United States Environmental Protection Agency
Draft National Pollutant Discharge Elimination System ("NPDES")
Great Bay Total Nitrogen General Permit for Wastewater Treatment Facilities
NPDES General Permit No. NHG58A000

Comments Submitted by the Town of Exeter and Town of Newmarket, New Hampshire

May 8, 2020

I. Introduction

The Town of Exeter and the Town of Newmarket, New Hampshire (collectively the "Towns") submit the following comments on the United States Environmental Protection Agency's ("EPA" or "Agency") Draft National Discharge Elimination System ("NPDES") Great Bay Total Nitrogen General Permit for Wastewater Treatment Facilities in New Hampshire, NPDES General Permit: NHG58A000 (the "Draft Permit"). These comments are timely, having been submitted prior to the deadline for public comments of May 8, 2020 established by EPA.[1]

While the Towns appreciate EPA's efforts to reduce nitrogen loading in the Great Bay Estuary (the "Estuary") and agree that developing a voluntary, system-wide, holistic approach to restoring the Estuary may be appropriate, the Draft Permit as currently written, will not resolve the actual and perceived environmental issues that exist in the Estuary. The Draft Permit fails to account for the majority of sources that contribute nitrogen to the Estuary, is arbitrary and capricious, violates the State and federal Constitutions, and should not be issued in its current form as a matter of law.

In a violation of the equal protection clauses of the State and federal constitutions, the Draft Permit obligates only 12 of 52 communities—23% of the towns and cities that contribute nitrogen the Estuary—to bear the burden of restoration. The Draft Permit neglects to consider the release of nitrogen from non-point sources released by 40 communities and lacks any meaningful solution to address non-point sources as whole. Moreover, the Draft Permit impermissibly and unconstitutionally requires 12 communities to pay for a monumental monitoring regime that exceeds EPA's authority under the Clean Water Act ("CWA").

To issue a permit that is compliant with the CWA and State and federal constitutions—and is consistent with the principles of watershed-based permitting—it is incumbent upon EPA to restart the general permitting process and involve more stakeholders in permit negotiations. If the health of the Estuary is EPA's priority, the Agency must involve all stakeholders that contribute nitrogen to the Estuary. Without involvement from other stakeholders, the towns and cities subject to this Draft Permit (collectively the "Permittees") cannot, as a matter of fact and law, be expected or required to reduce nitrogen loading in the Bay by the amount required in the Draft Permit. Therefore, the Towns' request that EPA vacate the current Draft Permit and invite all stakeholders, including those that release nitrogen from non-point sources, to the table for

[1] The public comment period was extended by 30 days in view of exigencies associated with the COVID-19 pandemic. It is anticipated, although not yet quantified, that issues related to municipal responses to COVID-19 will severely impact municipal budgets for the remainder of 2020 extending into 2021, and perhaps beyond. Numerous comments implicate cost considerations that are expected to become significantly more pressing in the future.

further discussions. Indeed, if the region is to meet EPA's goal for nitrogen loading, it is critical that other communities participate in this process. To the extent EPA disagrees with this approach and continues forward, a number of critical modifications, as outlined below, should be made to the Draft Permit.

II. Factual Background

A. Town of Exeter

The Town of Exeter is a small community with a land mass of 12,646 acres. The population of Exeter is approximately 14,300 with approximately 11,000 residents served by public sewer. The original Exeter Wastewater Treatment Facility ("WWTF") was an aerated lagoon facility with disinfection that was constructed in 1964 and upgraded in 1988. The Exeter WWTF also serves small portions of Stratham and Hampton. EPA issued Exeter a new NPDES Permit for its WWTF in December 2012. Shortly thereafter, Exeter entered into an Administrative Order on Consent with the EPA in June 2013 (the "Exeter AOC"). Exeter has completed all of the requirements of the Exeter AOC except for the engineering evaluation that is due by September 30, 2024 (which is an EPA-approved date change from the original Exeter AOC).

Exeter substantially completed construction of its new WWTF in 2019. The new Exeter WWTF is a 4-stage Bardenpho process to remove total nitrogen at a cost of approximately $53 million. In order to fund the construction and operation of the new WWTF, Exeter has had to increase its Tier 1 sewer user rates by 86% (up to 21,000 gallons per quarter which covers a typical single-family residential household).

Exeter is currently using reserve fund balance to offset the shortfall between revenues and expenses due to the construction and operation of the new wastewater treatment facility. In addition, although Exeter qualified in the last state budget cycle for a 20% state aid grant, with the current state of the pandemic, there is no assurance Exeter will receive these funds. Even with these funds, it is anticipated Exeter will need to adjust its rates again in the near future due to the construction and operation of the new wastewater treatment facility.

Since commissioning in July 2019, the new Exeter WWTF has discharged an estimated 2,820 pounds per month of nitrogen for the past nine months (for a projected annual value of approximately 34,000 pounds of nitrogen per year). Prior to the upgrade, the Exeter WWTF discharged an average of 102,500 pounds per year (2012 to 2016). The new wastewater treatment process has reduced the total nitrogen discharge by approximately 67%. This is expected to improve as the operators gain additional experience with the new facilities.

In accordance with the Exeter AOC, the town has also developed and begun implementing a Nitrogen Control Plan ("Exeter NCP"). The Exeter NCP (September 2018) presents an implementation plan and schedule for how the Town will address non-point source and stormwater point source nitrogen loadings from the Town over the next five years.

B. Town of Newmarket

The Town of Newmarket ("Newmarket") is a small community with a land mass of 9,069 acres. The population of Newmarket is 9,073 with approximately 5,790 residents on the town-owned sewer system. Newmarket upgraded from a primary wastewater treatment plant in 1985. Newmarket completed a 201 Facilities Plan Update in September 2011 for the sum of $100,000. The plan recommended Newmarket upgrade its secondary trickling filter wastewater treatment facility to a 4-stage Bardenpho process to remove total nitrogen at a cost of $14.1 million. The EPA issued Newmarket a NPDES Permit for its wastewater treatment facility on February 28, 2013. Shortly thereafter, Newmarket entered into an Administrative Order on Consent with the EPA on May 10, 2013 (the "Newmarket AOC"). Newmarket has completed all of the requirements of the Newmarket AOC except for the engineering evaluation that is due by December 31, 2022.

In order for Newmarket to fund the construction and operation of the new wastewater treatment plant, Newmarket began to raise its sewer rates early to spread the financial impact on its sewer users over time. The sewer rate has increased by approximately 70% as of 2020. Newmarket is scheduled to increase rates over the next couple of years by an additional 15% to allow revenues to meet expenses. Newmarket is currently using reserve fund balance to offset the shortfall between revenues and expenses due to the construction and operation of the new wastewater treatment facility.

The upgraded WWTF was commissioned in July 2017. The wastewater treatment facility discharged 6,792 and 8,664 pounds per year of total nitrogen to the Lamprey River in 2018 and 2019 respectively. Prior to the upgrade total nitrogen discharge was 62,123 pounds per year (2012 to 2016). The new wastewater treatment process has reduced the total nitrogen discharge by 55,341 (89%) and 53,459 pounds (86%) for 2018 and 2019 respectively.

In accordance with Newmarket AOC, the town has also developed and begun implementing a nitrogen control plan ("Newmarket NCP"). The Newmarket NCP presents an implementation plan and schedule for how the Town will address non-point source and stormwater point source nitrogen loadings from the Town over the next five (5) years. Newmarket has already spent $105,000 to develop the plan.

III. Standard of review – arbitrary and capricious

Under the Administrative Procedure Act ("APA"), an agency may not take actions, issue findings, or make conclusions that are:

> (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; (B) contrary to constitutional right, power, privilege, or immunity; (C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; (D) without observance of procedure required by law; (E) unsupported by substantial evidence in a case subject to sections 556 and 557 of [the APA] or otherwise reviewed on the record of an agency hearing provided by statute; or (F)

unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

5 U.S.C. § 706(2).

An agency action is considered arbitrary and capricious when that agency relied on factors that Congress did not intend, "entirely failed to consider an important aspect of the problem," explained its decision in such a way that is contradicted by the actual evidence, or is "so implausible that it could not be ascribed to a difference in view or the product of agency experience." Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).[2] In addition, "an error of law also constitutes an abuse of discretion." Yepes-Prado v. U.S. I.N.S., 10 F.3d 1363, 1366 (9th Cir. 1993).[3]

IV. The Draft Permit violates the State and federal Constitutions.

A. Requiring only 23% of the communities that contribute nitrogen to the Estuary to undertake and 100% fund significant nitrogen load reductions, and commence an unprecedented mandatory ambient monitoring program, violates equal protection under the State and federal Constitutions.

There are 52 communities that contribute nitrogen to the Estuary that are located both in Maine and in New Hampshire. EPA's decision to require only 12 of these 52 communities to expand 100% of the funds necessary to reduce nitrogen and undertake a mandatory estuary-wide ambient monitoring program without involving the other 40 communities is a violation of equal protection under the Fifth Amendment of the United States Constitution and Part 1 Article 14 of New Hampshire's Constitution. Therefore, the Draft Permit should not be issued in its current form.[4]

The Supreme Court has held, "[t]o withstand scrutiny under the equal protection component of the Fifth Amendment's Due Process Clause, 'classifications . . . must serve important governmental objectives and must be substantially related to achievement of those

[2] See also Nat. Res. Def. Council, Inc. v. U.S. E.P.A., 824 F.2d 1258, 1286 (1st Cir. 1987) (finding that EPA acted arbitrarily and capriciously when, as an explanation for why only certain Class 1 waters were chosen to be protected by regulations concerning nuclear waste disposal, the EPA merely stated that "the Agency believes these provisions are necessary and adequate to avoid any significant degradation of the important drinking water resources provided by these Class I ground waters").

[3] See also Envtl. Def. Ctr., Inc. v. U.S. E.P.A., 344 F.3d 832 (9th Cir. 2003) (holding that EPA's promulgation of the Phase II Rules relating to discharges from MS4s was, in part, improper because it allowed for the design of stormwater pollution control programs without adequate regulatory and public oversight); Nw. Envtl. Advocates v. U.S. E.P.A., 537 F.3d 1006 (9th Cir. 2008) (holding that EPA's exemption of certain marine discharges from the CWA permitting scheme was unauthorized by the CWA and therefore ultra vires); Sw. Elec. Power Co. v. United States Envtl. Prot. Agency, 920 F.3d 999 (5th Cir. 2019) (invalidating an EPA decision because the Agency's decision was an unreasonable interpretation of the Clean Water Act).

[4] The United States Supreme Court has held "[i]n numerous decisions…that the Due Process Clause of the Fifth Amendment forbids the Federal Government to deny equal protection of the laws." Davis v. Passman, 442 U.S. 228, 234 (1979). See also N.H. Const. pt. 1, art. 14.

objectives." Davis v. Passman, 442 U.S. 228, 234–35 (1979). While Exeter and Newmarket do not dispute that regulation of nitrogen levels in the Estuary, within reason, serves an important government objective, the Draft Permit impermissibly targets only 12 of the 52 communities that contribute nitrogen. Failing to treat all the municipalities that release nitrogen to the Bay in an equal manner is not only a violation of the State and federal constitutions, but the issuance of the Draft Permit as currently written would be contrary to EPA's overall objectives and weakens its goal of improving the water quality in the Estuary.

The Draft Permit places a disproportionate level of responsibility on certain communities. Under the Draft Permit, 23% of Great Bay communities are required to, in effect, tailor their activities to allow for the uninterrupted activities of the other 77% of the communities that directly affect nitrogen loading in the Bay. Based on the Draft Permit requirements, Newmarket and Exeter could meet all of the requirements set out in the permit (including the so-called voluntary non-point source reductions), expend substantial funds to comply, and still, potentially, have their respective permits re-opened and amended because other communities were never included or opted out of participating in the general permit. Not only could their permits be re-opened, but despite meeting all permit effluent requirements, Newmarket and Exeter may face additional limits on their nitrogen discharge due to the lack of participation of all surrounding communities in this regulatory regime. There is no legitimate basis for requiring a select number of municipalities to bear the burden to restore the entire Estuary.

It is insufficient for EPA to state that there is a strong need to improve the quality of the Estuary or that the General Permit serves a legitimate public purpose.[5] Even if EPA's purpose is otherwise valid, requiring only certain municipalities to bear 100% of the burden of regulating the entire Bay, despite the fact that 52 communities contribute to the Bay, violates equal protection requirements.[6] It is incorrect to suggest that the 12 communities subject to the Draft Permit contribute more nitrogen to the Bay from non-point sources as compared to the other surrounding communities. In fact, based on recent action taken by Exeter and Newmarket in connection with their respective Administrative Orders on Consent, both Exeter's and Newmarket's per capita total nitrogen loading is substantially lower than all other communities in the Exeter-Squamscott and Lamprey River watersheds. There is no legitimate basis for requiring 12 out of the 52 communities that release nitrogen into Great Bay to "bear a burden that should fairly have been allocated throughout the entire watershed area." Christopher Lake, 35 F.3d at 1275. Just as egregious, the Draft Permit would place an unfair burden on just 13

[5] In assessing whether government action violates the equal protection clause, the 8th Circuit has held that "even assuming the legitimacy of the [government's] purpose…the application of [such requirements] may violate the equal protection clause." Christopher Lake Dev. Co. v. St. Louis Cty., 35 F.3d 1269, 1274 (8th Cir. 1994). In Christopher Lake, the United States Court of Appeals for the 8th Circuit found that the government's application of certain requirements to one property owner resulted in a violation of equal protection and due process and that such property owner should not have to "bear a burden that should fairly have been allocated throughout the entire watershed area." Id. at 1275.

[6] See, Christopher Lake, 35 F.3d at 1274 (holding that "even assuming the legitimacy of the County's purpose…the application of the [c]riteria may violate the equal protection clause. If the [property owners] were being singled out to bear the burden of [the State's] attempt to remedy these problems, although they had not contributed to it more than other coastal landowners, the State's action, even if otherwise valid, might violate ... the Equal Protection Clause.")

WWTF despite the fact that 17 WWTF discharge into Great Bay.[7] There is no legitimate purpose for treating Exeter's and Newmarket's WWTFs differently from other WWTFs when they all are in the same geographic area and all discharge to the same receiving water.[8]

B. EPA's requirement that Exeter and Newmarket develop and implement an adaptive management ambient monitoring program for the entire Estuary constitutes a government exaction that is not roughly proportional to the impact Exeter and Newmarket will have on the Estuary.

The Draft Permit currently requires just 23% of the 52 communities surrounding the Great Bay to develop and implement an adaptive management ambient monitoring program for 100% of the Estuary. Requiring this subset of municipalities to expend significant resources to implement such a program not only violates concepts of equal protection as described above, but also constitutes a government exaction that is disproportionate to the impact the activities of these communities will have. As the Supreme Court has held, the "government may not condition the approval of a . . . permit on the owner's relinquishment of a portion of his property unless there is a 'nexus' and 'rough proportionality' between the government's demand and the effects of the proposed land use." Koontz v. St. Johns River Water Mgmt. Dist., 570 U.S. 595, 599 (2013) (holding that the government may not condition the approval of land-use permits on a monetary contribution unless such contributions meet the nexus and rough proportionality requirements set out in Nolan and Dolan.). In this case, the "social cost" of requiring only 12 communities to implement a wide-scale monitoring program, is disproportionate to the requirements imposed on other communities that release nitrogen into the Estuary.

C. Selective enforcement of the CWA

The issuance of a general NPDES permit to only 12 out of 52 communities, and requiring only those 23% of the Great Bay communities to essentially restore 100% of the Estuary, may also violate selective enforcement prohibitions of the CWA.[9] Selective enforcement of the CWA clearly violations notions of equal protection and due process under the law.

D. Constitutional conclusions

The Draft Permit as currently written unequivocally violates the equal protection clauses of both the State and federal constitutions. Requiring only 12 communities to undertake

[7] Four of the WWTF that discharge into Great Bay are located in Maine and are therefore excluded from the proposed General Permit and are instead subject to Maine's own NPDES program.

[8] As the 8th Circuit expressly held "[a] strong public desire to improve the public condition will not warrant achieving the desire by a shorter cut than the constitutional way of paying for the change." Christopher Lake, 35 F.3d at 1275 (citing Dolan v. City of Tigard, 512 U.S. 374 (1994)).

[9] The selective enforcement of a statute violates the equal protection clause if "(1) a person, compared with others similarly situated, was selectively treated; and (2) that such selective treatment was based on impermissible considerations such as race, religion, intent to inhibit or punish the exercise of constitutional rights, or malicious or bad faith intent to injure a person." LaTrieste Restaurant and Cabaret Inc., v. Village of Port Chester, 40 F.3d 587, 590 (2d. Cir. 1994).

significant cleanup and monitoring activities on behalf of 52 communities is wholly inconsistent with concepts of equal protection under the law. Indeed, all communities that discharge nitrogen to the Estuary, whether from point sources or non-point sources, and whether in New Hampshire or Maine, must be treated equally. Therefore, the Draft Permit as currently written cannot survive judicial scrutiny under the APA, in part, because it is contrary to constitutional rights, powers, privileges, and/or immunities. 5 U.S.C. § 706(2)(B).

V. The Draft Permit fails to establish a technical or factual basis to support its terms.

A. The Estuary total nitrogen loading limit of 100 kg ha^{-1} yr^{-1} is not supported by a factual basis.

EPA has failed to establish a technical or a factual basis for an average annual load of 100 kg $ha^{-1}yr^{-1}$, and therefore, is arbitrary and capricious as a matter of law. To avoid repeating prior arguments, the Towns hereby incorporate by reference the comments submitted by the other 11 municipalities that relate to the 100 kg ha^{-1} yr^{-1} limit. Moreover, the Towns are co-signatories to the *Peer Review Request for Great Bay Total Nitrogen General Permit, NPDES Permit No. NHG58A000, 2020 Draft Permit* letter submitted to the Governor Christopher Sununu and New Hampshire Department of Environmental Services ("NHDES") Commissioner Robert R. Scott, dated February 21, 2020.[10] The Towns reiterate their request for EPA to require an independent peer review of the data used to establish the 100 kg ha^{-1} yr^{-1} threshold.[11]

The Towns further incorporate by reference all of the arguments and the request for an independent peer review and accompanying letters from the School for Marine Science and Technology at the University of Massachusetts. The study relied upon by the EPA to set the loading limit of Great Bay, *Empirical relationship between eelgrass extent and predicted watershed-derived nitrogen loading for shallow New England estuaries* (Latimer and Rego, 2010), was not a quantitative estuary specific analysis to support watershed management actions.[12] The hydrodynamic and nitrogen model of the Estuary used in that study does not support the conclusion that nitrogen enrichment is the cause of ecological impairments in the Estuary or the conclusion that nitrogen enrichment is preventing the Estuary from recovery.[13]

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[10] EPA's reliance upon NHDES Commissioner Scott's letter to EPA's Water Division Director, Kenneth Moraff, dated October 21, 2019, in setting the 100 kg ha^{-1} yr^{-1} limit is arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law. The submission of this letter by NHDES, which purports to set numeric criteria for nitrogen in the Estuary—without providing a public comment period or public hearing—violates New Hampshire's Administrative Procedures Act, NH RSA 541-A. Moreover, NHDES and EPA failed to properly establish numeric water quality criteria in accordance with 40 C.F.R. § 122.44(d).

[11] See *EPA's Peer Review and Peer Involvement at the U.S. Environmental Protection Agency* (Jan. 31, 2006), *available at* https://www.epa.gov/osa/memorandum-peer-review-and-peer-involvement-epa (stating that peer reviews are "encouraged and expected" and that external and independent peer reviews are expected and the appropriate approach of choice for scientific assessments similar to the setting of a nitrogen load limit in the Estuary).

[12] Letter from Dr. Brian Howes and Roland Samimy o the School for Marine Science and Technology at the University of Massachusetts to Mr. Peschel dated January 20, 2020.

[13] Letter from Dr. Brian Howes and Roland Samimy o the School for Marine Science and Technology at the University of Massachusetts to Mr. Peschel dated January 27, 2020.

While the non-point source load value used in the Draft Permit accounts for attenuation through surface or groundwater pathways, the 100 kg ha^{-1} yr^{-1} limit focus on a load concentration with Great Bay, and not the entire watershed. EPA should not use the load to the watershed as the limiting parameter, but rather must regulate the actual concentration of TN that exists within Great Bay itself. Models exist to predict the resulting TN concentrations within Great Bay and these should be utilized to determine impairment potential and not the gross load being discharged within the watershed.

Moreover, EPA has failed to demonstrate that the impairments in the Estuary are solely attributable to total nitrogen loading. Water quality experts have cited that it is highly likely that colored dissolved organic matter ("CDOM") and total suspended solids ("TSS") are more likely culprits than total nitrogen. These two parameters have been completely ignored and are not even being monitored as part of the proposed annual ambient monitoring program. A true adaptive management program would review and address all three parameters in a stepped fashion as a means to obtain the desired water quality in Great Bay.[14]

B. A TMDL should be implemented instead of establishing nitrogen load requirements in a general permit.

EPA's use of a general NPDES permit, without the existence of a Total Maximum Daily Load ("TMDL"), is erroneous and arbitrary as a matter of law. Since a clear majority of the current nitrogen load comes from non-point sources, EPA and the State should develop a TMDL.[15] In fact, courts have specifically found that developing a TMDL to regulate non-point sources pursuant to section 303(d) of the CWA is authorized under the Act.[16] Before EPA issues a general permit, a TMDL should be set.

In the first instance, the State of New Hampshire has failed to establish a TMDL for Great Bay. Section 303(d) of the CWA requires that each state identify waters within its boundaries for which effluent limitations are not stringent enough to implement water quality standards and requires each state to adopt a total maximum daily load for each pollutant necessary to implement the applicable water quality standards.[17] It also requires states to

[14] While the Town suggests that this additional monitoring is appropriate for a watershed-based monitoring scheme, the costs of any such voluntary estuary-wide monitoring program should be split between all communities that release nitrogen into the Estuary. See Section IV, supra; Section VII infra.

[15] Based upon 2012 to 2016 data, normalized to average rainfall, EPA estimated that the total non-point source and stormwater point source load provided for 58.6% of the nitrogen load in the Estuary. Draft Permit, Fact Sheet, at 26–28 (EPA calculated that 117.0 kg ha^{-1} yr^{-1} came from non-point sources and stormwater point sources, compared to 82.7 kg ha^{-1} yr^{-1} from all of the WWTFs that discharge to the Estuary).

[16] See Pronsolino v. Marcus, 91 F. Supp. 2d 1337 (N.D. Cal. 2000), aff'd sub nom, Pronsolino v. Nastri, 291 F.3d 1123 (9th Cir. 2002).

[17] 33 U.S.C. § 1313(d)(1)(A), (C). See also Draft Permit, Fact Sheet, at 17.

identify all impaired waters and directs to the states to develop a total maximum daily load.[18] Currently, Great Bay does not have a TMDL for nitrogen.[19]

If a State does not establish a TMDL, EPA should work with the State to impose a TMDL. See generally *EPA Guidance for Water Quality-based Decisions: The TMDL Process* at 33–34 (April 1991) ("If the State chooses not to develop the needed TMDL for appropriate pollutants on a timely basis . . . EPA has a role under the Act to develop the TMDLs in cooperation with the state"). Nevertheless, EPA has failed to establish a TMDL for the Great Bay Estuary.

EPA and New Hampshire should develop a multi-state TMDL. Indeed, EPA has often taken the lead in establishing TMDLs that include the waters of more than one state. By way of example, EPA has established a multistate TMDL for six states for the Chesapeake Bay[20] and for two states for the Long Island Sound, which have proven effective for watershed-based permitting.[21] In addition, EPA established a multi-state dioxin TMDL for the Columbia River, which was upheld by the 9th Circuit Court of Appeals.[22] Here, EPA should work to establish a multi-state TMDL with New Hampshire and Maine. Neither the State, nor EPA, should be able to skirt their duties for developing a TMDL by taking a short cut and simply issuing a general permit for nitrogen.

C. The annual average daily load set for each WWTF in the Draft Permit is unsupported by an adequate factual or legal basis.

The EPA relied upon erroneous and incomplete data to set nitrogen loads for each WWTF; therefore, the effluent limits for each municipality are arbitrary and capricious.

1. The Agency relied upon data from drought years to set "current" average daily baseline loads.

The "current average flows" estimated by EPA do not represent current conditions. The data used by EPA to estimate the "current average flow" of each WWTF comes from time periods with lower than average rainfall, and therefore, lower than average WWTF flow. See

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[18] 33 U.S.C. § 1313(d)(3).

[19] Water Quality Assessment Report, 2012 Waterbody Report for Great Bay, *available at* https://ofmpub.epa.gov/waters10/attains_waterbody.control?p_au_id=NHEST600030904-04-05&p_cycle=2012&p_state=NH&p_report_type=#causes. In 2012, Great Bay was listed as impaired for nitrogen. Id. The 303(d) lists proposed by NHDES in 2014, 2016, and 2018 list certain assessment zones in the Estuary as "proposed for delisting with respect to total nitrogen." Draft Permit, Fact Sheet, at 19. However, EPA has not yet taken action on the proposed delisting. Id. In the Draft Permit Fact Sheet at Table 2, EPA relies upon data from 2012, which lists numerous segments of the Estuary as listed as "Impaired, Poor Water Quality" or "Impaired, Marginally Below Water Quality." Id. at 18–19. Therefore, EPA and NHDES should develop a TMDL for nitrogen.

[20] See Chesapeake Bay TMDL, *available at*, https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document.

[21] See Long Island Sound TMDL, *available at*, at http://longislandsoundstudy.net/wp-content/uploads/2010/03/Tmdl.pdf.

[22] See Dioxin/Organochlorine Center v. Clarke, 57 F.3d 1517 (9th Cir. 1995).

Draft Permit, Fact Sheet at page 25 (EPA assessed WWTF loads from 2012 to 2016). EPA specifically acknowledges this fact. See id. at 26 (acknowledging nitrogen loads in Great Bay reduced during 2012 to 2016 "primarily due to lower rainfall"). While EPA selected a discharge limit of 8 mg/L due to its achievability, EPA erroneously set a total nitrogen load allocation based upon the average daily wastewater discharge from each facility during the 2012 to 2016 timeframe. EPA should base load allocations on permitted flow at 8 mg/L, which is consistent with how the AOCs are written for both Newmarket and Exeter.

2. The load reductions for Great Bay only account for the 13 WWTFs in New Hampshire; the Draft Permit cannot guarantee any load reductions for the four WWTFs in Maine and fails to account for the other 40 New Hampshire communities that are not subject to the Draft Permit.

The average daily loads set in the Draft Permit assume that the four WWTFs in Maine will "hold the load" or make necessary reductions to their nitrogen discharges. However, these WWTFs are not regulated by the Draft Permit; therefore, there is no guarantee that Maine's Department of Environmental Protection will require any reduction in nitrogen loading. The Draft Permit also fails to account for the other 40 communities that contribute to nitrogen loading in Great Bay from non-point sources. It is likely that the 12 communities in New Hampshire will be unfairly and inequitably forced to lower nitrogen levels. Without asking all communities in the watershed to reduce their nitrogen contribution, EPA's ultimate goal of meeting the target level of 100 kg ha^{-1} yr^{-1} will prove to be futile.

3. The Draft Permit fails to consider wastewater treatment interconnections with other communities.

Both the Town of Exeter and Newmarket have an option to interconnect their sewer system and their WWTF with other communities; however, the Draft Permit fails to account for such possibilities. With an eye towards reducing the overall nitrogen load in the Estuary, and from a holistic perspective, it is ultimately beneficial for other communities to connect to existing wastewater infrastructure instead of relying on private sewer systems. However, if other communities interconnect with the Towns (i.e., Stratham or Newfields), the Towns receiving additional wastewater will likely be deemed out of compliance with nitrogen load allocations in the Draft Permit. This threat of non-compliance will dissuade the Towns from interconnecting with others, which may ultimately reduce the overall effectiveness of a general permit for nitrogen.

Should the permit be issued, it must contain a specific re-opener clause—and an explicit exception to the anti-backsliding provisions of the CWA[23]—to properly adjust the annual nitrogen load allocation if additional communities are connected to either Town's system. In addition, the Draft Permit must contain a specific mechanism for either Town to receive credit

[23] See 33 U.S.C. § 1342(o)(2) (providing exceptions to the general prohibition of reissuing or renewing permits with less stringent effluent limitations, for example, if there are material and substantial alterations or additions to the permitted facility that occurred after the issuance of the permit).

for overall nitrogen reductions if wastewater from other communities is treated by the Towns' WWTFs.

4. Setting an annual average limit, instead of a seasonal rolling average, is unsupported by the facts.

The Draft Permit does not establish any factual or technical basis to switch nitrogen load allocations from a seasonal rolling average, as previously imposed in the Exeter and Newmarket NPDES permits, to a rolling annual average. Indeed, it is a common and technically sound practice to assess nitrogen based upon a seasonal rolling average. For example, the Massachusetts and Rhode Island WWTFs that discharge into Narragansett Bay are subject to numeric limits only during a 6-month seasonal rolling average, all the while Narragansett Bay has significantly warmer water temperatures, which supports a longer growing season. Indeed, EPA has established seasonal rolling average limits in several New England individual NPDES permits (April to October for NH/Great Bay and May to October for MA/Narragansett Bay as recently as 2018/19). Here, EPA has not provided sufficient rationale or a factual basis for the switch.

As a factual matter, it is considerably harder for WWTFs to meet lower loads in the winter time; without a higher load allowance during the winter time, it is highly likely that the WWTFs will be unable to comply with the annual nitrogen load allocations in the Draft Permit. Achieving low total nitrogen levels during cold weather can be extremely difficult and would require WWTF's to be sized significantly larger in order to meet a low total nitrogen limit year-round. In addition, facilities that have already upgraded to achieve a seasonal total nitrogen limit will essentially have their plants automatically de-rated in capacity if a rolling annual average calculation is now implemented. This change to annual average limits appears to be for convenience and appears to lack a technical basis. The Towns request that EPA revise the Draft Permit to include seasonal rolling average limits for WWTFs to match previously issued permits. Moreover, the Towns request that EPA consider shortening the season to 6 months similar to the Narragansett Bay facilities.

Should EPA issue a general permit, the Towns request that the annual nitrogen load allocations be changed to numeric seasonal rolling average numeric load limits, during the same seasonal period as the Narragansett Bay permits (i.e. May 1 through October 31). Also, similar to the Narragansett Bay permits, it would be reasonable for EPA to require the Towns to operate nitrogen treatment equipment throughout the year, optimize off-season nitrogen treatment efficiency, and monitor effluent nitrogen levels.

5. The Draft Permit establishes unequal annual average load limitations.

The Draft Permit establishes nitrogen load reduction requirements for the six largest NH WWTFs (Rochester, Portsmouth, Dover, Exeter, Durham, and Somersworth) and an assumed reduction for one ME WWTF (Kittery). The remaining "small" facilities are held at "current" loads based on the 2012-2016 data. This approach was purportedly taken based on a qualitative cost benefits evaluation because the large WWTFs constitute 85% of the nitrogen loadings and most of these facilities have been or are in the process of being upgraded to achieve enhanced nitrogen removal, thereby requiring little additional investment to meet the new limits.

However, all of the facilities are in jeopardy of non-compliance in the future because actual current flows are higher than the reference data and community growth and sewer system expansion will further increase flows and associated effluent nitrogen loadings. To address this problem, the communities will need to invest in sewer system upgrades to reduce extraneous flows (infiltration and inflow) in order to control or reduce WWTF flows. Some communities have already made significant investment to reduce infiltration and inflow (I/I), therefore future efforts to reduce I/I will be at a higher cost and put these communities at a disadvantage to other communities that have not significantly invested in their collection systems and are still subject to higher rates of I/I.

Another example of the Draft Permit favoring certain communities over others is with respect to the treatment of City of Portsmouth. Portsmouth has two WWTFs included in the permit; Peirce Island (main facility) and Pease ITP. The Pease facility was included in the "small" facilities group and allowed to hold the load at its "current" nitrogen concentration of 16.7 mg/l. Under the terms of the Draft Permit, the City of Portsmouth can pool the nitrogen load limit of the two facilities in determining its compliance with the Draft Permit. This effectively provides Portsmouth with a higher cap on nitrogen loadings than the cap provided for other "large" facility communities. To remedy this inequality, the nitrogen load limits should be referenced to each facility's current NPDES permit flow. The existing permit flow values were established based on the original planning projections for each community. The Draft Permit's establishment of limits referenced to "current" flows (2012-2016 data) may severely interrupt the long-range planning agenda of each community, which could limit sewered growth and lead to more sprawl. One example of this problem is the Durham facility with a current flow less than half of its NPDES permit flow. Durham's proposed limit is 60 lbs./day, which equates to a concentration limit of 2.9 mg/l at its permit flow of 2.5 MGD. This concentration is actually less than the accepted Limit of Technology (LOT).

D. Comparing the Draft Permit to Long Island Sound and Narragansett Bay demonstrates that the conditions in the Draft Permit are not supported by a factual basis.

The Draft Permit establishes very stringent total nitrogen discharge load limits on the 13 affected WWTFs. The proposed discharge limits are set at current discharge load levels, which effectively curtails any sewered growth in the communities without significant investment in either collection system rehabilitation or increased treatment efficiency at the WWTFs. The nitrogen limits in Rhode Island's Narragansett Bay RIPDES permits are based on various levels of treatment at the discretion of the RIDEM. For example, the Warwick TN limit is 574 lbs./day and 8.0 mg/l because lower concentration limits (i.e. 3.0 mg/l) would not achieve compliance with the water quality criteria and is therefore not warranted in consideration of the additional cost. Whereas the Woonsocket TN limit is set close to the LOT limit of 3.0 mg/l because RIDEM determined that the incremental cost to achieve the higher level of treatment was appropriate. The TN mass limits for both Warwick and East Providence were set 43% and 51% higher than the existing loadings from these plants, which allows for reasonable community growth. Another significant difference is that the Narragansett Bay permit limits are 6-month seasonal rolling average, whereas the proposed Great Bay permit limits are annual rolling average. See supra § C(4). There is no scientific reason to impose annual limits for Great Bay and this difference makes the permits even more stringent.

The Long Island Sound water quality impairments are the most severe of the three waterbodies and the TMDL prescribed load reductions are not adequate to meet the water quality criteria. Annual limits were imposed in the Long Island Sound discharge permits because the TMDL water quality model showed that phytoplankton growth and hypoxia conditions did not have a strong relationship to seasonal TN loads, likely due to the larger size of the water body and significantly warmer water. However, even with severe water quality impairments, the TMDL recommendation was for the "Cost Sensitive" approach. The "Cost Sensitive" approach resulted in less stringent discharge limits because the significant additional cost for LOT limits would still not achieve compliance with water quality criteria and the improvements would have been marginal. A sample of existing permits (Bridgeport East Side, Hartford, and Greenwich) showed the effective TN concentration at current flows are 5.9 mg/l, 6.4 mg/l, and 6.8 mg/l. These levels are only slightly lower than the proposed concentration basis for the Great Bay permits of 8.0 mg/l. Considering the gravity of LIS water quality impairments (severe hypoxia) and the fact that the Great Bay proposed limits are intended to be only a starting point for an adaptive management process, and the fact that there is no scientific site specific basis for the Great Bay load reduction targets, the proposed WWTF load limits are overly stringent.

E. The Draft Permit fails to account for atmospheric deposition.

The Draft Permit does not propose monitoring atmospheric deposition sources and trends even though they were included in the 2014 NHDES GBNNPS Study and were determined to be a significant contributor of nitrogen to Great Bay. While atmospheric sources are directly not attributable to the communities in the Great Bay watershed, atmosphere deposition sources must be included in the non-point source tabulations. EPA or NHDES must also include wet and dry atmospheric deposition source monitoring as a part of the final General Permit.

Based on the Great Bay Non-Point Source Study dated June 16, 2014, Table 5, page 74, Newmarket's non-point TN load to the watershed is 28,448 lbs/yr (not normalized to average rainfall). Forty-five percent reduction equates to 12,802 lbs/yr. Given that 13,846 lbs/yr is atmospheric deposition, this will require 12,802/14,602 or an 88% reduction of the non-point source TN that the Town has any ability upon which to affect change.[24] For the following reasons, this is unachievable: (a) The Town has no authority to retroactively force change to occur on private property; (b) the Town has no authority to regulate agricultural activities in Town; (c) the Town has no authority to force residents to achieve nitrogen removal in their private septic systems and the low point source TN limitations being placed on the WWTF

[24] Draft Permit, Appendix II, page 3 states "optional cumulative reduction targets identified above may be adjusted to account for non-point source and stormwater point source changes that occur outside the scope of the Permittee's efforts (e.g., changes in atmospheric deposition of nitrogen to the watershed)". The Great Bay Nitrogen Non-Point Source Study (GBNNPSS) report, Appendix A, shows future projections for decreases in loading due to atmospheric sources. It demonstrates that between 2007 and 2013, NOx emissions decreased by 33% and are expected to decrease by an additional 12% in 2020 (when compared to the 2013 levels). Non-points source and stormwater point source estimates are based on data from 2009, therefore it should be expected that municipalities should receive at a minimum a 33% reduction in the atmospheric load by 2013.

Communities should be able to take credit for these reductions that are outside of their control. The Draft Permit fails to account for these adjustments, and does not provide a mechanism for communities to take credit for these reductions at the onset of establishing a baseline load.

discourage expansion of the collection system to add more TN load to the plant; and (d) it is impossible for growth to occur with zero additional TN load being generated.[25]

If a final general permit is issued, EPA should incorporate an analysis of the long-term wet and dry atmospheric deposition data set from the EPA CASTNET (Clean Air Status and Trends Network) program Hubbard Brook site into the permit. Communities should be able to take credit for atmospheric reduction of nitrogen that is outside of their control. The Draft Permit at Appendix II, page 3, states that reductions in targets may be adjusted due to changes in atmospheric deposition. The frequency at which these target adjustments will be evaluated and reduced should be included.

F. The Draft Permit fails to adequately analyze the health of eelgrass in the Estuary.

Without an adequate assessment of existing eelgrass populations, and the recovery of eelgrass over the past decade, the conditions and factual basis behind the Draft Permit is insufficient for requiring a 100 kg ha^{-1} yr^{-1} loading limit. The following bullets provide specific examples of the lack of necessary assessment of Eelgrass:

- Draft Permit, Fact Sheet, Part III (Explanation of the Permit Effluent Limitations) describes the chronological findings of the PREP 2003 to 2018 State of the Estuary Reports based on data ending in 2016 and 2017. While there is a downward trend in eelgrass coverage from 1990 to 2010, the data since 2010 does not appear to show any trend. Table 5-2 of the Exeter 2018 Nitrogen Control Plan summarizes an estimated 50% reduction in the "baseline" WWTF point source nitrogen loading to the Great Bay watershed between 2016 and 2020. The eelgrass coverage data set in the Fact Sheet excludes this time period. An adaptive management framework would provide an appropriate amount of time to assess the resultant changes in water quality prior to requiring additional capital-intensive upgrades.

- The Draft Permit Fact Sheet (page 15 of 50) describes the chronological findings of the PREP State of the Estuary reports from 2003 through 2018. The Fact Sheet author attempts to portray a consistent narrative over time from these reports to further support the need to reduce nitrogen loadings to address eelgrass decline. Figure 2 (page 20 of 50) is an important graphic to illustrate EPA's claim of significant eelgrass loss. EPA should provide the original reference for this figure. How do the historically high precipitation intensities from 2005 to 2007 impact these eelgrass coverages and water quality? What does the data from 2017 to 2019 suggest? The previous peer review concluded that there was insufficient data to scientifically prove causality of nitrogen loadings on eelgrass decline. Ultimately, the adaptive management process is intended to empirically determine

[25] Fortunately for Newmarket, the Town has already achieved sufficient TN reduction with the recent $14.1M upgrade to its WWTF. The Town has already surpassed the Town's 45% TN reduction goal listed in the Draft Permit without doing any non-point source reduction. Nevertheless, the Town still objects to this standard because many other communities are not able to comply with the draft permit based solely on point source reductions. In fact, if Newmarket were held to an 88% non-point source TN reduction target, the Town would not be able to achieve such a target.

the appropriate nitrogen loading threshold. In order to avoid unfounded investment, consideration should be given to increasing the initial loading threshold to see if the desired water quality trends are observed.

- The Towns consider the health and welfare of the Estuary to be of the utmost importance to the region. However, the Towns feel that the data presented in the Fact Sheet is being presented and portrayed in a skewed manner. The eelgrass data, for example, is being presented as "a steady 20-year decline in coverage." This is not the case. Utilizing the same data presented in Figure 2 on page 20 of the Draft Permit 2020 Fact Sheet, statistical analysis proves with 95% confidence that there are two distinct data sets in this figure, one being the data from 1996 to 2005, and one being the data from 2006 to 2017. Further, statistical calculations support that within each of the two data sets there are no outliers in the data. In simple terms, eelgrass coverage was stable at a higher level from 1996 to 2005, and stable at a lower level from 2006 to 2017. In order to effectively move forward, the Towns must understand why the large reduction in eelgrass coverage occurred after 2005 and why eelgrass has not recovered to pre-2006 coverage levels. Factors the Towns believe may have been attributable to these trends include the 2006 Mother's Day Food event, the April 2007 Flood event, and the numerous dams that have been removed since 2006 (see Attachment A) along tributary rivers of the Estuary. TN loads to Great Bay were similar immediately before and after 2005/2006. It is likely that another water quality parameter may be the culprit for eelgrass not recovering (i.e., TSS, CDOM, and sediment deposition). Indeed, the Fact Sheet at page 16 explicitly notes that there are many other stressors that impact the existence of eelgrass, including, sediment deposition, sea-level rise, high temperatures, introduced species, biological disturbance (e.g. from crabs and geese), wasting disease, and toxic contaminants such as herbicides.

Based on the foregoing, the designated relationship between the health of eelgrass in the Estuary and the need to set a 100 kg ha^{-1} yr^{-1} loading limit is wholly unsupported by the facts, and therefore, arbitrary and capricious as a matter of law.

G. <u>The analysis of the Great Bay Watershed fails to account for future development and results in a de facto growth moratorium.</u>

EPA has failed to demonstrate that the 12 communities subject to this Permit, acting without the other 40 communities that discharge to Great Bay, can actually achieve a nitrogen loading limit of 100 kg ha^{-1} yr^{-1}. If these 12 communities cannot collectively reduce nitrogen loading to this permit limit, the permit, in effect, will create a de facto growth moratorium in each community.

Moreover, the allotted nitrogen amounts in the Draft Permit fail to consider future development. The Permit is completely silent on managing nitrogen loadings associated with future development and redevelopment. This will be a significant challenge for all the communities included in the General Permit. On the other hand, the watershed communities without wastewater treatment facilities will not have this challenge; nevertheless, these

communities will still impact nitrogen loadings to Great Bay. This inconsistency has the potential to result in unanticipated development consequences.

Indeed, the proposed limits are based on current average WWTF flows and loads. This equates to essentially a "Hold the Load" approach and will significantly hinder growth of some communities. To the extent the permit is issued, EPA should revise the General Permit to establish the WWTF load limits based on the existing permit flow of each facility and a concentration of 8.0 mg/L.

H. The Town of Newmarket is unfairly penalized in the Draft Permit for proactively upgrading its WWTF.

The Town of Newmarket is unfairly penalized in this draft permit for having been proactive, expending $14.1M to upgrade the WWTF in 2017. Utilizing EPA's own methodology as discussed on Page 26 of the 2020 Fact Sheet, Newmarket should be treated as one of the smaller communities with design flows less than 2 mgd and should have a limit consistent with "hold the load" from 2012-2016. This methodology corresponds to an annual point source TN load allocation of 170 lbs/d. However, because Newmarket has moved forward with WWTF improvements that allow the town to treat to a higher degree of TN treatment, the town is formally requesting that, should a general permit be issued, the WWTF TN limit for Newmarket be the difference between what the WWTF was discharging in 2012-2016 (170 lbs/day) and the 45% TN reduction goal for the entire town cited in the Draft Permit. This method provides the town with a more equitable load allocation scenario amongst the smaller WWTF's. The revised load limit would equate to (170 x 0.55) minus (67 x 0.55) = 94 – 37 = 57 lbs/d. (Note: Newmarket's non-point TN load to the watershed normalized to average rainfall is 24,445 lbs/yr or 67 lbs/d.) This is also consistent with footnote 8 on Page 30 of 50 of the 2020 Fact Sheet. Table 1 below provides a summary of the Small WWTFs Nitrogen Loads to the Great Bay Estuary.

Table 1: Small WWTFs Nitrogen Loads & TN Allocations

TOWN	2012-16 AVG. FLOW (MGD)	TN LOAD ALLOCATIONS (LBS/DAY)	AVG. TN CONC. AT CURRENT FLOW (MG/L)
Pease	0.64	87	16
Berwick	0.21	29	17
North Berwick	0.31	47	18
Newmarket (Current Permit)	0.52	35	8
Newmarket *(**Proposed**)*	***0.52***	***57***	***13***
South Berwick	0.28	14	6
Epping	0.25	37	18
Newington	0.11	16	18
Rollinsford	0.08	12	18
Newfields	0.09	16	21
Milton	0.07	11	18

VI. Proposals to reduce non-point sources of nitrogen should be struck from the Draft Permit

The Draft Permit impermissibly regulates and places actual—not so-called "optional"—limits on non-point sources. It is well-settled law that the CWA draws a distinct line between point and non-point sources. Under the CWA, point sources are regulated by 33 U.S.C. § 1342 (National Pollutant Discharge Elimination System) and § 1311 (effluent limitations). Conversely, non-point sources are addressed in a separate portion of the CWA, namely, 33 U.S.C. § 1288, and are not regulated under NPDES. Here, EPA's attempt to regulate non-point sources in the draft permit is clearly contrary to existing law, and therefore, is arbitrary and capricious.

The Draft Permit establishes so-called "optional" non-point source and stormwater point source nitrogen reduction pathways as an illusory alternative to investing in additional WWTF upgrades. Draft Permit, Fact Sheet, at 29–31. Indeed, the so-called "optional" nitrogen reduction pathways are in reality a permit requirement. Essentially, the Draft Permit requires each community subject to the Draft Permit to develop a Nitrogen Control Plan to reduce nitrogen from each community by 45% over a 23 year period. Id. If the activities described in the Draft Permit are not performed, EPA will reopen or reissue the permit to incorporate more stringent standards on WWTFs. Id. at 31. There are numerous legal and factual problems with these so-called optional requirements.

A. EPA does not have authority to regulate non-point sources in an NPDES Permit.

The misnamed "optional" reduction to nitrogen pathways is a de facto—or backdoor—permit requirement to reduce nitrogen from non-point sources, a clear violation of EPA's authority under the CWA. Federal courts have consistently held that 33 U.S.C. § 1342 does not authorize EPA to regulate non-point sources under the NPDES permitting program.[26]

Nevertheless, the Draft Permit unequivocally regulates non-point sources in violation of the CWA and existing case law.[27] Regardless of whether a community participates in the nitrogen reduction pathway program, the Draft Permit explicitly states that:

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[26] See e.g., Oregon Natural Resources Council v. U.S. Forest Service, 834 F.2d 842, 849 (9th Cir. 1987) (point sources are subject to direct federal regulation and enforcement under the CWA, but "non-point sources, because of their very nature, are not regulated under the NPDES"); Oregon Natural Desert Ass'n v. Dombeck, 172 F.3d 1092, 1095–97 (9th Cir. 1998) (concluding that the CWA focuses on reducing effluent from point sources through the NPDES permitting system and finding that non-point source pollution is not directly regulated by the Act); Friends of Sakonnet v. Dutra, 738 F.Supp. 623 (D.R.I. 1990) ("When Congress established the National Pollutant Discharge Elimination System (NPDES) in 1972 and concomitantly created a new approach to regulating and abating water pollution, it drew a distinct line between point and non-point pollution sources. Point sources are subject to direct federal regulation and enforcement under the Act. Non-point sources, because of their very nature are not regulated under the NPDES." (citing Oregon Natural Resources Council v. United States Forest Service, 834 F.2d 842, 849 (9th Cir.1987) (citation and footnote omitted); United States v. Earth Sciences, Inc., 599 F.2d 368, 371 (10th Cir.1979) ("Because non-point sources of pollution, such as oil and gas runoffs caused by rainfall on the highways, are virtually impossible to isolate to one polluter, no permit or regulatory system was established as to them.").

[27] The Nitrogen Optimization Plan is wholly inconsistent with the Permit, which specifically states that "Discharges from non-WWTF outfalls are excluded from coverage under this General Permit." If this statement is true, any final

> in the event the activities described [in the nitrogen reduction pathway program] are not carried out and water quality standards are not achieved, EPA may reopen the General Permit . . . and incorporate any more stringent nitrogen effluent limits for the WWTFs necessary to ensure compliance with water quality standards.

Draft Permit, Fact Sheet, at 31. Indeed, the Draft Permit warns that if the water quality objectives are not met, more stringent requirements on the town's WWTFs will follow. Id. Examples of more stringent requirements include: requiring all POTWs to achieve 3-mg/l effluent TN; eliminating all MS4 waivers in the watershed; expanding MS4 coverage to all communities in the watershed via EPA Residual Designation authority; or EPA/NHDES imposed growth moratoria.

In essence, if the reduction of nitrogen from non-point sources is not successful, EPA will continuously lower concentrations of nitrogen in the effluent from regulated WWTFs. Such requirements, and future threats for enforcement, produce unlawful de facto permit requirements to reduce non-point sources of nitrogen in a NPDES permit. Such actions are wholly inconsistent with the law and are arbitrary and capricious.

Non-point sources are properly controlled pursuant to grant programs and State regulations. To regulate non-point sources, the CWA uses the threat and promise to provide federal grants to the states, 33 U.S.C. § 1288(b)(2), and the requirement that states prepare non-point source management programs, 33 U.S.C. § 1329.[28] To reduce contributions of nitrogen from non-point sources, the State and EPA may only resort to using the mechanisms provided for in 33 U.S.C. § 1288 and § 1329. Using a NPDES permit to regulate non-point sources is a clear error of law.

EPA should remove any specific references to non-point source reductions in nitrogen as part of the Draft Permit. Alternatively, the Towns request that EPA explicitly acknowledge that none of the prospective permittees are required to comply with, or achieve, any of the non-point source reductions of Total Nitrogen as a requirement of this permit. The Towns also request that EPA remove any language threatening potential repercussions if the Towns elect not to participate in the suggested non-point source reduction efforts. Lastly, the Towns urge EPA to bring all point source and non-point source stakeholders into permit discussions to promote voluntary non-point source participation and provide for grant funding.[29]

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permit must remove any requirement or de facto requirement for Towns to reduce their non-point sources of nitrogen by 45%.

[28] Dombeck, 172 F.3d at 1097.

[29] See EPA's 2007 *Watershed-based National Pollutant Discharge Elimination System (NPDES) Permitting Technical Guidance*, at 35, *available at* https://www3.epa.gov/npdes/pubs/watershed_techguidance.pdf (watersheds that have significant non-point source pollutant contributions benefit from incentives that promote voluntary non-point source participation); 33 U.S.C. § 1329(h).

B. The required non-point source reductions outlined in the Draft Permit are unachievable as written, and therefore, are arbitrary and capricious as a matter of law.

Not only does the Draft Permit unlawfully establish requirements for reduction of non-point sources, the ultimate goal of reducing non-point sources of nitrogen by 45% from non-point and stormwater point sources is unsupported by the record. Draft Permit, Fact Sheet, at 28. This is a 45% reduction from the 117.0 kg- ha^{-1} yr^{-1} derived from the EPA normalized average non-point source and stormwater point source from 2012 to 2016 down to 64.6 kg ha^{-1} yr^{-1}. In order to achieve the 100 kg- ha^{-1} yr^{-1} loading factor, all 52 communities that discharge to Great Bay must also reduce non-point and stormwater discharges. However, this Draft Permit only applies to 12 of the 52 communities that contribute nitrogen into Great Bay from non-point sources. If not all of the 52 communities reduce their non-point sources of nitrogen by 45%, then the permit, as currently written, will not meet the Estuary loading goal of 100 kg ha^{-1} yr^{-1}.

1. The Draft Permit provides no factual support for the required percentage reductions.

The Draft Permit lacks any factual support to demonstrate that the proposed nitrogen reduction levels by communities at 11, 22, 33, and 45% are achievable and affordable. Without any demonstration of achievability by EPA, the selected levels are unsupported by the law and are arbitrary and capricious.

It is not technically feasible to get to the identified reduction percentages contained in the Draft Permit. Without a technical basis to achieve the identified percentages, EPA's position on this matter is wholly unsupported by the facts and is arbitrary and capricious as a matter of law. CWA Section 303(d) requires states to establish TMDLs that will result in the attainment of water quality standards. EPA guidance also requires that a TMDL develop Waste Load Allocations (WLA) and Load Allocations (LA) and provide reasonable assurance that wet weather runoff controls can be implemented and maintained to achieved. Reasonable assurance requires that 1) the load allocation is technically achievable and 2) the programs and controls to be implemented are identified and enough to meet the load allocation.

EPA has not provided any reasonable assurance that the NPS/SW reductions presented in Appendix II—either the type nor level of implementation to achieve these reductions—are technically feasible or achievable. There is no evidence in the administrative record that would support the identified percentages and EPA's goal of reducing non-point source loading by 45% reduction over 23 years; therefore, such percentage reductions are arbitrary and capricious.

Indeed, the efforts to reduce nitrogen from non-point sources in the Berry Brook Watershed in Dover, NH, which was largely funded by State and federal grant money, only reduced nitrogen releases into the Estuary by 1,127 lbs. per year (or 3 lbs. per day). For many communities under this Draft Permit, the 45% non-point source nitrogen reduction ranges from approximately 3,950 lbs. per year to 41,900 lbs. per year. This would equate to 3.5 to 37 retrofit projects similar to the scale of Berry Brook, within a single community, making this suggestion wholly infeasible.

The Draft Permit calls for 45% reduction of non-point source nitrogen loadings. Per the Great Bay Nitrogen Non-Point Source Study (GBNNPSS) the total non-point source load is 1,811,335 lbs./year. The Draft Permit load reduction target is approximately 815,000 lbs./year or 16,300,000 lbs. over 20 years. EPA provided data to the Town of Newmarket from projects in Arlington, MA, which showed a project capital cost of approximately $200/lb. total nitrogen. Using the EPA supplied cost information, the capital cost to achieve the non-point reduction targets of the Draft Permit would be over $3 Billion. The 12 communities subject to this Draft Permit legally cannot be required to expend these funds; they simply cannot afford paying such a sum, and equitably should not be asked to expend such monies without the help and support of other communities, and the State and federal government.[30]

In addition, the Draft Permit fails to assess the impact of population density (i.e., per capita loadings) and on-lot septic system on estuary water quality. Draft Permit, Fact Sheet, at 11–14. Failing to address such measures results in setting unreasonable goals that are unsupported by the facts. Moreover, neither EPA nor NHDES have developed an independent estimate of how much impervious cover needs to be managed (or the associated costs) in order to meet the requirements of the Appendix II optional pathway.

2. The Towns do not have authority to enter private property to require changes to reduce nitrogen releases.

Contrary to assumptions in the Draft Permit, the Towns do not have legal authority to enter upon private property to comply with the nitrogen pathway reductions. In addition, the Town of Newmarket does not own or oversee enough land area to achieve a 45% reduction.

In order to allow Towns to enter upon private property to take steps to reduce nitrogen, the State would have to enact legislation. Such legislation does not exist and upon information and belief, there are no existing proposed measures that would allow the Towns to enter upon private property. In addition, the Towns do not have legislative authority to require homeowners to install new septic systems or implement fertilizer plans. Without such authority, even if the Towns wanted to comply with the proposed nitrogen reduction plan, they cannot as a matter of law.

3. Reducing levels of nitrogen from non-point sources to the percentages identified in the Draft Permit is cost prohibitive.

A number of communities have established optional Nitrogen Control Plans that indicate the cost to achieve these levels, if physically doable, is cost prohibitive. Implementation of the proposed non-point source reductions, regardless of whether they are permit conditions, are wholly cost prohibitive. For example, to comply with the current Draft Permit, Exeter would have to, at a minimum:

[30] Once again, this requirement in the Draft Permit highlights the lack of necessary stakeholder involvement. To resolve these issues, all 52 communities and other stakeholders should come together to agree upon funding and cost allocation measures to achieve further reductions in nitrogen loading from non-point sources.

- Upgrade the WWTF from 2.2-MGD to 3.0-MGD at 5-mg/L in 2030 resulting in a $4.5M capital cost and $7.4M for 20-year life-cycle cost.

- Upgrade the WWTF from 3.0-MGD at 5-mg/L to 3.0-MGD at 3-mg/L in 2033 resulting in a $6.1M capital cost and $9.8M for 20-year life-cycle cost.

- Implement structural and non-structural non-point source and stormwater controls, from 2021 to 2043, to achieve a 15% reduction in the baseline load (16 lbs N/day), requiring a capital cost investment of $20.5M, an annual operation and maintenance cost of $1.1M and a 20-year life-cycle cost of $50.6M.

To achieve this reduction, the Town would require a significant implementation plan. First, the Town would need to maximize non-point source non-structural strategies (5.3 lbs N/day), by implementing: (1) a residential fertilizer program; (2) an agricultural nutrient reduction program; (3) a pet waste collection program; (4) a infrastructure maintenance program; (5) an organic waste and leaf litter collection program; and (6) increased street/pavement cleaning. In addition, the Town would need to maximize non-point source and stormwater (NPS/SW) structural BMP strategies (10.7 lbs N/day) by retrofitting 464 existing septic systems with advanced septic systems and treating 232 impervious acres with stormwater structural BMPs

The Following Table Depicts projected costs of the implementation of such a program:

Year	Permit Year	NPS/SW Implementation Rate (lbs N/day)	WWTF		NPS/SW	
			Capital Cost	20-YR Life Cycle	Capital Cost[1]	20-YR Life Cycle
2028	8	5.3	-	-		
2030	10	6.4	$4.5M	$7.4M		
2033	13	7.5	$6.1 M	$9.8M	$0.89M	$2.2M
2038	18	10.7	-	-		
2043	23	16.0	-	-		
SUBTOTAL		**16.0**	**$10.6M**	**$17.2M**	**$20.5M**	**$50.6M**
TOTAL INVESTMENT			**Capital Cost**	**$31.1M**		
			20-YR Life Cycle	**$67.8M**		

1. The NPS/SW capital cost is an annual average cost over the life of the permit (23 years).

This scenario, however, does not consider the potential increases in NPS/SW load that could result from growth within the Town over the planning horizon. One would expect that regulations requiring the implementation of controls to reduce nitrogen to the receiving water would include consideration of new and redevelopment within the Town over time. Since none of the nitrogen reduction strategies can reduce enough nitrogen to mimic the natural condition, however, it is likely that additional reductions will be needed to offset future development and to maintain the WWTF + NPS/SW load from the Town.

Using the Town of Exeter as an example, the proposed required reductions in nitrogen are cost prohibitive.

4. An adequate accounting for reducing nitrogen releases from non-point sources does not exist.

The Draft Permit erroneously relies upon the Pollution Tracking and Accounting Program ("PTAP") to track and monitor nitrogen loading changes. PTAP does not currently contain adequate data to accurately track and account for nitrogen reductions. Without adequate data, it is wholly impossible to accurately assess reductions in nitrogen. Indeed, requiring the percentage reductions contained in the current Draft Permit is indefensible without an adequate accounting of nitrogen loading in the Estuary.

C. The Draft Permit establishes arbitrary enforcement mechanisms.

The Draft Permit does not provide a clear pathway for EPA to assess and treat permittees that do not implement the so-called "optional" nitrogen reduction pathway if water quality objectives are not met. For example, if Town A meets the requirements of the non-point source reductions and fully implements the so-called "optional" pathway, while Town B does not implement the pathway. If water quality objectives are not achieved, would both Town A and Town B be required to upgrade their WWTFs to achieve 3-mg/l effluent total nitrogen? Or would Town A be treated positively and not have to upgrade its WWTF because it pursued the optional pathway? Or would only Town B have to upgraded its WWTF because it did not pursue the optional pathway? Either way, the inclusion of the so-called optional nitrogen reduction pathway will likely lead to unequal, unfair and/or selective enforcement of the permit and/or the CWA.

D. EPA and New Hampshire could, and should, establish a TMDL for non-point sources.

As discussed above, EPA and NHDES should work to establish a TMDL. Indeed, courts have specifically found that the use of TMDLs to assess non-point sources is appropriate.[31] Any attempts to regulate non-point sources through a NPDES permit is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with law.

[31] See Pronsolino v. Marcus, 91 F. Supp. 2d 1337 (N.D. Cal. 2000), aff'd sub nom., Pronsolino v. Nastri, 291 F.3d 1123 (9th Cir. 2002).

VII. The ambient monitoring requirements are arbitrary and capricious and impose unlawful requirements on the Towns.

The Draft Permit includes a permit requirement for adaptive management and ambient monitoring. The proposed monitoring scheme requires permittees to conduct monitoring and sampling for +/- 15 separate data points at 25 different locations scattered throughout the Estuary. None of the 25 locations are located at any of the Towns' wastewater treatment facility's outfalls or discharge locations. Neither of the Towns have agreed to perform such monitoring, nor have they formed a monitoring consortium with other communities and stakeholders. The proposed monitoring regime, which is a requirement of the Draft Permit, is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; contrary to constitutional right, power, privilege, or immunity; and the imposition of such a monitoring program is in excess of statutory jurisdiction, authority, or limitations, or short of statutory right. 5 U.S.C. § 706(2).

First, as discussed, supra Section IV, requiring only 12 out of the 52 communities that discharge to Great Bay to participate in an ambient monitoring program violates the equal protection clause of the federal and State Constitutions. Moreover, if one or more communities opt-out of the general permit, effectively creating an orphan share of the monitoring costs, the remaining communities will be required to pay for the exorbitant sum of money needed to cover the costs of the monitoring system.[32] Furthermore, the Draft Permit is completely silent on the future nitrogen loading by other communities.

Second, under the CWA NPDES permitting scheme, EPA does not have authority to require permittees to monitor a receiving water. The obligation to monitor navigable waters rests solely with the states and the federal government. In a NPDES permit, EPA may require a permittee to monitor a permittee's effluent from a specific outfall or discharge as a compliance point. See e.g., 40 C.F.R. § 122.45(a) (stating in pertinent part that "all permit effluent limitations, standards and prohibitions shall be established for each outfall or discharge point of the permitted facility") (emphasis added); 40 C.F.R. § 122.41(j)(1) (requiring that "samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity") (emphasis added); 40 C.F.R. § 122.41 (i) (permitting EPA to inspect a permittee's facility and equipment—including monitoring and control equipment—on the permittee's premises) (emphasis added); 40 C.F.R. § 122.41(*l*)(4) (establishing requirements for permittees to submit Discharge Monitoring Reports); 40 C.F.R. § 122.44(i)(1) (monitoring requirements must "assure compliance with permit limitations" for mass and volume of the effluent); 40 C.F.R. § 122.48 (listing required monitoring conditions in an NPDES permit to ensure that the "monitored activity" complies with permit conditions) (emphasis added). Conversely, the CWA

[32] The "orphan share" has been defined by EPA in the context of assessing Superfund sites under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") as costs "attributable to [parties] who are insolvent or otherwise not amenable to suit." Boeing Co. v. N. W. Steel Rolling Mills, Inc., No. 97-35973, 2004 WL 540706, at *2 (9th Cir. Mar. 17, 2004). EPA has offered orphan share compensation for Superfund site remediation since 1996. See *Interim Guidance on Orphan Share Compensation for Settlors of Remedial Design/Remedial Action and Non-Time Critical Removals* (June 3, 1996). By giving communities that discharge into Great Bay the option to opt-out of the program, EPA has effectively created a situations in which "orphan shares" will exists. These costs should not be borne by other communities, but should be covered by EPA under the same theory applicable to orphan share compensation in the CERCLA context.

does not provide EPA with the authority to require a permittee to monitor the receiving water to which it discharges its effluent.

EPA's authority is further clarified in many of its guidance documents that make clear that ambient monitoring may only be included in a permit if the communities voluntarily agree to undertake such an effort or form a voluntary monitoring consortium. See EPA's 1996 *Interim Guidance for Performance-based Reductions of NPDES Monitoring Frequencies* at 9, *available at* http://www.epa.gov/npdes/pubs/perf-red.pdf (establishing incentives for NPDES discharges to voluntarily collect additional ambient monitoring information); EPA's 2007 *Watershed-based National Pollutant Discharge Elimination System (NPDES) Permitting Technical Guidance*, at 59, *available at* https://www3.epa.gov/npdes/pubs/watershed_techguidance.pdf) (recommending that the permitting authority "contact[ ] all facilities that discharge into the water body and encourage them to jointly work" together) (emphasis added).[33] The 1996 EPA guidance document notes that "point sources could provide a great deal of valuable ambient monitoring information that could be very helpful in making better watershed-based decisions" and that "NPDES discharges could often provide valuable information to help measure these core indicators of the overall health of the watershed."[34] Despite this potential source of information, the guidance goes on to explicitly establish an approach for incentivizing point source discharges to voluntarily undertake ambient monitoring:

> "[I]n order to encourage NPDES dischargers to voluntarily provide this information or collect additional ambient monitoring information, permitting authorities may consider granting additional reductions in compliance reporting and monitoring, over and above the reductions granted based on good performance if permittees agree to collect or provide additional ambient monitoring information."[35]

Here, there has been no agreement with any of the towns or voluntary offer from the towns to conduct an ambient monitoring program. EPA has failed to bring all of the necessary stakeholders to the table to discuss a monitoring regime and/or other potential incentives to participate in a comprehensive program. Without an explicit agreement to participate, EPA's inclusion of a watershed-wide ambient monitoring requirement exceeds the agency's authority under the CWA and its own guidance.

Moreover, Section 303(d) of the CWA requires that "each state shall identify those waters within its boundaries for which the effluent limitations required by [the CWA] . . . are not stringent enough to implement any water quality standard applicable to such waters." 33 U.S.C.

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[33] EPA's 1996 *Interim Guidance for Performance-based Reductions of NPDES Monitoring Frequencies* at 9. See also EPA's *Monitoring Consortiums – A cost-effective means to enhancing watershed data collection and analysis, available at* https://www.epa.gov/sites/production/files/2015-06/documents/1997_05_29_watershed_wacademy_its03_mon_cons.pdf (EPA 1997) (describing the formation of voluntary monitoring consortiums and related incentives to participate in such consortiums in order to monitor ambient conditions in the receiving water). For example, the San Francisco Estuary Project and Lower Neuse Association project all included regulatory incentives for coordinated NPDES monitoring and he Triangle Area Water Supply Monitoring Project included supplemental voluntary monitoring of tributaries. Id. at 1.

[34] EPA's 1996 *Interim Guidance for Performance-based Reductions of NPDES Monitoring Frequencies* at 9, *available at* http://www.epa.gov/npdes/pubs/perf-red.pdf (emphasis added).

[35] Id. (emphasis added).

§ 1313(d)(1)(A) (emphasis added). Section 305(b) also requires each state to provide reports on the water quality of navigable waters within each state. 33 U.S.C. § 1315(b).[36] The plain language of the CWA requires states, not municipalities, to undertake the necessary identification process of impaired waters.

In essence, the ambient monitoring program in the Draft Permit unlawfully shifts the State's burden from monitoring and identifying those navigable waters that are impaired—and paying for such monitoring—to the towns.[37] Indeed, the State and federal governments should undertake and provide the required funding to monitor the receiving water; not the towns. See e.g., 33. U.S.C. § 1313(d) (requiring states to identify those waters within its boundaries that do not meet water quality standards); 33 U.S.C. § 1315(b) (requiring states to develop water quality reports for all navigable waters in the state); 33 U.S.C. § 1329(a)(1)(A)–(B) (requiring the states to identify those waters that cannot be reasonably expected to attain or maintain applicable water quality standards); 33 U.S.C. § 1329(h) (establishing federal grant program to provide money to states to assist in the operation of nonpoint source management programs). In addition, EPA has not cited to, and the Towns are unaware of, any existing NPDES permit where EPA has unilaterally imposed a requirement for individual dischargers to undertake such an extensive monitoring regime in a receiving water.[38]

The CWA places specific requirements on states to undertake the necessary sampling, monitoring, and identification of impaired water bodies. The Act does not allow states to delegate this requirement to individual town's within the state.

Fourth, the proposed ambient monitoring program is prohibitively costly and not reasonably or rationally tied to meet the objectives of the CWA. The anticipated monitoring costs are unspecified; however, based on information from Newmarket, UNH and PREP, it is expected that costs will exceed $1.5 Million the first year (includes capital cost of monitoring equipment) and remain at $1 Million in future years. Broken down by town, to comply with the

[36] Section 319 of the CWA also requires each state to prepare and submit to EPA a report that "identifies those navigable waters within the State which, without additional action to control nonpoint sources of pollution, cannot reasonably be expected to attain or maintain applicable water quality standards or the goals and requirements of this chapter" and that also "identifies those categories and subcategories of nonpoint sources or, where appropriate, particular non-point sources which add significant pollution to each portion of the navigable waters . . . in amounts which contribute to such portion not meeting such water quality standards or such goals and requirements." 33 U.S.C. § 1329(a)(1)(A)–(B).

[37] See EPA's *Watershed Web Academy – Introduction to the Clean Water Act*, at 23 *available at* https://cfpub.epa.gov/watertrain/pdf/modules/introtocwa.pdf (noting that while "[t]he responsibility for ambient monitoring of rivers, lakes, bays, wetlands, estuaries, and nearshore marine waters falls primarily on the states . . . most states do not have the funding required to carry out ambient monitoring on the scale needed to keep close track of the condition of our nation's surface waters").

[38] The Towns specifically reviewed recent Connecticut, New York, and Rhode Island NPDES Permits and did not locate the imposition of any such requirement on individual municipalities. In fact, the State of Connecticut recently reissued its General Permit for nitrogen discharges effective January 1, 2019. That General Permit authorizes the discharge of total nitrogen from 79 municipal POTWs, but does not require any of the 79 municipal POTWs to conduct ambient monitoring. Other municipal POTWs discharging to the Connecticut River and ultimately to Long Island Sound are also not required to conduct ambient monitoring. Similarly, the State of Virginia has issued a nitrogen General Permit which authorizes the discharge of total nitrogen and total phosphorus from facilities in the Chesapeake watershed in Virginia, but does not require any permitted facility to undertake ambient monitoring.

Draft Permit as currently written, it is estimated that it will cost Exeter between $111,247 to $166,781 per year and Newmarket between $31,520 to $47,280 per year. Over the 23 year-period described in the Draft Permit, this would amount to $2.56 million to $3.84 million for Exeter and $725,000 to $1.09 million for Newmarket in today's dollars. Even if the monitoring program outlined in the Draft Permit was not prohibitively expensive, the Towns do not currently have a funding mechanism to obtain money to pay for such monitory costs. See also supra, note 1 (the impact of COVID-19 has significantly strained the Towns' resources and the Towns are not in a position to further expend significant funds on water quality monitoring when their focus is on supporting their communities and constituents).

If EPA seeks to maintain an ambient monitoring program in a general permit that is ultimately issued, EPA should (1) clarify that the ambient monitoring program is entirely voluntary; (2) reallocate and divide up the costs of such monitoring among all 52 communities, and among the non-point sources, that contribute nitrogen to the Estuary; and (3) establish clear goals so that Permittees understand when the goals of the permit have been achieved and clarify when the Agency will decide to require or eliminate additional nitrogen reductions if there is a steady decline of nitrogen in the estuary over the presumed 23 year period.

While developing an integrated watershed monitoring plan is a laudable goal, such a plan cannot exist with only 12 of the communities that discharge to the Estuary; all stakeholders must be brought to the table to work on reducing nitrogen. Without such estuary-wide participation, the permit goals cannot and will not be achieved.[39]

Moreover, the Draft Permit currently specifies that the costs of the monitoring program shall be shared by the affected communities based on the WWTF design flow of each community relative to the total design flow for all the facilities. The monitoring costs, however, should be allocated based on permitted or actual nitrogen loadings from each community.

VIII. If a final permit is issued, it should contain sufficient protections from the anti-backsliding rules contained in the CWA.

The Draft Permit establishes unachievable, arbitrary, and capricious goals that are wholly unsupported by the facts and will essentially set in stone unreasonable permit requirements due to the existing anti-backsliding requirements found in the CWA. The establishment of a 100 kg ha^{-1} yr^{-1} annual load effectively sets a permanent annual load due to anti-backsliding requirements. Indeed, the Fact Sheet provides that "[t]o the extent recent or ongoing nitrogen reductions will achieve compliance with the limitations set forth in the Draft Permit for specific WWTFs . . ., EPA notes that the issuance of this GBTN GP will act to 'lock in' these reductions to ensure that loads do not increase in the future."

[39] While the Draft Permit Fact at page 29 states that "EPA will consider incorporating a requirement in future modification or reissuance of the MS4 GP for all permitted municipalities within the Great Bay watershed to contribute equitably to the Adaptive Management and Monitoring Program," the Towns urge EPA to refrain from issuing any general permit until all stakeholders come together to voluntarily work out such an adaptive management and monitoring program. Without commitments from each stakeholder in this process, EPA is without authority to mandate any such monitoring requirements.

However, as discussed supra Section V, the annual load contained in the Draft Permit is not supported by a technical basis, and therefore, should not be implemented. In essence, the anti-backsliding provisions of the CWA, see 33 U.S.C. § 1342(o)(1), prohibit the issuance of a permit that has less stringent standards than an existing permit. Therefore, if this permit were to issue, future permits would likely be unable to have less stringent standards.

To the extent the Draft Permit is re-issued in final form, the Towns request that any final permit explicitly state that if the proposed annual load or TN load allocations for each permittee are found to be too restrictive in the future, then EPA will unilaterally increase the annual average load, and/or TN load allocations for each individual permittee, to take into account existing conditions in the Estuary. See 33 U.S.C. § 1342(o)(2). If EPA does not unilaterally amend the permit, then the permittees should be given an explicit opportunity to request that EPA make such changes to reflect current condition in the Estuary.

IX. Municipalities should be allowed to trade nitrogen credits if a final permit is issued.

The Draft Permit lacks a mechanism to establish nitrogen trading among the communities. If EPA issues a general permit, it should include allowance for a full market-based approach to allow water quality trading and to enhance reduction efforts for non-point sources, which is routinely used by EPA.[40] This approach will allow the region to most cost effectively obtain the greatest water quality improvements, which is the goal of the entire region. The State of Connecticut has successfully administered a nutrient credit trading program to achieve the LIS TMDL load reduction targets.[41] The Draft Permit should maintain the option for New Hampshire to implement a similar trading program if it is deemed advantageous for the region. This type of program will incentivize the communities to optimize WWTF operations to maximize nitrogen treatment and to recoup some of their investment.

Here, one example of inter-municipal trading could be between Newfields (point source WWTF effluent) and Exeter. If for example, the Newfields WWTF was abandoned and all sewer flows were directed to Exeter, Newfields should be able to trade credits with Exeter. Another example could be trading between Stratham (non-point source septic) and Exeter if existing non-sewer development in Stratham was directed to the Exeter sewer system and WWTF. The option to permit this type of trading should be explicitly described in the General Permit.

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[40] See e.g., EPA's *Watershed-based National Pollutant Discharge Elimination System (NPDES) Permitting Implementation Guidance*, at 3-2 *available at* https://www3.epa.gov/npdes/pubs/watershedpermitting_finalguidance.pdf ("EPA believes that market-based approaches such as water quality trading can provide greater flexibility and have potential to achieve greater water quality and environmental benefits than current practices and policies.").

[41] See also https://www.epa.gov/newsreleases/epa-awards-over-18-million-innovative-market-based-nutrient-reduction-projects-great-0 (five organizations using market-based approaches, including water quality trading, to enhance non-point source excess nutrient reduction efforts in the Great Lakes basin).

X. The proposed Nitrogen Optimization Plan ("NOP") impermissibly regulates the internal design and treatment of the WWTF and therefore exceeds EPA's statutory authority under NPDES and should be eliminated as a requirement.

Under the Draft Permit, the Towns are required to "develop, implement, and maintain a Nitrogen Optimization Plan ("NOP") which will evaluate alternative methods of operating the existing wastewater treatment facility to optimize the removal of nitrogen throughout the year." Draft NPDES Permit, Article 2.2, Part 1. Based on this requirement, even if a municipality meets the effluent limits identified in its permit, it may still not be compliant with this permit condition. This is clearly beyond the scope of EPA's authority. As courts have held, the CWA "gives the agency broad powers to impose NPDES permit conditions in order 'to assure compliance with' point source effluent limitations." Am. Iron & Steel Inst. v. E.P.A., 115 F.3d 979, 995 (D.C. Cir. 1997). The proposed NOP goes well beyond ensuring compliance with effluent limitations. Instead, it seeks to regulate the internal means and methods used by the WWTF to meet permit effluent requirements and is an impermissible extension of EPA's statutory authority. Therefore, should EPA issue a final permit, the NOP requirements must be removed.

Contrary to the proposed NOP, "effluent limitations are restricted to regulations governing 'discharges from point sources into navigable waters'…[and] the object of these limitation is still the 'discharges of pollutants from a point source.'" Iowa League of Cities v. E.P.A., 711 F.3d 844, 877 (8th Cir. 2013) (holding that EPA's authority to apply effluent limitations did not extend to regulation of internal treatment.). The proposed NOP does not regulate discharges from a point source, but rather regulates internal operations. Courts have directly held that "by authorizing the EPA to impose effluent limitations only at the point source, the Congress clearly intended to allow the permittee to choose its own control strategy." Am. Iron & Steel Inst. v. E.P.A., 115 F.3d 979, 996 (D.C. Cir. 1997). The requirement that municipalities develop and implement control measures that go beyond meeting effluent requirements, results in the impermissible "meddling inside a facility" which courts have deemed improper. Am. Iron & Steel Inst. v. E.P.A., 115 F.3d 979, 996 (D.C. Cir. 1997).

Moreover, the proposed NOP obstructs the ability of WWTF operator's to implement a treatment process effectively. Article 2.2, Part 3 of the draft permit indicates, "if any significant changes to the facility's operations occur…the Permittees shall amend and update the NOP within 14 days." Based on this requirement, the 12 WWTF's would be required to make operational changes in order to adapt to seasonal variations and other constantly fluctuating conditions. This constant need for change makes this requirement administratively burdensome to municipalities. EPA should consider removing the requirement for an NOP from the General Permit.

Lastly, the NOP impermissibly installs unreasonable monitoring requirements within each WWTF. The NOP requires all permittees to certify annually that each WWTF is in compliance with the NOP by (1) including a summary of activities related to optimizing nitrogen removal efficiencies; (2) documenting the annual nitrogen load from the facility; and (3) track trends relative to the previous year. Draft NPDES Permit, Article 2.2, Part 4. Not only does this reporting requirement violate existing case law and improperly meddle with internal facility

operations, such a requirement is entirely burdensome and further ties the hands of WWTF operators.

XI. Equitable estoppel

The Towns of Exeter and Newmarket individually negotiated and signed separate Administrative Orders on Consent ("AOC") with EPA on June 24, 2013. The Exeter and Newmarket AOCs specifically relate to the total nitrogen allowance for discharges from the towns' WWTF pursuant to their NPDES permit. The AOCs require Exeter and Newmarket to take certain actions and establishes interim effluent limits. The Newmarket AOC further requires that the Town construct a new WWTF in accordance with plans submitted in September 2011. In addition, the Newmarket AOC permits the town to submit evidence to justify leaving the interim discharge limit in place by December 31, 2022. Administrative Order on Consent Docket No. 13-009, Section E, 2. The Exeter AOC also permits the town to offer evidence to support an extension of the interim limit of 8 mg/L beyond 2023. Administrative Order on Consent Docket No. 13-010, Section IV.E.2. As a result, the AOCs are effective at least through 2022 and 2023 respectively and consequently, EPA should remove the Towns from any General Permit issued.

In order to comply with requirements set out in the AOCs, Exeter has expended significant funds to upgrade the WWTF. Newmarket completed construction of the upgraded WWTF in 2017. Moreover, as part of the negotiation of the AOCs, both Exeter and Newmarket agreed voluntarily to undertake a Nitrogen Control Plan. Both towns made expenditures based on the agreement reached with EPA in their respective AOC. The Draft Permit would now require these towns to implement a mandatory Nitrogen Optimization Plan. In addition, the Draft Permit provides a mechanism by which EPA could re-open either town's permit and further reduce their effluent limit. This is directly contrary to the tools afforded to the towns under the AOCs and undermines the process agreed to by the towns. Exeter and Newmarket relied on representations made by EPA in the AOC in deciding to expend funds on facility upgrades. It is inequitable for EPA to now change its position and require these towns to take actions contrary or in excess of those required under the AOC.[42]

It would invalidate the function of AOCs if parties could not rely on commitments and representations made in an AOC. EPA expected Exeter and Newmarket to rely on the timeline and requirements set out in the AOC, and the towns expended significant resource in reliance on the terms of the AOC. Equity requires EPA to abide by the representations and agreements it reached with these towns in the AOCs and not subsequently require the towns to meet different requirements and satisfy different standards.[43] As courts have held, "there are circumstances where the Government should be required by our law to stand behind (its) written agreements ...

[42] As courts have held, "[i]n a CWA case, a defendant must show he (1) reasonably relied on plaintiff's conduct, (2) in such a manner as to change its position for the worse in order to establish equitable estoppel." Idaho Conservation League v. Atlanta Gold Corp., 844 F. Supp. 2d 1116, 1135 (D. Idaho 2012).

[43] Courts have held that "although the Supreme Court has been extremely reluctant to estop the federal government, it has not entirely foreclosed the possibility of applying estoppel in an appropriate case." Portmann v. United States, 674 F.2d 1155, 1164 (7th Cir. 1982).

in order to prevent manifest injustice." Portmann v. United States, 674 F.2d 1155, 1165 (7th Cir. 1982); citing United States v. Gross, 451 F.2d 1355 (7th Cir. 1971). Exeter and Newmarket should be able to rely on EPA's representations and the agreements made in the AOC.

XII. The Opt-Out requirements from the general permit should be clarified.

The Draft Permit references 40 C.F.R. § 122.28(b)(3)(iii), which authorizes any entity covered by the General Permit to apply for an individual permit, which would include authorization to discharge nitrogen. To the extent the EPA may grant such a request, the Draft Permit should contain specific examples of situations where EPA might grant a request for the issuance of an individual permit. Without such further guidance, the standards are wholly vague and ambiguous.

Moreover, the opt-out of one or more communities from this general permit will place unreasonable and disproportionate burdens on other communities. If, for example, one community is allowed to opt-out of this permit, it would place the remaining nitrogen reduction and/or monitoring program requirements on the remaining 11 communities. This would disproportionally affect the effectiveness of the permit.

XIII. Miscellaneous comments

A. General Permit Article 2.2 and 2.3 should align all reporting submittal dates for the covered entities for the MS4 permits, this Draft Permit and any other periodic/annual reporting is required by EPA.

B. If a final permit is issued, the adaptive management monitoring program as described at General Permit Article 2.3 should include the measurement of river flows and regional precipitation.

C. The Draft Permit ,at Appendix II Items 3, 4, 5 and 6, includes the phrase ". . . to achieve a reduction of nitrogen delivered to the Great Bay Estuary . . . ." The use of the term "delivered" needs to be clarified because "delivered load" is a defined term in the GBNNPS Study. Is the 11% reduction intended to input load or delivered load? If the permit refers to delivered load, who is responsible for calculating the natural attention which occurs between the implemented measures and Great Bay?

D. The Draft Permit, at Appendix II, Items 3, 4, 5 and 6, outlines increasing nitrogen removal requirements (11%, 22%, 33%, 45%) in 5-year increments. The Draft Permit fails to account for the appropriate time frame for the environment to re-equilibrate from these non-point source reductions. Given the multi-decadal groundwater travel time, requiring a 45% reduction in non-point source nitrogen sources in less than 20 years would almost certainly result in over-expenditures by the communities covered by the General Permit.

E. The Draft Permit at Appendix II, Page 2, Item 3.a.: states "a municipality-specific baseline of non-point and stormwater point source nitrogen delivered to the Great Bay estuary using data directly from the 2014 GBNNPSS or optionally providing

a defensible update, normalized for average rainfall." Both Exeter and Newmarket developed town specific NPS baseline loads in 2018 as part of their Nitrogen Control Plans, required by the respective AOCs. Would the Towns be able to use these loads instead of the 2014 GBNNPSS loads?

F. Fact Sheet Section III, Table 3, should align with the same baseline time period as the 2014 GBNNPS Study (i.e., 2010 to 2012). Table 3 should be expanded to include NPS loadings for all watershed communities and to identify whether each town is a NPDES, NPDES MS4, NPDES MS4 Waivers and non-NPDES community. Table 3 uses 100% delivery factors for Portsmouth and Newington, which does not appear to match the conclusions of the dye studies conducted on the Piscataqua River. Does this assumption consume assimilative capacity that should be allocated to those communities upstream of Great Bay?

G. The Towns request that the reporting requirement for effluent ammonia nitrogen be removed from the Permit. As this is a Total Nitrogen Permit, the combination of effluent TKN plus nitrate plus nitrite will provide the total nitrogen data being requested whereas ammonia is merely a subcomponent of the TKN analysis. The ammonia analysis adds cost without providing data directly pertinent to the total nitrogen value being regulated.

H. If the so-called "optional" non-point source and stormwater reduction requirements remain in a final general permit, these obligations should be conditioned upon NHDES and State lawmakers instituting new laws and regulations that assist towns with fertilizer management and advanced nitrogen removal septic system upgrades.

I. The Draft Permit fails to account for nitrogen contributions to the Estuary from combined sewer overflows.

XIV. Conclusion and summary of requests on the Draft Permit.

Based on the foregoing, the Draft Permit as currently written exceeds EPA's authority under the CWA, fails to account for significant non-point source discharges from a majority of the municipalities that release nitrogen to the Estuary, and violates well-established provisions of equal protection under the law.

The Towns request that EPA vacate the existing Draft Permit and restart the permitting process by bringing all 52 communities and all necessary stakeholders together to discuss an overall approach for restoring the Estuary. Without the input and voluntary contribution of other communities, EPA's goal of reaching a loading limit of 100 kg ha^{-1} yr^{-1} is wholly unachievable. Indeed, EPA's own guidance highly suggests that the permitting authority undertake significant outreach to all stakeholders as part of watershed-based planning. That has not occurred here.

Even if the EPA were to move forward with issuing a general permit at this time, the Towns respectfully request at least a year delay in the issuance of the general permit due to COVID-19. Currently, Towns are already experiencing significant reductions in operating budgets and the supply chains for technology have been disrupted.

If a final General Permit is issued, and the ambient monitoring program is included in whole or in part, the program should be stayed until such a period of time after the City of Portsmouth completes its upgrades at the Pierce Island wastewater treatment facility. It should also be stayed until the State and federal government are able to assess the health of Estuary after the significant efforts and progress made by the other eleven communities to reduce the discharge of nitrogen from their respective WWTFs, including the Towns and their implementation of their respective nitrogen control plans.

To the extent EPA moves forward with the issuance of the general permit, the Towns specifically request that EPA authorize and conduct a peer review of the data used to establish the 100 kg ha^{-1} yr^{-1} threshold. In addition, all requested changes to the permit as described herein should be made. Most notably, any final permit should:

1. Develop a consortium of all 52 communities and all point and non-point sources within each community that release nitrogen into the Estuary.

2. Include a TMDL for nitrogen, which addresses both point and non-point sources, in the Estuary.

3. Revise the 100 kg ha^{-1} yr^{-1} loading limit to establish an achievable goal that accounts for conditions specific to the Estuary, including representative rainfall data.

4. Set nitrogen effluent limits for all WWTF's based on the permitted flow of each facility and a concentration of 8 mg/L as judged by a seasonal rolling average during the same seasonal period as the Narragansett Bay permits (i.e., May 1 through October 31).

5. Remove any reference to reductions of Non-Point Source contributions of nitrogen. Alternatively, the Towns request that EPA explicitly acknowledge that none of the Permittees are required to comply with, or achieve, any of the non-point source reductions of Total Nitrogen as a requirement of this permit. The Towns also request that EPA remove any language threatening potential repercussions if the Towns decide not to participate in the suggested non-point source reduction efforts. In addition, a final permit should include calculations or other supporting evidence demonstrating that the permittees can achieve the percent reductions of nitrogen from non-point sources as currently contained in the permit.

6. Clearly delineate and describe non-point source grant programs that are made available to non-point sources to reduce the release of nitrogen into the Estuary.

7. Remove the nitrogen optimization plan requirements in its entirety.

8. Remove any Permittee requirement to monitor ambient water quality until such a time that all Permittees and other stakeholders voluntarily enter a monitoring consortium and collectively agree upon monitoring terms.

9. Explicitly state that if the proposed annual load or TN load allocations for each permittee are found to be too restrictive in the future, EPA will unilaterally increase the annual average load, and/or TN load allocations for each individual permittee, to take into account existing conditions in the Great Bay Estuary. See 33 U.S.C. § 1342(o)(2). If EPA does not unilaterally amend the permit, then the Permittees should be given an explicit opportunity to request that EPA make such changes to reflect the current conditions in the Estuary.

10. Revise the general permit to contain a specific re-opener clause—and an explicit exception to the antibacksliding provisions of the CWA—to properly adjust the annual nitrogen load allocation if additional communities are connected to either Town's system. See 33 U.S.C. § 1342(o)(2). In addition, the permit must contain a specific mechanism for either Town to receive credit for overall nitrogen reductions if wastewater from other communities is treated by the Towns' WWTFs.

11. Identify examples of specific situations where EPA might grant a request for the issuance of an individual permit.

12. Include specific provisions for municipalities to trade of nitrogen credits.

13. The WWTF TN limit for Newmarket be the difference between what the WWTF was discharging in 2012-2016 (170 lbs/day) and the 45% TN reduction goal for the entire Town cited in the draft general permit.

The Towns thank EPA for its careful review of these comments and look forward to continuing discussions on the health of the Estuary.