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May 13, 2015

VIA EAB eFILING SYSTEM

Ms. Eurika Durr
Clerk of the Board
U.S. Environmental Protection Agency
Environmental Appeals Board
1200 Pennsylvania Avenue, N.W.
Mail Code 1103M
Washington, D.C. 20460-0001

Re: City of Taunton – Wastewater Treatment Plant
Petition for Review of NPDES Permit No. MA0100897

Dear. Ms. Durr:

Attached please find for filing, the City of Taunton's Petition for Review of NPDES permit No. MA0100897 issued to the Taunton Wastewater Treatment Plant. The Environmental Protection Agency, Region 1, issued this permit on April 10, 2015. It was received by certified mail on April 13, 2015. Therefore, the appeal deadline, pursuant to 40 C.F.R. § 124.20(c) and 40 C.F.R. § 124.20(d), is May 13, 2015.

The petition has been prepared in compliance with the formatting and length requirements contained in the Environmental Appeals Board's Practice Manual.

Thank you for your assistance with this filing.

Very truly yours,

Philip Rosenman

BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In re:	)
City of Taunton Department of Public Works	)
Permit No. MA0100897	)

PETITION FOR REVIEW OF
CITY OF TAUNTON WASTEWATER TREATMENT PLANT'S
NPDES PERMIT ISSUED BY REGION 1

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May 13, 2015

Counsel for the Petitioner

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I. INTRODUCTION

Pursuant to 40 C.F.R. § 124.19(a), the City of Taunton, Massachusetts ("Petitioner" or "City" or "Taunton"), submits this Petition for Review ("Petition") regarding its National Pollutant Discharge Elimination System ("NPDES") Permit No. MA0100897 ("the Permit"), which was issued on April 10, 2015, by Region 1 of the United States Environmental Protection Agency ("EPA R1," "the Region," or "the Agency") and the Massachusetts Department of the Environment ("MassDEP"). *See* Att. 1.[1] The Permit authorizes Taunton to discharge treated effluent from the Wastewater Treatment Plant ("WWTP") to the Taunton River, waters that have never been classified as nutrient impaired despite repeated evaluation by MassDEP. As specifically discussed below, Petitioner contends that key findings of facts or conclusions of law are clearly erroneous, lack rational evidentiary support, and/or involve an abuse of discretion or implicate important policy considerations that warrant EAB review. 40 C.F.R. § 124.19(a)(4)(A) & (B).

Additionally, several of EPA's responses to comments fail to meaningfully acknowledge or address the issues raised by Taunton related to these disputed conditions, as required by 40 C.F.R. § 124.17(a)(2). *In re San Jacinto River Authority*, 14 E.A.D. 688, 92 (EAB 2010); *see also In re Wash. Aqueduct Water Supply Sys.*, 11 E.A.D. 565, 585-86 (EAB 2004). The Region also improperly failed to provide the Petitioner with fair notice and the opportunity to comment on basic analyses and information that should have been addressed in the Fact Sheet but appeared for the first time in EPA's response. Such due process procedural infirmities further justify remand of the permit. *In re Dist. Of Columbia Water and Sewer Auth.*, 13 E.A.D. 714,

[1] At a later juncture, the City will provide the Board with relevant excerpts of the publically-available EPA record documents that are too voluminous to file with the EAB's electronic filing system (*e.g.*, the City's Comments, EPA's Responses, and the Permit).

758-760 (EAB 2008), *citing In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 147 (EAB 2006); *In re Amoco Oil Co.*, 4 E.A.D. 954, 980-981 (EAB 1993) (omission of key risk assessment justifications precluded informed comment); *In re GSX Servs. of SC. Inc.*, 4 E.A.D. 451, 467 (EAB 1992) (reopened comments due to EPA Region omission of discussion of location standards).

Thus, the City respectfully requests that the Environmental Appeals Board ("EAB") grant review of this petition.

II. STATUTORY AND FACTUAL BACKGROUND

The City submits the following relevant statutory, regulatory, and factual background to assist the Board's review:

A. Clean Water Act Overview

Under the Clean Water Act ("CWA" or "the Act"), 33 U.S.C. §§ 1251 *et seq.*, more restrictive water quality-based effluent limitations are imposed as "necessary" to attain applicable water quality standards ("WQS"). *See* 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.44(d).[2] All water quality-based limitations are based on a causation analysis - the pollutant reduction "necessary" to achieve applicable "water quality standards." CWA § 301(b)(1)(C); 40 C.F.R. § 130.7(b)(4) ("The list … shall identify the pollutants causing or expected to cause violations of the applicable water quality standards"); 40 C.F.R. § 122.44(d)(1) ("[E]ach NPDES permit shall include… (d) any requirements… necessary to (1) achieve water quality standards…., including narrative criteria for water quality.").

[2] WQSs include, *inter alia*, the designated uses of a waterbody and the numeric or narrative criteria adopted to protect the uses. 40 C.F.R. § 130.3; 33 U.S.C. § 1313(c)(2)(A); *Anacostia Riverkeeper, Inc. v. Jackson*, 798 F. Supp. 2d 210, 227-228 (D.D.C. 2011).

The CWA requires states to take certain affirmative regulatory actions that control and influence water quality-based permitting. For instance, states possess the primary authority to establish WQSs. 33 U.S.C. § 1313(a)-(c). The relevant MassDEP water quality standards at issue in this Petition are narrative criteria found at 314 CMR 4.05(5).[3] These narrative standards do not specify a numeric threshold to protect designated uses. Rather, the pollutant of concern – in this case total nitrogen ("TN") – must cause or threaten to cause or contribute to a specific adverse ecological effect (*e.g*, excessive plant growth causing low DO) – to be in violation of the criteria.

The Act also grants each state primary authority to identify and list those waters within its boundaries which exceed applicable water quality standards. *See* 33 U.S.C. § 1313(d)(1). Each state is required to submit a "section 303(d) list" biennially to EPA for approval. 33 U.S.C. § 1313(d)(2). In developing this list, each state is required to "assemble and evaluate all existing and readily available water quality-related data and information." 40 C.F.R. § 130.7(b)(5). Moreover, the state is required to use procedures/simplified models that consider dilution and known wastewater loadings to project whether a criteria exceedance may exist. *See* 40 C.F.R. § 130.7(b)(5)(2); *see also* Att. 2, CALM at 9-39. The public provides input on this process by commenting on the under- and over-inclusion of waterbodies on the draft lists. 40 C.F.R. § 130.7(d)(2); *see generally* 40 C.F.R. Part 25.

[3] The applicable nutrient narrative criterion reads:

> Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that *would cause or contribute to impairment of existing or designated uses* and shall not exceed the site specific criteria developed in a TMDL or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that *would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae*, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and Best Available Technology (BAT) for non POTWs, to remove such nutrients to ensure protection of existing and designated uses.

314 CMR 4.05(5)(a) (emphasis added).

EPA must approve or disapprove a state's section 303(d) list. 33 U.S.C. § 1313(d)(2). Before approving a state's section 303(d) list, EPA ensures that the state has satisfied the detailed evaluation requirements of 40 C.F.R. § 130.7, including whether the state has adequate methods in place to evaluate compliance with narrative criteria, and identification of waters that presently exceed criteria, as well as threatened to exceed criteria in the future. *See* 40 C.F.R. § 130.7(b)(4); 40 C.F.R. § 130.7(e); 40 C.F.R. § 130.10(b)(2); 40 C.F.R. § 130.8. For most impaired waters, wasteload allocations ("WLAs") are generated under § 303(d) and permits are required to be issued consistent with those published WLAs. 303 U.S.C. § 1313(d)(1)(C); 40 C.F.R. § 122.44(d)(1)(vii)(B). Waters that are not impaired, or are not projected to be impaired based on dilution models and loading assessments, do not receive WLAs. If the state, or EPA, determines that a previous § 303(d) listing decision is no longer accurate based on new information, the listing is amended. 40 C.F.R. § 130.7(b)(6)(iii) & (iv).

B. MassDEP's State Narrative Criteria Implementation Document

MassDEP has published a guidance document that informs EPA and the public how compliance with the narrative standard for nutrients is to be evaluated. *See* Att. 2, 2012 CALM at 1-2. These procedures were reviewed and accepted by EPA as sufficient to protect uses when evaluating the submitted Section 303(d) lists. *See* Atts. 3-5, 303(d) Approvals. EPA's letters acknowledged and endorsed that, in order for an exceedance of the narrative criteria to exist, a demonstration that nutrients are (1) causing excessive plant growth that is, (2) adversely impacting the ecology of the system, must be made. *See, e.g.*, Att. 3, 2008 303(d) Approval, at 14 ("On a case-by-case basis the MassDEP will use evidence of eutrophic conditions, such as wide ranges in dissolved oxygen concentration, elevated chlorophyll *a* values, or biological

surveys (in combination with nutrient concentrations) that reveal algae or plant "bloom" conditions that result in one or more impaired uses, to add waters to the 2008 303(d) list.").

Moreover, the EPA approvals confirmed that the CALM document does not classify waters as nutrient impaired based on nutrient concentrations, recognizes the importance of considering habitat effects on nutrient dynamics, and does not set a specific algal level that may not be exceeded. *Id.*, at 14 ("EPA believes it is reasonable for MassDEP to conclude that nutrient concentrations above normal background levels do not, in and of themselves, constitute use impairment. It is possible that a water body may have high nutrient levels, yet may not be undergoing cultural eutrophication because of site-specific factors (e.g., light limitation, retention time, and high dissolved organic matter content that may limit nutrient availability for plant growth)."). Finally, EPA's approval noted that "[i]n developing Section 303(d) lists, States are required to assemble and evaluate all existing and readily available water quality related data and information" (*See* Att. 5, 2012 303(d) Approval, at 3) and that MassDEP updated its analysis to "reflect new data and/or other relevant information … to address any identified listing errors made during previous listing cycles." *Id.*, at 7.

These same MassDEP narrative criteria implementation procedures are supposed to be used in determining whether an individual nutrient limit is needed under 40 C.F.R. § 122.44(d)(1)(vi)(A). As noted by EPA:

> State narrative water quality criteria provide the legal basis for establishing effluent limits under paragraphs (d)(1)(v) and (d)(1)(vi) of today's regulations…. When a state adopts a narrative water quality criteria, EPA's regulations at 40 CFR 131.11(a)(2) require the state to 'provide information identifying the method by which the state intends to regulate point source discharges of toxic pollutants on water quality limited segments based on such narrative criteria.'…

54 Fed. Reg. 23,868, 23,877 (June 2, 1989). Thus, EPA is required to utilize the state's published methods, where available, in implementing narrative criteria. "[T]he permitting authority must

establish effluent limits using one or more of the following options (A)… a proposed State criterion, or an explicit State policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information;…" 40 C.F.R. § 122.44(d)(1)(vi)(A); *see also American Paper Inst. v. United States EPA*, 996 F.2d 346, 351 (D.C. Cir. 1993) ("The general language of narrative criteria … does not mean that the language of a narrative criterion does not cabin the permit writer's authority at all; rather, it is an acknowledgement that the writer will have to engage in some kind of interpretation to determine what chemical-specific numeric criteria--and thus what effluent limitations--are most consistent with the state's intent as evinced in its generic standard.").[4]

Thus, the analysis used to evaluate a waterbody's narrative criteria impairment status under Section 303(d) parallels the analysis needed to demonstrate whether a discharger is causing or contributing to an exceedance under 40 C.F.R. § 122.44(d) (*e.g.*, both use current loading and ambient conditions, consider available dilution, project whether pollutant may "cause or contribute" to an existing or projected impairment). *See* Att. 6, Comparison Table: CALM and 122.44(d); *see also* Att. 3, 2008 303(d) Approval at 6-12.

C. Factual Background

Taunton is located on the tidal section of the Taunton Estuary ("TE"), over 14 river miles upstream from Mount Hope Bay ("MHB"). The City's current NPDES permit was issued in 2001. *See* Att. 7, 2001 Permit. Since then, the City has received federal and state orders to reduce Combined Sewer Overflow ("CSO") discharges and has implemented extensive collection system improvements to reduce CSO discharges to the Taunton River. *See* Att. 8, 9. The City's

[4] *See also In re Ina Road Water Pollution Control Facility*, 2 E.A.D. 99 (CJO 1985) (Region should ordinarily defer to State's interpretation of its own water quality standard regulations unless that interpretation is clearly erroneous); *Kentucky Waterways Alliance v. Johnson*, 540 F.3d 493, 469 n.1 (6th Cir. 2008) ("In interpreting a state's water quality standard, ambiguities must be resolved by 'consulting with the state and relying on authorized state interpretations."); *Marathon Oil Co. v. Environmental Protection Agency*, 830 F.2d 1346, 1351-1352 (5th Cir. 1987) (EPA is merely an "interested observer" as to how a state interprets its WQS provisions).

existing Permit also requires that the City maximize CSO wastewater flows to the plant. Permit, at F.1.a.4. To safely process greater peak flow without upsetting biological treatment units, the City will need to "blend" this peak wet weather flow and discharge greater pollutant levels.

i. Undisputed Facts Regarding Available TE/MHB Studies

Dozens of detailed studies evaluating TE and MHB have been conducted. *See* Att. 10-13, 43, 56-57. As part of the Massachusetts Estuaries Program ("MEP"), system-wide sampling occurred from 2004-2006 to characterize the impact of nutrients on algal growth and DO. *See* Att. 10 at 8-9. Subsequent evaluations included detailed hydrodynamic assessments, Brayton Point thermal impact assessments and independent water quality assessments by the University of Rhode Island ("URI") and Narragansett Bay Commission ("NBC"). Based on those studies the following determinations have been rendered:

- MHB is greatly influenced by pollutant conditions in Narragansett Bay, as 80-90% of tidal flows come from Narragansett Bay. *See* Att.11, Kincaid, 2006 at 120.

- TE has the highest nitrogen levels but the lowest algal levels in the MHB system. *See* Att. 12, Krahforst & Carullo, 2006 at 404.

- Stratification in MHB causes low DO conditions in MHB that affect water quality in TE. *See* Att. 13, Zhao, Chen & Cowles, 2006 at 2, 12.

- Nutrient and algal levels have declined in MHB and the TE since the School for Marine Science and Technology ("SMAST") 2004-6 sampling assessment due to wastewater plant and CSO improvements that have significantly lowered nutrient and organic loadings. *See* Att. 15, EPA Response at 25-26, 63-64, 104-106; Att. 16, PowerPoint slides from USEPA May 7, 2015 FOIA.

- The Brayton Point thermal discharge causes lower DO and higher algal growth in the MHB/TE system. *See* Att.17, H&A Supplemental Comments (01/08/15); Att. 43; Att. 57.

- Sakonnett River creates unusual hydrodynamics in the area of MHB16 causing this area to differ in water quality from the rest of the system. *See* Att. 11, Kincaid, 2006 at 128, 137-139;

It is undisputed that EPA's Fact Sheet failed to evaluate the findings of these relevant studies, and others, in evaluating the need for stringent TN limitations.

ii. EPA Permit Actions

In March 2013, EPA issued a draft permit to Taunton claiming that TE presently "exceeded its assimilative capacity for nitrogen" and that the City's nitrogen discharge caused or contributed to excessive algal growth and DO violations based on a 2003 draft Critical Indicators Report and data from the 2004-6 SMAST survey. *See* Att. 21, Draft Permit Fact Sheet at 17. EPA's position was based on the same data that MassDEP evaluated in determining, repeatedly, that nutrient violations were *not* occurring in TE, under *higher nutrient loading conditions to the system*. Notwithstanding MassDEP's approved conclusions, and the state's published methodology for implementing narrative criteria, EPA based its nutrient criteria exceedance decision on the assumptions that (1) algal levels above 3-5 ug/l Chl-a constitute a narrative criteria violation (a position nowhere found in the CALM) and (2) that nutrients were a significant factor in the occasional low DO found in the 2004-2006 survey. EPA claimed that the nitrogen concentration at a "sentinel location" eleven (11) miles away, across MHB, in the Sakonnett River (MHB16) defined the TN concentration necessary to meet DO objectives in TE.

EPA's Fact Sheet did not evaluate any of the available hydrodynamic studies, load reductions, or documented water quality improvements occurring in MHB/TE since 2006 in rendering the decision. Similarly, the Fact Sheet contained no assessment of the well-known physical factors affecting DO in estuarine environments or any evaluation of how nutrients affect algal growth or DO anywhere in the TE system. Finally, no explanation was provided as to why a 3-5 ug/l algal level was chosen to represent narrative criteria compliance when no prior

MassDEP document (or approved TMDL evaluation) has ever utilized this to define narrative criteria compliance.[5]

The City submitted detailed comments (*See* Att. 14) on the draft permit identifying a host of fundamental deficiencies, including:

- The failure to account for extensive watershed improvements affecting DO and algal levels since 2004/5;
- The use of overly simplistic and unreliable procedures – the "sentinel method" – to assert stringent TN reduction was necessary; and
- The complete lack of analyses showing that nutrients were a significant contributor to the minor DO exceedances reported in TE.

The City repeatedly sought meetings with the Region and EPA Headquarters to discuss these issues, only to be rebuffed at each request. *See* Att. 27-29, Meeting requests and EPA replies.[6] EPA finally agreed to meet in person in September 2014. At the meeting, EPA asserted that (1) the City's technical objections were misplaced, (2) the sentinel method was scientifically defensible, (3) new analyses and data from the TE confirmed EPA's approach was proper, and (4) the closure of Brayton Point, and all of the other system improvements occurring since 2006, resulted in no material change in water quality. *See* Att. 28.[7]

Because EPA provided no documentation to support any of these claims, the City filed supplemental comments, including expert reports from Dr. Steven Chapra, one of the nation's leading nutrient impact assessment experts, and Dr. Swanson who had worked on the Brayton

[5] On information and belief, virtually all tidal waters in the Commonwealth would exceed this target chose by EPA.

[6] The City also had a series of detailed discussions regarding the economic impact of EPA's actions on the City. *See* Att. 31-35. This resulted in several revised economic analyses to conform to EPA's requested approach. *See* Att. 36a-c, 37.

[7] On October 2, 2014, the Center for Regulatory Reasonableness asked for an independent EPA Science Advisory Board peer review of the manner in which the sentinel approach was being used by EPA. *See* Att. 39, 40. EPA HQ declined that request also. *See* Att. 29.

Point thermal impact assessment and EPA-approved hydrodynamic model for MHB/TE. *See* Att. 42, 43; *see also* Atts. 17, 23, 29, 30, Supplemental Comments. Both of these reports noted gross deficiencies in EPA's technical assessments (*e.g.*, that MHB16 predicted TN effects in the TE, unsupported assumptions regarding TN in TE, failure to account for Brayton Point thermal improvements on DO regime).

The City submitted FOIA requests to obtain the new assessments and data, referenced by EPA at the September 2014 meeting. *See* Att. 46-47. However, the Region refused to grant Taunton access to that information. *See* Att. 51-52. The City appealed this determination and eventually sued the Agency, claiming that withholding this information violated public participation procedures (*i.e.*, if EPA had new site-specific data analyses, the public had a right to see it). *H&A v. EPA*, Docket No.15-cv-00286 (D.D.C.). Concurrently, the City filed a FOIA request on the scientific validity of the Region's sentinel method. *See* Att. 47. In response, EPA HQ agreed that the sentinel method, as applied by EPA Region I, had never undergone peer review and there was no information showing that the Region's approach to permit limit derivation under 40 C.F.R. § 122.44(d) was scientifically defensible. *See* Att. 51-52.

Finally, in a joint meeting with MassDEP and EPA on February 18, 2015, the City again presented the results of the various analyses and system experts. *See* Att. 38. At this meeting, EPA verbally agreed to provide access to the new information and work cooperatively with the City. However, when the letter arrived from Regional Administrator Spalding, the information was again missing. *See* Att. 54. EPA later clarified that the new information was contained in the Brockton fact sheet. *See* Att. 55, Email S. Bukhari to J. Hall. However, no new significant information or analyses were presented in Brockton's Fact Sheet and none of the City's major objections were addressed in that document. Finally, on May 8, 2015, just five days before the

permit appeal deadline, EPA provided a massive collection of new data and analyses in support of the permit action. *See* Att.16 (excerpts), 66, 73-78 (internal memos).

Ultimately, upon issuance of the final permit, EPA's response to comments failed to address every supplemental document filed, including the multiple expert reports, EPA's own conclusions regarding the significant effect of Brayton Point thermal loads, and available hydrodynamic studies. Rather, the final Permit contained numerous new analyses and factual/scientific claims that had not been previously produced to the public (*infra*, at 25-27), now claiming that (1) none of the 2004/6 SMAST data were sufficient to document how nutrients impacted algal growth or DO, and (2) EPA is not required to demonstrate a TN impact on plant growth when implementing the state's narrative standard under 40 C.F.R. § 122.44(d). This appeal ensued.

III. THRESHOLD PROCEDURAL REQUIREMENTS

Petitioner satisfies the threshold requirements for filing a petition for review under 40 C.F.R. part 124, to wit:

1. Taunton has standing to petition for review of the permit decision because it participated in the public comment period on the permit. *See* 40 C.F.R. § 124.19(a)(2). *See* Att. 14, Comments. Taunton also participated in multiple meetings with EPA during the issuance process.

2. As noted herein, the issues raised by Taunton in this petition were previously raised during the public comment period or, in a timely fashion based on new data or EPA claims made during the issuance process. Therefore, all objections were preserved for review or are included because they relate to issues raised by Region 1 for the first time in its Response to Comments document and were not "reasonably ascertainable" when the draft Permit was issued. *See* Attachments 14-15, Taunton's Comments and EPA Responses.

3. Taunton's Petition is timely filed. *See* 40 C.F.R. § 124.19(a)(3) (thirty-day appeal deadline after notice of issuance); 40 C.F.R. § 124.20(d) (adding three days when mailed).

IV. ARGUMENT

A. Standard of Review

The Board grants review when a petitioner establishes that the NPDES permit conditions in question are: 1) based on a clearly erroneous finding of fact or conclusion of law, or 2) involve an exercise of discretion on important policy considerations that the Board determines warrant review. 40 C.F.R. § 124.19(a)(4)(A) & (B); *In re City of Attleboro, MA Dep't of Wastewater*, 14 E.A.D. 398, 405-6 (EAB 2009). An agency action is arbitrary and capricious if "the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (U.S. 1983). If such deficiencies are present, "[t]he reviewing court should not attempt itself to make up for such deficiencies; [it] may not supply a reasoned basis for the agency's action that the agency itself has not given." *Id; see also In re Charles River Pollution Control Dist.*, Order Denying Review, 16 E.A. D. ___, 5 (EAB 2015) (citing to *Motor Vehicle Mfrs. Ass'n* and stating that "[t]he Board will uphold a permit issuer's reasonable exercise of discretion *if that decision is cogently explained and supported in the record*." (emphasis supplied).

Thus, it is not enough for EPA to claim a particular demonstration was made; such averments must be supported by evidence and the public must have had an opportunity to challenge that evidence and those findings. *In re Town of Ashland Wastewater Treatment*

Facility, 9 E.A.D. 661, 665 n.8 (EAB 2001) (conclusory contention without more is insufficient to demonstrate review is warranted under 40 C.F.R. § 124.19); *see also In re Charles River Pollution Control Dist.*, Order Denying Review, 16 E.A. D. ___, 5 (EAB 2015); *In re Dist. Of Columbia Water and Sewer Auth.*, 13 E.A.D. 714, 758-760 (EAB 2008).

B. TN Limitation (Permit, at 3)

EPA used the "reasonable potential analysis" of 40 C.F.R. § 122.44(d) to assign Taunton a rolling seasonal monthly average TN limit of 210 lbs/day. *See* Att. 1, at Part I.A.1. As outlined below, there are numerous clear legal and factual errors associated with derivation of the TN limit. In each case, these objections were raised by the City in the comment period and were not properly accounted for, responded to, documented to be misplaced, or rationally refuted by EPA in its Response document.

As noted above (*supra*, at 2-6), in determining the need for a water quality-based TN effluent limitation based on narrative criteria compliance, 40 C.F.R. § 122.44(d) sets forth a number of prerequisites:

- The analysis must be based on the state's published narrative criteria guidance, if available, and seek to match the state's approach as closely as possible;
- The analysis must be based on current data and pollution control measures, supplemented by relevant studies of the waters in question; and
- The analysis must account for major factors affecting the endpoint of concern, applying a rational cause and effect analysis to demonstrate that nutrient reduction is "necessary" to achieve compliance.

The TN limit imposed by EPA, however, violated every one of these principles.

i. Taunton Estuary has never been identified as nutrient impaired based on existing or historical data

According to EPA, the TN limit in the Permit was imposed to correct an *existing* nutrient impairment in TE because, in EPA's opinion, the TE was currently exceeding its assimilative

capacity for TN. *See* Att. 1, Permit Fact Sheet, at 19, 30.[8] However, as noted in Taunton's comments (*See* Att. 15, Response at 36, 39, 41, 44), MassDEP has repeatedly determined, and EPA has repeatedly approved that nutrients are *not* impairing TE. *See* Atts. 18-20, 2008-2012 Mass. Integrated Lists; *see also* Atts. 3-5, 303(d) Approvals 2008-2012. These EPA-approved decisions were all based on the MassDEP CALM document, which expressly describes how to evaluate narrative criteria compliance in Massachusetts waters. *See* Att. 2, CALM; *supra*, at 4-6.

To be sure, if and when MassDEP determines that a waterbody exceeds the narrative criteria for nutrients, it lists it accordingly. In fact, MHB and certain upstream segments of Taunton River were designated as nutrient impaired. *See* Atts. 18-20, 2008-2012 Mass. Integrated Lists. In response to Taunton's comment that EPA's action is inconsistent with the approved 303(d) list and improperly creates new narrative criteria compliance requirements, EPA stated:

> The State's 2010 "organic enrichment/low DO" designation does not amount to a conclusion that nutrients were *not* the cause of low DO conditions, or that the State has determined that something *other than* nutrient enrichment had been identified as the cause of DO violations in the water body.

Att. 15, Response, at 37. EPA's response fails to address the main thrust of the City's objection – EPA expressly approved MassDEP's finding that the waters are *not nutrient impaired, based on current information and proper application of the state's narrative standard for nutrients*. Moreover, EPA nowhere seeks to explain precisely what MassDEP failed to properly assess or what new information has been brought to bear such that the prior, approved state analyses were misplaced. EPA cannot ignore the Commonwealth's determination in lieu of a new narrative impairment threshold (3-5 ug/l chl-a) from a draft SMAST report that MassDEP never embraced.

[8] As noted by EPA, if TE was not currently nutrient impaired, existing loads would be acceptable and only a cap on future load increases would occur. *See* Att. 15, Response, at 81. However, EPA has declared that the system presently exceeds its assimilative capacity and major reductions are required (*i.e.*, there is an existing nutrient impairment).

Given that MassDEP has repeatedly determined that nutrients were not impairing TE, EPA approved those determinations, and EPA is required to use the approved state procedures when rendering decisions under 40 CFR § 122.44(d), it was a plain error of law for EPA to impose a TN permit limitation using non-CALM methods. *Supra*, at n.4 (*Ina Road*).[9]

EPA's decision to issue a permitting decision blatantly inconsistent with MassDEP's § 303(d) list is also flawed as a matter of policy. As referenced above, MassDEP has repeatedly determined that – unlike other waterbodies in the region – TE is not impaired for nutrients. This waterway was approved in 2009 as a "Wild and Scenic River" because of its robust condition and relatively pristine shoreline. MassDEP's impairment decision was based on specific procedures and current information that were also expressly intended to be used to make permitting determinations also. *See* 40 C.F.R. § 130.7(b)(5); *accord* 40 C.F.R. § 122.44(d)(1)(i) & (vi)(A) (requiring the use of current information and published state guidance). In fact, 40 C.F.R. § 122.44(d) contemplates that permitting decisions will be consistent with Section 303(d) decisions.[10] As the CWA plainly gives MassDEP the primary role in identifying impaired waters and defining its applicable WQS, EPA should not "end run" that decision by creating different impairment assessment methods under the NPDES program.

This is not to say Section 303(d) decisions strictly govern all permit actions under 40 C.F.R. § 122.44(d). Rather, where a state has repeatedly confirmed and EPA has repeatedly

[9] In the other recent EAB challenges to nutrient limits in NPDES permits, the limits had always been imposed on dischargers to waterbodies that were identified as nutrient impaired on the 303(d) list. *See In re Town of Newmarket Wastewater Treatment Plant*, 16 E.A.D. ___, 22-23 (EAB 2013); *In re Upper Blackstone Water Pollution Abatement Dist.*, 14 E.A.D. 577, 594-601 (EAB 2010); *In re City of Attleboro, MA Dep't of Wastewater*, 14 E.A.D. 398, 448 (EAB 2009).

[10] *See, e.g.*, 40 C.F.R. § 122.44(d)(vii)(B) ("When developing water quality-based effluent limits under this paragraph the permitting authority shall ensure that… [e]ffluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7.").

approved that waters are not nutrient impaired, simply responding that a low DO "*designation does not amount to a conclusion that nutrients were not the cause of low DO conditions*" is hardly evidence that Taunton's discharge is causing or contributing to a TE-wide narrative criteria exceedance. *See* Att. 15, Response at 37. EPA must provide a site-specific analysis using applicable MassDEP procedures, current data, and studies to demonstrate why MassDEP's decision was misplaced and that the minor DO exceedance is due to excessive algal growth. EPA's "you haven't proven the negative" response is conclusory, irrational, inconsistent with the federal program, and represents an "explanation for its decision that runs counter to the evidence before the agency." *Supra*, at 12 (*State Farm*).

Therefore, the Board should remand the permit to EPA to provide the necessary site-specific analysis and explanation of why, contrary to every 303(d) listing determination approved by EPA, nutrients are actually the root cause (or a significant contributor) of the periodic low DO conditions found in TE. Of course, Taunton does not believe this showing can be made. But, at a minimum, it would ensure the consistency between CWA § 301, 303 and 402 that the Act and implementing regulations contemplate. *See* 40 C.F.R. § 130.12(a) (requiring consistency between the approved state Water Quality Management Plan under Section 303 and Section 402 permitting actions).

ii. EPA did not base TN limitation on current data/existing conditions

Generally speaking, EPA must base its regulatory decisions on the latest and most current scientific information. *See Sierra Club v. United States EPA*, 671 F.3d 955, 968 (9th Cir. 2012) ("But we should not silently rubber stamp agency action that is arbitrary and capricious in its reliance on old data without meaningful comment on the significance of more current compiled data. We hold that EPA's failure to even consider the new data and to provide an explanation for

its choice rooted in the data presented was arbitrary and capricious.").[11] Similarly, the EPA permitting regulation mandates that "the permitting authority *shall use* procedures which account for *existing* controls on point and nonpoint sources of pollution." 40 C.F.R. § 122.44(d)(1)(ii) (emphasis added). As raised in the comment period (*See* Att. 14, Comments, at 1(40)),[12] the TN limitation imposed on Taunton was based on the evaluation of data that were collected in 2004/05 and no consideration of subsequent improvement in effluent quality throughout the system. *See* Att. 1, Permit Fact Sheet, at 26, 30.[13] EPA's excuse for using dated information was that it possessed no "comprehensive" post 2004/5 data for the TE.[14] *See* Att. 15, Response at 3, 34, 58, 107.

EPA's reliance on decade-old data represents clear legal error for two reasons. First, since the 2004/05 MEP study, there have been several more recent water quality monitoring and hydrodynamic and hydrothermal modeling efforts for TE and the surrounding waterbodies. *See* Att. 67, List of Available Water Quality Studies. EPA was certainly aware of all such studies, but failed to consider them in the Fact Sheet because, according to EPA, the more recent studies were not as "comprehensive." *See* Att. 15, Response, at 58, 112. While Taunton disagrees with this claim, the argument is irrelevant because "comprehensiveness" is not the standard governing

[11] *See, e.g.*, 33 U.S.C. § 1314(a)(1) ("The Administrator … shall develop and publish . . . criteria for water quality *accurately reflecting the latest scientific knowledge* ….") (emphasis added); 40 C.F.R. § 130.7(b)(5) ("Each State shall assemble and evaluate *all existing and readily available* water quality-related data and information to develop the list required by §§130.7(b)(1) and 130.7(b)(2).") (emphasis added).

[12] In the comment document, each entity's comments were individually paginated. Accordingly, a 1(40) cite means that the comment occurred on page 1 of H&A's (Taunton counsel) comments and page 40 of the entire .pdf of comments.

[13] EPA claims that it included consideration of post 2004/5 MHB data, referencing 2010 MHB data. Att. 1, Fact Sheet, at 25. However, this assertion is, at best, a red herring. As previously noted, the TN limit in Taunton's permit was derived based on purported impacts in the TE, not MHB. Thus, the referenced post-2004/5 MHB data is, at best, marginally relevant.

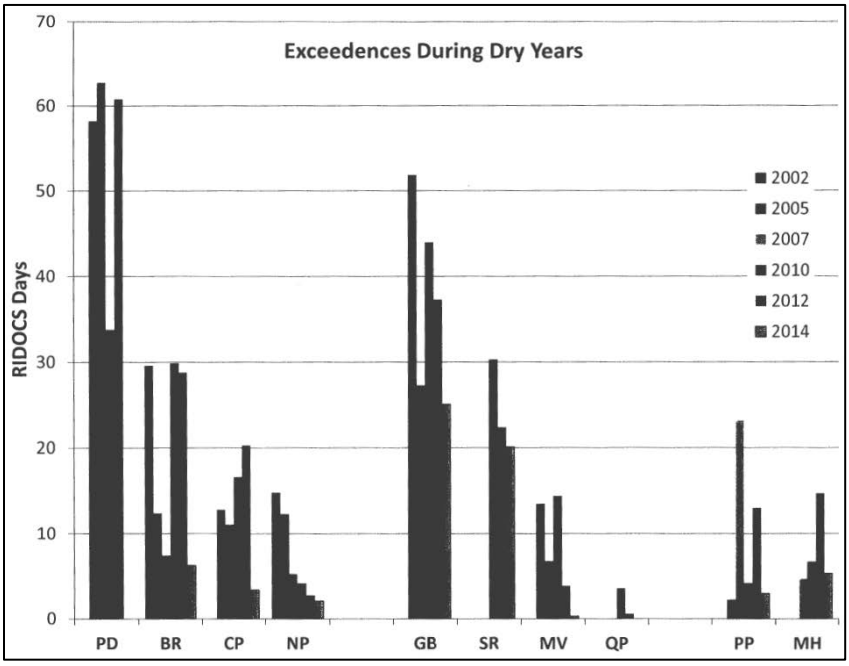
[14] EPA did not use the 2006 MEP data because it was an extreme wet year. *See* Att. 15, Response at 15, 81.

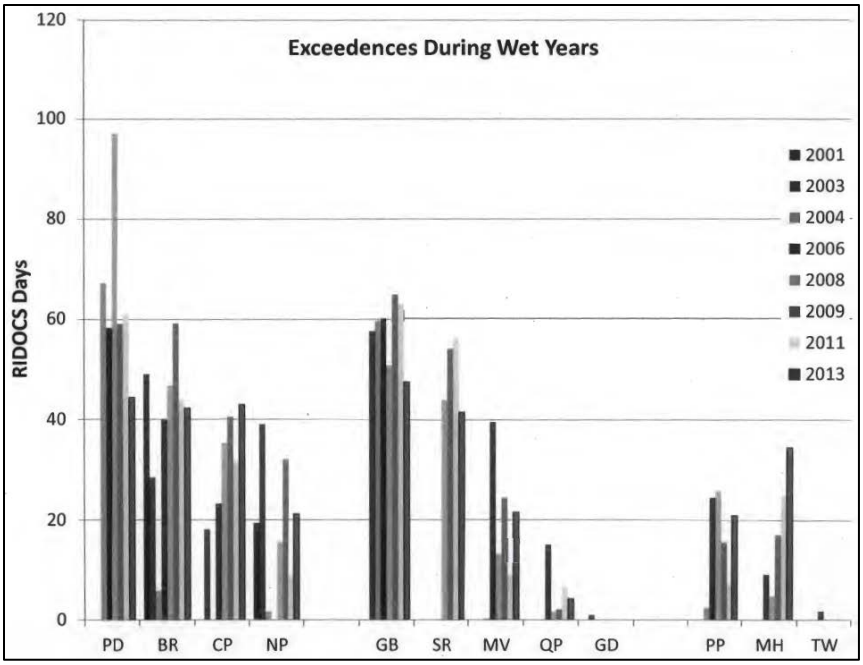
EPA's mandatory duty under the regulation ("shall use") to base its analyses on current information and the restrictions in place for the major pollution sources.

Second, since the 2004/05 data were collected, EPA concedes, that DO and algal conditions have changed for the better, as follows:

- Oxygen-demanding CSO contributions to the Taunton Estuary have dropped considerably. *See* Att. 15, Response at 63-64.
- TE is more sensitive to oxygen demand loadings than MHB. *Id.*, at 92.
- Thermal reductions ordered by EPA, and now-projected closure of Brayton Point power plant in 2017, have had a significant effect on the temperature of TE and MHB (which reduces algal growth and improves DO saturation). *Id.*, at 65.
- Algal levels in TE, as well as the incoming TN loads to both MHB and TE, have decreased considerably in the last eight years due to nutrient reduction efforts in Rhode Island and Massachusetts. *Id.*, at 62-63.

EPA admits that TN and organic loadings have decreased to TE, which would materially affect the DO regime and the amount of algae in the system. *See* Att. 15, Response at 64; Att. 16b.





Accordingly, EPA's failure to assess the available more-recent data – in light of the admitted ecological changes in the TE system since the decade-old data was collected – that undeniably affects the DO regime and amount of algae in the system, was clear legal error.[15] *See supra*, at 12 (*State Farm* – arbitrary and capricious to "fail[] to consider an important aspect" of the issue).

In summary, EPA's imposition of the TN limit simply failed to assess the effects of its prior regulatory mandates (*e.g.*, CSO reduction measures, Brayton Point cooling tower, TN reductions to TE, MHB and RI waters) despite the fact that such measures have materially lowered algal levels and improved DO in the system. Not only was such a decision unreasonable, it was a clear facial violation of 40 C.F.R. § 122.44(d). Given the circumstances, EPA should have made some attempt to evaluate how post-2004/5 changes affected the need for stringent TN reductions in 2015. As noted by EPA in a previous case before this Board, "using the most

[15] The low DO condition documented in 2004-5 ranged from 4.4-4.6 mg/l with no indication of "wide DO swings" per the CALM. *See* Att. 1, Fact Sheet at 23. The applicable DO criterion was 5.0 mg/l. *See* Att. 1, Fact Sheet at 11. Thus, the documented "exceedance" was quite minor and may not even exist today. In any event, the documented reduction in organic, nutrient and thermal loadings, as well as the reduced algal growth, had to materially improve the conditions.

currently available data is logical and rational in light of the need to assure compliance with water quality standards." *In re Town of Concord, Dep't of Pub. Works*, NPDES Appeal No. 13-08, 16 E.A.D. __, 14 (EAB 2014) (internal citations and quotations omitted). This case is no different and 40 C.F.R. § 122.44(d) demands that result.

iii. EPA did not use the governing procedures

The inconsistency between EPA's reasonable potential analysis and the EPA-approved MassDEP's 303(d) impairment lists indicates that something in EPA's latest analysis is askew. Nevertheless, EPA asserts that its analysis was not conclusory or contrary to accepted practice. *See* Att. 15, Response at 36-38. However, this position is also clear error.[16]

As noted in Taunton's comments (*See* Att. 15, Response at 39-41; Atts. 3-5), MassDEP's CALM document defines the basis for implementing the narrative criteria for nutrients in the Commonwealth. *Supra*, at 4-6. It is undisputed that, in evaluating the need for a TN limit in Taunton's permit, these procedures were not followed. Instead, EPA created a different procedure that has not been accepted by MassDEP (use of a 3-5 ug/l chlorophyll-a criteria based on the SMAST Critical Indicators Report) or found to be scientifically defensible by EPA Headquarters or MEP (using the "sentinel method" while ignoring all site differences).[17] *See* Att. 1, Fact Sheet at 22; Atts. 51, 52. EPA's actions in this regard run contrary to the plain language of 40 C.F.R. § 122.44(d)(1)(vi)(A) (*supra*, at 2-6, 13), as well as the court's ruling regarding the

[16] EPA's claim is conclusory because it is based on generic information on the possible effects of nutrients on estuarine systems, not an analysis of the actual data for TE showing that TN and algal growth are actually causing or materially contributing to the alleged DO violation. Based on prior studies, it is apparent that TN levels in the TE are not even controlling algal growth, as TE has the highest TN levels but the lowest algal growth in the system. *See* Att. 12, Krahforst & Carullo at 404.

[17] Specifically, EPA picked the algal levels from a draft report that MassDEP has never used to define nutrient impairment. *See* Att. 1, Fact Sheet at 22. Because the TE exceeded this criterion, EPA declared it nutrient impaired. EPA's substitution of a new algal criterion, never before imposed in the history of the Commonwealth, is why a radically different (and legally incorrect) conclusion was reached in issuing the Taunton permit.

adoption of § 122.44(d). *See supra,* at 6, n.4 (*American Paper Inst., Ina Road, Kentucky Waterways Alliance* – requiring deference to state narrative criteria interpretation methodology)

Under the NPDES rules and applicable jurisprudence, EPA was *required* to use the CALM document to determine the need for a TN limitation, and to mirror MassDEP's intended approach for narrative criteria interpretation. EPA was not authorized to create new nutrient criteria exceedance endpoints (3-5 ug/l Chl-a based on a 2003 SMAST draft document) and claim narrative exceedance on that basis.

iv. EPA failed to demonstrate that nutrients are causing or likely to cause impairment in Taunton Estuary

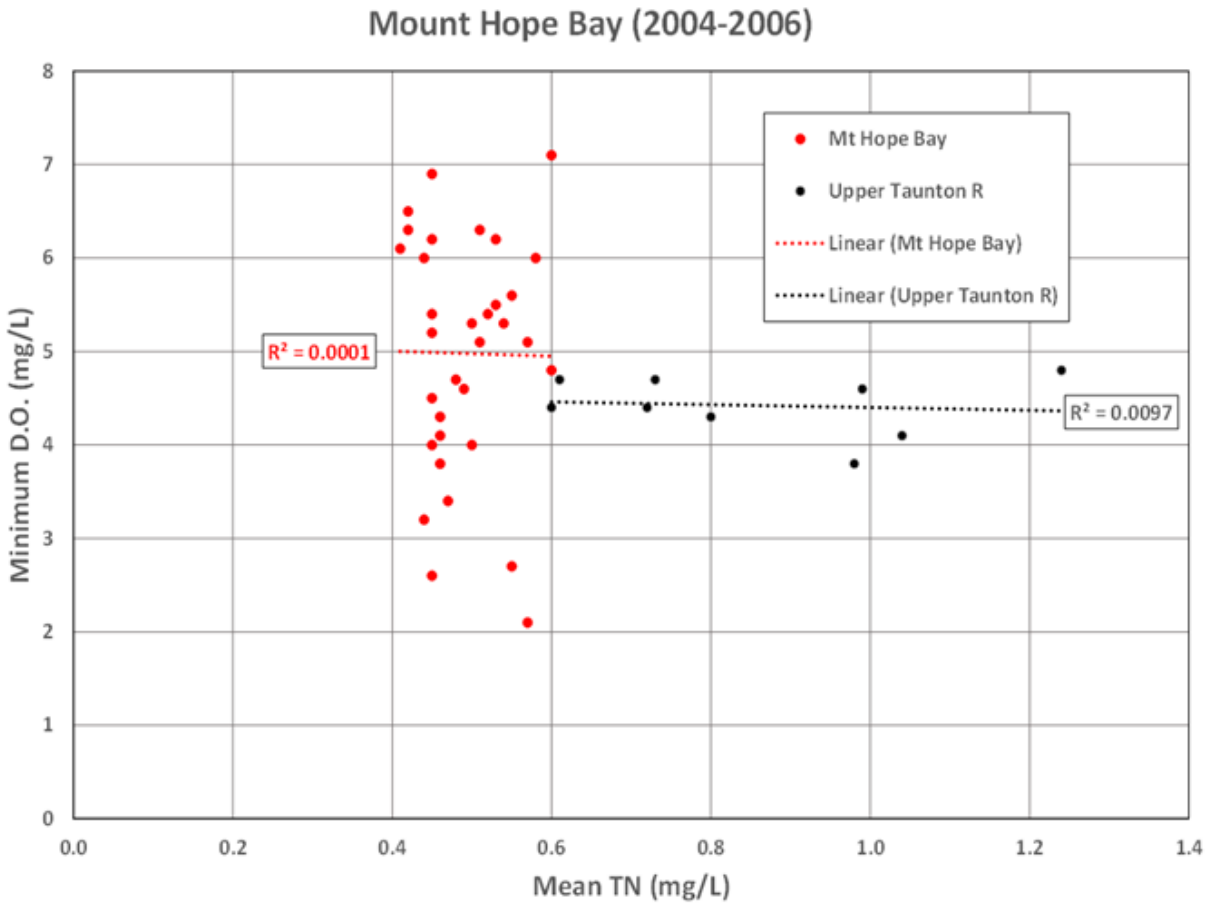
It is undisputed that both § 122.44(d) and the state's narrative criteria specifically state the need to address causation and not presume that nutrients were causing a given condition (periodic low DO). *Supra,* at 2. Accordingly, Taunton repeatedly objected to the insufficiency of EPA's attempt to justify its imposition of *specific* nutrient reductions on Taunton with generalized descriptions of what *might* happen in *some* estuaries. *See* Att. 15, Response at 3-5, 51, 65-66. In response to this objection, EPA boldly states:

> EPA's NPDES regulations do not require cause-and-effect proof between a pollutant discharge and an existing water quality impairment before the permit writer can derive a numeric in-stream target to interpret a narrative water quality criterion, or impose a water quality-based effluent limitation to implement that criterion.

See Att. 15, Response, at 71. EPA's understanding of federal and state law is clear error. The applicable state and federal rules, on their face, indicate that limits are only imposed when the pollutant is reasonably demonstrated/projected to be *causing* the adverse impact at issue.[18] Nonetheless, the TN limit was imposed as "necessary" to control dissolved oxygen impairment

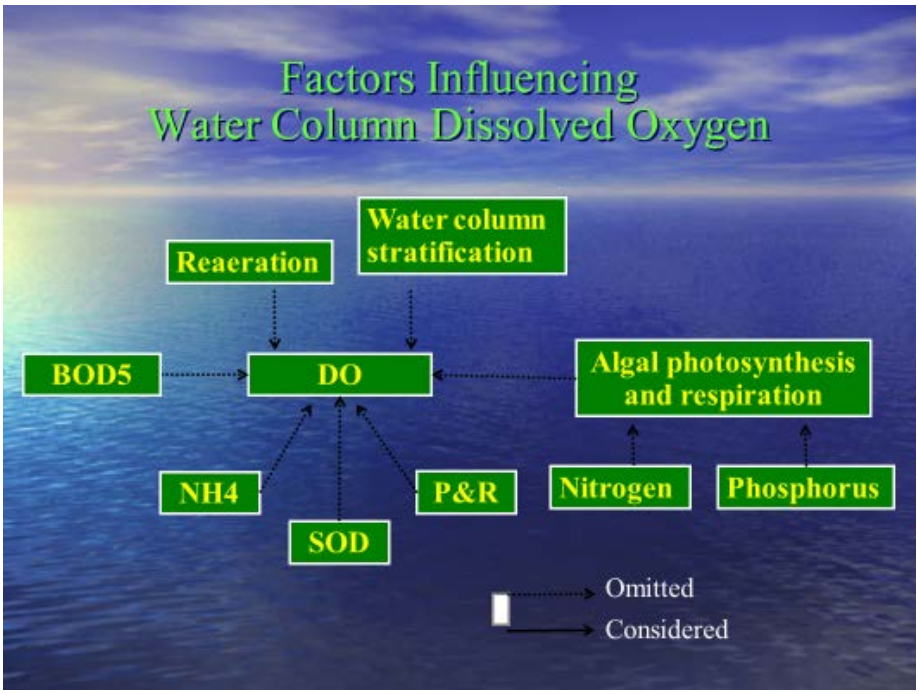
[18] EPA's "strawmen" responses, which cite cases confirming that causation need not be demonstrated "conclusively" (*See* Att. 15, Response at 46-49), have no relevance to the situation where EPA presents no site-specific causation analysis whatsoever.

in TE. *See* Att. 1, Fact Sheet at 30. In so doing, however, EPA did not even present an analysis showing that nutrient and algal levels in TE are materially affecting the DO regime, versus other parameters known to influence DO.[19] Presumably, this is because the available TE data confirmed there was no relationship between TN and DO.



[19] EPA leaps past this prerequisite, and simply makes the claim that, based on dissolved oxygen conditions at a "sentinel station" in MHB (MHB16) 11 miles away, TE needs the same ambient TN concentration. *See* Att. 1, Fact Sheet at 30. While that, theoretically, could be true, one would need some type of causal analysis to confirm it actually is true.

The absence of any DO-TN analysis is critical because it is universally understood that dissolved oxygen concentrations, and daily fluctuations thereto, are influenced by a wide array of physical, chemical, and biological parameters. *See* Att. 15, Response at 82-83, 101-102; Att. 38; Att. 62.



See Att. 38, Taunton Presentation. EPA fully concedes the complex relationship between nutrients and dissolved oxygen in estuarine systems and the fact that other factors often control the DO regime. *See* Att. 15, Response at 46. Moreover, EPA concedes that DO in TE is significantly affected by watershed loadings. *See* Att. 15, Response at 92. Nevertheless, as if by magic, EPA determined that there was an absolute need for a stringent TN limit without analyzing any of the other major factors influencing DO.[20] *See Ohio Valley Environmental Coalition, Inc. v. FOLA Coal Company, LLC*, 2015 U.S. Dist. LEXIS 8904, *62-*70 (S.D. W.

[20] EPA's claim that it possesses a "model" that predicts DO effects from the loading reductions and ecological changes small is utterly false. *See* Att. 15, Response at 4, 101. The TN loading analysis – to which EPA refers as its "model" – is certainly not a water quality model and makes no attempt to demonstrate how either (1) TN affects algal levels or (2) those algal levels affect the DO regime. Thus, it is impossible for the loading analysis to "verify" that stringent TN reductions are still required.

Va. Jan. 27, 2015) (in implementing a narrative standard, consideration of other possible (confounding) factors that could cause the same effect is required). EPA explains that it bypassed the causal analysis because the data are not sufficient to conduct a "stressor-response" analysis. *See* Att. 15, Resp. at 54. Having acknowledged that the very information EPA relied on to justify Taunton's TN limit was insufficient to demonstrate causation, EPA has admitted its conclusions under 40 C.F.R. § 122.44(d) were unsupported by the information for the system.

Contrary to EPA's responses (*See* Att. 15, Resp. at 7-8, 66, 71-72), the Board's *Upper Blackstone* decision does not support a "no site-specific causation" regulatory interpretation; it simply stated that a *conclusive* causal demonstration is not required:

> [T]he regulation requires water quality-based effluent limits even when there is *some degree* of uncertainty regarding both the precise pollutant discharge levels and the potential *causal effects* of those discharges, *so long as* the record is *sufficient* to establish that there is a 'reasonable potential' for that discharge to *cause or contribute* to a violation of water quality standards.

In Re Upper Blackstone Pollution Abatement Dist., 14 E.A.D. 577, 599 (EAB 2010) (emphasis added). Moreover, the First Circuit upheld the permit because EPA provided a causal demonstration based on site-specific data and modeling.[21] No decision of this Board or any Circuit Court has ever stated that EPA could impose new water quality-based requirements without a reasonable causation demonstration using site-specific information.

[21] *See Upper Blackstone Water Pollution Abatement Dist. v. EPA*, 690 F.3d 9, 14 (1st Cir. 2012) ("State water quality standards generally supplement these effluent limitations, so that where one or more point source dischargers, otherwise compliant with federal conditions, *are nonetheless causing a violation of state water quality standards*, they may be further regulated to alleviate the water quality violation.") (emphasis added); *id*., at 25-26 ("The EPA found that '[b]oth the MERL tank experiments and the data from the Providence/Seekonk River system *confirm a clear correlation* between nitrogen loadings, dissolved oxygen impairment, and chlorophyll *a* levels' in those water bodies. Both the MERL model and the field measurements demonstrated that as nitrogen loadings increase, dissolved oxygen decreases and chlorophyll *a* increases, with both becoming less stable and subject to greater swings at higher levels of nitrogen. The EPA concluded that the *basic causal relationship* demonstrated in the MERL experiments 'corresponds to what is actually occurring in the Providence/Seekonk River system.'") (emphasis added); *id*., at 27 ("Here, the EPA states, and the record reflects, that the MERL *model demonstrated the relationship between nitrogen loading, dissolved oxygen, and chlorophyll a production* for a range of loading scenarios in a water environment similar to the Bay's.") (emphasis added).

Given (1) the plain causation language of 40 C.F.R. § 122.44(d) and the state's narrative criteria, (2) the lack of such analyses or confounding factors assessment and (3) EPA's admission that the data are insufficient to conduct such an analysis, it was clear error for EPA to conclude it was "necessary" to impose state-of-the-art TN reduction requirements on the City. *See also Nat'l Metal Finishers Ass'n v. EPA*, 719 F.2d. 624, 640 (3rd Cir. 1983) ("that neither the language of the Act nor the intent of Congress appears to contemplate liability without causation.") *rev'd on other grounds Chemical Mfrs. Ass'n v. Natural Res. Def. Council*, 470 U.S. 116 (1985); *Ark. Poul. Fed. v. Envtl. Prot. Agency*, 852 F. 2d 324, 328 (8th Cir. 1988) (stating the discharge must at least be "a cause" of the violation); *supra*, at 12 (*State Farm* – failure to consider an important factor).

v. EPA included new evaluations and data to justify the imposition of a TN limit and denied the public the opportunity to comment on the new information

In response to Taunton's extensive comments criticizing EPA's failure to consider the effects of major pollution reduction measures occurring since 2005 (*See* Att. 15, Response at 55-61), EPA introduced a series of new analyses and studies that, in EPA's opinion, justified the TN limit in Taunton's permit. *See* Att.15, Response at 88-118. Specifically, EPA unveiled its analysis of (1) the Brayton Point power plant closure (*See* Att. 15, Response at 64-65), (2) ambient data from the TE and MHB (*See* Att. 15, Response at 88-114), and (3) new statistical plots and data relating to the sufficiency and reliability of the sentinel site (now also using data from 2006) (*See* Att. 15, Response at 92, 93, 95, 110). EPA also made new (conclusory) claims that (1) nutrient reductions occurring in Narragansett Bay do not affect MHB, and (2) it had conducted a MEP style analysis and (3) that the available SMAST data were not sufficient for any type of "stressor-response" relationships between TN, DO and algal levels in MHB or the TE. *Id.*, at 48, 50, 92-93, respectively.

EPA's public release of highly relevant documentation did not conclude with the issuance of Taunton's permit. Well after the permit was issued, and just days before the appeal deadline, EPA released a massive compilation of new data and analyses that the Agency was using to support its permit action. *See* Att. 66, May 7, 2015, FOIA Response. These new records allegedly provided EPA's basis for ignoring the major system improvements that occurred since 2006. *Id*. Contrary to EPA's Response to Comments, the supporting analysis shows:

1. Chl-a decreased and DO increased at Narragansett Bay station closest to MHB since 2006, confirming system improvements since 2005 had the beneficial effects identified by Taunton (*See* Att. 16, at 9, 13);

2. DO exceedances were far more prevalent in wet weather years, confirming the significance of CSO reduction ignored by EPA (*See* Att. 16, at 7, 8); and

3. Data were sufficient to perform a "stressor-response" analysis and that analysis demonstrated that, when seasonal Chl-a is less than 10 ug/L (as is the case in TE), DO is expected to be above 5 mg/L. Thus, attaining a 3-5 ug/l chl objective is unnecessary. *See* Att. 16, at 10.

See Att. 16, 5/7/15 FOIA response; Att. 66. But beyond Taunton's substantive objections to EPA's claims regarding this new information, EPA's reliance on these new analyses and *post hoc* rationalizations to support its permit action is completely inappropriate. *Supra*, at 1-2; *In re Amoco Oil Co.,* 4 E.A.D. 954, 980-981 (EAB 1993) (EPA excluded analyses necessary for commenters to make informed comment); *In re GSX Servs. of SC. Inc.*, 4 E.A.D. 451, 467 (EAB 1992) (failure to discuss location standards required remand); *see also Ethyl Corp. v. EPA*, 541 F.2d 1, 84 (D.C. Cir. 1976) ("To the contrary, we only submit that *a responsible Administrator would not materially rely on recently acquired, uncommented upon studies - especially when the results of previous studies had been undermined severely* by the unanimous criticism of other independent government agencies.") (emphasis added).

EPA may not publish a plainly deficient Fact Sheet, issue broad conclusory scientific statements, and then, in the final hour, create and rely on new technical assessments in response to public comments pointing out that the dozens of relevant studies had been ignored (including EPA's prior findings on Brayton Point impacts). Neither Taunton nor the rest of the public has had an opportunity to review or comment on such information and, therefore, the City's due process rights have been abrogated. As EPA's final permit action plainly relies on new, substantive positions to justify the TN requirements, EPA must re-publish this permit and give the public an opportunity to comment on all of the new information and analyses recently produced by EPA.

vi. EPA's failure to directly address Taunton's supplemental comments was improper

The City submitted several supplemental comments based on post-comment period discussions the City had been having with EPA. *See supra*, at 9-11; Atts. 17, 22-26, 29, 30. EPA, however, denied that this information was not available during the relevant comment period and asserted no response was necessary. *See* Att. 15, Resp., at 1. EPA's failure to directly address this supplemental information in its response was clear error for the following reasons:

- Supplemental comments (Atts. 17, 22-26, 30) were provided in response to post-comment period discussions/meetings with EPA during the 30-month post-comment period. These comments were the result of specific information/analyses EPA referenced in the post-comment period meetings to claim that the City's original comments were unsupported. Moreover, these post-comment period documents were submitted in response to the new information that was not in the original permit record or Fact Sheet (*supra*, at 9-11);

- Supplemental comments (Att. 31-37) were provided to EPA as direct responses to EPA comments regarding alleged deficiencies in the City's initial cost-impact analyses;

- Supplemental comments (Att. 17, 22-26, 30) were submitted to bring EPA's attention to technical evaluations and studies of TE and MHB that were already in EPA's possession and were not referenced or evaluated by EPA in issuing the

> Fact Sheet (*e.g.*, hydrodynamic studies, Mansfield permit response, Brayton Point permit impacts analyses). These comments directly addressed (and refuted) the validity of various technical claims based on information that was in EPA's possession, but were not included in the permit record.

Because (1) the need to submit this specific information did not exist at the time the permit was issued and/or (2) reflected available studies that should have been included in EPA's permit record initially, EPA was required to respond to that information. *See Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 420 (1971) ("That review is to be based on the full administrative record that was before the Secretary at the time he made his decision."); *Environmental Defense Fund v. Blum*, 458 F. Supp. 650, 661 (D.D.C. 1978) (finding the agency "may not, however, skew the 'record' for review in its favor by excluding from that 'record' information in its own files which has great pertinence to the proceeding in question."). Likewise, where the need for additional documentation and expert opinions had not become apparent until EPA further explained the basis for its limited Fact Sheet statements (*e.g.*, September – meeting - Brayton Point has no material effect on DO or algal growth), such submissions cannot be considered "late." *See Envtl. Integrity Project v. EPA*, 425 F.3d 992, 996 (D.C. Cir. 2005) (internal citations omitted) (appropriate to reopen for comment "where interested parties would have had to divine the agency's unspoken thoughts"). Third, relevant information already in EPA's possession cannot be considered "late filed." Finally, ignoring the receipt of multiple expert opinions that verified the simplified analysis was seriously flawed, (including letters from EPA HQ confirming that the sentinel approach has never been demonstrated to be scientifically defensible) is a "head in the sand" approach that no court has ever countenanced. *See United States v. Charles George Trucking Co.*, 823 F.2d 685, 690-691 (1st Cir. 1987) ("A party who is aware of, and chooses to ignore, an available avenue for redress

cannot later be allowed to characterize his refusal to travel the road as tantamount to the road being closed -- or to no road being in existence.").[22]

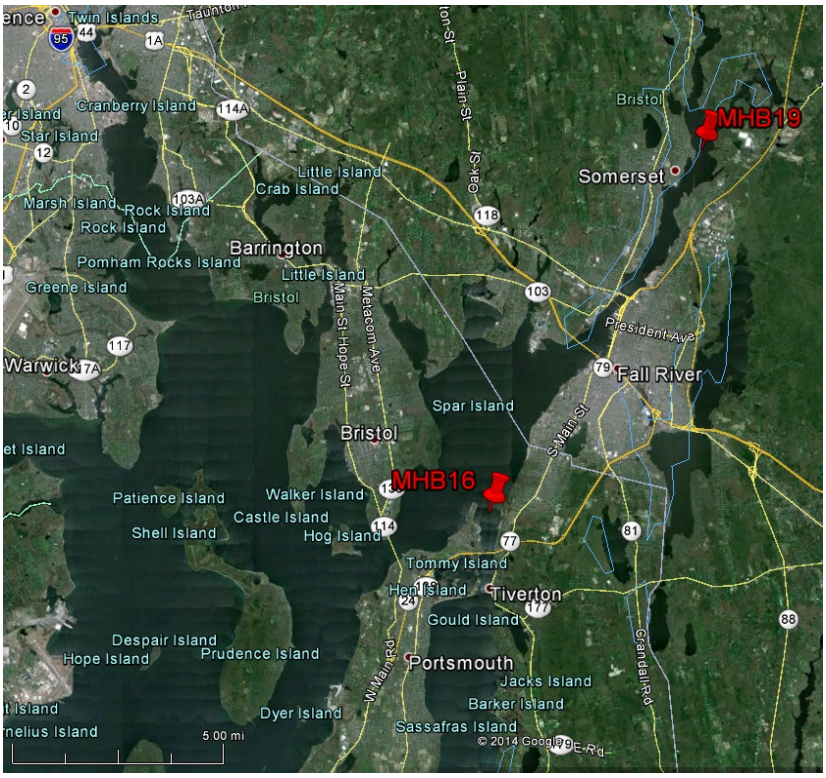
Given the post hoc rationalizations of EPA and the shifting target they created, this Court should direct EPA to evaluate and fully respond to the "late-filed" information. *Connecticut Light & Power Co. v. Nuclear Regulatory Com.*, 673 F.2d 525, 530 (D.C. Cir. 1982) ("To allow an agency to play hunt the peanut with technical information, hiding or disguising the information that it employs, is to condone a practice in which the agency treats what should be a genuine interchange as mere bureaucratic sport.").

vii. EPA's simplified method for setting the TN limit is irrational and unsupported

Taunton asserted that EPA's selection of MHB16 as the basis for setting the required TE TN criteria was irrational, unsupported and contrary to accepted procedures. *See* Att. 14, Comments, at 8 (47); *passim*.[23] Specifically, Taunton noted that, without any data, analysis, or consideration of relevant physical conditions, EPA simply claimed that, because DO criteria were met at MHB (MHB16) 11 miles away with a TN level of 0.45 mg/l, the TE needed to achieve the same ambient TN concentration. *See* Att. 1, Fact Sheet at 30.

[22] Given the back-and-forth communications regarding the cost impacts analysis, it is particularly egregious that EPA's response to comments was based on the City's preliminary analyses, not the corrected analyses that were submitted after the follow-up discussions with EPA.

[23] The MEP procedures require, at a minimum, consideration of system hydrodynamics to choose a proper sentinel location. See Att. 15, Response at 5.



EPA's response admitted the sites were rather different, but, for the first time, claimed EPA followed the "MEP process" in selecting MHB16 as the sentinel location. *See* Att. 15, Response at 3, 55. This EPA response is plainly deficient as EPA presents no information, whatsoever, to confirm it followed the MEP process. *See Defenders of Wildlife v. Babbitt***,** 958 F. Supp. 670, 685 (D.D.C. 1997) (An agency "basing its decision on unsupported conclusory statements as well as facts which are directly contradicted by undisputed evidence in the Administrative Record" is "arbitrary and capricious"); *see, e.g.*, *American Tunaboat Ass'n v. Baldrige*, 738 F.2d 1013, 1016 (9th Cir. 1984) ("The Court will reject conclusory assertions of agency "expertise" where the agency spurns unrebutted expert opinions without itself offering a credible alternative explanation.").[24]

[24] *See also generally Leather Industries of Am. v. EPA*, 40 F. 3d. 392 (D.C. Cir 1994), for the proposition that an assumption is not the same as having data or analysis to support a proposition and *Columbia Falls Aluminum Co. v. EPA*, 139 F.3d 914 (D.C. Cir. 1998) for the principle that EPA is not authorized to make regulatory decisions on "generalizations" when the case specific facts indicate that the generalized approach is inappropriate.

Due to EPA's latest claim that it "followed the MEP process," Taunton contacted Dr. Brian Howes, the MEP Project Leader and author of the two documents EPA was basing its decision on. Dr. Howes observed the following after reviewing EPA's Fact Sheet claims:

> Regarding the selection of MHB16 as the "sentinel station" for the Taunton system, the existing data and studies for the system would not support its use as a valid sentinel site under the MEP program. First, the site does not appear to have any obvious relevance for predicting nutrient effects in the Taunton Estuary as it is far removed from that location and is subject to far different stressors and physical constraints. Second, MHB16 was confirmed by other researchers to exhibit very different hydrodynamic characteristics from the rest of the system, including Mount Hope Bay itself (See attached figures (Kincaid, 2006); see, also hydrodynamic analyses (Zhao, Chen & Cowles, 2006; Chen, Zhao, Cowles & Rothschild, 2008)). Consequently, the nutrient response at this site would not be representative of the expected response elsewhere in the system.

See Att. 44. In short, Dr. Howes confirmed Taunton's comments were correct –use of MHB16 as the "sentinel site" lacks a rational basis because it "entirely failed to consider an important aspect of the problem" (*hydrodynamics*), "offered an explanation for its decision that runs counter to the evidence before the agency" (*location*), or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise" (*failure to check expert reports and conclusory statements*). Accordingly, EPA's sentinel site selection must be rejected under *State Farm*. *Supra,* at 12.[25]

Therefore, putting aside that EPA's record nowhere contains objective evidence that MHB16 is an appropriate sentinel site under the MEP Process to predict the DO response in the TE, Dr. Howes' letter makes it abundantly clear that EPA's sentinel site selection process was clear error and not a product of agency expertise.

[25] It is arbitrary and capricious for an agency to rely on an approach document whose own author has admitted is flawed. *See Texas Oil & Gas Ass'n v. United States EPA*, 161 F.3d 923, 935 (5th Cir. 1998) ("When an agency adopts a regulation based on a study [that is] not designed for the purpose and is limited or criticized by its authors on points essential to the use sought to be made of it the administrative action is arbitrary and capricious and a clear error in judgment.").

viii. EPA's imposition of the TN limitation was based on numerous factual errors

As discussed below, EPA's final action was also replete with substantive factual errors, admissions of insufficient data, and conflicting conclusions that thoroughly undermine the credibility of EPA's analyses.

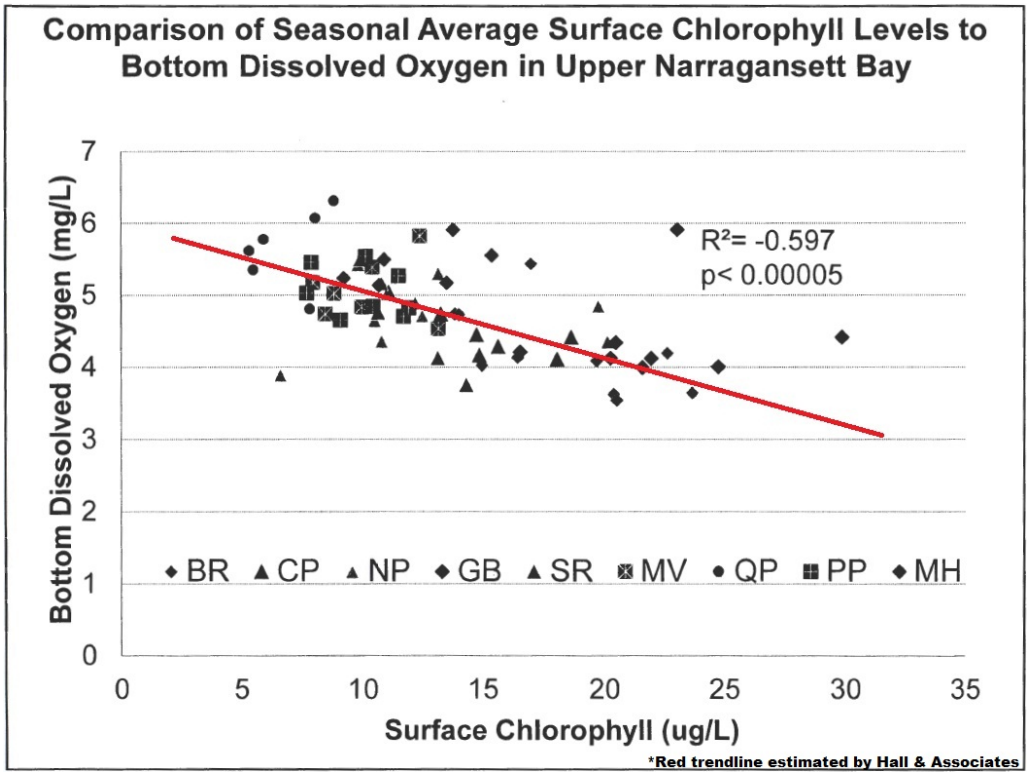
a. Selection of Sentinel Site and Use of Method to Select TN Target

EPA claimed (1) the selection of the sentinel site was scientifically defensible and (2) physical differences between MHB16 and MHB19 (TE) were minor. *See* Att. 15, Resp. at 48, 92-95. EPA later noted that MHB16 was over 23 feet deeper than the TE at MHB19 (Att. 1, Fact Sheet at 20), MHB16 was subject to unusual hydrodynamics (as Dr. Swanson had addressed – Att. 43 at 8) (Att. 15, Resp., at 110), TE was subject to different organic loadings affecting DO (Att. 15, Resp., at 92), the TE responded differently to oxygen demanding inputs than MHB16 (*See* Att. 15, Resp. at 92), and algae responded differently to TN at MHB16. *See* Att. 15, Response at 94 (Fig. R7). These statements confirm it was improper to use MHB16 TN level as the basis for predicting algal or DO concentrations in the TE without accounting for the admitted differences.

b. Algal Growth Level in TE Confirmed Protective

EPA claimed TN was being regulated to reduce algal growth to acceptable levels. *See* Att. 1, Fact Sheet at 26. EPA claimed that algal levels at the protective sentinel site were "lower than in TE in a normal year" (*i.e.*, 2004-5) to refute the City's observation that TE levels were lower and, therefore, acceptable. *See* Att. 15, Resp. at 48. However, data in Table 5 of the Fact Sheet (Att. 1) unquestionably confirm that growing season algal levels are *lower* in the Upper Taunton River (MHB stations 18, 19, 21) (the area that EPA addressed in its loading analysis and effluent limit derivation). Moreover, EPA's new data analysis confirmed a 10 ug/l algal level would meet a 5 mg/l DO standard. *See* Att. 16, at 10. As the purpose of TN control is to prevent

excessive plant growth and the Upper TE has lower algal growth than the sentinel site (and less than 10 ug/l), it was plainly erroneous for EPA to conclude that algal levels were excessive in TE and impairing DO.



c. Load Analysis Plainly Flawed

In responding to the City's comment on EPA's failure to account for load reductions mandated by Rhode Island Department of Environmental Management ("RIDEM"), EPA claimed that Narragansett Bay does not affect nutrient loadings in MHB. *See* Att. 15, Resp. at 48. This conclusory statement is directly refuted by the hydrodynamic studies for MHB, which confirm the overwhelming source of tidal exchange in the system is with Narragansett Bay (Kincaid (2006), Swanson, Kim, and Sankaranarayanan (2006), Zhao, Chen, and Cowles (2006), Chen, Zhao, Cowles, and Rothschild (2008), Krahforst and Carullo (2008)). *See* Atts. 11, 57, 13, 56, 12, respectively. Thus, it is clear that EPA plainly failed to understand the critical hydrodynamics affecting the selection of MHB16 as a sentinel station. This was a major error

because EPA's analysis confirmed that algal and DO levels in the Narragansett Bay near the mouth of MHB had significantly improved since 2006. *See* Att.16.

d. Assessment of Algal Improvements Admitted Flawed and Inadequate

In response to comments that EPA failed to assess algal reductions since 2006, EPA claimed that such reductions did not occur. *See* Att. 15, Resp. at 62. EPA later acknowledged that the reductions did occur (*Id.*, at 3), but claimed TN levels monitored by NBC confirmed the algal reductions were not significant in TE. However, EPA admitted in the Mansfield permit response that the updated NBC monitoring does not provide information on the algal response. *See* Att. 71, Mansfield Resp. at 113. EPA's confused response now admits that load reductions to MHB did produce lower algal levels, but EPA failed to assess how that impacted TE. Given that most of the flow in TE originates in MHB, EPA's failure to account for post-2005 MHB reductions on the algal regime in TE was clear error.

e. Claim of Consistency with MEP or Reference Waters Procedures

In response to comments that EPA failed to follow accepted state and federal procedures EPA claims (1) it followed the MEP procedures, (2) it used a valid reference waters approach, and (3) proper analysis does not require confirmation of how nutrients are affecting plant growth. *See* Att. 15, Resp. at 50. First, EPA's MEP and reference waters approach consistency claims are purely conclusory, with no information or analyses identified in support of this claim. To the contrary, EPA later admits that (1) the data are not sufficient for "stressor response" evaluations (a MEP and reference waters analysis prerequisite) (*id*. at 54), and (2) the hydrodynamics are different at the sentinel site (violating MEP requirements to properly account for such differences in selecting a sentinel location) (*id*. at 110). Additionally, EPA never responded to the MEP citation that the SMAST study could not be used without further analysis and hydrodynamic assessment. *Id.*, at 1, 51-52. Similarly, EPA never responded to the comment that

the reference waters approach required confirmation of how the nutrient of concern is affecting plant growth. *See* Att. 65, Nutrient Criteria Guidance Estuarine and Coastal Marine, at 7-5 ("Of equal importance in this process are in situ reference sites and supporting data showing the system response to the nutrient increases. The best of both these worlds is a set of reference sites documenting an optimal nutrient condition as well as response data confirming that system degradation occurs at levels beyond this measure…"). EPA's assertion that calculation of the TN limit was consistent with MEP and the reference waters approaches was clear factual error.

f. Admission of Data Insufficiency to Evaluate Effects

Taunton's comments argued that an analysis of available data confirmed no apparent relationship between minimum DO, nutrients, and algal levels, and the observation that the TE responds very differently than MHB. *See* Att. 14. In its response, EPA claimed (1) the data are insufficient to conduct any type of "stressor response" analysis, but (2) EPA's own stressor-response analyses indicate that the TE and MHB respond differently (precisely as the City had argued). *See* Att. 15, Resp., at 15, 16, 92, 93. First, EPA's statement that the SMAST data are insufficient to conduct stressor response is an irrational and unsupported conclusory statement. EPA, itself, reviewed the same data in selecting the sentinel site, assuming the DO "response" at MHB16 was a direct result of the TN "stressor" at that location. Second, EPA's assertion, if correct, means that no one can rely on any of the SMAST data for nutrient impact analyses on the DO regime. *See* Att. 2, CALM at 6. Finally, EPA's confirmation that TE and MHB respond very differently to inputs (*See* Att. 15, Response at 92-94; Figures R6 and R7) confirms that it was inappropriate to use MHB16 (the MHB station second farthest away from TE) as the location that predicts TN/DO effects for TE without accounting for the conditions that cause the different effects to occur.

g. Inconsistent Use of 2006 Data

In response to Taunton's data evaluation (*See* Att. 15, Response at 89), EPA reiterated that using 2006 data was inappropriate. *Id.*, at 16 (highest tributary flows 1930-present). Then, EPA subsequently *included* numerous analyses using 2006 data to reach various conclusions. *Id.*, at 92, 93, 95, 109, 110, 111. EPA's plainly inconsistent response (using, then not using the 2006 data) to justify its imposition of a TN limit was clear error.

h. Brayton Point Impacts Misevaluated

The City observed that EPA itself had concluded that Brayton Point significantly affected the DO regime and algal growth of MHB in permitting that facility and that the closure of the facility would further affect DO and algal levels in both the TE and MHB. *See* Att. 68, Brayton Point Resp. at VII-7; Att. 17, at 3, 4; Att. 43. Contrary to the system's thermal expert, Dr. Swanson, EPA issued a conclusory statement (with no supporting documentation) that the Brayton Point hydrothermal effect was negligible. *See* Att. 15, Resp. at 65. EPA's response is irreconcilable with its earlier admissions. As a result of Brayton Point measures (both past and projected), improvements in DO have (and will continue to) occur in both MHB and TE based on well-established physical relationships. EPA's refusal to consider this improvement is clear error, particularly when considering the minor DO exceedances documented almost a decade ago.

i. Use of Post 2006 Data to Predict DO/Algal Effect

In response to comments that EPA failed to use current data (*See* Att. 15, Response at 2), as required by 40 C.F.R. § 122.44(d), EPA claims that it did assess subsequent system improvement by considering data from 2010 in the Fact Sheet. *Id*. at 58, 61. EPA's assessment is still plainly deficient as (1) many plant improvements had not been in place in 2010, (2) EPA was also required to account for the effect of any projected reductions by RIDEM (*e.g*., NBC

load reduction affecting MHB) and (3) EPA did not provide any estimate of how these changes could reduce TN reduction requirements in the TE. Given that EPA knew that DO and algal levels had, in fact, improved over time, this lack of analysis is inexcusable. *See* Att. 15, Response at 3; Att. 16. Finally, it is widely understood that a system requires time to adjust to load reduction effects, particularly if the sediment bed is a major contributor to impacts, EPA's assessment fails completely to account for any of these factors. *See* Att. 69.

j. The Sentinel Method Is a Stressor Response

In response to Taunton's data analyses (*i.e*., classified by EPA as "stressor-response" evaluations) (*See* Att. 15, Response at 89, 97), EPA asserted that the available data were not sufficient for predicting system responses. *Id*. at 51, 54. EPA then made a "stressor–response" analysis claim that "EPA's analysis [shows] that a substantially greater reduction in nitrogen loadings would be necessary for water quality standards to be achieved." (*i.e*., algal levels and DO). *Id*. at 58. It is unknown what stressor-response analyses EPA was referencing. However, EPA's selection of a sentinel site as establishing the "necessary" level of TN control (*See* Att. 1, Fact Sheet at 30) is based on the presumption that the TN "stressor" at that site predicts the minimum DO "response" for the system. This is unquestionably a stressor-response prediction. Given EPA's assertion that such relationships cannot be derived from the data, EPA's entire sentinel analysis is admitted to be flawed and unsupportable.

C. Interim TN Limitation (Permit, at 19)

Notwithstanding the legality of, and scientific need for, the TN effluent limitation in Taunton's Permit, the City objected that the Permit did not contain a compliance schedule as allowed by state law with a reasonable interim limitation TN (*i.e*., 8 mg/l monthly average). *See* Att. 14, Comments at (10); Att. 54. EPA agreed and determined that a 10 year schedule was appropriate. *See* Att. 1, Permit at Part 1.G. However, in issuing the final Permit, EPA included,

what it believed to be, an interim TN limit in the permit – a 5 mg/L *monthly maximum* limit. However, by EPA's own data analysis, the 5 mg/L monthly maximum "interim" limit is as stringent as the disputed 3 mg/L *seasonal average* final limit. *See* Att. 15, Response at 9-13. Stated differently, the interim limit imposed by EPA is as difficult to attain as the final limit and, therefore, not an interim limit at all.[26] Accordingly, EPA's miscalculation of the interim limit – a limit it concedes is appropriate – constitutes a mistake of fact that should be reviewed and invalidated by this Board. The correct interim limit should be 8 mg/l as a monthly maximum.

D. Requirement to Operate Nutrient Reduction All Year (Permit, at Part I.A.1, n.12-13)

The City objected to the requirement that it run its nutrient reduction operations year round, even when there is no possibility of criteria violation. *See* Att. 15, Response at 8-9. EPA's Fact Sheet contained no justification for the year-long condition, contrary to the requirement that only "necessary" limitations be imposed. *Supra*, at 2. EPA's Response created a rationale, for the first time, implying that there was a need to operate the facilities year round due to concerns over nutrient cycling in the estuary. *See* Att. 15, Resp. at 10-13. First, this is an entirely new rationale that the public must be allowed to address. Second, EPA's response is simply conclusory and has no demonstrated basis in the record. Therefore, it may not be upheld. *Supra*, at 12 (*State Farm*). Third, EPA's position is, at best, a theoretical possibility that has no demonstrated applicability to this system. Stated differently, EPA has failed to explain what unusual characteristics in TE require year round TN reduction when it has not been required for anyone on Long Island Sound. As such, EPA's evaluation of this issue should, at a minimum be remanded for further evaluation, review and comment. *Supra* at 1-2 (*Amoco Oil Co.*).

[26] The longer averaging period applicable to the final limit (6 month rolling average) allows individual months to go above 5 mg/l while still meeting the limit. A 5 mg/L monthly maximum is, for all practical purposes equivalent to a, if not more, stringent than a 3 mg/l seasonal average.

E. Final Compliance Schedule (Permit, at Part I.G)

The City's final permit calls for a 10-year schedule of compliance for meeting the TN limit. Notwithstanding its concerns regarding the TN limit, the City requested that it be provided with an 18-year compliance schedule due to high cost impacts. *See* Att. 38. After an initial submission conferring with EPA, the City provided EPA with an updated user impacts analysis confirming that the TN limit will have a user impact that is 2% or larger of median income. *See* Att. 31-38. As acknowledged by EPA, such an impact justifies a longer schedule of compliance (*e.g.*, 15-20 years). *See* Att. 15, Resp. at 24-29. However, EPA rejected the City's request based on deficiencies with the *original* submission, rather than the *updated* submission. *Id.*, at 24-29. EPA was fully aware of the updated user impact analysis that had been submitted but, nevertheless, ignored that analysis and refused to extend the compliance schedule. EPA's failure to account for the updated analysis and extend the compliance schedule was a clear mistake of fact and law that should be remedied by this Board. *Supra*, at 9-11 (supplemental comment discussion)

F. Copper Limitation (Permit, at Part I.A.1. at 3)

In its permit, Taunton received total recoverable copper limitation of 0.008 mg/l (monthly average) and 0.016 mg/l (maximum daily) based on a dilution of 3.4. *See* Att. 1, Fact Sheet, at 7-8. However, Taunton's comments noted that the dilution calculation was incorrect because, *inter alia*, it did not account for tidal dilution. *See* Att. 14, Comments, at 42 (81). EPA's response conceded that additional tidal dilution exists at the point of discharge, but EPA refused to alter the calculation:

> EPA disagrees that the discharge should be presumed to undergo complete mixing with the tidal component of flow for the purposes of the copper analysis. While nitrogen loads were considered to be fully mixed on the long term (seasonal average) time scale under which nitrogen concentrations and loads were analyzed,

> the copper criteria are applicable at much shorter times scales of one hour (for the acute criterion) and four days (for the chronic criterion). At these time scales the *potential* for short term stratification of the fresh and salt water components and the tidal nature of the receiving water (flood, ebb and slack tides) *may* act to prevent full mixing with the (*very small*) ocean component of flow, so that it would not be correct to include that flow in the dilution calculation.

Att. 15, Resp., at 118 (emphasis added). EPA's attempt to explain the inconsistency is irrational for several reasons. First, the tidal flow is already mixed with the freshwater flow at the point of discharge. It would be physically impossible for the effluent to mix with the freshwater without mixing with the tidal component. Second, since EPA admits the discharge is completely mixed with the freshwater 7/Q/10 flow, EPA has already admitted that the discharge completely mixes with the tidal flow. Third, the amount of tidal flow is not "very small;" under dry weather tidal dilution increases and EPA failed to account for that factor. Fourth, the "transient" nature of the tidal flow is unexplained and largely irrelevant when 4-day average chronic criteria govern the permit calculation. Finally, assuming that EPA's concern could actually exist, it would not mean that 100% of the tidal flow is unavailable for mixing.

Clearly, if, as EPA admits, the Taunton River is influenced by tidal flow at the point of Taunton's discharge, then the copper limitation in the Permit should also be based on the dilution associated with this tidal flow. 40 C.F.R. § 122.44(d)(1). Accordingly, EPA's failure to account for the tidal dilution in calculating the copper limitation is a clear error of fact and law that should be reviewed by the EAB. Creating a list of "speculative facts" does not provide a basis for EPA to ignore its 40 C.F.R. § 122.44(d) responsibilities. *Supra*, at 30 (*Defenders of Wildlife, American Tunaboat*).

G. Flow Limitation (Permit, at Part I.A.1 at 2)

Taunton's Permit contains a condition limiting the average monthly flow from the treatment plant to 8.4 MGD. This limit is stated as an enforceable condition and, therefore, failure to adhere to this flow limitation would potentially subject Taunton to enforcement under the CWA and harsh civil penalties. The City provided initial objections on using an 8.4 MGD limitation and H&A filed subsequent comments on this issue after further discussions with EPA. *See* Att. 15, Response at 13; Att. 25, 2/17/15 H&A Supp. Comment. In response, EPA prepared an internal memorandum claiming that regulating flow is allowable. *See* Att. 73. It is well settled that flow is not a pollutant under the CWA and, therefore, it is beyond federal authority to include it as a pollutant limitation in the permit. *See* Att. 25; *see, e.g., Virginia Department of Transportation, et al. v. United States Environmental Protection Agency, et al.*, 2013 U.S. Dist. LEXIS 981, *14-15 (E.D. Va. Jan. 3, 2013) ("Stormwater runoff is not a pollutant...."). Thus, setting a "flow limitation" is beyond EPA's authority under the Act. Accordingly, EPA's failure to remove the flow condition from the Permit is a clear error of law that should be reviewed and invalidated by the EAB.

H. Denial of Wet Weather Limits

Because the City is required to process greater CSO-related wet weather flows (when the river dilution is concurrently much higher) the City requested that separate high flow effluent limits be established. *See* Att. 15, Response at 31. EPA denied that it was allowed to set such limits. *Id.* at 31-33. EPA's response, however, is inconsistent with the CWA, published guidance on addressing CSO-related limitations, and the Stenhouse letter referenced by EPA. It is axiomatic that water quality-based limits are only imposed "as necessary to achieve water quality standards." 33 U.S.C. § 301(b)(1)(C). However, imposing dry weather limitations on CSO-related discharges is, on its face, not *necessary*. Given the additional flow in the Taunton River

that physically exists during wet weather situations, a higher instream dilution will also exist under non-drought conditions and must be accounted for under 40 C.F.R. § 122.44(d)(1). EPA CSO Guidance explains that the higher dilution occurring under the conditions when CSO-related flows will exist should be used in setting appropriate wet-weather related permit limits. *See* Att. 60, CSO Guidance at 9-14 ("A design low flow analysis is often conservative because CSOs typically occur when the receiving water is responding to precipitation and higher-than-normal dilution capability is available. … Therefore, the use of the design low flow protects to a more stringent level than indicated since dilution effects are likely to be greater."). Finally, the Stenhouse letter (which EPA has referenced in subsequently issued national guidance) expressly acknowledged that flow-based or flow-tiered limits are permissible. *See* Att. 70, Stenhouse letter. Consequently, EPA's refusal to set appropriate limits applicable to high flow periods was arbitrary and capricious and clear error.

The City cannot possibly meet the daily maximum limits when operating under high flow conditions, as plant performance would have to improve dramatically under those conditions to meet the mass limitations. EPA should, therefore, be directed to reopen the permit to set appropriate wet weather flow based limits or cease application of the dry weather limits under wet weather conditions.

I. Illegal Bypass Rule Interpretation

As referenced above (*supra*, at 6-7), Taunton has repeatedly indicated its intent to "blend" peak wet weather flows as a means to treat CSO reduction objectives and protect the operation of its biological system and nutrient removal facilities. This blending approach was unambiguously approved by the Eighth Circuit Court of Appeals in *Iowa League of Cities v. EPA*, 711 F.3d 844 (8th Cir. 2013), which vacated EPA's attempt to prohibit blending designs on both procedural and substantive grounds. Recently, however, EPA announced that peak wet

weather flow processing via "blending" constitutes an illegal bypass under federal law, a decision that is expressly at odds with the *Iowa League of Cities'* decision. *See* Att.64, NJ CSO Response. Accordingly, in light of EPA's announcement, the City objects to this ongoing regulatory prohibition as clear legal error. Given that EPA's position with regard to blending was not announced until just recently, it was not necessary for Taunton to raise this issue in the comment period. *See Florida Power & Light Co. v. United States*, 846 F.2d 765, 771 (D.C. Cir. 1988) ("[Notice] must provide sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully.").

J. Co-Permittee

In its comments (*See* Att. 15, Response at 139-140), the City objected to the fact that, under the language of the permit, it could be held joint and severally liable for the actions of Raynham and Dighton. EPA's response document clarified that it did not intend to hold the City joint and severally liable in such situations. *Id.*, at 31. However, EPA did not modify the language of the Final Permit. This failure is not harmless because the permit's language controls the liability of Taunton, not the Response to Comments. *See* 33 U.S.C. § 1342(k). Accordingly, EPA's failure to amend the ambiguous language is an error of law that should be remedied by this Board.

V. STAY OF CONTESTED AND NON-SEVERABLE CONDITIONS

Pursuant to EPA regulations, the limits and conditions contested herein must be stayed, along with any uncontested conditions that are not severable from those contested. *See* 40 C.F.R. §§ 124.16(a) and 124.60(b). Moreover, in light of the fact that Taunton challenged numerous major aspects of the Permit and given the interdependent relationship of these provisions to all remaining non-contested provisions, the proper result is to stay the Permit in its entirety. *See Friends of Pinto Creek v. United States EPA*, 504 F.3d 1007, 1010 (9th Cir. 2007) ("The EPA

did not respond and, instead, withdrew portions of the challenged NPDES permit stating that the permit was not severable from the contested conditions and that the permit should be stayed pending final agency action."). In which case, and until such time as the Board reviews and resolves the contested provisions or remands the Permit to the Region for subsequent modification, the Petitioner should be directed to comply with the terms and conditions of Taunton's former NPDES permit, *i.e*. those terms/conditions in effect prior to the March 10, 2015, Permit issuance.

VI. CONCLUSION

For the aforementioned reasons, the City of Taunton respectfully seeks EAB review of the terms and conditions of the City's final NPDES Permit identified herein. After such review, the City requests:

A. the opportunity to present oral argument in this proceeding and a briefing schedule for this appeal to assist the EAB in resolving the issues in dispute;

B. a remand of the Permit to EPA Region I with an order to issue an amended NPDES Permit that conforms to the EAB's findings on the terms and provisions appealed by Taunton; and

C. all other relief that the EAB deems appropriate under the circumstances.

Respectfully submitted,

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May 13, 2015

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Statement of Compliance with the Word/Page Limitation

In accordance with 40 C.F.R. § 124.19(d)(1)(iv) & (d)(3), Taunton hereby certifies that its Petition does not exceed 14,000 words. Specifically, not including the transmittal letter, caption, table of contents, table of authorities, figures, signature block, table of attachments, statement of compliance with the word limitation, and certification of service, Taunton's Petition contains **13,857 words**.

TABLE OF ATTACHMENTS

Passage Stations and Dissolved Oxygen Exceedances Over Time, Exceedances During Wet Years and Exceedances During Dry Years)
17. Hall & Associates - Supplemental Comments on Draft Permit (01/08/15)
18. MassDEP, 2008. Massachusetts Year 2008 Integrated List of Waters. Massachusetts Division of Watershed Management, Watershed Planning Program.
19. MassDEP, 2010. Massachusetts Year 2010 Integrated List of Waters. Massachusetts Division of Watershed Management, Watershed Planning Program.
20. MassDEP, 2012. Massachusetts Year 2012 Integrated List of Waters. Massachusetts Division of Watershed Management, Watershed Planning Program. CN 400.1.
21. Taunton Draft Permit (March 2013). Available at http://www.epa.gov/region1/npdes/permits/draft/2013/draftma0100897permit.pdf
22. Hall & Associates – Supplemental Comments on Draft Permit #MA0100897 City of Taunton - July 22, 2014, with attachments
23. Hall & Associates - Supplemental Comments and Request for New Information Regarding the Scientific Basis for Draft Permit #MA0100897, City of Taunton and Reopening of Permit Comment Period - September 16, 2014, with attachments
24. Hall & Associates – Supplemental Comments Regarding Draft Permit #MA0100897, City of Taunton - November 25, 2014, with attachments
25. Hall & Associates – Supplemental Comments Regarding Draft Permit #MA0100897, City of Taunton - February 17, 2015
26. Hall & Associates – Supplemental Comments Regarding Draft Permit #MA0100897, City of Taunton - March 20, 2015, with attachments
27. Letter – Thomas Hoye, Jr. to Curt Spalding, Nancy Stoner (cc: Joseph Kennedy) – Re: Request for Meeting to Discuss Proposed Permit (07/24/14)
28. Letter – Thomas Hoye, Jr., to Ken Kopocis, Curt Spalding (cc: Joseph Kennedy III, Charlie Baker, Claire Golden, Mayor of Fall River, Mayor of Brockton, Mass. Coalition for Water Resource Stewardship, John Hall) – Re: Request for Meeting with EPA Headquarters to Discuss Issues with Proposed Permit (11/19/14)
29. Letter – H. Curtis Spalding to Thomas Hoye, Jr. (cc: Ken Kopocis, Joseph Kennedy III, Charlie Baker, David Cash, Mayor of Fall River, Mayor of Brockton, Mass. Coalition for Water Resource Stewardship, John Hall) – Re: Correspondence dated November 19, 2014 (12/29/14)
30. Letter – Thomas Hoye, Jr., to Kurt Spalding (cc: Joseph Kennedy, Charlie Baker, Martin Suuber, Sam Sutter, Bill Carpenter) – Re: Meeting to Discuss Proposed Permit Requirements and Issues Raised by City (01/22/15) – Attachment – Swanson Report
31. Email chain – Susan Murphy to Mike Andrus (cc: Joe Federico, Fred Cornaglia, Dan de Abreu) – Re: Documents for 12-11-13 meeting (12/06-09/13)
32. Email chain – Mike Andrus to Susan Murphy (cc: Jeff Sutherland, Joe Federico, Ben Levesque) – Re: Taunton sewer data (03/14/14)

33. Email chain – Susan Murphy to Mike Andrus (cc: Joe Federico) – Re: Taunton billing data (04/04/14)

34. Email – Mike Andrus to Susan Murphy (cc: Joe Federico) – Re: residential units (05/15/14)

35. Email – Mike Andrus to John Hall (cc: Joe Federico) – Re: EPA comments etc. (05/05/15)

36. Documents on cost assessment - Opinion of Probable Project Cost Summary Taunton Wastewater Treatment Facility Upgrades, Opinion of Probable Project Cost Summary NEW Taunton Main Pumping Station and Ancillary Improvements, City of Taunton Wastewater Debt Table (Issue Date: 3/1/2001-9/26/2013)

37. BETA Engineering Sewer Use Fees Financial Impact for Environmental Justices Area and Sewer Use Fees Financial Impact for Tract Areas Tables

38. John Hall PowerPoint Presentation – City of Taunton: Review of Proposed NPDES Permit Issues and Suggested Resolution of Scientific Uncertainties (02/18/15)

39. Letter – Center for Regulatory Reasonableness to Gina McCarthy (cc: Thomas Hoye, Jr., Joseph Federico, Joseph Kennedy) Re: Request for an SAB Peer Review of EPA Region I "Sentinel Approach" Used to Determine Numeric Criteria for Estuarine Waters (10/02/14)

40. Letter – Joseph Kennedy III to Gina McCarthy (cc: Christopher Zarba, Thomas Hoye, Jr., William Flanagan) (10/17/14)

41. Blank – Formerly duplicated Att. 29

42. Chapra, Steven C. (4 Sept. 2014). Assessment of the Scientific Basis of the Taunton Wastewater Treatment Plant Draft NPDES Permit (MA0100897).

43. Swanson, Craig. (13 Jan. 2015). Analysis of Changes in Temperature Regime in Mt. Hope Bay With and Without Brayton Point Station in Operation with Resulting Effects on Saturated Dissolved Oxygen Levels.

44. Letter - Brian Howes to Joe Federico – Re: Use of Sentinel Site Approach Based on Massachusetts Estuary Project Data for Setting Nutrient Objectives for the Taunton Estuary (05/01/15)

45. FOIA Request – Alexander English to EPA Region I - Re: Records Associated with EPA Region I Meeting with the City of Taunton (11/14/14)

46. FOIA Request – Alexander English to EPA-R1 – Re: FOIA Request for Records Added to the Permit Administrative Record for NPDES Draft Permit #MA0100897 by EPA Region I since March 20, 2013(10/07/14)

47. FOIA Request EPA-HQ-2015-000462 – Alexander English to USEPA HQ - Re: FOIA Request for Records Associated with the Sentinel Site Method for Setting Nutrient Criteria (10/14/14).

48. FOIA Response – Ken Moraff to Alexander English - FOIA Request No. EPA-R1-2015-000252 (11/03/14)

49. FOIA Request – Alexander English to EPA Region I - Re: Records Associated with Certain FOIA Denials (11/14/14)

50. FOIA Request – Alexander English to EPA Region I - Re: Record Associated with the Denial of FOIA request EPA-R1-2015-00252 (11/18/14)
51. FOIA Response – Deborah Nagle to Alexander English - FOIA Request EPA-HQ-2015-000462 (12/24/14).
52. EPA's Supplemental FOIA Response – Deborah Nagle to Alexander English - FOIA Request EPA-HQ-2015-000462 (01/06/15).
53. FOIA Request EPA-HQ – Alexander English to USEPA - FOIA Request for Records Associated with EPA Headquarters' Discussion with EPA Region I Regarding Region I's Methodology for Setting Nutrient Criteria (02/26/15)
54. Letter – Curtis Spalding to Thomas Hoye, Jr. (cc: Martin Suuberg, MassDEP Commissioner) – Re: Permit for Taunton Wastewater Treatment Plant (03/03/15)
55. Email chain – Samir Bukhari to Josh Hall (cc: Joe Federico, Kenneth Moraff) – Re: Taunton NPDES Permit (03/03-06/15)
56. Chen, C., Zhao, L., Cowles, G. and Rothschild, B. 2008. Critical Issues for Circulation Modeling of Narragansett Bay and Mount Hope Bay. In: Desbonnet A., Costa-Pierce, B. (eds) Science for Ecosystem-Based management- Narragansett Bay in the 21st Century. Springer, NY, 281-300.
57. Swanson, C., Kim, H. and Sankaranarayanan, S. 2005. Modeling of Temperature Distributions in Mount Hope Bay Due to Thermal Discharges from the Brayton Point Station. 12 Northeastern Naturalist, Special Issue 4.
58. Massachusetts Department of Environmental Protection, UMASS-Dartmouth School for Marine Science and Technology. 2003. Massachusetts Estuaries Project: Site-Specific Nitrogen Thresholds for Southeastern Massachusetts Embayments: Critical Indicators Interim Report. Massachusetts Department of Environmental Protection. July 21, 2003. Revised September 16, 2003 and December 22, 2003. Published Online: http://www.mass.gov/dep/water/resources/nitroest.pdf
59. Environmental Protection Agency. 2010. Using Stressor-response Relationships to Derive Numeric Nutrient Criteria. U.S. Environmental Protection Agency, Office of Water, EPA-820-S-10-001. November 2010. Published Online: http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/upload/Using-Stressor-response-Relationships-to-Derive-Numeric-Nutrient-Criteria-PDF.pdf
60. USEPA. January 1999. Combined Sewer Overflows: Guidance for Monitoring and Modeling.
61. USEPA SAB Expert Analysis – Subject: SAB Review of Empirical Approaches for Nutrient Criteria Derivation (04/27/10)
62. Great Bay Peer Review – Joint Report of Peer Review Panel for Numeric Nutrient Criteria for the Great Bay Estuary New Hampshire Department of Environmental Services June, 2009 (02/13/14)
63. Memo – John Hall, Ben Kirby to Great Bay Municipal Coalition – Compilation of [Supplemental] Peer Reviewer Questions and Responses (05/29/14)

64. EPA Response to Comments on NJ CSO NJPDES Permits (2015)

65. Nutrient Criteria Technical Guidance Manual Estuarine and Coastal Marine Waters EPA-822-B-01-003. October 2001. Available at http://www.aoml.noaa.gov/themes/CoastalRegional/projects/FACE/EPA_NNC-Est-Coastal-waters_2001.pdf

66. FOIA Response – Quoc Nguyen (USEPA) to Philip Rosenman - Re: Freedom of Information Request EPA-R1-2015-000252(05/07/15); Accompanying disc – delivered by mail

67. List of Available Water Quality, Hydrodynamic, and Hydrothermal Studies for Mount Hope Bay and/or Taunton Estuary

68. Responses to Comments - Public Review of Brayton Point Station NPDES Permit No. MA0003654 (10/03/03)

69. NHDES/ USEPA Great Bay Op-Ed Submission – Together, We Can All Help Restore Great Bay (04/29/15)

70. Letter – James Pendergast to Gary Stenhouse (cc: John Hall, Christine Russell, Roger Janson) - (09/20/96)

71. Mansfield Response – MFN Regional Water Pollution Control Facility (formerly Mansfield Water Pollution Abatement Facility) Response to Comments

72. 122.44(d) Fed. Reg. "Defer to state" Excerpts (06/02/89)

73. EPA Supplemental Comment Memo – Susan Murphy to File, Taunton WWTP, NPDES No. MA0100897 – Re: February 17, 2015 "Supplemental Comments" submitted by John Hall - (02/17/15)

74. EPA Supplemental Comment Memo – Susan Murphy to File, Taunton WWTP, NPDES No. MA0100897 – Re: January 8, 2015 Supplemental Comments submitted by John Hall - (03/11/15)

75. EPA Supplemental Comment Memo - Susan Murphy to File, Taunton WWTP, NPDES No. MA0100897 – Re: July 22, 2014 Supplemental Comments submitted by John Hall - (03/13/15)

76. EPA Supplemental Comment Memo - Susan Murphy to File, Taunton WWTP, NPDES No. MA0100897 – Re: September 16, 2014 Supplemental Comments submitted by John Hall – (12/15/14)

77. EPA Supplemental Comment Memo - Susan Murphy to File, Taunton WWTP, NPDES No. MA0100897 – Re: November 25, 2014 Supplemental Comments submitted by John Hall - (03/13/15)

78. EPA Taunton Affordability Memo – From: David Pincumbe – Re: Taunton MA Final Permit – Affordability Analysis (04/09/15)

CERTIFICATE OF SERVICE

Undersigned hereby certifies that on this day, May 13, 2015, a copy of the foregoing Petition for Review (without attachments) was served on the parties identified below by U.S. first-class mail, postage pre-aid:

Curt Spalding, Regional Administrator
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Samir Bukhari, Assistant Regional Counsel
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As Respondent has already certified a record for this Permit and has in its possession each of the voluminous attachments referenced in this Petition, the attachments have not been provided in this transmission.

Dated on the 13 day of May, 2015.

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