tied to actual formal EPA approval of the analytical methods. The act of EPA making a method “available to the public” on its website is not sufficient to make that method legally enforceable. The Agency needs to issue a formal proposal to approve the method under 40 CFR 136, take public comments, and then make a considered decision as to whether that method should be approved as having met all of the requirements of 40 CFR 136. Until that process has been completed, the Agency cannot require the

permittee to start monitoring, using an unapproved method. The Agency tries to justify this requirement by citing to a provision in its regulations that allows EPA to require monitoring using a method specified in the permit. That provision applies when the Agency actually specifies a specific method in the permit. It does not apply here, where the Draft Permit does not specify a particular method, because no method exists that is ready to require in permits. EPA cannot, after the permit is issued, mention a method on its website and then claim that that method was somehow incorporated in the permit that was issued earlier. To address this problem, EPA should simply amend the Draft Permit to clarify that the PFAS testing requirements will not become effective until after EPA has formally approved applicable test methods under 40 CFR 136.

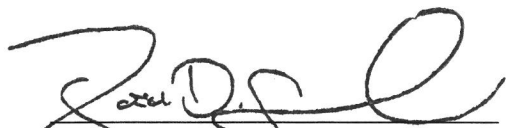
C. Alternate Power Source

EPA requires alternate power source(s) sufficient to operate the portion of the publicly owned treatment works it owns and operates. However, EPA did not include any explanation of what alternate power sources are and what portion of the plant requires an alternate power source(s).

SWSC requests EPA to define alternate power sources to at least include redundant connection(s) to the electric grid, backup power generator or any other sources of power that are different from the power source for normal operation. SWSC also request EPA to further define the portions of the plant that needs the alternate power source which would allow plant operation under emergency basis to power the critical units/equipment that would enable the plant to avoid flooding or damage to the process equipment.

The Springfield Water and Sewer Commission appreciates the opportunity to submit the foregoing public comments to EPA and MassDEP regarding Draft Permit No. MA0100340. Please contact me with any questions concerning the issues and recommendations contained in these comments.

Sincerely,
Springfield Water and Sewer Commission



Joshua D Schimmel
Executive Director
josh.schimmel@waterandsewer.org



Established
1996

SPRINGFIELD WATER AND SEWER COMMISSION EXHIBIT Y

POST OFFICE BOX 995
SPRINGFIELD, MASSACHUSETTS 01101-0995
413-452-1300

August 14, 2020

VIA ELECTRONIC MAIL

Robin L. Johnson
EPA New England, Region 1
5 Post Office Square, Suite-100 (06-1)
Boston, Massachusetts 02109-3912
johnson.robins@epa.gov

Jennifer Wood
Surface Water Discharge Program, MassDEP
One Winter Street, 5th Floor,
Boston, Massachusetts 02108
jennifer.wood@mass.gov

Re: Town of Athol, Massachusetts: NPDES Permit No. MA0100005
Athol Wastewater Treatment Plant
Springfield Water and Sewer Commission's Comments

Dear Ms. Johnson and Ms. Wood,

The Springfield Water and Sewer Commission ("SWSC") appreciates the opportunity to submit comments with respect to the draft NPDES Permit No. MA0100005 (the "Draft Permit"). Notably, the Draft Permit includes a rolling annual average mass loading of 146 lbs/day for TN, and nitrogen "optimization" requirements. For the reasons stated below, SWSC requests that EPA remove, or provide legal justification for, the numeric limit for TN in the Draft Permit and remove the optimization requirements as well as address other comments provided herein.

I. COMMENTS ON TOTAL NITROGEN LOADING LIMITS

A. Background Regarding Nitrogen Limits

The Athol WWTP discharges to the Millers River, which flows into the Connecticut River, which eventually flows into the Long Island Sound ("LIS"). Athol WWTP's current permit requires monthly monitoring for total Kjeldahl nitrogen, nitrate nitrogen and nitrite nitrogen, the sum of which provide the TN concentration. According to concentration and monthly average flow data cited in the Fact Sheet, the annual average total nitrogen loading discharged from the Athol WWTP ranged from 39 to 76 lbs/day in 2014 to 2018 and averaged 51 lbs/day.

1. LIS TMDL for the Connecticut River

EPA states in the Permit Fact Sheet that the nitrogen-driven eutrophication impacts in the LIS are driving the proposed reductions in nitrogen in Massachusetts plants. The New York State Department of Environmental Conservation and the Connecticut Department of Energy and Environmental Protection (“CT DEEP”) developed a total maximum daily load (“TMDL”) to address low dissolved oxygen levels in the LIS and determined that nitrogen is the primary limiting nutrient for this condition, and as such should be controlled. Controlling nitrogen would also benefit “other eutrophication-related impairments...”¹. In accordance with the Clean Water Act, the LIS TMDL set individual waste load allocations (“WLAs”) for in-basin point sources, and a single, aggregate WLA for out-of-basin point sources. Those out-of-basin sources include wastewater treatment facilities in Massachusetts, Vermont, and New Hampshire discharging into the Connecticut, Housatonic, and Thames Rivers. For out-of-basin sources, the LIS TMDL requires a 25% aggregate reduction in the TN loading baseline established during the promulgation of the LIS TMDL.

For purposes of the Draft Permit, the LIS TMDL affects only discharges to the Millers River which drains into the Connecticut River, as the Athol WWTP does not discharge to the Housatonic or Thames Rivers. As shown on Table 2 of the Fact Sheet, EPA calculated the LIS TMDL baseline for TN loadings in the Connecticut River at 21,672 lbs/day. EPA determined that the 25% reduction target from the baseline equals 16,254 lbs/day. That target remains unchanged, as the LIS TMDL is still effective and has not been modified or redeveloped. While EPA has further calculated the maximum loading to the Connecticut River during the period of 2013 to 2017, to be 14,395 lbs/day, this can be viewed as a beneficial marker to assess progress toward the TMDL goal, but does not, in and of itself, modify the TMDL WLA of 19,657 lbs/day for all out-basin-sources, for which the Connecticut River equitable share is 16,254 lbs/day.

The Connecticut River has achieved nearly a 34% reduction in TN loadings. Indeed, as can be seen from Table 2 of the Fact Sheet, the overall loading from Massachusetts, New Hampshire, and Vermont wastewater treatment plants discharging to the Long Island Sound is approximately 36% below the baseline for TN loadings.

Despite the fact the Connecticut River watershed, as well as the summation of all out-of-basin discharges, have exceeded the 25% TMDL target by nearly 40%, EPA has established a load-based TN effluent limitation in the Draft Permit which is not derived from the TMDL WLA. EPA received letters from commenters urging EPA to establish enforceable limitations for out-of-basin dischargers because TN loads may increase in the future. In response, EPA incorporated a TN load-based effluent limit in this Draft Permit Fact Sheet, at p. 21, n.12. These brief comments were in fact limited substance and did not provide any data, scientific evidence, or facts to substantiate the load based effluent in this and other draft NPDES permits recently issued in the LIS out of basin watersheds of Massachusetts.

This requirement is simply not legally valid. EPA has no statutory or regulatory authority to impose limits that are more stringent than the WLA for the out-of-basin dischargers requires.

¹ A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound. December 2000. p.9

2. LIS TMDL Relationship to Proposed Effluent Limits

Section 303(d) of the CWA requires states to develop a TMDL for waterbodies containing water quality limited segments. 33 U.S.C. § 1313(d), (e). The TMDL first estimates the assimilative capacity of the waterbody relative to a particular pollutant. The TMDL then allocates that assimilative capacity among point, “waste load allocations” (WLAs), and non-point pollutant sources, “load allocations” (LAs), taking into account natural background levels and a margin of safety. 40 C.F.R. § 130.7. Permitting authorities then develop limits for point sources that are consistent with the WLAs for each point source. *Id.*

SWSC understands that EPA’s objective is to achieve greater nitrogen reductions in order to address the hypoxia and eutrophication related issues afflicting the LIS. However, the CWA requires that permitting authorities implement the requirements of any TMDL, and in the case of the LIS, base limitations for out-of-basin point sources, like the Athol WWTP, on the 25% *aggregate reduction* from the TN baseline. In support of the effluent limits contained in the Draft Permit, EPA broadly references the statutory and regulatory requirements authorizing the development of WQBELs, which include provisions to ensure implementation of any available WLAs to prevent further degradation of receiving waters that are already impaired. This authority alone, however, does not justify the imposition of numeric limits. As noted above, the overall loading from Massachusetts, New Hampshire, and Vermont wastewater treatment plants discharging to the Long Island Sound is approximately 36% below the TMDL baseline, despite the fact that many plants, like the Athol WWTP, have no numeric limits for TN. EPA identifies no statutory or regulatory justification for applying a numeric limit to the Athol WWTP in light of the fact that the WLA is already being met by a significant margin without such a numeric limit.

Further, EPA has identified no legal basis for the 10 mg/L concentration, upon which the 146 lbs/day limit in the Draft Permit is based. EPA merely presented its tiered approach to TN requirements for Massachusetts facilities based on design flow without any justification for the tiered concentrations. In other words, EPA has identified no rational relation between the tiered concentrations and the WLAs for the Housatonic, Connecticut, and Thames Rivers, which out-of-basin point sources consistently achieve by a wide margin. Accordingly, the CWA does not authorize the imposition of the proposed 146 lbs/day limit based on an arbitrary concentration that is wholly disconnected from achieving the WLA for the Connecticut River.

B. Proposed Permit Requirements Relating to Nitrogen

The Draft Permit currently contains a numeric limit of 146 lbs/day for TN. This bears no relation to the TMDL’s WLA for out-of-basin point sources of a 25% aggregate TN load reduction. Given the fact that the out-of-basin point sources, including those that discharge to the Connecticut River, have exceeded the reduction target by a large margin to meet the WLA, EPA has no basis to include a mass-based limit for TN in the Town of Athol’s permit based upon the arbitrary choice of a concentration value. Additionally, if EPA determines that a limit for TN is necessary despite past achievement of the WLA, EPA needs to present an inclusive process whereby all out-of-basin point source discharges can be assigned an equitable share of the allowable load, taking into consideration plant upgrades since the baseline calculation, design flows, and allowance for facilities that accept combined wastewater flows. A piece-meal approach to WLA assignment, or modifying the adopted TMDL WLA as this permit does, is inconsistent with the LIS TMDL.

1. Mass-Loading Limit for TN

In setting the numeric limit in the Draft Permit, EPA appears to have considered the total annual aggregate nitrogen loadings from out-of-basin point sources discharging to the Connecticut, Thames, and Housatonic Rivers.

EPA itself estimates that the maximum nitrogen loadings for the Connecticut River from 2013 to 2017 was 14,395 lbs/day, which is approximately 11% below the 16,254 lbs/day target for the equitable distribution of the WLA for the Connecticut River. Fact Sheet, at p. 20, Table 2. This achievement benchmark measurement that EPA calculated clearly shows the TMDL WLA goal has been achieved in the Connecticut River. Plainly, the CWA does not authorize EPA to require the permittee to achieve, maintain, or surpass a 34% reduction from the baseline established by the LIS TMDL. Rather, the LIS TMDL established, through proper rulemaking procedure, a 25% aggregate reduction of TN, from the out-of-basin sources, of which a 16,254 lbs/day target is the equitable distribution for the Connecticut River. **The allocated TMDL for out of basin NPDES permittees has been and continues to be met.** EPA lacks the statutory and regulatory authority to impose WQBELs on the basis of an arbitrarily chosen concentration limit, on the basis of an arbitrary data set (2013-2017) and that clearly conflicts with the adopted TMDL WLA. Furthermore, EPA is only applying numeric limits to NPDES permittees that exceed certain design flows (see below). EPA provides no justification or scientific data that would suggest that impacts of TN are related to the size of a plant. EPA is creating an inequitable and arbitrary distribution of how TN is being included in draft NPDES Permits, how it is going to be enforced, and who is going to be paying for TN reductions. Equitable distribution of appropriate WLA in other examples has led to creative and beneficial programs such as pollutant trading scenarios. We request EPA to provide an explanation as to why not all TN is considered to contribute to compliance with the existing TMDL or as part of the current permitting approach for all of the out of basin permittees.

Facility Design Flow, Q_D (MGD)	Number of Facilities	Annual Average TN Limit (lb/day)
$Q_D \geq 10$	4	Q_D (MGD) * 5 mg/L * 8.345 + optimize
$5 < Q_D < 10$	5	Q_D (MGD) * 8 mg/L * 8.345 + optimize
$1 \leq Q_D \leq 5$	20	Q_D (MGD) * 10 mg/L * 8.345 + optimize
$0.1 \leq Q_D < 1$	17	Optimize
$Q_D < 0.1$	8	TN monitoring only

If EPA does include numeric limits “to ensure implementation of any available WLA,” those limits actually should reflect the 16,254 lbs/day Connecticut River share of the TMDL WLA. Here, however, the 146 lbs/day limit appears to be based on a concentration limit of 10 mg/L, which has no relation to the TMDL. Again, EPA has failed to identify how it established the numeric limit to meet the TMDL WLA, which requires only 25% reduction from the 21,672 lbs/day baseline. In this instance, no mass-based limit is necessary to meet the TMDL WLA.

i. Lack of Adequate Statement of Basis in the Fact Sheet

EPA has not provided an adequate statement of basis in the Fact Sheet for the TN effluent limitation. The Fact Sheet provides:

While substantial TN out-of-basin load reductions have occurred at some facilities by means of optimization requirements alone, concerns raised in recent public comments by the downstream state (Connecticut) and concerned citizens have highlighted the need for clearly enforceable, numeric, loading-based effluent limits to ensure that the annual aggregate nitrogen loading from out-of-basin point sources are consistent with the TMDL WLA for 19,657 lb/day and to ensure that current reductions in loading do not increase, given the continued impairment status of the LIS.

EPA also references:

- The implementation of WLAs pursuant to 40 CFR 122.44(d)(1)(vii)(B);
- Provisions to prevent further degradation (*see* Fact Sheet, at p. 21, n.14); and
- The consideration of water quality standards of downstream states (*see* Fact Sheet, at p. 21, n.15).

While EPA has cited various sections of the statute and rules, EPA has failed to provide an explanation regarding how each of these citations support the imposition of a TN limit in the Draft Permit.

We address each of these regulatory citations below:

- 40 CFR 122.44(d)(1)(vii)(B) provides that an effluent limitation shall be consistent with an assigned WLA. Because the WLA for out-of-basin dischargers is already being achieved, this provision does not provide support for the imposition of effluent limitations. Further, the development of a new WLA using an arbitrary data set, as EPA has done in this draft permit, is not consistent with the existing TMDL.
- The Federal regulation at 40 CFR 131.12(a)(1), and the corresponding MA state regulation, 314 CMR 4.04(1), merely require that existing instream water uses and the level of water quality necessary to protect existing uses shall be maintained and protected.

EPA approved the LIS TMDL, which established WLAs necessary to protect and maintain the downstream water quality in the LIS, and that WLA has been achieved. Accordingly, these rules do not provide support for the imposition of effluent limitations based upon the arbitrary assignment of a concentration value translated in a load limit.

- 40 CFR 122.44(d)(4) references CWA Section 401(a)2, which provides that if a discharge in one state will affect the waters of a downstream state, EPA must notify the downstream state.

Additionally, if the downstream state requests a hearing on the permit, and the hearing officer determines that the discharge affects the water quality of a downstream state will be affected, the permitting authority must issue the permit in a way that protects downstream water quality.

Again, the LIS TMDL already addresses this issue by establishing individual WLAs for in-basin discharges and a single, aggregate WLA for out-of-basin dischargers that protects water quality and addresses downstream impairment.

If EPA and Connecticut believe the existing TMDL is not adequate to protect water quality, the regulators should consider a scientifically based solution, inclusive of all affected dischargers. SWSC objects to the imposition of an effluent limitation based upon the request of a third party, without a technical or regulatory basis. The appropriate update to the TMDL (as is required by the TMDL process) should be led by EPA and should follow statutory requirements including public comment.

ii. LIS TMDL Out-of-Basin Targets Met

The TMDL 25% target reduction for TN loading from out-of-basin dischargers has been met and substantially exceeded. EPA has not provided a basis in this Fact Sheet to support further reductions. Specifically, EPA has failed to provide the following information:

- EPA appears to have imposed a TN limitation based upon the concerns of commenters but provided no technical and legal basis for requiring a discharger-specific TN loading.
- Indicators, analyses, or other site-specific studies to support EPA's determination that 54% of Massachusetts treatment plants in the LIS watershed should have a TN limit and 46% of discharges should not have a TN limit despite the fact that the TMDL target has already been achieved.
- The regulatory basis for the determination that 146 lbs/day is the appropriate load for the Athol WWTP when integrated into an aggregate reduction spread across a three-state region.

Absent such information, the Fact Sheet lacks a basis and background for the imposition of a TN loading for Athol.

iii. Basis for Calculations of 2013–2017 Loads

Table 2 of the Fact Sheet states that the maximum loading from 2013 to 2017 across Connecticut, Housatonic, and Thames Rivers is 16,689 lbs/day.

EPA has not provided the data, analysis, or justification for the 16,689 lbs/day assignment. Accordingly, SWSC asks that EPA provide the following:

- The data used to calculate the maximum loading for each of the rivers,
- The justification used to estimate loadings for WWTPs that do not monitor for TN,

- The rationale for assigning an aggregate load for the three rivers, by choosing the highest load from the individual rivers based on different years,
- The rationale for choosing to measure loads from 2013 – 2017, and
- Explanation of whether these loads are calculated as weekly average, monthly average, annual average, rolling annual average, or some other calculation.

2. Concentrations for TN

Table 3 of the Draft Permit includes the tiered concentrations that EPA intends to apply to Massachusetts dischargers, based on facility design flow. Specifically, EPA proposes annual average total nitrogen mass loading limits for Massachusetts dischargers based on 5 mg/L, 8 mg/L, and 10 mg/L at design flow. The Draft Permit, again, provides no justification for such concentrations and fails to describe how the concentrations are related in any way to the WLAs for the Connecticut, Housatonic, and Thames Rivers. The Draft Permit provides only the following explanation for the tiered concentrations:

Therefore, EPA intends to include a total nitrogen rolling annual average mass-based loading limit (in lb/day) and a requirement to optimize current treatment systems to minimize the effluent nitrogen in all permits issued to wastewater treatment plants with design flow greater than or equal to one (1) MGD that discharge to the LIS watershed in Massachusetts. Table 3 summarizes the approach to update TN requirements for this and future permits in the LIS watershed in Massachusetts.

Figure 1 below compares the existing effluent TN concentration, EPA's proposed limit based on actual annual average daily flow, and a limit based on design flow as EPA has done in this draft permit, for Massachusetts POTWs with design flow greater than 1.0 MGD. Figure 1 shows that most of the Massachusetts POTWs with actual annual average daily flow greater than 2.0 MGD will NOT be able to meet the proposed limits, and will require costly plant upgrades to meet the proposed effluent limits. EPA must provide a scientific basis for requiring such limits, which will cause impacted communities unwarranted economic hardship.

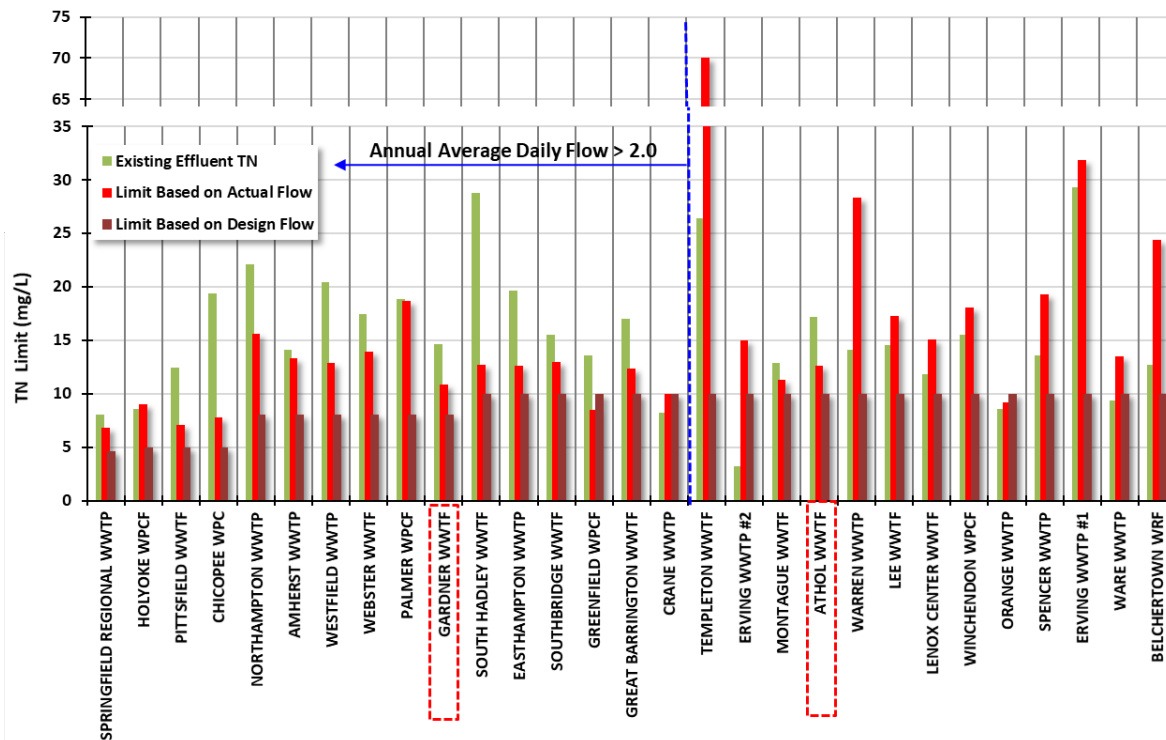


Figure 1. Comparison of Existing Plant Effluent TN Concentration with EPA Proposed Limits Based on Currently Annual Average Daily Flow and Design Average Daily Flow.

Accordingly, we request that EPA consider and address the following:

- What study has EPA based these concentration assignments on?
- How will these concentration assignments, in isolation of the TMDL, impact the LIS?
- What is the basis for concentration assignments that vary among the size of the treatment plant?
- What are the current levels of treatment at these facilities and what is the economic and social impacts of requiring upgrades?
- What specific environmental gains in terms of ambient water quality in the LIS are these concentrations projected to have?
- What is the balance of the environmental benefit versus the social and economic cost?
- Are these concentration values applicable to industrial dischargers as well?
- What is the basis used to determine that is it appropriate for 29 WWTF’s in Massachusetts to have TN effluent limitations, while 25 other WWTF’s should have no limit?

Absent further demonstration that the tiered concentrations are derived from the TMDL and are necessary to ensure the implementation of an available and approved WLA, the tiered concentrations—like the mass-based limits derived thereof—appear wholly unrelated to the LIS TMDL nitrogen targets. As discussed above, the current levels of TN loadings achieved a nearly 34% reduction from baseline loadings in the Connecticut River, which is well above the reduction required by the TMDL. Accordingly, EPA should revise the Draft Permit to maintain the current “report only” requirements and eliminate the mass-based limit for TN. If EPA seeks to impose an

effluent limit for TN, it must operate within its statutory and regulatory authority to develop limits utilizing the currently approved TMDL WLA of 19,657 lbs/day for the out-of-basin dischargers.

3. Optimization

EPA requires that the Athol WWTP implement “optimization methods to ensure that the facility is operated in such a way that discharges of total nitrogen are minimized.”, Fact Sheet, at p. 23. Further, certain provisions of the CWA authorize EPA to require certain control measures and proper operation and maintenance, but the statutory scheme does not authorize EPA to prescribe how a plant operator must achieve those requirements as contemplated in the Draft Permit requiring an evaluation of alternative methods of operating “to optimize the removal of nitrogen.” *See* Draft Permit, at p. 16. Here, “optimization” is not an applicable control measure or operation and maintenance requirement deriving from any statutory or regulatory CWA authority.

Even if the CWA authorized the imposition of an optimization requirement, the requirement as described in the Draft Permit is impermissibly vague. EPA has promulgated under the CWA no rule, issued guidance, nor defined what constitutes “optimization.” The Draft Permit includes a non-exhaustive list of optimization methods to be evaluated but lacks specificity as to what types of operational changes may be required. Absent a clear statutory or regulatory directive regarding optimization, permittees will have no opportunity to meaningfully comply with the requirement. For example, permittees have no guidance regarding whether or not evaluation of alternative methods to optimize the removal of nitrogen will require additional expenditures for operation and maintenance or capital improvements. Additionally, even if the Athol WWTP meets the Draft Permit’s average annual TN loading requirement, the optimization requirement will still expose the permittee to liability in the form of potential permit violations or lawsuits from third-parties alleging that the permittee nonetheless failed to achieve some amorphous level of “optimization.”

Ultimately, EPA has not identified, and the permittee is not aware of, any statutory or justification authority for the “optimization” requirement. The requirement is both impermissibly vague and exceeds EPA’s authority where the out-of-basin point sources, including the Connecticut River, are already achieving the WLA as required by the LIS TMDL.

4. No Adequate Opportunity for Public Comment

During development of a TMDL, the public is provided an opportunity to comment on the development of individual WLAs, the distribution of WLAs, the allocation of the WLA versus load allocation (LA), and the economic impacts of the overall TMDL plan to attain water quality in the impaired waterbody segment.

During development and public notice of the LIS TMDL, EPA presented the public with a TMDL that provided for the overall attainment (and associated economic impacts) of the water quality criteria through (1) assigned WLAs to in-basin dischargers and (2) aggregate load target reductions from out-of-basin dischargers.

In this Draft Permit, EPA has effectively assigned an out-of-basin WLA to an individual discharger and provided public comment in isolation of the overall TMDL attainment plan, in isolation of all other out-of-basin dischargers, and in isolation of all other in-basin WLAs and LAs. By limiting

public comment to an isolated WLA developed outside the TMDL process that should be applied on a basin-wide level, EPA has prevented the public from effectively evaluating the overall impacts of this action on the TMDL's overarching strategy to attain water quality goals. EPA is effectively undertaking a water shed based rule making without following the required process.

5. Failure to Account for Reductions in Non-Point Source Loading

Due to the implementation of MS4 municipal stormwater permits, the many new and varied requirements for CSO communities, and the implementation of related TMDLs for stormwater and nutrients across the LIS sound watershed, a number of projects now exist that address nutrient reduction from non-point sources.

EPA has failed to provide, or even discuss, the resulting estimated reductions in nutrients (both phosphorus and nitrogen) loading. States, towns and authorities have implemented green infrastructure options, improved stormwater BMPs, or provided other means for nutrient reductions resulting from improved stormwater management across the five-state region. EPA has failed to acknowledge and account for these reductions in determining the WLAs for POTWs.

The LIS TMDL, dated December 2000, has not been revised or revisited in nearly 20 years. This is in direct contradiction to the TMDL itself, which states in Section F:

“A critical component of phased implementation is the reassessment of management goals and actions based on new information. The LISS Phase III Actions for Hypoxia Management also contains commitments to formally evaluate the 58.5 percent reduction target every five years...”

The TMDL goes on to identify specific items to be reassessed which include:

- The progress and cost of implementation, including a reevaluation of the knee-of-the-curve analysis used to establish the Phase III nitrogen reduction targets;
- Refined information on the ecosystem response to nitrogen reduction;
- The results of peer reviewed modeling; and
- Research on the impacts of hypoxia to living resources and their habitats

The LIS TMDL also requires that:

As identified in the TMDL schedule (Table 11), New York and Connecticut will review and revise the TMDL based on this assessment by August 2003.

Reassessment of the DO criteria, and the goals of the TMDL is particularly significant in consideration of the following:

- Significant progress toward attaining the DO water quality standard have already been obtained. As per the LIS Year in Review (2017), the average peak area of waters with “unhealthy” DO is less than half of the pre-TMDL levels. The area of water with less than 3 mg/L of DO in 2015 and 2017 were the second and third smallest recorded in the past 31

years of monitoring. In addition, there have been no open waters below 1 mg/L DO in seven of the eight past years. As a result of nitrogen reduction efforts, there are 45 million fewer pounds of nitrogen discharged annually to the Sound from human sources (a 59% reduction).²

- The water quality results from the Connecticut River embayment sampling from 2017 are remarkable. Nitrate is well under natural background levels for streams (max observed = 0.36 mg/L). Ammonia is non-detect. TN is therefore also less than typical natural background levels (max = 0.61 mg/L). Total phosphorus and Ortho Phosphorus are also near detection levels and very low (max observed = 0.056 and 0.037 mg/L, respectively). There is little quality gradient from sampling location CTR01 to sampling location CTR07. Whatever nutrient loads are delivered to the Connecticut River, they are removed to background levels by the time the river reaches the estuary.

Water quality results from the Connecticut River could be indicative of the Housatonic River watershed as well, and a detailed assessment of this river would be beneficial. Such information is useful for determining the overall impact of TN from out-of-basin WWTPs, and whether other impacts such as stormwater, need to be further assessed.

C. Summary of Comments on TN Loading Limit

The SWSC continues to have considerable concerns with EPA's decision not to include the out-of-basin community in its strategy development as well as EPA's failure not to require the collection of new, relevant data in determining both the out-of-basin nitrogen impacts on LIS and the effectiveness of nutrient reduction programs in New York and Connecticut. Still, SWSC believes that an equitable distribution of loads among the out-of-basin dischargers can be achieved. The SWSC fully supports the LIS initiative in its clean water efforts and has proposed additional financial support to gather data and make informed decisions to that effect, and we reaffirm that commitment. However, to successfully implement NPDES conditions that will meaningfully reduce TN discharges, EPA must provide a scientific basis for permit conditions and limitations that considers all out-of-basin discharges.

To that end, SWSC requests that EPA develop annual average TN loading values that:

- Reflect advances WWTPs have made for TN removal since the LIS TMDL 1998 baseline;
- Allow for reasonable growth in the sewer service area up to the design flow of the affected plant;
- Allow for a reasonable trading scenario for economic efficiency; and
- Establish TN "goals" rather than enforceable limitations to allow for appropriate permit adjustments in the future without anti-backsliding issues.

²Newsletter of the Long Island Sound Study, Spring 2018). http://longislandsoundstudy.net/wp-content/uploads/2018/05/2017YearinReview_03-singles-second-printing-14-aug-18.pdf

- Utilize the existing, approved TMDL WLA of 19,657 or provide an opportunity to revise the TMDL based on new information.

Specifically, SWSC requests that EPA eliminate the concentration-based mass numeric limit and remove the optimization requirements. EPA has identified no basis for including a mass limit based upon arbitrary tiered concentration values. If EPA requires a mass-based limit, EPA must revise the arbitrary concentration-based mass limit included in the Draft Permit in favor of a limit that actually reflects the 25% reduction target required by the LIS TMDL. Additionally, SWSC requests that EPA establish the basis for its determination that 25 of 54 MA WWTPs in the LIS Watershed require no TN loading goal while 29 require enforceable limits.

Specifically, the adopted LIS TMDL supports a WLA of 19,657 lbs/day for out-of-basin dischargers, with an equitable share of 16,254 for the Connecticut River. EPA has not provided the technical rationale or regulatory authority to modify the TMDL WLA through an individual NPDES permit. EPA has failed to demonstrate the authority to re-calculate the adopted WLA through the arbitrary choice of a concentration limit and the arbitrary choice of a data set.

We urge EPA to provide for a collaborative effort to determine the appropriate distribution of the approved WLA, or to provide the technical and regulatory avenue to revise this WLA

II. COMMENTS ON OTHER ISSUES

A. Numeric Limit on Effluent Flow

The Draft Permit contains a numeric limit on effluent flow. Understanding that this limit was in the previous permit, we believe that the limit is not authorized by the CWA or by EPA's NPDES regulations. In the Fact Sheet, EPA lays out a number of arguments as to why this limit is within its authority, but none of those claims has any support in the law or rules. Here are the claims raised by EPA, and the reasons why they are not correct:

- 1) EPA says that "sewage treatment plant discharge" is a "pollutant" and therefore subject to regulation under the CWA. While there are pollutants in a POTW discharge, that is not the issue here. EPA is trying to impose a limit on the amount of water discharged, regardless of whether any pollutants are present. That claim has already been rejected by a Federal court, which specifically held that "stormwater runoff is not a pollutant." *Virginia Dep't of Transp. v. U.S. E.P.A.*, No. 1:12-CV-775, 2013 WL 53741 (E.D. Va. Jan. 3, 2013) (copy attached). That court ruled that trying to regulate water, as a surrogate for a regulable pollutant, is not authorized. The same principle would apply here.
- 2) EPA also claims that it has authority to impose limits on flow because it uses effluent flow to determine if limits are needed, and to calculate limits themselves. The Agency states that it "may ensure the validity of its 'worst-case' wastewater effluent flow assumptions through imposition of permit conditions for effluent flow." However, the authority that EPA cites for that proposition provides no support at all. Those authorities – in the regulations and other cases – simply hold that EPA can consider "dilution of the effluent" and effluent flow levels in assessing "reasonable potential." While that is true,

that does not mean that EPA can therefore impose limits on flow. It simply means what it says: that EPA can consider effluent flow in making effluent limit decisions.

- 3) The Agency also makes a general argument that a limit on effluent flow is within its authority to “condition a permit to carry out the objectives of the Act,” and is “consistent with the overall structure and purposes of the CWA.” But obviously, that authority must operate within some confines, and those are the confines established by EPA’s own regulations. If the regulations do not give EPA the authority to issue flow limits – which they do not – then EPA cannot do so.
- 4) Finally, EPA tries to argue that it can impose flow limits because they are needed to ensure that the permittee properly operates and maintains its system, minimizes infiltration and inflow (I/I), and mitigates the potential for sanitary sewer overflows. There is no basis for this argument. As EPA itself recognizes, the Draft Permit already contains specific provisions that require proper operation and maintenance, require development of an I/I program, and impose a duty to mitigate. These provisions are routinely imposed in permits, and there is no reason to believe that the permittee will not comply with them, or that the requirements imposed in those provisions are not adequate to address the issues that they are focused on.

For all of these reasons, the proposed flow limits are not authorized by the CWA or EPA’s NPDES regulations, and they should be removed before the Draft Permit is finalized.

B. PFAS

The proposed draft NPDES permit includes monitoring and reporting requirements for Per- and polyfluoroalkyl substances (PFAS) including the followings:

Perfluorohexanesulfonic acid (PFHxS)
 Perfluoroheptanoic acid (PFHpA)
 Perfluorononanoic acid (PFNA)
 Perfluorooctanesulfonic acid (PFOS)
 Perfluorooctanoic acid (PFOA)
 Perfluorodecanoic acid (PFDA)

The Draft Permit requires quarterly monitoring PFAS in WWTP influent, effluent and sludge. EPA states that the purpose of this monitoring and reporting requirement is to better understand potential discharges of PFAS from this facility and to inform future permitting decisions, including the potential development of water quality based effluent limits on a facility-specific basis.

This monitoring requirement is very concerning for the following reasons:

- a) Massachusetts water quality standards do not include numeric criteria for PFAS. EPA factsheet cited Massachusetts narrative criterion for toxic substances at 314 CMR 4.05(5)(e) as “All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife.” However, neither MassDEP nor EPA have established toxicity risk level of PFAS in the surface water for human, aquatic life or wildlife.

Even if Massachusetts passes a revision to 310 CMR 22.00: Drinking Water Regulation that set a new PFAS Maximum Contaminant Level (MCL) of 20 ppt (ng/L) for the sum of the concentrations of six PFAS compounds, we believe that requiring monitoring of PFAS is premature at this time.

- b) Unnecessary testing requirement for influent, effluent and sludge as well as significant industrial dischargers. As EPA has failed to identify PFAS that would cause or contribute to an impairment, the Town does not understand how these additional expenditures to test PFAS in influent, effluent and sludge is warranted. If EPA is still determined to understand the impact of PFAS on the receiving water, it should be done through an ambient water quality study and effluent data as well as non-point sampling.

Testing influent, sludge and significant industrial dischargers is not necessary for the purposes stated in factsheet section 5.1.11. This is also evident in the state permit that only requires testing of WWTP effluent, and not influent and sludge. MassDEP draft permit Factsheet Supplement specifically limited testing of PFAS for residual land applied in Massachusetts. As such, MassDEP only requires testing of PFAS for holders of Approval of Suitability (AOS) which classifies residuals for different uses based on the chemical quality and treatment to reduce pathogens. The Town/City is not an AOS holder and currently is not using land application for sludge disposal. Therefore, it is not required to test PFAS in sludge.

- c) Prepare for a future PFAS limits that may be included in subsequent NPDES permits: This reason for EPA needing to require monitoring of PFAS for the facility is particularly concerning as science of PFAS in the environment and its impacts to humans, aquatic life or wildlife is still evolving. Therefore, it is against the purposes of CWA to impose of any numeric limitations before EPA provides clear, precise, and scientifically sound criteria of PFAS that would be toxic to humans, aquatic life or wildlife.
- d) Approved standard testing method: In the Draft Permit, EPA imposes sampling requirements for PFAS compounds in wastewater and sludge. EPA has not yet approved any analytical methods for PFAS in those media. Therefore, EPA provides a compliance schedule, so that the testing requirements do not apply until “6 months after EPA’s multi-lab validated method for wastewater and biosolids is made available to the public on EPA’s CWA methods program websites.” This requirement is problematic, because it is not tied to actual formal EPA approval of the analytical methods. The act of EPA making a method “available to the public” on its website is not sufficient to make that method legally enforceable. The Agency needs to issue a formal proposal to approve the method under 40 CFR 136, take public comments, and then make a considered decision as to whether that method should be approved as having met all of the requirements of 40 CFR 136. Until that process has been completed, the Agency cannot require the permittee to start monitoring, using an unapproved method. The Agency tries to justify this requirement by citing to a provision in its regulations that allows EPA to require

monitoring using a method specified in the permit. That provision applies when the Agency actually specifies a specific method in the permit. It does not apply here, where the Draft Permit does not specify a particular method, because no method exists that is ready to require in permits. EPA cannot, after the permit is issued, mention a method on its website and then claim that that method was somehow incorporated in the permit that was issued earlier. To address this problem, EPA should simply amend the Draft Permit to clarify that the PFAS testing requirements will not become effective until after EPA has formally approved applicable test methods under 40 CFR 136.

C. Alternate Power Source

EPA requires alternate power source(s) sufficient to operate the portion of the publicly owned treatment works it owns and operates. However, EPA did not include any explanation of what alternate power sources are and what portion of the plant requires an alternate power source(s).

SWSC requests EPA to define alternate power sources to at least include redundant connection(s) to the electric grid, backup power generator or any other sources of power that are different from the power source for normal operation. SWSC also request EPA to further define the portions of the plant that needs the alternate power source which would allow plant operation under emergency basis to power the critical units/equipment that would enable the plant to avoid flooding or damage to the process equipment.

The Springfield Water and Sewer Commission appreciates the opportunity to submit its comments to EPA and MassDEP regarding Draft Permit No. MA0100005. Please contact me with any questions concerning the issues and recommendations contained in these comments.

Sincerely,
Springfield Water and Sewer Commission

A handwritten signature in black ink, appearing to read "Joshua D. Schimmel", written over a horizontal line.

Joshua D. Schimmel
Executive Director
josh.schimmel@waterandsewer.org