EPA AND MASSDEP JOINT RESPONSE TO PUBLIC COMMENTS
CHARLES RIVER POLLUTION CONTROL DISTRICT
NPDES PERMIT NO. MA0102598

From July 3, 2008 to August 1, 2008, Region 1 of the United States Environmental Protection Agency ("Region" or "EPA") and the Massachusetts Department of Environmental Protection ("MassDEP") (together, the "Agencies") solicited public comments on a draft National Pollutant Discharge Elimination System ("NPDES") Permit. The Draft Permit was developed pursuant to a re-application from the Charles River Pollution Control District ("CRPCD," "District," or the "permittee") for reissuance of an NPDES permit to discharge treated wastewater effluent to the Charles River. Comments were received from:

- Charles River Pollution Control District
- Anderson & Kreiger LLP on behalf of the Charles River Pollution Control District
- Camp Dresser and McKee Inc. on behalf of the Charles River District Control District
- Town of Franklin, Massachusetts
- Town of Millis, Massachusetts
- Charles River Watershed Association
- Town of Medway, Massachusetts

Following the close of the first public comment period, EPA determined to partially revise the Draft Permit and reopen it for public comment based on the existence of "substantial new questions," pursuant to 40 C.F.R. § 124.14(b). EPA accepted public comment on the Revised Draft Permit from August 29, 2012 through September 27, 2012. Public comment on the revised Draft Permit was limited to the "substantial new questions that caused its reopening." *Id.* at § 124.14(c). In the Fact Sheet for the Revised Draft Permit, EPA defined the scope of the reopening to include the total phosphorus limits; the inclusion of municipalities owning/operating portions of the treatment works as co-permittees for the purposes of operation and maintenance and unauthorized discharges; the revised requirements for submitting monitoring and reporting data; and updated collection system operation and maintenance requirements, and monitoring report submissions. Comments were received from:

- Charles River Pollution Control District
- Bowditch & Dewey, LLP on behalf of the Towns of Bellingham, Franklin, Medway and Millis
- Town of Franklin, Massachusetts
- Kleinfelder, Inc. on behalf of the Towns of Bellingham, Medway and Millis
- Upper Blackstone Water Pollution Control Abatement District

Upon considering the comments received, EPA has made a final decision to re-issue the permit authorizing the discharge. This document responds to comments on the Draft Permit and describes the changes between the draft and final versions of the permit. EPA

has reproduced all comments on the Draft Permit and the Revised Draft Permit verbatim, and addresses the two sets of comments sequentially (*i.e.*, comments on the 2008 Draft Permit are presented first, followed by those on the 2012 Revised Draft Permit). A copy of the final permit may be obtained from Region 1's website (http://www.epa.gov/region1/npdes/permits_listing_ma.html) or the permit writer, whose contact information is as follows:

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RESPONSE TO COMMENTS ON 2008 DRAFT NPDES

Comments submitted by Robert D. McRae, Executive Director, Charles River Pollution Control District, Medway, Massachusetts, dated August 1, 2008.

Comment #1: It is distressing to have received this permit, when a total maximum daily load (TMDL) study of the Upper Charles Watershed being undertaken by the EPA, DEP and the Charles River Watershed Association is nearing completion. That study, in which the EPA and DEP have invested almost $1 million would have gone a long way to answering many of the comments the District submit today. It would also have provided an opportunity for a dialogue on the most appropriate approach to the control of phosphorus in the Upper Charles Watershed, rather than a unilateral issuance of a permit that leaves open many questions.

To issue this permit at this time is particularly troublesome, because EPA and DEP studies clearly show that the District's effluent is but a small fraction of the total phosphorus load in the upper watershed. The TMDL study conducted for the Lower Charles (below the Watertown dam), which has already been approved by EPA, clearly shows that all the wastewater treatment plants in the Upper Charles represents only a small fraction of the total phosphorus load – only 14.8% of the total load in the summer growing season, but a higher percentage -21.8% on an annual basis. This is in stark contrast to other phosphorus management problems in the Commonwealth, where point sources dominate the seasonal and annual load. This clearly reflects the fact that the District and other treatment plants have already implemented phosphorus control strategies representing the Commonwealth's "highest and best practical treatment". Recognizing that the District is but a small part of the phosphorus loading provides all the more reason to develop solutions through a TMDL, so that control of all sources can be evaluated for effectiveness and cost.

Response to Comment #1: The "Draft Total Maximum Daily Load for Phosphorus in the Upper/Middle Charles River" ("Draft TMDL") referenced in the comment above was released for public notice and comment on October 7, 2009.

http://www.mass.gov/dep/water/resources/tmdl.htm. Information from the data collection reports was used in preparation of the Draft Permit, and EPA concluded that the data supported the limits therein. The final TMDL was subsequently approved by EPA on June 10, 2011.

Given the availability of a final TMDL and a WLA for the discharge, EPA slightly revised the phosphorus limits. EPA explained this change in the Fact Sheet for the partially revised Draft Permit. EPA's decision to reopen the public comment period and incorporate the available WLA for the discharge presumably satisfies the commenter's concerns regarding coordination between the NPDES permitting and the TMDL process.[1]

The commenter states that phosphorus discharged from the wastewater treatment facilities (WWTFs) is a small fraction of the upstream phosphorus load in the river, a conclusion based on data from the Lower Charles TMDL. The commenter's reliance on the Lower Charles TMDL is misplaced. It is true that when issuing an NPDES permit, the permit issuer must ensure consistency with the requirements and assumptions of any available WLA for the discharge. 40 C.F.R. §§ 122.4(d), 122.44(d)(1)(vii)(B). But the WLA applicable to the Lower Charles TMDL is not the only or final determinant of permit limits with respect to the upper Charles River. The Lower Charles TMDL did not specifically consider the impact of the POTWs on water quality in the upper Charles River watershed in establishing its wasteload allocations. As explained in the Lower Charles TMDL, the "upper Charles TMDL will evaluate the impact of nutrient loading from WWTFs on eutrophication in the upper watershed and will also include individual nutrient allocation for each facility." See Total Maximum Daily Load for Nutrients in the Upper/Middle Charles River, Massachusetts, May 2011. Total Maximum Daily Loads (TMDLs). See response to comment #3 for a detailed discussion on the water-quality based phosphorus limits in the Final Permit.

Moreover, the percentage of POTW flow at the Watertown Dam does not resolve the threshold question of whether there exists a reasonable potential for the CRPCD discharge of phosphorus to cause or contribute to an exceedance of applicable water quality standards, including but not limited to the receiving water immediately downstream of the discharge.[2] If such potential exists, the Region is obligated under

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[1] The Region did not forestall permit issuance to await completion of the TMDL, but the final TMDL happened to be approved while the Region was still in the process of preparing the permit for issuance. While EPA may exercise its discretion to await completion of a TMDL prior to issuing an NPDES permit, such delay is generally not warranted where there are ongoing receiving water quality impairments, to which continued phosphorus loadings into the river from the POTW contribute. These phosphorus loadings, in addition, have the potential to settle into the sediments and/or to be taken up by aquatic plant growth, thus recycling through the system, and possibly exacerbating impairments in the future. Moreover, once phosphorus is discharged into the environment, efforts to control it can become more difficult and complex.

[2] While the figures cited by the commenter are accurate, this information must be understood in its full environmental context. The Lower Charles TMDL data relied on by the commenter are based on loads at the Watertown Dam, which is located some 50 river miles downstream of the CRPCD discharge. Because of this distance, there is significantly less contributing watershed area at the CRPCD discharge than at the Watertown Dam, and therefore much lower storm water loads at the CRPCD discharge. Also, according to the Lower Charles TMDL, about 80 percent of the POTW load to the river is discharged by CRPCD and

section 301 of the Act and implementing NPDES regulations to include a limitation for the pollutant that will ensure compliance with water quality standards. *See* CWA § 301(b)(1)(C); 40 C.F.R. §§ 122.4(d), 122.44(d)(1), (5). Thus while EPA must be consistent with any available WLAs for the discharge applicable to downstream segments, it must also conduct a reasonable potential analysis for the pollutant to assess its impact on water quality in the segment to which it discharges. The resulting limit must ensure compliance with all applicable water quality requirements (*i.e.*, at the point of discharge and downstream). The analysis in the Fact Sheet clearly shows that the discharge has the reasonable potential to cause or contribute to exceedances of water quality standards, and results in an in-stream concentration above the numeric target (0.1 mg/l) that EPA has determined is necessary in this case to attain and maintain the applicable narrative water quality criteria for nutrients. Please see *In re City of Attleboro, MA Wastewater Treatment Plant*, NPDES Appeal No. 08-08, slip op. at 47-75, 14 E.A.D. __ (EAB, September 15, 2009), which details and upholds the Region's technical and legal justification for deriving phosphorus limits in NPDES permits utilizing an effects-based approach and the *Gold Book*. EPA carefully considered a range of information when assessing receiving water conditions, including but not limited to State regulatory finding (as well as the data and analysis underlying them) and reports. For example, as described in the Fact Sheet, MassDEP's most recent water quality assessment (*i.e.*, the Charles River Watershed 2000–2006 Water Quality Assessment Report, August 2007) identifies the segment of the river that receives the CRPCD POTW Treatment Plant discharge as impaired for nutrients and not meeting designated uses. The MassDEP 2008 Integrated List of Waters also lists this segment as impaired due to, among other things, excess algal growth, dissolved oxygen saturation, nutrient/eutrophication biological indicators, and phosphorus (total). The 2010 and 2012 Integrated Lists also report this segment of the river as impaired for the same parameters as those in the 2008 Integrated List of Waters.

Comment #2: The District feels as though it should not accept responsibility for the sewer systems in the service area that the District does not own for reasons expanded upon in the legal comments

Response to Comment #2: EPA has outlined its rationale for including municipalities that own/operate outlying portions of the treatment works in more detail in the Revised Draft Permit and Fact Sheet, as well as in response to comments on that the Revised Draft Permit, which are presented later in this document.

As described in the Fact Sheet (Section VII. Operation and Maintenance of the Sewer System), each co-permittee is responsible for their portion of the collection system for activities required in Part I.B, Unauthorized Discharges, and Part I.C, Operation and Maintenance of the Sewer

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the Milford treatment plant, located upstream of CRPCD. The much lower storm water load just downstream of the CRPCD discharge makes the total phosphorus load at that point much less than at the Watertown Dam, and the comparable POTW load at that point (80 percent of the load at the Watertown Dam) combine to make POTW load a much higher percentage of the total phosphorus load just downstream of the CRPCD discharge than at the Watertown Dam.

System in the permit. Specifically, Part I.B of the Draft Permit requires each co-permittee to notify EPA and MassDEP of any discharge of wastewater from a point source (including sanitary sewer overflows (SSOs)) from any portion of the wastewater collection system it owns/ operates that are not authorized by the permit in accordance with Part II. Section D.1.e.1 (Standard Conditions – 24 - hour reporting).[3] Part I.C of the permit places responsibility for the operation and maintenance of each Town's section of the collection system on the Town that owns and operates it. Each Town is expected to maintain their portion of the collection system to prevent overflows. If an overflow does occur, the permit establishes that it is the respective Town's responsibility to address it.

Inclusion of the Towns of Franklin, Medway, Millis and Bellingham as co-permittees does not impose any responsibility upon the District for the implementation of the terms and conditions required by the permit that extend beyond the scope of the District's ownership or operational authority. In other words, EPA has not assigned any responsibility to CRPCD for portions of the treatment works that are either owned/operated by another entity (*i.e.*, the municipalities). Although the language on the face of the permit appears clear that it is the co-permittees rather than the District who are subject to the subset of conditions of the permit described above relative to the portions of the sewer system that they own/operate, EPA hereby clarifies this interpretation of the permit for future purposes.

EPA recognizes that portions of the wastewater collection system that are used to transport wastewater to a POTW Treatment Plant from surrounding communities may not be owned/operated by the District. In EPA's view, the lack of jurisdiction by the operator of the treatment plant over outlying portions of the POTW supports the approach taken by the Region here, which is to impose a limited set of conditions, notably with respect to operation and maintenance, on those municipalities that do own/operate portions the POTW beyond the jurisdiction of the District, and that do have the necessary operational experience, access and control to address, expeditiously and efficiently, impacts adversely affecting collection system performance, and ultimately affecting the quality of the final effluent discharge. EPA believes that structuring the permit to include conditions on owners/operator of all portions of the POTW is appropriate in this case to ensure proper operation and maintenance of the entire treatment works (not just a portion of it) and, consequently, to assure compliance with the Act, including through the prevention and minimization of SSOs. *See* CWA §§ 402(a)(2) and 301(b)(1)(C); 40 C.F.R. §§ 122.4(a) and (d); 122.41(e); 122.43; and 122.44(d) (identifying broad authority to condition a permit in order to carry out the objectives of the Act).

Comments submitted by Douglas H. Wilkins, Anderson & Kreiger LLP on behalf of the Charles River Pollution Control District, August 1, 2008.

Comment #3A: PHOSPHORUS LIMITS - Legal Requirements

[3] As this information will also be available for review by the District upon request, co-permitting municipalities that own/operate portions of the collection system will provide the District with greater information regarding satellite collection systems than it might otherwise have. This information will assist the District in assessing impacts that the collections systems are having on the portion of the POTW that the District operates, including interceptor sewers and the POTW Treatment Plant.

The Massachusetts Department of Environmental Protection ("MaDEP") has not promulgated numerical limits for phosphorus in Massachusetts waters. Instead, it has adopted narrative requirements set forth at 314 CMR 4.05(5)(c):

(c) Nutrients. 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 BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control. [emphasis added].

This MADEP regulation was authoritatively interpreted by Massachusetts' highest court in Friends and Fishers of Edgartown Great Pond v. Edgartown Wastewater Commission, 446 Mass. 830, 842-845 (2006). The Court upheld a permit allowing the discharge of nitrogen as allocated to the wastewater treatment plant by MADEP, into waters that were already stressed, because the discharge "will not contribute to a condition in violation of the" regulations, including 314 CMR 4.05(5). The regulation therefore does not look to nutrient discharge levels of a particular plant in isolation, but looks at the total context and contemplates allocation of a portion of the receiving waters' assimilative capacity to a POTW.

There is no dispute that 314 CMR 4.05(5) is the applicable state water quality standard; the Fact Sheet cites this regulation at pp. 7-8. As quoted above, the regulation requires inquiry into the following areas:

- Status of the discharge as an "existing point source discharge";
- Use of Highest and Best Practical Treatment for Existing Dischargers;
- Compliance with an existing TMDL;
- Causation of eutrophication.

Instead of applying the regulation, EPA has imposed its own approach, which conflicts with the regulation, applicable water quality criteria and the existing TMDL affecting the District's Wastewater Treatment Facility ("Facility"). As shown below, the draft permit's phosphorus limits should be stricken for several reasons.

1. Existing Point Source Discharge

The Facility is and has long been an existing point source discharge, currently permitted with an average effluent limit for total phosphorus of 0.2 mg/l (April through October 31)

and a reporting requirement for the rest of the year. Fact Sheet at p. 7. As such, if it is going to discharge effluent "containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface waters [the discharge] shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs . ." This regulation recognizes the beneficial impact of existing POTWs in treating and removing pollutants from waters that might otherwise go untreated into the River. Because POTWs are part of the solution, the Water Quality Standards (and applicable TMDLs, as argued below) expressly apply HBPT to their discharges. 314 CMR 4.05(5).

EPA was bound by the terms of this regulation, once approved, as setting forth the applicable state water quality standard for purposes of 40 CFR § 122.44(d)(1)(vi)(B).

Response to Comment #3A: Overall, the District's comments reflect a flawed understanding of the Clean Water Act and the legal framework for NPDES permitting, including the regulatory standard for imposing necessary effluent limitations in a permit.[4] The Region is not limited to the State's interpretation of HBPT when imposing water quality-based limitations on the discharge that are as stringent as necessary to assure compliance with applicable water quality standards (WQS).

Under CWA section 402, EPA may issue NPDES permits "for the discharge of any pollutant, or combination of pollutants" if the permit conditions assure that the discharge complies with certain requirements, including those of section 301 of the CWA. Section 301(b)(1)(C) of the Act requires that NPDES permits include effluent limits more stringent than technology-based limits whenever:

> "necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations…or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to [the CWA]."

NPDES permits must contain effluent limitations necessary to attain and maintain WQS, without consideration of the cost, availability or effectiveness of treatment technologies.

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[4] EPA has addressed the specific comments in detail below, but as a preliminary matter, the Region observes that most if not all of the legal/regulatory objections to the permit underlying the District's comments on the phosphorus limit have been addressed in past decisions by the United States Environmental Appeals Board and by the United States Court of Appeals for the First Circuit. *See Upper Blackstone Water Pollution Abatement Dist. v. U.S. EPA*, 690 F.3d 9, 33 (1st Cir. 2012), *cert. denied*, 133 S. Ct. 2282 (2013) (upholding the Region's overall methodology for the imposing a phosphorus limit, including use of the *Gold Book*, among other information, to establish a site-specific TP limit applicable to that particular discharge); *In re Upper Blackstone Water Pollution Abatement Dist.*, NPDES Appeal Nos. 08-11 to 08-18 & 09-06 (EAB May 28, 2010) (same); *see also, In re City of Attleboro*, NPDES Appeal No. 8-08 (EAB Sept. 15, 2009) (same). Most recently, the EAB comprehensively addressed the Region's approach to interpreting the State's narrative nutrient criterion to derive an effluent limitation in *In re Town of Newmarket Treatment Plant*, NPDES Appeal No. 12-05, 16 E.A.D. __ (EAB December 2, 2013).

See Upper Blackstone Water Pollution Abatement Dist. v. U.S. EPA, 690 F.3d 9, 33 (1st Cir. 2012), *cert. denied*, 133 S. Ct. 2282 (2013). Section 301(b)(1)(C) requires each point source to achieve effluent limitations necessary to meet water quality standards and does not make allowances for the failure of other sources to comply. *See In the Matter of: National Pollutant Discharge Elimination System Permit for Blue Plains Sewage Treatment Plant No. DC 0021199*, 1 E.A.D. 531 (EAB 1979).

EPA has implemented Sections 301(b)(1)(C) and 402 of the Act through numerous regulations that specify when the Region must include permit conditions, water quality-based effluent limitations or other requirements in NPDES permits. Specifically, 40 C.F.R. § 122.4(d) *prohibits* issuance of an NPDES permit "[w]hen the imposition of conditions cannot *ensure* [emphasis added] compliance with the applicable water quality requirements of all affected States." Section 122.44(d)(1) is similarly broad in scope and obligates the Region to include in NPDES permits "any requirements…necessary to: (1) Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality."

EPA's regulations set out the process for the Region to determine one circumstance under which permit limits are "necessary" to achieve WQS and for the formulation of these requirements. *See* 40 C.F.R. § 122.44(d). Permit writers are first required to determine whether pollutants "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion" of the narrative or numeric criteria set forth in the WQS. *Id.* § 122.44(d)(1)(i). EPA guidance directs that this "reasonable potential" analysis be based on "worst-case" conditions. *In re Washington Aqueduct Water Supply Sys*. 11 E.A.D. 565, 584 (EAB 2004). If a discharge is found to cause, have the reasonable potential to cause, or contribute to an excursion of a state water quality criterion, then a permit *must* contain effluent limits as stringent as necessary to achieve the WQS. 40 C.F.R. § 122.44(d)(1), (5). *See also Upper Blackstone Water Pollution Abatement Dist. v. U.S. EPA*, 690 F.3d 9, 33 (1st Cir. 2012), *cert. denied*, 133 S. Ct. 2282 (2013) (discussing EPA's reasonable potential regulations and rejecting "the notion that in order to strengthen the District's discharge limits, EPA must show that the new limits, in and of themselves, will cure any water quality problems").

EPA agrees that CRPCD, as an existing POTW discharging nutrients in amounts that cause or contribute to cultural eutrophication, is subject to 314 CMR 4.05(5)(c).[5] However, as discussed in more detail below, CRPCD is subject to the provision in its entirety, not merely a portion (*i.e.*, HBPT) of it. The provision reads:

> (c) **Nutrients**. Unless naturally occurring, *all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of*

[5] To acknowledge the applicability of HBPT, as CRPCD does, is to also acknowledge the discharge of "nutrients in concentrations that would cause or contribute to cultural eutrophication." "Cultural eutrophication" is defined under Massachusetts Standards as, "The human induced increase in nutrients resulting in acceleration of primary productivity, which causes nuisance conditions, such as algal blooms or dense and extensive macrophyte growth, in a waterbody," As described in the Fact Sheet and below, eutrophic responses such as these impair aesthetic and recreational uses, as well as aquatic life habitat.

> *existing or designated uses and shall not exceed the site specific criteria developed in a TMDL* [emphasis added] 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 BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.

The District's interpretation cannot be reconciled with the text of the regulation, as it simply reads the first sentence of the narrative criterion out of the water quality standards. EPA does not interpret the cited regulation to establish highest and best practical treatment as the maximum level of treatment that can be imposed if EPA establishes that a more stringent limit is necessary to comply with other, independently applicable water quality standards, including the requirement in 314 CMR 4.05(5)(c) that, "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...". Class B waters like the receiving waters here are designated as, among other things, a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. They must also be free of floating, suspended or settleable solids that are aesthetically objectionable or could impair uses. *Id*. at § 4.05(3)(b)(5). Changes to color or turbidity of the waters that are aesthetically objectionable or use-impairing are also prohibited. *Id*. at § 4.05(3)(b)(6). Dissolved oxygen levels in Class B waters must not be less than 5.0 mg/l. *Id*. at § 4.05(3)(b)(1).

In addition to criteria specific to Class B waters, Massachusetts imposes minimum narrative criteria applicable to all surface waters, including nutrients, as discussed above; aesthetics ("free from pollutants in concentrations or combinations that settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity; or produce undesirable or nuisance species of aquatic life"); bottom pollutants and alterations ("free from pollutants in concentrations or combinations or from alterations that adversely affect the physical or chemical nature of the bottom, interfere with the propagation of fish or shellfish, or adversely affect populations of non-mobile or sessile benthic organisms"); and toxics ("free from pollutants in concentrations that are toxic to humans, aquatic life or wildlife"). *See* 314 CMR 4.05(5)(c), (a),(b) and (e).

Excessive nutrient loading to a water body can result in a variety of adverse impacts to designated uses and associated criteria, necessitating the imposition of a water quality-based limit more stringent than HBPT to control such effects. Under undisturbed natural conditions, nutrient concentrations are very low in most aquatic ecosystems. Typically,

elevated levels of phosphorus will cause excessive algal and/or plant growth, which may prevent waters from meeting their designated uses. Phosphorous promotes the growth of nuisance levels of macrophytes (rooted aquatic plants), phytoplankton (free floating algae), periphyton (attached algae) and filamentous algae such as moss and pond scum.

Noxious aquatic plant growth degrades aesthetic and recreational uses in a variety of ways. Unsightly algal growth is unappealing to swimmers and other stream users and reduces water clarity. Heavy growths of algae on rocks can make streambeds slippery and difficult or dangerous to walk on. Algae and macrophytes can interfere with angling by fouling fishing lures and equipment. Boat propellers and oars may also get tangled by aquatic vegetation. Excessive plant growth can also result in a loss of diversity and other changes in the aquatic plant, invertebrate, and fish community structure and habitat.

Through respiration, and the decomposition of dead plant matter, excessive algae and plant growth can reduce in-stream dissolved oxygen concentrations to levels that could negatively impact aquatic life. During the day, primary producers (*e.g.*, algae, plants) provide oxygen to the water as a by-product of photosynthesis. At night, however, when photosynthesis ceases but respiration continues, dissolved oxygen concentrations decline. Furthermore, as primary producers die, they are decomposed by bacteria that consume oxygen, and large populations of decomposers can consume large amounts of dissolved oxygen. Many aquatic insects, fish, and other organisms become stressed and may even die when dissolved oxygen levels drop below a particular threshold level.

Decomposing plant matter also produces unpleasant sights and strong noxious odors, again negatively impacting recreational and aesthetic uses. Nutrient-laden plant detritus can also settle to the bottom of a stream bed. In addition to physically altering the benthic environment and aquatic habitat, organic materials (*i.e.*, nutrients) in the sediments can become available for future uptake by aquatic plant growth, further perpetuating and potentially intensifying the eutrophic cycle.

EPA disagrees that it is "bound by the terms" of the Commonwealth's practice in interpreting the HBPT provision in 314 CMR 4.05(5) for the purposes of interpreting a narrative water quality standard and establishing an effluent limitation under 40 C.F.R. § 122.44(d)(1)(vi) that will attain the designated uses and achieve the criteria described above. This provision describes three options available to permit writers when deriving effluent limits from narrative water quality standards, the first two of which are relevant to the Region's decision in this case. *See* 40 C.F.R. §§ 122.44(d)(1)(vi)(A), (B). The permitting authority must, in such circumstances, establish effluent limits: (A) based on a "calculated numeric criterion for the pollutant which the permitting authority demonstrates will attain and maintain applicable narrative water quality criteria and fully protect the designated use"; or (B) on a "case-by-case basis" using recommended water quality criteria published by EPA pursuant to CWA section 304(a), supplemented as necessary by other relevant information. *Id.* Section 304(a) water quality criteria documents are to "accurately reflect[] the latest scientific knowledge" about the effects of water pollution on health and environmental welfare, "the concentration and dispersal of pollutants," and "the effects of pollutants on biological community diversity,

productivity, and stability, including information on the factors affecting rates of eutrophication . . . .".

The procedures outlined in 40 C.F.R. § 122.44(d)(1)(vi) on their face authorize EPA to consider a wide range of information, including "relevant information." The permitting authority may look at any and all relevant scientific information so long as the resulting numeric criterion attains narrative standards and protects designated uses. When presented with technical data and analysis related to phosphorus, EPA's task under section 122.44(d)(1)(vi) is to determine whether the material is relevant to the derivation of a numeric water quality-based effluent limitation to implement the narrative water quality standard and whether it is appropriate to use the information, alone or in combination with other sources of information, to establish the limit. EPA is authorized under section 122.44(d)(1)(vi)(A) to use available scientific information when deriving an appropriate numeric effluent limitation to implement a narrative criterion. The preamble to the regulation states that "[u]nder [Option A] the permitting authority should use all available scientific information on the effect of a pollutant on human health and aquatic life," suggesting a broad construction of "relevant information." 54 F.R. 23868 at 23876. EPA construes "relevant" to mean of or relating to the pollutant and water body and the pollutant at issue in the permit at issue. In light of all the foregoing, EPA can discern no reason why its determination of CRPCD's phosphorus effluent limit under section 122.44(d)(1)(vi) should be arbitrarily limited to MassDEP's historical and informal interpretation of HBPT, an approach that would be inconsistent with not only EPA permitting regulations but with MA WQS as well.

Comment #3B:

2. Highest and Best Practical Treatment

There is no dispute that "MassDEP construes 'highest and best practical treatment for POTWs as treatment achieving a monthly average total phosphorus concentration of 0.2 mg/l." Fact Sheet at p. 8. Under the express terms of 314 CMR 4.05(5), this 0.2 mg/l limit applies to the District's discharge as an "existing point source discharge."

Yet, EPA jumps quickly from quoting the applicable water quality standards to an entirely different analysis. It states that "[in] the absence of a numeric criterion for phosphorus, EPA looks to nationally recommended criteria, supplemented by other relevant materials . . ." Fact Sheet at 8, citing 40 CFR § 122.44(d)(1)(vi)(B). There is an applicable "numeric criterion," however, which is the 0.2 mg/l figure plainly set forth by MADEP. EPA's regulation, 40 CFR § 122.44(d)(1)(vi)(A) expressly refers to "an explicit state policy or regulation interpreting its narrative water quality criterion," yet the Fact Sheet fails to consider MADEP's explicit policy, even as "relevant information" when applying 40 CFR § 122.44(d)(1)(vi)(B). Plainly, MADEP's policy allocating 0.2 mg/l to POTWs while requiring more stringent measures for non-POTWs is highly relevant to the question of phosphorus limits.

EPA has no authority to ignore the HBPT provision of the very same Massachusetts Water Quality Standards that it purports to be applying. Nor may it ignore "relevant materials" or "an explicit state policy" under § 122.44(d)(1)(vi)(B). At a minimum, it must evaluate whether there is a way to respect MADEP's 0.2 mg/l summer limit for this POTW and meet water quality criteria some other way.

Equally fatal to EPA's position is the fact that 40 CFR § 122.44(d) (1) (VI) (B) itself is triggered only when "a specific chemical pollutant . . . is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion above a narrative criterion *within an applicable State water quality standard*. …" [emphasis added]. Here, the applicable state regulatory criterion specifically incorporates HBPT (resulting in the 0.2 mg/l limit) for POTWs. If the Facility discharges 0.2 mg/l of phosphorus, no excursion occurs, because that discharge is allowed under state water quality standards. It is therefore impossible for an excursion above the "state water quality standard to occur" unless the proposed permit limit were above 0.2 mg/l – which it is not.

Since EPA is bound by the plain language of the regulation (water quality standard) that it purports to be enforcing, it cannot use that regulation to impose a more stringent criterion than 0.2 mg/l upon this existing discharge.

Response to Comment #3B: Highest and Best Practical Treatment is, by definition, a technology-based concept (*i.e.*, "treatment") in the standards and was not designed to stand in for an ambient water quality criterion that will maintain and achieve uses (*i.e.*, calling only for "practical" treatment, which may or may not be sufficiently stringent to meet the in-stream standard). The Commonwealth's establishment of HBPT merely underscores Massachusetts' concern with respect to these pollutants, leading it to supplement its water quality standards with minimum treatment requirements for certain sources. It was not therefore intended to per se satisfy the requirements of 40 C.F.R. § 122.44(d)(vi) (*e.g.*, requiring the permit issuer to derive "….a calculated numeric water quality criterion for the pollutant which the permitting authority demonstrates will attain and maintain applicable narrative water quality criteria and will fully protect the designated use") nor 301(b)(1)(C) of the Act, which requires the establishment of the water quality-based effluent limitations irrespective of cost or technological considerations that will ensure compliance with all applicable water quality standards. *See also* 40 C.F.R. § 122.44(d)(vii)(A) ("When developing water quality-based effluent limits under this paragraph the permitting authority shall ensure that: (A) The level of water quality to be achieved by limits on point sources established under this paragraph *is derived from, and complies with all applicable water quality standards*[.]") (emphasis added).

As explained above, the Agencies disagree with the commenter's interpretation of the state's narrative nutrient criterion, as it effectively reads certain portions of the nutrient criterion out of the Standards. Contrary to the commenter's view, the scope of the criterion is not confined to the application of technology-based controls. Massachusetts Surface Water Quality Standards found at 314 CMR 4.05(5)(c) sets forth a series of

independently applicable requirements, mandating that in the first instance waters be free from nutrients that cause or contribute to an impairment of uses and, in addition, not exceed any site specific criteria established for the receiving water, if any. Furthermore, the Standards call for the application of minimum technology-based controls on existing discharges that cause or contribute to cultural eutrophication. The existence of this technology-based provision does not preclude a more stringent water quality-based effluent limitation if one is necessary to implement the Standards. Where the Region determines that a water quality-based effluent limitation more stringent than HBPT is required to ensure compliance with water quality standards, then it is obligated to include that limit in the permit pursuant to section CWA § 301(b)(1)(C), which requires achievement of "any more stringent limitation, including those necessary to meet water quality standards…established pursuant to any State law or regulation…."; *see also* 40 C.F.R. § 122.4(d) (prohibiting issuance of a permit "when the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected states"); 40 C.F.R. § 122.44(d)(1),(5) (providing that a permit must contain effluent limits as necessary to protect state water quality standards). This interpretation of the nutrient criterion was the basis for EPA's water quality standards revision approval in 2007 and shared by Massachusetts. *See* Letter from Stephen S. Perkins, EPA-Region 1, to Laurie Burt, MassDEP, dated September 19, 2007, re Review and Action on Water Quality Standards Revisions, and Letter from Glenn Haas, MassDEP, to Stephen Silva, EPA-Region 1, re Massachusetts Surface Water Quality Standards, 314 CMR 4.00, dated January 12, 2007. The permit conditions at issue in the present case are water quality-based effluent limits designed to ensure compliance with *all* applicable standards.

EPA certainly considered the HBPT provision in the Standards when determining the appropriate limits for the permit. In this case, it was determined that the State's HBPT limit of 0.2 mg/l was not sufficiently stringent to ensure that all applicable water quality criteria (*i.e.*, "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") would be met, so a more stringent limit for achieving the State's narrative water quality criteria was developed and proposed, consistent with the methods described in 40 C.F.R. § 122.44(d)(1)(vi)(A) and (B), and consistent with the final Upper Charles River TMDL.

Comment #3C:

3. Compliance with Existing TMDL

There is a "site-specific criterion" for the Facility developed in the TMDL, established on July 6, 2007, approved by EPA on October 17, 2007, for the Lower Charles River. That TMDL (excerpts attached as Exhibit B; see pp. 91-92) establishes a Waste Load Allocation ("WLA"), for the Facility of 888 kg in April through October and 3,486 kg in November through March, for an annual WLA of 4,364 kg. This translates to a summer discharge limit of something over 0.2 mg/l and therefore validates the discharge limits in the District's previous permit, with no change.

This fully approved TMDL for a downstream portion of the very same receiving water is, at a minimum, "relevant information" that EPA must consider under 40 CFR § 122.44(d) (1) (VI) (B). Yet, the Fact Sheet completely fails to mention it. For EPA to treat the same TMDL that it approved last fall as irrelevant information is arbitrary and capricious.

More fundamentally, EPA is bound by the TMDL in several different ways.

For one thing, the TMDL study establishes the methodology for allocating waste loads among facilities. It does so on the basis of average summer values and annual loads, not 7Q10 flows. EPA cannot depart from that methodology willy-nilly to impose an arbitrarily lower limit in a particular facility's NPDES permit, based upon 7Q10 flows, particularly where that facility was already granted a WLA based upon summer averages. Even less can it depart from its established practice utterly without explanation and without even acknowledging the TMDL.

For another, the TMDL has distributed waste loads throughout the watershed based upon the Facility's WLA. It is arbitrary and capricious to issue a permit that makes the phosphorus WLA granted to this Facility in the TMDL impossible. If EPA can do this, then the existing TMDL is too stringent, because it presupposes at least one load that can not occur. To avoid that absurdity, EPA must be bound by the currently-effective WLA that it already approved for the Facility.

Finally, the Facility's WLA (established in the TMDL for the Lower Charles River) is an official determination that discharges from the Facility at a concentration of 0.2 mg/l will not contribute to eutrophication downstream generally in the Charles River, even if the generic numbers used by EPA in the Fact Sheet might suggest the potential for problems in water bodies other than the Charles River. While the best approach would be to have a TMDL for the Upper Charles River, it is plain from the one specific study of the Charles River that exists that EPA's Fact Sheet overstates the risk for this particular river when the TMDL methodology is applied.

EPA would have to argue that, for some reason, conditions in the Upper Charles River as affected by the Facility differ from the conditions that led to the TMDL for the Lower Charles River and the Facility's WLA based on that TMDL. As shown in the next section, the Fact Sheet offers no reason to believe that the Facility contributes to eutrophication in the Upper Charles River.

Response to Comment #3C: The limit in the Final Permit is based on the final Upper Charles TMDL, which was approved after the District submitted this comment. The effluent limitations in the Draft Permit were calculated based on the best information reasonably available at the time of permitting to ensure, among other things, that water quality standards are met in the waters that receive the CRPCD discharge, including immediately downstream of the discharge. Limitations more stringent than those in the previous permit and in the Lower Charles TMDL were determined to be necessary.

The Lower Charles TMDL includes an allocation for phosphorus necessary to achieve water quality standards and also includes a WLA for the CRPCD discharge. The specific requirement of 314 CMR 4.05(5)(c) requires that nutrients shall not exceed the site specific criteria included in a TMDL, but does not preclude a permit limit that would result in a nutrient concentration lower than such criteria if necessary to achieve water quality standards in another portion of the waterbody. The Lower Charles TMDL assigns a wasteload allocation to the facility for purposes of attaining water quality standards in the river segment beginning at the Watertown Dam, located 50 river miles downstream of the CRPCD facility. As discussed in the response to comment #1, the Lower Charles TMDL includes language that clearly establishes that its POTW wasteload allocations were not intended to achieve water quality standards in the Upper Charles. Therefore, the commenter's assertion that the, "Facility's WLA (established in the TMDL for the Lower Charles River) is an official determination that discharges from the Facility at a concentration of 0.2 mg/l will not contribute to eutrophication downstream generally in the Charles River," is incorrect. EPA is not bound by the POTW WLAs in the Lower Charles TMDL in establishing water quality-based limits necessary to protect water quality in the Upper Charles if the limitations necessary to protect the Upper Charles are more stringent than those in the Lower Charles TMDL.

It is unclear why the commenter believes that the "methodology for allocating waste loads among facilities" in the Lower Charles TMDL must be used for establishing the phosphorus limits in the CRPCD permit necessary to protect water quality in the Upper Charles, or even exactly what is meant by the statement. First, 40 C.F.R. § 122.44(d)(1)(vii) only requires that that NPDES permit limits be consistent with the assumptions and requirements of an approved WLA. The regulation does not require that permit limits be expressed exactly as presented in a TMDL; rather, the permit writer must translate WLAs into effluent limitations in light of applicable permitting and water quality standard regulations.[6] By way of illustration, unlike the Lower Charles POTW WLAs, which are expressed as total annual loads, NPDES permit regulations at 40 CFR § 122.45(d)(2) require that unless impracticable POTW effluent limitations are to be stated as average weekly and average monthly limitations. (There is nothing impracticable about expressing a phosphorus limit as a monthly average; indeed, other treatment plants in Massachusetts have received and comply with such limits). The process of navigating between the NPDES permit and available WLAs is committed to the technical expertise and judgment of the permit writer.

As described in the Lower Charles TMDL, an aggregate WLA for the total phosphorus load was established at the Watertown Dam because there was "insufficient information available to apportion the total loading at Watertown Dam between NPDES regulated point sources and non-regulated stormwater and nonpoint sources." The TMDL further explains that there is "not enough information available to explicitly define at any given time, particularly during the growing season how much of the total loading from the upstream watershed at Watertown Dam is from WWTFs or any other specific source,"

[6] The annual WLAs for POTWs, presented in Table 5-7 of the TMDL were, with small exceptions, calculated using the monthly average phosphorus limits in the current NPDES permits and the permitted flow.

and then articulates that because of nutrient attenuation and the hydraulic retention time in the upstream watershed it is not critical to understand the specific details of these processes. [7] So, while there are well documented reasons why the TMDL loads are expressed as aggregate loads, the reasons are largely based on the distance from the sources to the study area. Obviously, the affected waters of the Upper Charles are immediately downstream of the discharges, and there is no attenuation or long hydraulic detention time that will mitigate the impact of the discharge, so it is important to limit the variability of the discharge.

In Massachusetts, NPDES permit limits for discharges to rivers and streams are calculated such that applicable criteria are achieved under the "7Q10" flow conditions, or "the lowest mean flow for seven consecutive days to be expected once in ten years." *See* 314 CMR 4.03(3). EPA has simply written the permit in a manner that complies with applicable water quality standards as required by the CWA. Use of the 7Q10 flow is reasonable from a water quality perspective, as it ensures that water quality standards are met even in periods of critical low flow when the flow of the receiving water provides relatively little dilution to buffer impacts of pollutant loadings from the facility. Use of critical low flows is also consistent with the reasonably conservative approach the Region has adopted in nutrient permitting in general and that it has determined is necessary in this case in particular to break the ongoing cycle of eutrophication in the receiving waters. Please also see *In re City of Attleboro, MA Wastewater Treatment Plant*, NPDES Appeal No. 08-08, 14 E.A.D. __ (EAB, September 15, 2009) (discussing use of 7Q10 flow regimes in permit that vary from other TMDLs approved by the state and upholding the Region's determination to use 7Q10 as opposed to seasonal or annual average flows).

EPA does not fully understand the relevance of the concern that the phosphorus limits in the Draft Permit make the "the phosphorus WLA granted to this Facility in the TMDL impossible." While it may be impossible for the facility to discharge the maximum load allocated to it under the Lower Charles TMDL and also achieve the limitation in the Draft Permit, EPA does not believe that this rationale should be determinative in establishing water quality-based limits. TMDLs are by definition maximum limits; permit-specific limits like those at hand, which are more conservative than the TMDL maxima as a result of ensuring compliance with all applicable water quality standards pursuant to section 301(b)(1)(C), are not inconsistent with those maxima. As described previously, EPA's permit is based on attaining water quality standards immediately downstream of the facility and the Lower Charles TMDL WLA is based on attaining water quality 50 miles downstream. Attaining the limits in the Draft Permit will also attain the WLA in the TMDL. To presuppose that EPA is bound to the Lower Charles TMDL WLA despite a showing that this load would have the reasonable potential to cause or contribute to exceedances of water quality standards immediately downstream of the discharge would require EPA to issue permits with effluent limits less stringent than necessary to achieve water quality standards.

[7] See *Final Nutrient TMDL Development for the Lower Charles River Basin, Massachusetts, pages 89 and 90.*

Similarly, EPA does not fully understand the concern that if it issues the phosphorus limits in the Draft Permit "the existing TMDL is too stringent, because it presupposes at least one load that can not occur." If the CRPCD treatment plant is discharging less than the load allocated to it in the Lower Charles TMDL then the actual total load at the Watertown Dam might be slightly less than projected in the TMDL, but there is nothing unusual about a situation where a load calculated to achieve water quality requirements at a distant location might prove to be inadequate to achieve local water quality requirements. Here, the fact is that the WLA allocated to this facility to achieve water quality standards in the Lower Charles must be made more stringent to comply with standards applicable to the Upper Charles. There is nothing to prevent EPA from imposing more stringent controls than contemplated by a WLA to the extent required by section 301(b)(1)(C). To the contrary, EPA is obligated to do so. In this case the applicable Lower Charles River WLA is only one aspect of the analysis from a permitting perspective.

Comment #3D:

4. No Impairment of Use or Causation of Eutrophication

Even accepting EPA's desire to venture beyond the 0.2 mg/l HBPT criterion and its decision to ignore the existing TMDL allocating more phosphorus discharge than the proposed permit allows, the Fact Sheet addresses the wrong issue.

The Fact Sheet states that the "current limit is not sufficiently stringent to achieve the Gold Book criteria under 7Q10 conditions, or the Ecoregion Criteria under average summer conditions" and goes on to apply the **phosphorus** criteria from those publications. Fact Sheet at p. 12. The applicable state water quality standard does not turn upon phosphorus concentrations, nor are concentrations of phosphorus, without more, water quality violations. The applicable water quality standard protects only against a particular effect: "impairment of use" or, with respect to HBPT, "cultural eutrophication." 314 CMR 4.05(5). For many reasons, EPA's citation to general publications about phosphorus concentrations in water bodies generally does not justify the conclusion that this facility would cause or contribute to water quality violations in this river.

In the first place, the existing WLA established under the only applicable TMDL (Lower Charles River) is excellent evidence that a 0.2 mg/l phosphorus discharge from the Plant will **not** cause or contribute to cultural eutrophication downstream. Only if there were some reason to believe that the Upper Charles River is somehow more susceptible to eutrophication from a 0.2 mg/l discharge would there need to be further inquiry. Here, the available evidence strongly suggests that the established WLA for the Facility is sufficiently protective of the entire river. If EPA questions this, it should await actual evidence in the form of the soon-anticipated TMDL study for the Upper Charles River.

There is ample evidence that, whatever concentrations of phosphorus exist in the Facility's effluent, the Facility's allocated discharge is not a cause or potential cause of

eutrophication, let alone impairment of use. CDM's Comments (attached) address this question extensively. Where the Fact Sheet concentrates upon concentrations of Phosphorus, CDM points out that eutrophication is not occurring due to effluent from the Facility. Using chlorophyll *a* as a measure of eutrophication (instead of phosphorus, which is not itself proof of eutrophication), concentrations drop significantly from .034 mg/l to .025 mg/l one-half mile downstream from the Facility's outfall to .0008 mg/l two miles below the Facility.[8] Dissolved oxygen never drops below the applicable specific criterion of 5 mg/l. Lyngbya, observed upstream of the outfall, ceases to exist below the outfall. See Upper Charles River TMDL studies, 3-6 and 3-12. CDM discusses the other data as well, concluding that there is no evidence of eutrophication (or loss of use) caused by the Facility within the meaning of any applicable water quality standard.

The fact that the Charles River exhibits eutrophication at certain times and places does not warrant reduction in otherwise appropriate limits for a POTW discharge, since POTWs must be allocated a certain degree of nutrient discharge if they are to perform their function of improving the environment. The POTW cannot be faulted unless it actually will contribute to water quality violations. See also Friends & Fishers, 446 Mass. at 844 (while plant will discharge nutrients into a stressed water body, it will not contribute to violations "if it remains within its **allocated** [nutrient] discharge limit") (emphasis added).

EPA also errs in using 7Q10 flows to establish the permit limits. It has already approved the use of average flows and concentrations (not the extreme low level flows represented by 7Q10 conditions) for the Lower Charles River TMDL. See EPA New England's TMDL Review (October 15, 2007), pp. 9 ("seasonal average target chlorophyll a concentration will be sufficient"), 10 (same), 14 (annual load for phosphorus), ed as Exhibit C. Indeed, the summer average flows were the basis for the criteria cited in the Fact Sheet, pp. 8-10 and therefore cannot be applied to 7Q10 conditions without violating basic laws of mathematics – that like units should be compared to like units. EPA's own "Nutrient Criteria Technical Guidance Manual: Rivers and Streams (EPA 2000) "does not recommend identifying nutrient concentrations that must be met at all times; rather a seasonal or annual averaging period . . . is considered appropriate." Moreover, it would be arbitrary and capricious to use average flows for the TMDLs and then use different data to establish NPDES permit limits, which are supposed to implement the very same TMDL.

Stating the same point in a different way: a 7Q10 flow is, by definition, the lowest 7-day flow in a decade; it is not the lowest monthly flow. Yet, EPA proposes to use the 7Q10 as the basis for a **monthly** permit limit. To do so, it effectively treats the 7Q10 flow data as a 30Q10 flow, contrary to all logic and contrary to the data actually collected. The District can not lawfully be required to restrict its effluent as though the river's flow consisted of 4+ consecutive weeks of 7Q10 flows every summer month.

[8] The crux of the Fact Sheet's treatment of phosphorus is to look at phosphorus concentrations generally, and at chlorophyll a and DO levels miles down stream.

Using the 7Q10 flow levels is in significant tension with controlling law. The dilution factor calculated on page 5 of the Fact Sheet is based upon "the 7Q10 flow." Yet, over the course of the month, average flows will be higher. To ignore the higher monthly flows violates 40 CFR § 122.44(d)(1)(ii), which requires consideration of the "dilution of the effluent in the receiving water." This does not mean consideration of only some (the lowest 7 days) of the dilution that will occur over the relevant period (i.e. a month). In addition, EPA's approach violates the holding of Friends & Fishers, 446 Mass. at 840: that DEP regulations do not require the permitting agency to "adopt the most pessimistic scenario" to comply with the requirement that it "insure" protection against water quality violations.[9] Assuming that the river flows every summer month at averages equal to the 7Q10 level is wildly pessimistic for nutrients.

In short, the new phosphorus limits are unwarranted and unnecessary as a scientific matter. Under 40 CFR § 122.44(d)(1), EPA is directed only to impose "requirements . . **necessary** to . . . [a]chieve water quality standards . . . including State narrative criteria for water quality." [emphasis added]. A "necessary" limit, like a "requisite" one, is one that is neither too lax nor too stringent. Whitman v. Am. Trucking Ass'ns., 531 U.S. 457, 476 (2001) (construing "requisite"). By proposing unnecessary criteria, EPA has exceeded its authority.

In the Alternative, EPA Should Await the Results of the Upper Charles River TMDL Study and Reopen the Comment Project, Rather Than Impose Excessively Stringent Limits Now.

According to MaDEP, the Upper Charles River TMDL, originally due in 2007, is now anticipated later this year. Cf. Fact Sheet, p. 4. The District recognizes that the Fact Sheet, p. 12, states that a different limit may be imposed when an approved TMDL is adopted. It makes little sense to impose a new number now, only to revisit it in the very near future. No real water quality purpose would be served by imposing an unnecessary limit at or near the end of the summer season, with attendant costs, wasted planning effort and potential liability, only to find out shortly that the limit needs revision. Rather than issue a permit without benefit of the TMDL, EPA should await the results of the TMDL, which will provide a more long-term vision of what the District's discharge should look like, and allow rational planning to meet a limit that has the solid support of a TMDL.

To allow comment on the implications of the new TDML on the Permit, EPA should reopen the comment period after the Upper Charles River TMDL is approved.

The Clean Water Act contemplated solid scientific support for imposing site-specific effluent limits upon publicly owned treatment works, with corresponding burdens upon ratepayers and taxpayers. Section 303(d) (33 U.S.C. § 1313(d)); 40 CFR 130.7. Where a TMDL is imminent, it would conflict with this mandate, as well as common sense, to

[9] To be sure, this portion of Friends & Fishers was discussing the groundwater regulations and projections about development and pond capacity, but the same language in the surface water regulations must be interpreted in the same fashion.

impose a limit in an NPDES permit that may be contradicted by a more extensive and comprehensive TMDL study within months.

Should EPA issue a final permit without awaiting the Upper Charles River TMDL, the District reserves its rights to introduce and rely upon the Upper Charles River TMDL on appeal and otherwise.

If EPA Neither Awaits The TMDL Study Nor Retains The Existing Phosphorus Limits, It Should Focus Upon Achieving Results By Reducing Winter Limits, Rather Than Summer Limits.

As a last resort, if it issues a permit now, EPA should focus upon achieving its goals by evaluating reduced winter limits, instead of changing the summer phosphorus limit. EPA must investigate this approach, to respect MADEP's 0.2 mg/l limit and still attain water quality standards.

As the District's cover letter states, the Lower Charles River TMDL demonstrates that phosphorus is stored during winter months and becomes part of the overall phosphorus loading during the growing season. See EPA New England's TMDL Review (October 15, 2007), p. 12 (seasonal Chlorophyll *a* target will be met by focusing on the annual loading from the upper watershed). Reducing the winter load somewhat would reduce the stored phosphorus contribution to a degree that can be studied during the term of the new permit. The results could then be evaluated for the next permit cycle. That way, unnecessarily low and burdensome summer limits can be avoided, with the same result in water quality contemplated by the Fact Sheet.

EPA should consider the learning of the Lower Charles River TMDL:

EPA agrees with MassDEP's assessment that because of the variability in receiving water conditions and the fact that water quality is more sensitive to longer term[] loads rather than single day loads, it is appropriate to express the daily phosphorus loads as a load duration curve that reflects the distribution of allowable daily loads and reductions that are needed throughout the year . . . EPA further agrees that for purposes of implementation, it is appropriate to rely on the annual loading capacity. This is because the daily load distribution curve is not really capable of being applied on a daily basis. As MassDEP notes in the TMDL document, while there is a "total maximum daily load applicable to each day of the year . . . [p]recisely which days fall into each category is not relevant, so long as the appropriate TMDL is achieved for the appropriate number of days."

EPA New England's TMDL Review (October 15, 2007), p 14. The Fact Sheet presents no reason to believe that the Upper Charles TMDL will reach a materially different conclusion for purposes of allocating loads throughout the year, instead of imposing unnecessarily strict summer limits.

Response to Comment #3D:

4. No Impairment Use or Causation of Eutrophication

Consistent with the comment, EPA reopened the Draft Permit following completion of the Final TMDL for the Upper Charles River and imposed a phosphorus limit consistent with that TMDL.

The Fact Sheet issued with the Draft Permit in July 2008 provides the basis for the phosphorus limits in the permit and discussed both causal (phosphorus) factors of eutrophication as well as adverse water quality responses that would be expected to occur when phosphorus concentrations exceed certain threshold levels identified by the EPA. The concentration of phosphorus in the District's discharge has the potential to contribute to impairment of this segment of the river and thus effluent limits must be included in the permit that will ensure compliance with state water quality standards.

The facility discharges to Segment MA72-05 of the river and is listed on the Massachusetts Year 2008 Integrated List of Waters (which incorporates the CWA 303(d) list) as a water that is impaired and not meeting Class B water quality standards for nutrients. The subsequent 2010 and 2012 Integrated Lists also show this segment as impaired for the same parameters.

The Charles River 2002-2006 Water Quality Report issued in April 2008 (p.37) states that this segment of the river is a *Water Requiring a TMDL* because of unknown toxicity, nutrients, organic enrichment/low DO, noxious aquatic plants, turbidity and other habitat alterations. The report states designated uses for this segment of the river are impaired for aquatic life, fish consumption, primary and secondary contact and aesthetics. Suspected causes are listed as occasionally low dissolved oxygen, excess algal growth with one of the sources listed as municipal NPDES discharges. The report specifically recommends the CRPCD should conduct benthic macroinvertebrate sampling in the River downstream from CRPCD to document conditions in the River downstream of the discharge.

Table 1 summarizes the assessment results relating to phosphorus, as provided by MassDEP's assessment report, for all of the Charles River segments. As indicated, almost all segments of the Charles River, with the single exception of the uppermost, headwater segment, are impaired, at least in part, because of elevated phosphorus, excessive aquatic plant growth and/or algae. In addition to these river segment assessments, MassDEP has assessed Populatic Pond as impaired due to excessive algal growth. This pond is an impoundment in the mainstream of the Charles River located just upstream of the CRPCD discharge.

As indicated in Table 1 phosphorus related water quality impairments exist in numerous areas along the length of the Charles River. For all waterbody segments starting with segment MA72-03 and moving downstream, the report identifies discharges from municipal WWTFs as sources of phosphorus related water quality impairments. Figure 1

depicts the Charles River watershed and shows photographs of examples of water quality conditions in areas located along the length of the Charles River where dense aquatic plant and algal growth has been observed. As indicated, only the headwaters at Echo Lake show no evidence of nutrient enrichment.

In the absence of a numeric criterion for phosphorus, EPA looks to nationally recommended criteria, supplemented by other relevant materials, such as EPA technical guidance and information published under Section 304(a) of the CWA, peer-reviewed scientific literature and site-specific surveys and data. *See* 40 CFR 122.44(d)(1)(vi)(B). EPA also relies on 40 CFR 122.44(d)(1)(vi)(A) when interpreting a state narrative criterion and deriving a limit that will achieve designated uses.

EPA explained in the Fact Sheet that it used a variety of Section 304(a) information and recommended criteria as *guidance* to interpret the States' narrative criterion for nutrients and not as a substitute for state water quality criteria.

Regarding the comments on the interpretation of the TMDL water quality monitoring data in the fact sheet, please see the response to CDM comment #8. The Region does not agree with the commenter's assertion that the data show that there is no evidence of eutrophication caused or contributed to by the facility.

Regarding the use of 7Q10 receiving water flows to establish the effluent limits, 314 CMR 4.03(3)(a) establishes that for rivers and streams, the 7Q10 flow is the hydrologic condition for which water quality criteria are applied. As explained above, use of the 7Q10 flow is reasonable from a water quality perspective, as it ensures that water quality standards are met even in periods of critical low flow when the flow of the receiving water provides relatively little dilution to buffer impacts of pollutant loadings from the facility. Use of critical low flows is also consistent with the reasonably conservative approach the Region has adopted in nutrient permitting in general and that it has determined is necessary in this case in particular to break the ongoing cycle of eutrophication in the receiving waters. *In re City of Attleboro, MA Wastewater Treatment Plant*, NPDES Appeal No. 08-08, 14 E.A.D. __ (EAB, September 15, 2009) (discussing use of 7Q10 flow regimes in permit that vary from other TMDLs approved by the state, upholding the Region's determination to use 7Q10 as opposed to seasonal or annual average flows and concluding that 40 C.F.R. § 122.44(d)(1) does not mandate consideration of dilution at all times when establishing permit limits). Further, there are no "basic laws of mathematics" that preclude the establishment of a monthly average limit using the 7Q10 flow. As described above, Massachusetts water quality standards require the use of 7Q10 receiving water flow to establish water quality-based limitations for rivers and streams and EPA's permit regulations at 40 CFR § 122.45(d)(2) require that unless impracticable POTW limits be expressed as average weekly and average monthly discharge limitations. *In re City of Attleboro, MA Wastewater Treatment Plant*, NPDES Appeal No. 08-08, slip op. at 47-75, 14 E.A.D. __ (EAB, September 15, 2009), which details and upholds the Region's technical and legal justification for deriving phosphorus limits in NPDES permits, including the use of the *Gold Book* value of 0.1

mg/l to control the effects of cultural eutrophication and the rationale behind expressing the limits as a monthly average limit assuming 7Q10 dilution flow.)

The Agencies do not follow why *Friends & Fishers of the Edgartown Great Pond, Inc. v. Department of Environmental Protection*, 446 Mass. 830 (2006) would lead to different limits in this instance. That case involved the appeal of a permit for an increased groundwater discharge that had been issued pursuant to the Massachusetts Clean Waters Act and the State's groundwater discharge regulations. MassDEP concluded that the permit's nitrogen limitation could ensure compliance with applicable state water quality regulations, and that the permit could therefore be issued, based on a study which assessed Edgartown Great Pond's assimilative loading capacity for nitrogen. The court in *Friends and Fishers* merely held that it was reasonable for MassDEP to interpret its regulations to allow issuance of a permit for a groundwater discharge impacting a stressed water body by allocating a portion of the Pond's site-specific nitrogen limitation to the treatment plant based on the loading study. The import of the study was that it allowed MassDEP to conclude that its groundwater discharge permit *was stringent enough* to ensure compliance with water quality regulations. Here, EPA has concluded that a phosphorus effluent limit of 0.1 mg/l expressed as a monthly average and based on the 7Q10 flow would both be consistent with the available WLA for the Lower Charles River and would also ensure compliance with applicable Massachusetts Standards for the Upper Charles River (where no WLA is yet available). Conceptually, there is nothing discordant in this result when assessed in light of *Friends & Fishers*. In any event, this state case does not establish any requirement, standard or procedure for apportioning pollutant loads or establishing flow that would be applicable to EPA when it issues a federal NPDES permit under the Clean Water Act for the surface water discharge at issue here.

Regarding the proposal to address water quality impairments by adjusting only the winter limit, the Agencies have concluded that this would be inadequate to ensure attainment of water quality standards during the growing season, in addition to being inconsistent with the final Upper Charles TMDL. The monthly average growing season limit (0.12 mg/l) was calculated to ensure that the receiving water concentration did not exceed 0.1 mg/l during the growing season. The growing season limit was updated to reflect the final Upper Charles TMDL. See response to comment #1.

The Region believes that more stringent limits are necessary for the growing and non-growing seasons to achieve water quality standards in the receiving waters immediately downstream of the discharge and the more stringent non-growing season limit is also necessary to meet the Lower Charles TMDL.

With respect to the commenter's concern over the averaging period used for the phosphorus wasteloads in the Lower Charles TMDL compared to the effluent limitation averaging period in the permit (*i.e.*, annual total versus monthly average), the Agencies reiterate that all of the POTWs discharging to the Charles River are far upstream of the upstream boundary of the segment covered by the Lower Charles TMDL, and as described in that TMDL, the phosphorus discharged by the POTWs is attenuated as it

travels downriver through the processes of nutrient cycling in plants and sediments and sedimentation. Because of this attenuation, a total annual wasteload was considered protective. There is no attenuation of the CRPCD discharge at the point it discharges into the river, so the impact of that discharge is much more immediate on this segment of the river compared with the segment of the river addressed in the Lower Charles TMDL.

Comment #4: Co-permittee provision - The draft permit authorizes discharge from the District's Facility at 66 Village Street, Medway into the Charles River. That is the District's outfall and the District's facility. The Permit should therefore not name the towns of Franklin, Medway, Millis and Bellingham as co-permittees even for the purposes of proposed Sections 1.B (Unauthorized discharges) and 1.C (Operation and Maintenance of the Sewer System). To do so complicates the District's management of its program and undermines the chain of responsibility for the discharge. The District asks EPA to delete the co-permittee provisions as a matter of good policy.

The District also submits that the co-permittee provisions exceed the authority granted by the Federal Clean Water Act, applicable regulations and the case law. The Fact Sheet concedes that "[t]he Towns of Franklin, Medway, Millis and Bellingham own and operate their portions of the sewer collection system that transports sewage to the treatment plant." Fact Sheet, p. 23. In other words, they do not propose to discharge to waters of the United States for purposes relevant to this permit. Nevertheless, the draft permit seeks to include requirements for the co-permittees to control infiltration and inflow – a matter that likewise involves influent to the plant, rather than municipal discharges to federal waters. These facts involve local authority and fall well short of triggering federal NPDES jurisdiction over the towns.

The Clean Water Act's NPDES program provides permits "for the discharge of any pollutant or combination of pollutants" into waters of the United States. 33 U.S.C. § 1311. See 40 C.F.R. 122.2 (defining "discharge of a pollutant."). The scope of the NPDES permit requirement extends to "the discharge of 'pollutants' from any 'point source' into 'waters of the United States.'" 40 C.F.R. 122.1. The regulations only require a "person who discharges or proposes to discharge pollutants or who owns or operates a 'sludge-only facility'" to apply for an NPDES permit. 40 C.F.R. 122.21.

There is no such requirement for a municipality whose sewage does not flow directly into waters of the United States and who adds flow to a facility authorized to discharge under the NPDES program. In fact, an entity that does not discharge into the waters of the United States is not covered by the NPDES program. By regulation, the term "discharge of a pollutant" "does not include an addition of pollutants by any 'indirect discharger'" (i.e. a nondomestic discharger introducing pollutants to a POTW). 40 C.F.R. 122.2. To reinforce this notion, EPA has expressly excluded from the NPDES permit program "the introduction of sewage, industrial wastes or other pollutants into publicly owned treatment works by indirect dischargers." 40 C.F.R. § 122.3 (c) (such discharges "do not require NPDES permits"). The NPDES permit process therefore does not regulate those who introduce flow into a POTW. When Congress wanted to impose liability on such persons (indirect dischargers) it did so directly by statute, and not through the NPDES

permit program. See 33 U.S.C. § 1317 (b)(1) (pretreatment standards for introduction of pollutants into a POTW); Chemical Manufacturers Ass'n. v. Natural Resources Defense Council, 470 U.S. 116, 118-120 (1985).

It follows that a municipality that is at most an indirect discharger is not a proper NPDES permittee, because it does not "discharge" pollutants into federal waters and is expressly excluded from the requirement to be covered by an NPDES permit. To add a non-discharging municipality as a co-permittee (particularly without an application or consent from the municipality) exceeds statutory and regulatory authority according to the plain meaning of the applicable provisions.

EPA gains no support from the regulations it cites at 40 C.F.R. § 122.41 (d) and (e). Those regulations apply only to the "permittee" and cannot be used to justify making municipalities "permittees" without becoming hopelessly circular. A permittee can logically only be an entity required to obtain a permit, i.e. one that discharges into federal waters.

In addition to the infiltration and inflow requirements discussed above, Section 1.B of the proposed permit purports to turn unauthorized discharges by the Towns into a NPDES issue under the District's permit (even though the District is not the discharger). Congress has already addressed this issue by making such discharges illegal under 33 U.S.C. § 1311 ("Except as in compliance with [provisions of the Clean Water Act], the discharge of any pollutant by any person shall be unlawful."). Using the issue of illegal discharges to make municipalities co-permittees to the District's NPDES permit is a non-sequitur. Not only would this theory make every potential discharger within the District's catchment area a potential co-permittee of the District's permit, but it would substitute permit enforcement proceedings for the direct prohibition against the discharger, contrary to Congress' intention.

The law in fact contemplates that unauthorized discharges must be addressed in a different manner. For one thing, 314 CMR 12.00 requires reporting of local municipal wastewater systems and discharges therefrom. For another, EPA has no authority or ability to impose a permit upon towns that have not applied for one, or to impose permit conditions upon an entity that refuses to sign the permit. As always, the consequence of not signing the permit is that the particular entity has no authority to discharge into federal waters – but the towns seek no such authority in the first place. The co-permittee provisions are not imposed as a condition upon the District's permit, nor could they be. Not only would that be illegal for the reasons stated above, but the District is an independent "body politic and corporate" (Mass. Gen. Laws c. 21, § 29), which simply lacks the state law authority to speak for towns that discharge into its Facility. See Mass. Gen. Laws. c. 21, § 30 (listing powers of sewage abatement commission, which do not include authority to bind member communities). Finally, requiring towns to be co-permittees would be unwieldy and has not been required even in situations that have been litigated extensively, such as the MWRA permit covering the entire metropolitan Boston area. See NPDES permit MA0103284 (MWRA is the permittee). See United States v. Metropolitan District Commission, 23 Envtl. Law Cases (BNA) 1350, 16 Envtl. Law

Rep. (Environ. L. Inst.) 20621, 1985 Westlaw 9071 (D. Mass. 1991) (finding liability by the permittee, which served as the basis for a metropolitan-region-wide cleanup over the past 17 years). Enforcement against towns has been done directly against the Towns for direct or indirect discharges under the state clean waters act, not through the NPDES or state permit program. Mass. Gen. Laws, §§ 42, 46. See, e.g. United States v. South Essex Sewage District, No. 83-2814-Y (D. Mass.).

The case law supports the District's opposition to the co-permittee provisions.

... unless there is a "discharge of any pollutant," there is no violation of the [Clean Water] Act, and point sources are, accordingly, neither statutorily obligated to comply with EPA regulations for point source discharges, nor are they statutorily obligated to seek or obtain an NPDES permit.

[T]he Clean Water Act gives the EPA jurisdiction to regulate and control only actual discharges-not potential discharges, and certainly not point sources themselves. See Natural Resources Defense Council v. EPA, 859 F.2d 156, 170 (D.C.Cir.1988) (noting that "the [Act] does not empower the agency to regulate point sources themselves; rather, EPA's jurisdiction under the operative statute is limited to regulating the discharge of pollutants"). To the extent that policy considerations do warrant changing the statutory scheme, "such considerations address themselves to Congress, not to the courts." MCI Telecommunications Corp. v. AT & T, Co., 512 U.S. 218, 234 (1994) (citation omitted).

For all these reasons, we believe that the Clean Water Act, on its face, prevents the EPA from imposing, upon [non-dischargers], the obligation to seek an NPDES permit or otherwise demonstrate that they have no potential to discharge. See Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 842-43 (1984) (where Congress has "directly spoken to the precise question at issue" and "the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.") (footnote omitted).

Waterkeeper Alliance v. EPA, 399 F.3d 486, 504-505 (2d Cir. 2005).

For all these reasons, EPA should strike the co-permittee provisions and issue the permit to the District as sole permittee.

Response to Comment #4: See Partially Revised 2012 Fact Sheet Attachment 1, EPA Region 1 NPDES Approach for Publicly Owned Treatment Works That Include Municipal Satellite Sewage Collection Systems, Attachment A, Analysis Supporting EPA Region 1 NPDES Permitting Approach for Publicly Owned Treatment Works That Include Municipal Satellite Sewage Collection Systems (the "Analysis") and the response to comments on the 2012 Partially Revised Draft Permit, which address each of the issues raised in the comment above.

Comment #5: The Fact Sheet, p. 7, notes that average phosphorus concentrations in the summer have "ranged from 0.07 to 2.9 mg/l in the summer." Accordingly, the Facility would not be in compliance with the proposed 0.12 mg/l summer limit and will require some time to come into compliance. In these circumstances, a compliance schedule is appropriate.

Response to Comment #5: The permittee has already submitted data on recent discharge monitoring reports between May and October, which show the more stringent limit can be met. In October 2012 and June 2013 the permittee reported a total phosphorus concentration of 0.1 mg/l. As shown by the data range, the discharge has sometimes met the limit in the Draft Permit (and has also violated the less stringent limit in the previous permit).

The Massachusetts water quality standards at 314 CMR 4.03(1)(b) allow compliance schedules in permits when appropriate, "generally to afford a permittee adequate time to comply with one or more permit requirements or limitations that are based on new, newly interpreted or revised water quality standard…." *See also* 40 C.F.R. § 122.47 (authorizing compliance schedules "when appropriate" and requiring compliance with the limit to occur "as soon as possible.").

Accordingly, the compliance schedule in the Final Permit has changed from the one in the Draft Permit[10]. The change is based on the District's Capital Improvement Plan Summary (the Summary) that was sent to EPA in May 20, 2014. The Summary identifies completed and projected capital improvements projects scheduled at the treatment plant from August 2011 through September 2016. The projected dates for upgrades to the Treatment Plant to achieve more stringent phosphorus removal requirements are March 2014 through September 2016. The upgrades include enhancements of secondary treatment system to accommodate anoxic/oxic biological nutrient removal and installation of a cloth filter with a 5 micron cloth in one of the existing gravity sand filters and the replacement of the 10 micron cloth with a 5 micron cloth in the existing disk filter. Based on the construction schedule, EPA has changed the compliance schedule in the Final Permit to 2.5 years. If, however, the permittee determines that capital improvements to the treatment plant have not been completed by the projected date, the District may request a modification of the permit schedule.

Comments submitted by John Gall, Vice-President, Camp Dresser and McKee Inc., on behalf of the Charles River Pollution Control District onAugust 1, 2008.

Comment #6: The Agency has no authority to establish a limit for phosphorus under 314 CMR 4.05(5)(c).

The plain language of the regulation says:

[10] The Draft Permit issued in 2012 included a compliance schedule of four years from the effective date of the permit.

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 BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Emphasis supplied.

The regulation clearly reserves the determination of the appropriate level of treatment to the Department of Environmental Protection. The regulation does not authorize the EPA to make this determination for the Department. The Agency has provided no determination by the Department that the phosphorus limit proposed in this permit is the most appropriate treatment for the District's effluent.

Response to Comment #6: As described in the response to comments #3A and #3B, the commenter has misconstrued the meaning of the cited regulation. EPA is not making a determination in this permit proceeding of what limit reflects highest and best practical treatment, but has simply referenced the state's historical practice on this point (i.e., 0.2 mg/l). The regulation establishes a technology-based level of control for discharges to eutrophic waters but does not preclude the establishment of more stringent limits where necessary to meet the applicable narrative water criterion for nutrients, i.e., "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* [emphasis added] 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." EPA has an independent obligation under Section 301(b)(1)(C) of the Act to impose any more stringent limitations necessary to comply with water quality standards. EPA has determined that the more stringent phosphorus limit is necessary to achieve water quality standards, and the state has certified the permit with no comment or objection on the phosphorus limit.

Comment #7: The Agency has failed to provide the documentation required by Massachusetts regulations that could justify the limits proposed in this permit.

Other provisions of Massachusetts' regulations could be used to justify the permit limits. Massachusetts Water Quality Standards require that waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses. See 314 CMR 4.05(5)(c).

In its fact sheet, EPA presents a discussion of phosphorus levels, levels of chlorophyll a and levels of dissolved oxygen in the river. However, there is no discussion as to how these specific levels constrain existing or designated uses, or how the effluent limits proposed in the permit will serve to achieve these designated uses. Moreover, as discussed further below, the Agency's characterizations of the receiving water glosses over clearly apparent trends that indicate that water quality below the District's discharge is improved compared with that above the discharge.

While the Agency presents an extended discussion of its criteria, and its guidance on the development of limits, including effects-based and reference-based approaches, the only approach that is relevant is the one authorized under Massachusetts regulations – one that is developed based impairment of uses. The Agency's analysis must be expanded to show how the limits proposed will serve to achieve the uses designated for the receiving waters. This use-based approach is exactly the approach taken in the Lower Charles River TMDL, which should be followed here.

Response to Comment #7: Water quality standards consist of uses, and criteria to protect those uses. If the criteria are not met, then it follows that the uses are also not being consistently attained. The cited regulation, which is a narrative water quality criterion, requires that waters of Massachusetts be free from nutrients that would cause or contribute to impairment of existing or designated uses. In its analysis in the fact sheet, the Region used the method described in 40 C.F.R. § 122.44(d)(1)(vi)(A) and (B) for developing a water quality-based effluent limit where state water quality standards do not include a water quality criterion for a specific chemical, and this limit is in addition consistent with the final Upper Charles River TMDL. The limit is designed to attain and maintain the applicable water quality criterion and protect the designated use. *See In re City of Attleboro, MA Wastewater Treatment Plant*, NPDES Appeal No. 08-08, slip op. at 47-75, 14 E.A.D. __ (EAB, September 15, 2009), which details and upholds the Region's technical and legal justification for deriving phosphorus limits in NPDES permits, including the use of the *Gold Book* value of 0.1 mg/l to control the effects of cultural eutrophication. *See also* the response to comments #3A, #3B and #6 above for additional information regarding the Region's interpretation of the requirements of 314 CMR 4.05(5)(c).

The Region disagrees with the commenter's conclusion that water quality downstream of the discharge is improved compared to upstream conditions. As noted in the Fact Sheet on page 9 of 29, the table provides data upstream of the outfall for total phosphorus and orthophosphate that are lower than the concentration of total phosphorus at the discharge and a half of mile downstream of the discharge. Even if it were, this would not preclude the need for more stringent limitations if the discharge was found to cause or contribute to the impairments downstream of the discharge. The Region would also note the comment submitted by the Charles River Watershed Association (see comment # 15) that it believes there is an algae gradient upriver from the treatment plant towards Populatic Pond that they believe indicates a backflow of the CRPCD discharge. See the response to comment #8 for a more complete discussion of the water quality data.

Comment #8: Available data contradict the Agency's assumption the current CRPCD discharge causes or contributes to cultural eutrophication.

In its fact sheet, EPA makes reference to several available data sets as evidence that the District's discharge causes or contributes to cultural eutrophication, and concludes with the following general observation:

In summary, the available data shows extremely high productivity in the receiving water upstream and downstream of the discharge as evidenced by high chlorophyll a, large diurnal variations in dissolved oxygen concentrations and visible algae mats as noted in field observations.

What is lost in this broad generalization is that the River is actually of better quality downstream of the District discharge than it is upstream.

Chlorophyll a concentrations presented in the table in the fact sheet drop from an average of 0.038 mg/l in Populatic Pond upstream of the District discharge, to 0.025 mg/l one half a mile downstream of the discharge to 0.008 mg/l two miles downstream of the discharge[11].

The dissolved oxygen values presented in the table on page 9 never fall below the state water quality standard of 5 mg/l, and the incidence of highest supersaturation exists in Populatic Pond, upstream of the District's discharge. Below the District's discharge, the values are less extreme, and not within a range that one would call excessive.

The continuous dissolved oxygen data from the Upper Charles River TMDL data reports are visually misleading; Although it appears that the station down stream of the District's discharge exhibits significantly greater fluctuations in dissolved oxygen, the two datasets are actually plotted on different scales that magnify the differences in the downstream dataset, and suppress the differences in the upstream data set. If they had been plotted on the same scale, it appears that the upstream and downstream meters experienced about the same fluctuations.

Finally, it is true that cyanobacteria algal blooms were shown to exist in this segment in 2004, and large mats of filamentous algae were downstream of Populatic pond in 2002. However, the Upper Charles River Total Maximum Daily Load Project studies, Volume 1: Phase II Final Report and Phase III Data Report presented an extensive survey of the plant community of the river system from the headwaters to the Cochrane Dam in Needham/Wellesley. That survey showed that the floating and submerged filamentous cyanobacteria Lyngbya existed throughout most of the river system above the District's discharge (see table 3-3). Specific mapping of the Lyngbya near the District's discharge shows it to dominate the northern part of Populatic Pond, and to exist in the river for a short distance downstream of the pond. Below the District's discharge it ceases to exist at all. See figures 3-6 and 3-12 of the referenced document.

A more appropriate reading of the data presented in EPA's fact sheet suggests that the waters above the District's discharge are significantly impaired, but that downstream of the discharge, those impairments are reduced in severity and extent. Nothing in the record

[11] The table included in page 9 of the Fact Sheet contains errors. In several place, it confuses milligrams per liter and micrograms per liter when reporting chlorophyll a. The values shown for station 207 as 38 and 12 mg/l are actually .038 and .012 mg/l. All other values that are above 1 mg/l in the table are similarly incorrect. The values for Chlorophyll a for the District's discharge are incorrect. They should be ND and <0.002, respectively

indicates that the District's discharge is causing, or even contributing to the observed impairments or cultural eutrophication claimed to exist by the Agency.

Response to Comment #8: EPA notes that the commenter appears to concede that there is some level of nutrient impairment immediately downstream of the discharge (*i.e.*, "impairments are reduced in severity and extent"). The data collected on August 13 and August 24, 2002 shows that water quality is impaired both upstream and downstream of the discharge. The orthophosphorus and total phosphorus data shows higher concentrations downstream of the CRPCD discharge than upstream of the discharge. The chlorophyll and dissolved oxygen data shows slightly better, but still impaired effluent quality downstream of the discharge.

The increased in-stream concentration of phosphorus is predictable given that the concentration in the CRPCD discharge was greater than the upstream concentration on both days. Interestingly, the magnitude of the measured increase in phosphorus concentration downstream is less than predicted by the calculation in the Fact Sheet in large part because the CRPCD discharge concentration was much less than the current permit limit of 0.2 mg/l. The measured concentrations of 0.106 mg/l and 0.0992 mg/l were actually less than the limit proposed in the Draft Permit.

Notwithstanding that the water quality measurements downstream of the facility might reflect the better than required effluent phosphorus concentration being achieved at the time by the CRPCD treatment plant, there are other reasons not to draw the conclusion that the immediate downstream water quality is improved. First, the downstream station is roughly ½ mile downstream of the discharge. While this may seem to be a short distance, it is an adequate distance for attached plant growth such as periphyton or macrophytes to uptake significant amounts of phosphorus. This type of growth would not be measured as chlorophyll a, which was used to measure unattached water column algae, but is a sign of cultural eutrophication, and would also impact the composition of the benthos, which would violate the state water quality standards at 314CMR 4.05(5)(b).

Phosphorus released in a stream is largely conservative, that is, it is not destroyed or removed from the stream system. Instead it is either utilized by plants and recycled back into the system when the plants decay, settles into sediments where it is available for rooted plant growth and/or recycling back into the water column or is transported in the water column downstream. Therefore, progressively lower water column concentrations at sampling stations downstream of a phosphorus source do not somehow reflect a "disappearance" of phosphorus but rather shows that the phosphorus is being utilized to promote plant growth, is being otherwise stored in the stream system, or is being diluted by the addition of flow from sources with lower phosphorus concentrations.

Also, any comparison of upstream and downstream data must also make clear that the water quality indicators show that the water quality at both stations are failing to meet standards.

Regarding the dissolved oxygen data, the percent saturation of dissolved oxygen values downstream of the CRPCD on August 24 was 106.5 %, which is considered excessive for a flowing water Volume I: Phase II Final Report and Phase III Data Report, July 2006. Regarding the scales of the DO concentration figures in the Upper Charles TMDL data reports, in the scale in Figure 2-27 (Populatic Pond) is 0 - 16 mg/l, and the scale for Figure 2-28 is 0 -14 mg/l. While the scale varies 2 mg/l, Table 2-10 lists the average diurnal range. The range is 3.87 mg/l at Populatic Pond and 3.19 mg/l downstream of CRPCD. The report goes on to say that "in a natural, clean river system, the dissolved oxygen concentrations should not fluctuate more than 2.0 mg/l, which shows a balance between sources and sinks of oxygen in the system. A range of concentrations greater than 2.0 mg/l may indicate high algal productivity in the system and depletion of dissolved oxygen" So, while the DO range is greater in the pond than downstream, both ranges indicate supersaturation and large diurnal swings, which is less common in free flowing water bodies than in ponds, given that free flowing water bodies tend to have higher re-aeration rates and are more shaded (less plant growth).

Chlorophyll *a* measurements during dry weather above and below the CRPCD outfall were about 20 to 40 µg/L, some of the highest values measured in the Upper Charles River during the TMDL monitoring period. The in-stream chlorophyll *a* criterion for this ecoregion is 3.75 ug/L, far below these measurements. At concentrations above 10 µg/L phytoplankton algae become visible and may impede light penetration and water clarity.

The table in the fact sheet, referred to in the comment, has been corrected and is below.

Charles River TMDL Water Quality Monitoring Data (mg/l)

Dry Sampling Date	Total Phosphorus	Orthophosphate	Chlorophyll *a*	DO	Percent Saturation
Station 184S: USGS Gage Station, upstream of Populatic Pond, Medway					
8/13/2002	0.0472	0.0141	0.00492 [1]	9.54 - 9.63 [2]	----
8/24/2005	0.0259	0.016	ND	8.84	99.7
Station 201S [3] : Outlet of Populatic Pond, Medway					
8/13/2002	0.0632	0.0201	0.0416	9.2	----
8/24/2005	0.0562	0.0134	0.022	10.10	119
Station 202W : CRPCD Discharge					
8/13/2002	0.106	0.116	<0.002	----	----
8/24/2005	0.0992	0.0897	ND	7.7	----
Station 207S: One-half mile downstream of CRPCD outfall, Norfolk					

Dry Sampling Date	Total Phosphorus	Orthophosphate	Chlorophyll *a*	DO	Percent Saturation
8/13/2002	0.0717	0.0312	0.038 [1]	9.85	----
8/24/2005	0.0536	0.0233	0.012	8.8	106.5
Station 229S: Two miles downstream of CRPCD, Millis					
8/13/2002	0.0230	0.0219	0.00804 [1]	7.9	----
8/24/2005	0.0375	0.0188	0.007	7.1	83.5
Station 290S: Nine miles downstream of CRPCD, Medfield (above Medfield WWTP)					
8/13/2002	0.0395/0.0378[4]	0.00928/0.00943[4]	0.00946/0.00928 [4]	7.9	----
8/24/2005	0.0415	0.011	0.015	7.2	90
Station 294S: Immediately below Medfield WWTP					
8/13/2002	0.100	0.0622	0.0124	8.2	----
8/24/2005	0.041	0.0122	0.015	7.5	90
Station 318S: Route 27 Bridge, Medfield/Sherborn town line					
8/13/2002	0.0616	0.0187	0.0193[1]	8.83	----
8/24/2005	0.0377	0.0115	0.009	5.7	68.3
Station 387S: Cheney Bridge, Wellesley, downstream of South Natick					
8/13/2002	0.0307	0.182	0.00748[1]	5.37	----
8/24/2005	0.0462/0.0504[4]	0.0137/0.0141[4]	0.009/0.0009[4]	5.3	64.2
Station 407S: Claybrook Road, Dover					
8/13/2002	0.0384/0.0346[4]	0.00614/0.00384[4, 5]	0.0308/0.0274[1,4]	8.26	----
8/24/2005	0.043	0.0118	0.013	5.9	75
Station 447S: USGS Gage, Dover					
8/13/2002	0.0372	0.00476	0.0107	6.42	----
8/24/2005	0.0572	0.00996	0.021	6.8	----

[1]Chlorophyll *a* equipment blanks for 8/13/02 are 0.00215 and 0.00301 mg/l.
[2] Unstable.
[3] Station 201S is located at the outlet of Populatic Pond upstream of the discharge
[4] Field Duplicate.

[5] Field Duplicate Relative Percent Difference is greater than acceptable range.

Comment# 9: The Agency incorrectly uses an extreme flow to establish the permit limit. As presented in the fact sheet, the Agency has relied upon flow conditions associated with the 7 day, ten year low flow (7Q10 flow) to develop the permit limit for phosphorus. Nothing in the Massachusetts water quality standards compels the use of 7Q10 flow in developing nutrient limitations. Indeed, in developing phosphorus limitations for the Lower Charles River TMDL, the State used summer average conditions to establish a phosphorus limit that would be protective of uses of that portion of the river. This TMDL has been subsequently been approved by EPA.

Not only is the use of 7Q10 inappropriate under Massachusetts regulations, it is inappropriate under EPA guidance. In its "Ambient Water Quality Criteria Recommendations; Information Supporting the Development of State and Tribal Nutrient Criteria Rivers and Streams in Nutrient Ecoregion XIV" EPA encourages States to

> "Identify appropriate periods of duration (how long) and frequency (how often) of occurrence in addition to magnitude (how much). EPA does not recommend identifying nutrient concentrations that must be met at all times; rather a seasonal or annual averaging period (e.g., based on weekly or biweekly measurements) is considered appropriate. However, these central tendency measures should apply each season or each year, except under the most extraordinary conditions (e.g., a 100-year flood)."

The use of seasonal averages would provide additional dilution, and would thus serve to lower the treatment requirements required of the District.

Response to Comment #9: Massachusetts Water Quality Standards at 314 CMR 4.03(3) requires that effluent dilution for rivers and streams be calculated based on the receiving water 7Q10.

" Hydrologic Conditions. The Department will determine the most severe hydrologic condition at which water quality criteria must be applied. The Department may further stipulate the magnitude, duration and frequency of allowable excursions from the magnitude component of criteria and may determine that criteria should be applied at flows lower than those specified in order to prevent adverse impacts of discharges on existing and designated uses.

> *(a) For rivers and streams, the lowest flow condition at and above which aquatic life criteria must be applied is the lowest mean flow for seven consecutive days to be expected once in ten years. When records are not sufficient to determine this condition, the flow may be estimated using methods approved by the Department."*

As stated above, the CWA and EPA's regulations require EPA to issue an NPDES permit to ensure compliance with applicable water quality standards of the State where the

discharge originates and water quality-based limitations are established with the use of a calculated available dilution.

With respect to the TMDL, the governing regulations require *consistency*, but do not require that the permit limitations adopted in a final NPDES permit be *identical* to any of the WLAs that may be provided in a TMDL. TMDLs are by definition maximum limits. Permit limits may be more stringent than available WLAs to the extent required to comply with section 301(b)(1)(C) of the Act and still be consistent with such maxima.

Regarding the appropriate averaging periods for nutrient limits, EPA has imposed the limit as a monthly average. Not only is imposition of a 30-day average limit consistent with federal regulations governing the NPDES program, such an averaging period will again minimize (when compared to a seasonal average limit) the amount of time that phosphorus effluent concentrations from the facility can exceed 0.1 mg/l and still comply with the limit. This approach maintains consistently low phosphorus effluent concentrations, as well as minimizes overall phosphorus loading, into the system, which is important in impaired waters, like the Charles River, which are already suffering from severe existing cultural eutrophication and where there may be some potential for the existing sediment phosphorus deposits to recycle in the water column. As mentioned above, a relatively conservative approach is warranted in order for the eutrophic cycle to be brought to a halt, which is achieved by consistently maintaining low phosphorus concentrations and loads into the system. EPA believes a conservative approach is appropriate consistent with its obligation to ensure compliance with water quality standards. It should be noted that EPA does not foreclose the imposition of seasonally-based limits in all instances so long as such limits are *sufficiently low* to ensure compliance with water quality standards. Based on EPA's review of seasonally based ambient phosphorus values that were available in EPA's nutrient technical guidance and the peer-reviewed literature, it is clear that 0.1 mg/l imposed on a seasonal average basis would not be sufficiently stringent to meet this test. On the other hand, the 0.1 mg/l limit as expressed in the permit will fall within the range of the seasonally-based ambient phosphorus values in the record when accounting for the fact that seasonal average receiving water flows are higher than 7Q10.

Please see *In re City of Attleboro, MA Wastewater Treatment Plant*, NPDES Appeal No. 08-08, 14 E.A.D. __ (EAB, September 15, 2009), which details and upholds the Region's technical and legal justification for expressing the phosphorus limit as a monthly (as opposed to seasonal) average and for using 7Q10 flows to calculate available dilution.

Comment #10: The Permit Improperly Applies EPA Guidance
The permit references The 1986 Quality Criteria for Water as the source document for its recommended instream concentration. The 1986 document is clear that there is no national criteria for control of phosphorus. It begins by saying "Although a total phosphorus criterion to control nuisance aquatic growths is not presented, it is believed that the following rationale to support such a criterion, which currently is evolving, should be considered." (Gold Book, page 240 of 477). It goes on to describe various

recommendations and observations of Mackenthun and Hitchinson concerning tolerable levels of phosphorus in receiving waters. It also suggests that:

The majority of the Nation's eutrophication problems are associated with lakes or reservoirs and currently there are more data to support the establishment of a limiting phosphorus level in those waters than in streams or rivers that do not directly impact such water. There are natural conditions, also, that would dictate the consideration of either a more or less stringent phosphorus level. Eutrophication problems may occur in waters where the phosphorus concentration is less than that indicated above and, obviously, such waters would need more stringent nutrient limits. Likewise there are those waters within the Nation where phosphorus is not now a limiting nutrient and where the need for phosphorus limit is substantially diminished. Such conditions are described in the last paragraph of this rationale. (Gold Book, page 241 of 477). Emphasis supplied.

The last paragraph contains a number of caveats that need to somehow be taken into account in the development of the criterion. The factors include the following

1. Naturally occurring phenomena may limit the development of plant nuisances.
2. Technological or cost effective limitations may help control introduced pollutants.
3. Waters may be highly laden with natural silts or colors which reduce the penetration of sunlight needed for plant photosynthesis.
4. Some waters morphometric features of steep banks, great depth, and substantial flows contribute to a history of no plant problems.
5. Waters may be managed primarily for waterfowl or other wildlife.
6. In some waters nutrient a other than phosphorus is limiting to plant growth: the level and nature of such limiting nutrient would not be expected to increase to an extent that would influence eutrophication.
7. In some waters phosphorus control cannot be sufficiently effective under present technology to make phosphorus the limiting nutrient. (Gold Book, page 243 of 477)

Thus, although there was no criterion established in the 1986 document, and the rationale was only evolving and proposed for consideration, the EPA elected to ignore the caveats about its use. The limitations and caveats of the Gold Book should be sufficient reason to await the completion of the TMDL before adopting a new permit limit for the District.

Response to Comment #10: In the course of determining the trophic status of the receiving water and deriving a protective phosphorus effluent limit that would meet the narrative phosphorus criterion, the Region looked to a variety of sources, including the *Gold Book*, Ecoregional Nutrient Criteria (*Ambient Water Quality Criteria Recommendations:Information Supporting the Development of State and Tribal Nutrient Criteria, December 2000*) and Nutrient Criteria Guidance (*Nutrient Criteria Technical Guidance Manual: Rivers and Streams, July 2000).* These constitute information published under the CWA Section 304(a) and were used as *guidance* to interpret the State's narrative criterion for nutrients and not as substitutes for state water quality criteria. The Region's use of the *Gold Book* and other relevant materials published under

Section 304(a) to develop a numeric phosphorus limit sufficiently stringent to achieve the narrative nutrient criterion is consistent with applicable NPDES regulations. When deriving a numeric limit to implement a narrative water quality criterion, EPA is authorized (40 CFR §122.44(d)(1)(vi)(B)) to: "Establish effluent limits on a case-by-case basis, using EPA's water quality criteria, published under Section 304(a) of the CWA, supplemented where necessary by other relevant information." (EPA also relied on 40 CFR §122.44(d)(1)(vi)(A) in establishing the limit.) EPA recognizes that the *Gold Book* does not contain a phosphorus criterion *per se*, but instead presents a "rationale to support such a criterion." *See Gold Book* on page 240. The guidance document goes on to recommend in-stream phosphorus concentrations of 0.05 mg/l in any stream entering a lake or reservoir, 0.1 mg/l for any stream not discharging directly to lakes or impoundments, and 0.025 mg/l within the lake or reservoir.

The commenter references a statement in the *Gold Book* that indicates that, at the time of the *Gold Book's* publication, there was more data to support the establishment of a limiting phosphorus level in lakes than in streams or rivers. Much more recent data and criteria guidance published under Section 304(a) of the CWA reinforces the *Gold Book* recommendations related to streams and rivers.

The more recent Nutrient Criteria Technical Guidance Manual – Rivers and Streams EPA-822-B-00-002. U.S.EPA. July, 2000 as well as the Ecoregional Nutrient Criteria recommend that in-stream phosphorus concentrations need to be less then 100 ug/l (0.1 mg/l) in order to control cultural eutrophication. The Nutrient Criteria Technical Guidance document cites a range between 10 ug/l and 90 ug/l to control periphyton and between 35 ug/l and 70 ug/l to control plankton (see Table 1). The Ecoregional Nutrient Criteria document outlines so-called "reference" conditions in waters within specific ecoregions across the country that are minimally impacted by human activities, and thus are representative of waters without cultural eutrophication. The Charles River is in Ecoregion XIV, *Eastern Coastal Plain*. The recommended total phosphorus criterion for this ecoregion is 24 ug/l.

Table 1						
Nutrient (ug/l) and algal biomass criteria limits recommended to prevent nuisance conditions and water quality degradation in streams based either on nutrient-chlorophyll *a* relationships or preventing risks to stream impairment as indicated.						
PERIPHYTON Maximum in mg/m^3						
TN	**TP**	**DIN**	**SRP**	**Chlorophyll *a***	**Impairment Risk**	**Source**
				100 – 200	nuisance growth	Welch et al. 1988, 1989
275 – 650	38 – 90			100 – 200	nuisance growth	Dodds et al. 1997
1500	75			200	eutrophy	Dodds et al. 1998
300	20			150	nuisance growth	Clark Fork River Tri-State Council, MT
	20				*Cladophora* nuisance growth	Chetelat et al. 1999
	10 – 20				*Cladophora* nuisance growth	Stevenson unpubl. data
		430	60		eutrophy	UK Environ. Agency 1988
		100[1]	10[1]	200	nuisance growth	Biggs 2000
		25	3	100	reduced invertebrate diversity	Nordin 1985
			15	100	nuisance growth	Quinn 1991
		1000	10[2]	~ 100	eutrophy	Sosiak pers. comm.
PLANKTON Mean in ug/l						
TN	**TP**	**DIN**	**SRP**	**Chlorophyll *a***	**Impairment Risk**	**Source**
300[3]	42			8	eutrophy	Van Nieuwenhuyse and Jones 1996
	70			15	chlorophyll action level	OAR 2000
250[3]	35			8	eutrophy	OECD 1992 (for lakes)

1 30-day biomass accrual time
2 Total Dissolved P

3 Based on Redfield ratio of 7.2N:1P (Smith et al. 1997)

Source: *Nutrient Criteria Technical Guidance Manual – Rivers and Streams*. EPA-822-B-00-002. U.S.EPA. July, 2000.

Table 2		
Examples of Numeric Criteria and Guidelines for Total Phosphorus in the U.S.		
State and Waters	**Phosphorus Criteria Values**	**Reference**
Arizona River Specific	Annual Mean 0.05 – 0.20 mg/l 90 Percentile: 0.10 – 0.33 mg/l Single Sample Maximum: 0.20 - 1.0 mg/l	AAC R18-11-109
Arkansas All Waters	Maximum limit: 0.100 mg/l (guideline)	2 AAC 2.509
Hawaii Inland Streams	Geometric Mean, not to exceed 0.05 mg/l – Wet Season (Nov.1 – Apr.30) 0.030 mg/l – Dry Season (May 1 – Oct. 31)	HAR 11-54-5.2
Illinois Streams at entrance to reservoir or lake with surface area of 8.1 hectares or more	Maximum limit: 0.05 mg/l	35 IAC 302.205
Nevada[*] River Specific	Mostly, average: 0.1 mg/l	NAC 445A
New Jersey Streams	Maximum limit: 0.1 mg/l, unless demonstrate TP is not a limiting nutrient and will not render the waters unsuitable for designated uses.	NJAC 7:9B-1.14(c)
New Mexico Perennial reaches of specific waters in Rio Grande, Pecos River, and San Juan River basins	Maximum limit (single sample): 0.1 mg/l	20 NMAC 6.4.109 20 NMAC 6.4.208 20 NMAC 6.4.404 20 NMAC 6.4.407
North Dakota Class I, IA, II and III streams	Maximum limit: 0.1 mg/l (interim guideline limit)	NDAC 33-16-02-09
Oregon Yamhill River and its tributaries	Monthly median: 0.070 mg/l as measured during summer low flow	OAR 340-041-0350
Utah Streams and rivers to protect aquatic life; 3B, 3C waters	Maximum limit: 0.05 mg/l (used as pollution indicator; when exceeded, further investigations are conducted)	UAC R317-2 (Table 2.14.2)
Vermont Upland streams (> 2,500 ft.)	Maximum limit: 0.010 mg/l at low median monthly flow	VWQS 3-01-B2
Washington Spokane River (river mile 34 – 58)	Average euphotic zone: 0.025 mg/l (during June 1 to October 1)	WAC 173-201A-130
[*] Different requirements may exist to maintain existing higher quality streams.		

Source: *A Literature Review for use in Nutrient Criteria Development for Freshwater Streams and Rivers in Virginia*. Virginia Polytechnic Institute and State University – Virginia Water Resources Research Center. 2006.

The commenter also recites verbatim seven site-specific considerations that the *Gold Book* indicates can reduce the threat of phosphorus as a contributor to eutrophication in lakes. The commenter does not indicate which, if any, of the site-specific considerations is determinative in this case and how it would specifically alter the permit limits for phosphorus. For instance, the commenter does not cite and EPA is not aware of any evidence that "naturally occurring phenomena;" "steep banks, great depth and substantial flows;" "natural silts or colors;" or a "nutrient other than phosphorus" are inhibiting plant growth in this case. To the contrary, certain characteristics of the Charles River exacerbate impacts associated with phosphorus. For instance, the river is characterized by numerous shallow impoundments and low velocity. Further, management of waters "primarily for waterfowl or other wildlife" would conflict with the designated use of contact recreation. In addition, consideration of cost or technological feasibility in the establishment of the water-quality based phosphorus limit is inappropriate. The conditions referred to in the above comment are listed in the *Gold Book*. Page 241 of the *Gold Book* refers to the list as "…those waters within the Nation where phosphorus is not now a limiting nutrient and where the need for phosphorus limits is substantially diminished. Such conditions are described in the last paragraph of this rationale." The seven exceptions listed are in reference to lake eutrophy as noted, "It should be recognized that a number of specific exceptions can occur to reduce the threat of phosphorus as a contributor to lake eutrophy." The conditions listed do not pertain to the Upper Charles River.

The MassDEP has listed the river segment downstream of the treatment plant as impaired for nutrients in the Massachusetts Year 2008 Integrated Lists of Waters approved on May 4, 2009 by EPA. The 2010 and 2012 Integrated Lists also have this segment of the river listed as impaired for the same parameters.

Please see *In re City of Attleboro, MA Wastewater Treatment Plant*, NPDES Appeal No. 08-08, 14 E.A.D. __ (EAB, September 15, 2009), which details and upholds the Region's interpretation of the *Gold Book* in connection with the phosphorus limit.

Comment #11: The Recommended In-Stream Value Used In Developing the Permit Limit Is Unsubstantiated

The 1986 Quality Criteria for Water suggests a level of 0.1 mg/l as "a desired goal for the prevention of plant nuisances in streams or other flowing waters" and references a 1973 publication of Kenneth Mackenthun. However, that document does not present information concerning the development of the 0.1 mg/1 "desired goal", but rather makes reference to a 1968 paper published in the Journal of the American Waterworks Association by the same author. The 1968 document indicates that " ... A considered judgment suggests that to prevent biological nuisances, total phosphorus should not exceed 100 ug/1 P at any point within the flowing stream, nor should 50 ug/1 be

exceeded where waters enter a lake, reservoir or other standing water body ..." (Mackenthun, 1968 p 1053). A careful reading of this document suggests that it is referencing streams which are tributary to water supply reservoirs and lakes and standing waters that serve as sources of water supply. This would explain why it was published in what would otherwise be thought to be a publication about water supply, and not water pollution. Moreover, the 1968 document presents no information concerning the development of the recommendation – and so it presents no guidance on how it should be applied – seasonally, monthly, or over the growing season? Based on the lack of such information, it is unclear to us how the Agency decided that this value needed to be applied at 7Q10 flows.

Response to Comment #11: EPA has an obligation under the Clean Water Act to establish permit limits necessary to meet water quality standards and is required to use available information to establish water quality-based effluent limits when issuing a permit for a discharge which is shown to have a reasonable potential to cause or contribute to a violation of water quality standards. *See* 40 CFR § 122.44(d)(1)(i).

The *Gold Book* recommendation regarding in-stream phosphorus concentrations is not limited to sources of water supply and can be used as guidance, along with other relevant sources of information, to establish a protective in-stream numeric water quality target to satisfy the narrative nutrient water quality criterion.

The 1973 paper by Kenneth Mackenthun referenced by the *Gold Book* includes no such restrictions. The commenter does not explain how a "careful reading" of a 1968 publication by the same author supports the suggested restrictions on the recommendations. To the contrary, the 1968 article twice states "total phosphorus concentrations should not exceed 100 ug/l at any point within a flowing stream" with no reference that this recommendation is limited to tributaries to drinking water supplies. Indeed, if Mr. Mackenthun intended such a restriction, he presumably would have explicitly included it in his 1968 or 1973 publications. Regarding application of the recommendations, the *Gold Book* values are expressed as values not to be exceeded at any time and are not seasonal or annual averages.

EPA has elsewhere explained its rationale for applying the 0.1 mg/l phosphorus effluent limit as an average monthly limit that is imposed during the growing season and that assumes a dilution flow equal to the 7Q10.

The literature values cited previously from the Nutrient Technical Guidance Manual are based on seasonal averages and are nominally more stringent than the 0.1 mg/l applied here. With respect to the appropriate averaging periods for the Ecoregion guidance values for rivers and streams, the reference value was developed based on the 25th percentile of all seasons of data. It does not follow, however, that the criteria should necessarily be applied as an annual average if the data do not vary significantly over the course of the year. The data used to calculate the reference conditions is shown in Appendix B of the Ecoregion Guidance Document and is sorted by season. For subregion 59, in which the discharge is located, the 25th percentile (P25) for each season is presented on page 11 of

the Appendix. It shows that the P25 for the seasons range from 20-28 ug/l with a summer value of 25 ug/l.

EPA is not required to wait for development of numeric criteria for phosphorus prior to establishing an effluent limit that will ensure compliance with all applicable standards. EPA must impose limits on pollutants that have a reasonable potential to cause or contribute to violations of water quality standards, including narrative criteria. 40 C.F.R. § 122.44(d)(1)(i). As discussed earlier in this response, EPA reliance on the ecoregional criteria, guidance and other relevant information is expressly contemplated by 40 C.F.R. § 122.44(d)(1)(vi), and EPA believes reliance on such technical materials is reasonable when interpreting a narrative criterion.

Please see *In re City of Attleboro, MA Wastewater Treatment Plant*, NPDES Appeal No. 08-08, 14 E.A.D. __ (EAB, September 15, 2009), which details and upholds the Region's interpretation of the *Gold* Book in connection with the phosphorus limit.

Comments submitted by Jeffrey D. Nutting, Town Administrator for the Town of Franklin, Massachusetts on July 25, 2008.

Comment #12: The Town of Franklin is adamantly opposed to being a co-permittee on the Charles River Pollution Control District's discharge permit #NPDES MA 0102598. The operation of the plant and sewer interceptors are the sole responsibility of the District and the Town of Franklin should not be named in the permit.

Response to Comment #12: See response to comment #2 and response to comment #4.

As a co-permittee, the Town of Franklin, is not expected to take on responsibilities of operation of the treatment plant or the sewer interceptors. The intent of adding co-permittees to the permit is to ensure that the towns' collection systems are adequately operated and maintained, including the removal of infiltration and inflow that cause or contribute to overflows or effluent limit violations at the treatment facility.

Comment #13: We object to any attempt to make the District have any responsibility or oversight, nor do we wish to participate in any activity listed in Section C, Part 3 with the District as part of the permit.

Response to Comment #13: The Final Permit does not place any responsibility or grant oversight responsibilities to the District for the Town's collection system. Under Part 1. Sections B. and C. of the Final Permit, the operation and maintenance of the Town's collection system will continue to be managed by the Town of Franklin. See response to comment #2 and response to comment #4.

Comments submitted by, Town Administrator for the Town of Millis, Massachusetts on July 25, 2008.

Comment #14: The Town of Millis objects to becoming a co-permittee under the permit. None of the affected municipalities signed the permit application and we

did not intend to become permit applicants. The permit undermines municipal authority over its own sewer system and the CRPCD does not have the legal authority to bind Millis to certain requirements as proposed in the permit. Moreover, Millis does not have a seat on the board of the CRPCD so we are mindful of the authority of the district over the town of Millis.

We are concerned that the permit's language limits the CRPCD's authority to determine which entities may be a Member of the district and which may discharge to the district. We are concerned that this may complicate Millis' efforts to become a voting Member of the district.

The permit proposes to regulate the town of Millis' collection system through a sanitary sewer overflow rule regardless of whether overflows reach waters of the United States. The proposed addition of our collection system to the permit circumvents procedural rulemaking requirements that regulation not be rewritten through policy.

The CRPCD accepts sludge and septage and generates revenue from other towns that are not listed as co-permittees. Millis is concerned that the CRPCD's inability to accept wastewater and sludge or septage from non-member communities will have a financial impact on its capital and operational assessment.

The Town of Millis is concerned with the added responsibilities and costs that sections 1.B. and 1.C. of the Draft Permit impart upon the town. In particular, the language of paragraph 1.B.1-4, Operation and Maintenance of the Sewer System, are sufficiently vague such that the Town cannot understand what it is required to do or is responsible for. Further, the identification and prioritization of areas that will provide increased aquifer recharge through Infiltration and Inflow elimination is beyond the scope of identifying and removing Infiltration and Inflow which affects the operation of the CRPCD plant or eliminates overflows into the river.

Response to Comment #14: Please see response to comment #2 and response to comment #4, for a more detailed discussion of the co-permittee issues raised by the Town as well as the revised draft permit Fact Sheet and response to comments on this issue.

Please see response to comment #19 with respect to the commenter's concern regarding CRPCD's purported inability to accept wastewater or sludge. The inclusion of co-permittee provisions does not impact the ability of the District to accept sludge or septage. The commenter does not explain why it believes this to be the case.

With respect to membership in the District, EPA fails to see (and the Town does not specifically explain) how the addition of the community as a co-permittee will impact or is relevant to this decision, and cannot provide a meaningful response based on the information provided by the commenter. To the extent that EPA has used the term member community rather than satellite community, EPA would like to clarify that it has in the past used these terms interchangeably and generically (as well as in the future), and does not invest them with any particular regulatory import.

EPA disagrees that the conditions referred to above are vague and, in any event, the comment does not explain why this is so, making it difficult for the Region to respond. Federal regulations require each NPDES permittee to "at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee" to comply with permit limits (40 C.F.R. § 122.41(e)) (Conditions applicable to all permits; Proper operation and maintenance). Based on the provisions in statute and regulation, EPA has authority to require proper operation and maintenance of collection systems in order to achieve compliance with the NPDES permit, and has fashioned a set of permit conditions to carry out this aim. See CWA § 402(a)(2); CWA § 301(b)(1)(C); 40 C.F.R. §§ 122.4, .43. This is a standard condition contained in NPDES regulations and required by law to be included in all permits. Since the District does not own or operate sections of the collection system that conveys flow to the treatment works, it is appropriate to apply these conditions to the owners/operators of those systems as co-permittees. The permit clearly prescribes conduct on the part of the co-permittee and a standard for evaluating the successful completion of the conduct. The condition is sufficiently clear to apprise persons managing the collection systems of required conduct, and accordingly does not encourage arbitrary or discriminatory enforcement by the Agency.

The permit outlines the minimum requirements for an I/I Control Plan and provides guidance for prioritizing sources. The plan must be adequate to prevent overflows from the collection system owned and operated by the permittee or co-permittee and also adequate to prevent flow-related violations at the POTW Treatment Plant. EPA recommends that the permittees also consult the MassDEP guidance document, - Guidelines for Performing Infiltration/Inflow Analyses and Sewer System Evaluation Survey, January 1993, which can be found at http://www.mass.gov/eea/docs/dep/water/laws/iiguidln.pdf; the New England Interstate Water Pollution Control Commission publication, Optimizing Operation, Maintenance, and Rehabilitation of Sanitary Sewer Collection Systems, December 2003, which can be found at http://www.mass.gov/eea/docs/dep/water/laws/omrguide.pdf and the EPA document, Guide for Evaluating Capacity, Management, Operation and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems, which can be found at http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf. The Agencies believe that this flexible approach, which is less prescriptive than the commenter would prefer, is reasonable, because it will allow the co-permittee to adapt based on local conditions and because the co-permittee is better positioned to determine how to deploy resources to address I/I problems efficiently based on their knowledge of collection systems. It is worth noting that prioritizing areas of the sewer system to eliminate I/I which may contribute to aquifer recharge is a beneficial practice and may reduce extraneous flow; however, it is not a requirement in the Final Permit.

Comment received by Nigel Pickering, Senior Engineer, Charles River Watershed Association, July 31, 2008.

Comment #15: We focus on the total phosphorus (TP) limits since this the most significant change in the draft permit and the limit of most concern to us. The current permit has 0.2/none while the proposed permit 0.12/1.0 mg/L for summer/winter TP limits.

Phosphorus is a real threat to the health and beauty of the Charles River. Although CRWA has worked hard to improve water quality in the Charles River through monitoring and advocacy, the most persistent water quality problems that remain are associated with excessive nutrients, especially phosphorus.

Excessive phosphorus exacerbates the growth of aquatic plant species. Phytoplankton, benthic algae, and macrophytes proliferate, especially in slow-flowing waters like ponds or impoundments. The Charles River has 20 impoundments along its length and many are impacted by excessive aquatic plant growth. Removal of these weeds from the Charles has cost the state hundreds of thousands of dollars since 1995. When the plants die, they decay and deposit particulate phosphorus on the river bottom, creating an additional long-term and difficult-to-remove benthic source of phosphorus.

Although both nonpoint and point sources contribute to the phosphorus loads to the river, the phosphorus load from wastewater treatment plants (WWTFs) have a particularly negative effect because the phosphorus is primarily in the form of orthophosphate, the impact is worst in the dry summer periods when river flows are low and aquatic growth is accelerated, and the point discharge impact on local water bodies are extreme.

Much of the Upper Charles River is classified as a 303(d) “impaired water body” under the Federal Clean Water Act, with excessive nutrients designated as the pollutant. In 2007, a nutrient TMDL for the Lower Charles Basin was issued. CRWA is assisting in developing a nutrient TMDL for the Upper/Middle Charles, which will be completed in late 2008. This Upper/Middle TMDL must respect the phosphorus load specified in the Lower Basin TMDL for the Watertown Dam of 15,000 kg/yr.

The Upper/Middle Charles TMDL (CRWA, 2004; 2006) monitored the river reaches upstream and downstream of the CRPCD outfall (sites 201S and 207S) and also surveyed Populatic Pond, just upstream of the CRPCD outfall. Under low flow conditions, an algae gradient was observed from the outfall upstream into the pond, indicating some backflow or diffusion back into the pond.

Total phosphorus (TP) measurements during dry weather above and below the CRPCD outfall were about 0.06 to 0.07 mg/L. EPA’s “Quality Criteria for Water” or “Gold Book” (1986) suggests that total phosphorus to limit aquatic growth should be less than 0.10 mg/L in flowing reaches, less than 0.05 mg/L entering a impoundment/pond, and less than 0.025 mg/L leaving an impoundment/pond. Both Populatic Pond and its downstream reach are impounded until the river reaches the vertical constriction point below Myrtle Street, therefore the levels 0.025/0.05 mg/L are applicable. EPA’s

"Ambient Water Quality Criteria Recommendations for Rivers and Streams in Nutrient Ecoregion XIV" has a stricter instream total phosphorus criteria of 0.02375 mg/L for our ecoregion (XIV, 59). The TP measurements exceed both these criteria.

Chlorophyll *a* measurements during dry weather above and below the CRPCD outfall were about 20 to 40 µg/L, some of the highest values measured in the Upper Charles River during the TMDL monitoring period. The instream chlorophyll *a* criterion for our ecoregion is 3.75 mg/L, far below these measurements. At concentrations above 10 µg/L phytoplankton algae become visible and may impede light penetration and water clarity.

Populatic Pond was also surveyed for water depth, sediment depth, aquatic plant coverage, and sediment nutrient release. The pond has an average water depth of 5.7 ft and a significant sediment depth of 5.4 ft, the thickest sediments of all the Upper Charles impoundments. Predominant plant species were submerged and floating algae along with some yellow water lilies. Most of the plant species are concentrated in the north end of the pond near the pond outlet and the CRPCD outfall. Although the plant biovolume is only 2.2%, it has the highest concentration of algae of any pond, causing the oxygen concentrations to supersaturate during the day and fluctuate diurnally by about 4 mg/L, the highest in the river. In addition, the river reach downstream of the CRPCD outlet (207S) also had similar but lower levels of algae and had slightly less DO fluctuation, about 3 mg/L. In this downstream reach, one DO measurement near the river bottom was almost zero (1.0 mg/L). The inorganic phosphorus release rate from Populatic Pond and its downstream reach was 1.8 mg/m^2/day, about average compared to other Upper Charles ponds.

Populatic Pond and its downstream reach are considered critical reaches in the Upper/Middle TMDL. These reaches have suffered from years of nutrient overloading from the CRPCD outfall and upstream stormwater. Recent results from scenarios in the Upper/Middle Charles TMDL indicate that it will be very difficult to meet the Lower TMDL load at the Watertown Dam of 15,000 kg/yr unless all WWTF discharge limits for phosphorus are set at 0.1 /0.5 mg/L for summer/winter. The Upper Charles nutrient TMDL has not been finalized, and there is still some uncertainty about the local benefits from low winter TP levels; however, this is not the case for the summer TP level.

CRWA strongly recommends that the TP limits for summer/winter be set at 0.1/1.0 mg/L to help alleviate the issues of chlorophyll a, benthic algae, and DO supersaturation.

Given that the Upper/Middle TMDL should be finalized late this year, it does not make sense to issue a permit to CRPCD that could conflict with loadings in the TMDL and its implementation. Because this permit is being issued very close in time to the Upper/Middle TMDL, the permit should contain a strong reopener provision that explicitly provides for revision based on the TMDL in addition to other circumstances.

The residents along Populatic Pond and its downstream reaches have lived for many years with an unswimmable river that fails to meet water quality standards, and impedes

recreation and enjoyment of the water body. Imposing tighter phosphorus discharge limits for CRPCD will be one step towards cleaning it up.

According to the EPA's public reporting site (ECHO), CRPCD has been in violation of the current 0.2 mg/L summer TP limit about 50% of the time in 2006 and 2007. We trust that EPA will work closely with CRPCD to ensure that the new tighter TP limits be consistently met in the future.

Response to Comment #15: EPA has reopened the permit to account for the approved final Upper Charles TMDL, in addition to the Region's co-permittee analysis. The comment generally supports the Draft Permit and does not request any changes except for the TMDL-based reopener provision.

Comment received from Suzanne Kennedy, Town Administrator, Town of Medway on August 11, 2008.

Comment #16: The Town of Medway is not a co-permittee under this permit. The Town did not sign the permit application. Furthermore, through legislation that created the District, the Town does not own or operate the facility and has no legal jurisdiction over plant discharges.

Response to Comment #16: See response to comment #2, response to comment #4 and, the Fact Sheet for the revised Draft Permit.

Comment #17: The permit attempts to place restrictions on the operation of the Town's sewer system with enforcement by the District. The District does not own or operate the Town's sewer collection system and has no legal jurisdiction in this area. The permit, therefore, illegally grants the District authority over the Town's sewer system.

Response to Comment #17: See response to comment #2 and response to comment #4.

Comment #18: The permit proposes to regulate the Town's collection system through sanitary sewer overflow rule regardless of whether overflows reach waters of the United States. This action would circumvent procedural rulemaking requirements that regulation not be rewritten through policy.

Response to Comment #18: The permit requires a co-permittee to properly operate and maintain its collection system and to properly manage the infiltration/inflow component of its discharge into the treatment works. This permit is not regulating the co-permittee through a "sanitary sewer overflow rule" and the requisite rulemaking requirements do not apply. Sanitary sewer overflows are unpermitted discharges and are not authorized under this permit (although sanitary sewer overflows flows may be indicative of poor O&M of the collection system). The State of Massachusetts requires the reporting of sanitary sewer overflows on their form (Sanitary Sewer Overflow (SSO)/Bypass Notification Form). The permit does not circumvent rulemaking requirements. Please see Fact Sheet for the revised Draft Permit and responses to comments on the Revised Draft Permit.

Comment #19: The District accepts waste streams from communities not listed on the permit. Such communities should have to also be listed as co-permittees or the District will need to revise policy and stop accepting such streams from these communities. This would have a negative financial impact on the operation of the plant, as well as non-members communities it serves.

Response to Comment #19: The District receives wastewater from Franklin, Medway, Millis, Bellingham, Norfolk, Dover, Sherborn, and Wrentham. Franklin, Millis, Medway and Bellingham each has a separate collection system that transport wastewater to the treatment facility. Norfolk, Dover, Sherborn and Wrentham do not have collection systems that are part of the POTW. These Towns send septage from septic systems, which is transported by truck to the CRPCD facility. These communities are not part of the POTW within the definition in 40 CFR § 403.3(q) and have not been included as co-permittees. There is nothing in the permit that would prohibit CRPCD from accepting wastewater from these communities, provided appropriate pretreatment requirements are met and effluent limitations are achieved.

Comment #20: As noted above, sections 1.B and 1.C of the draft permit should be deleted. As noted section 1.B, "Discharges of wastewater from any other point sources….are not authorized by this permit." These issues, although important, should be addressed directly with the individual municipalities who own and operate their respective sanitary sewer systems. Language added in the draft permit to address these issues is too broad and vague to be actionable.

Response to Comment #20: It is unclear why this condition should be removed based on the rationale provided by the commenter. The CRPCD permit, with its co-permittee structure, allows EPA to address issues relating to the operation of the entire POTW (satellite collection systems included) in a comprehensive and administratively efficient manner. SSOs, which are not authorized discharges in any event, are a component of this issue, especially to the extent they are potential indicators of poor collection system performance. From the perspective of improving overall water quality and addressing these environmentally significant discharges, EPA perceives no drawback in underscoring what is and is not authorized to be discharges under the permit and to incorporate reporting mechanisms for authorized discharges so that they might be addressed in an effective manner. See response to comments #2, response to comment #4 and, response to comment #18.

Comment #21: The requirement that the Town identifies and prioritizes areas that will provide increased aquifer recharge through infiltration and inflow elimination is beyond the fundamental scope of the permit. Only those areas directly affecting operation of the CRPCD plant could even be considered under the permit.

Response to Comment #21: See response to comment #14.

Comment #22: The Town of Medway agrees with the district's position regarding the reduction of the phosphorus limit of 0.2 mg/L to 0.12 mg/L. The District does not feel the reduction is justified and the EPA does not have the authority to reduce it in this manner. Without justification based on documented evidence of improving water quality to the Charles River, the Town does not wish to burden its residents with the additional cost associated with treatment to attain these levels.

Response to Comment #22: See response to comment #1.

RESPONSE TO COMMENTS ON 2012 PARTIALLY REVISED DRAFT NPDES PERMIT

Comments submitted by Cheri Cousens, P.E., Executive Director, Charles River Pollution Control District (CRPCD), Medway, Massachusetts on September 27, 2012.

Comment #23: Co-Permittees

We understand that the Towns of Bellingham, Franklin, Medway and Millis (the "Towns") have submitted separate comments regarding being added as co-permittees to the Draft Permit. We have had an opportunity to review the comments submitted by Robert D. Cox, Jr. of Bowditch & Dewey, LLP on behalf of the Towns, and we agree with and endorse the position of the Towns that this is an impermissible expansion of EPA's jurisdiction. As you are aware, representatives of the Towns comprise the Board of the District, and the Towns are well aware of the importance of maintaining strong operational controls both within the various elements of the collection system and the District treatment works, to maintain cost-effective compliance with our regulatory obligations. Our cooperative relationship assures that the Towns are responsive to the District's responsibilities, including those which the EPA seeks to regulate under sections I.B and I.C of the Draft Permit.

In addition, we would note that the District believes the Towns are implementing all reasonable controls to address and reduce infiltration and inflow ("I/I") into the collection system, and have been active partners in our efforts to maintain compliance with the District's operating requirements. Please see Appendix 1 prepared by the District's consultants, CDM Smith, which describes many of the positive steps taken by the Towns, in cooperation with the District, to reduce I/I, prohibit unauthorized discharges, and develop and maintain the GIS data base covering the entire collection system.

Response to Comment #23: EPA commends the District and Towns for their cooperative management of the treatment works to reduce I/I and unauthorized discharges from the collection system. However, the cooperative management approach that currently exists between the Towns and the District has been insufficient to ensure that the treatment works is being properly maintained in order to assure compliance with the Act. Moreover, the existence of such a voluntary arrangement to address collection systems O&M does not preclude the inclusion of the Towns as co-permittees on the Final Permit. EPA refers the commenter to the response to comments submitted by Bowditch & Dewey, LLP (Nos. 34-50 below), for a more detailed discussion of the Region's co-permittee approach and the rationales underlying it.

EPA supports the steps noted in Appendix 1 of the comment regarding I/I, but generally disagrees with the District's assessment regarding the adequacy of implementation efforts. EPA also notes that there was a requirement in 2001 for the District to address I/I in member communities, although system mapping efforts were not initiated until very recently. See MassDEP Bureau of Resource Protection, Interim Infiltration and Inflow

Policy, September 6, 2001. Additionally, Appendix 1 indicates that although a significant amount of I/I work associated with monitoring and planning, relatively little remediation has occurred. Where information is presented on the quantity of I/I removed from individual projects, the amount represents a very small portion of the total I/I in the system. The I/I report submitted by the District on February 24, 2014 states, "the CRCPD I/I flow increased from 2012 to 2013 by approximately 63 million gallons." EPA acknowledges that the Towns have initiated work to control and eliminate I/I; however, EPA has concluded that additional, enforceable requirements are warranted given the high flow issues that continue to be a problem system wide.

Comment #24: I/I and Flow Violations

In the memorandum attached hereto as Appendix 2, which was prepared by the District's consultants, CDM Smith, the District responds to EPA's assertions regarding I/I and the past violations by the District. First, our analysis suggests that the EPA's analysis of the District and the South Essex Sewerage District ("SESD") in the Draft Permit is flawed because EPA improperly characterizes I/I in the two systems as excessive. In addition, the EPA improperly suggests that the District and SESD's NPDES permit violations are related to excessive I/I. With respect to the District, our analysis suggests that I/I is not responsible for prior permit violations or sanitary sewer overflows. Finally, our analysis suggests that there is no support for EPA's conclusion that there is a trend of increasing daily flow over time in the District and SESD facilities or for EPA's further interpretation that this means that I/I have not been reduced in the systems.

Response to Comment #24: EPA disagrees with the arguments in the comment and supporting Appendix 2 document regarding EPA's analysis of I/I and past violations by the District. The claim that "EPA improperly characterizes I/I in the two systems as excessive" mischaracterizes EPA's analysis. EPA did not simply use the identified thresholds for "nonexcessive" infiltration and inflow as if they were synonymous with "excessive" I/I as suggested in the Appendix. Rather, as demonstrated in EPA's analysis the District experiences levels of inflow and infiltration on a system-wide basis that are "far exceeding" the relevant thresholds, and therefore are properly considered indicative of "these facilities…receiving high levels of inflow and wet weather infiltration." While a thorough analysis of the extent of excessive I/I and the locations within the various systems where excessive I/I occurs would of course require extensive analysis, as noted in Appendix 2 this is an expensive, time-consuming and complex process. EPA disagrees with the commenter's suggestion that anything short of such detailed analysis is insufficient to justify the operation and maintenance requirements in the Draft Permit that EPA has included to assure compliance with the Act.

Furthermore, the site-specific information provided by the District does not contradict EPA's analysis. The overview in Appendix 1 describes planned activities the District and Towns have scheduled to reduce I/I and maintain the collection system. All but one of the member communities have apparently determined that there is significant inflow and infiltration in their systems based on the I/I projects noted in Appendix 1.

In addition, EPA disagrees that the information in Appendix 2 contradicts EPA's conclusion that there likely have been I/I related permit violations. The facts as set forth in Appendix 2 clearly indicate that the noted permit violations are related to high flow and thus I/I and, additionally, that the impact of high flows was exacerbated by operational decisions made by the District.[12] EPA did not speculate on the causes of SSOs in the CRPCD system. As noted in EPA's discussion of the technical basis for operation and maintenance requirements, excessive I/I is a major, but not the only, concern relative to satellite system function and performance. As EPA stated, "Sanitary sewer systems can also overflow during periods of normal dry weather flows. Many sewer system failures are attributable to natural aging processes or poor operation and maintenance." "*EPA Region 1 NPDES Permitting Approach for Publicly Owned Treatment Works That Include Municipal Satellite Sewage Collection Systems*" ("Analysis") at 4. The failure described in the comment, while not I/I related, are related to operation and maintenance of the system.

Finally, EPA disagrees with the commenter's characterization of EPA's interpretation of data and its conclusions regarding flow trends. Despite the suggestion in the comment, EPA did not suggest that there had been increases in flow, even given the small positive trend of the regression line. Rather, recognizing the low significant (r-squared) of the regression, EPA simply concluded that the data indicate that I/I had not been reduced in either system. EPA does agree that a basic trend analysis is simplistic in the context of maximum flow, where any time dependence is likely to be far outweighed by precipitation variation. However, the solution suggested in the Comment Appendix 2 - stopping the regression in a dry year (2009) and excluding the recent wet year (2010) – is not a valid resolution to this issue. Instead, an appropriate approach to investigate long-term trends where there is substantial short term variation is to use an averaging approach – charting longer term rolling averages of the relevant variable.

To address the concern raised in the Appendix regarding the influence of the high rainfall in 2010 on the regression results, Figures A and B show the trends of one year rolling averages of monthly maximum flow for CRCPD and SESD, extended through 2012 so as to eliminate any residual impact from the high 2010 flows (or from the 2009 low flows that unduly influence CDM's proposed regression line). As in EPA's original analysis, the linear regression indicates a weak trend over this period of increasing maximum daily flow; while most of the variability from year to year is due to changes in precipitation, the trends are generally inconsistent with reductions in maximum flow over this time period and this indicates that I/I has not been reduced in either system.

Figure A. CRPCD Daily Maximum Flow Trends - One Year Rolling Average of Daily Maximum Flows

[12] Regarding SESD, EPA agrees that the failure to meet the 85% removal standard was not a permit violation under SESD's current permit; however, EPA believes that failure of the SESD facility to meet technology based minimum standards of 85% removal from secondary treatment is indicative of the high impact of I/I on treatment performance that warrants permit conditions aimed at reducing I/I.

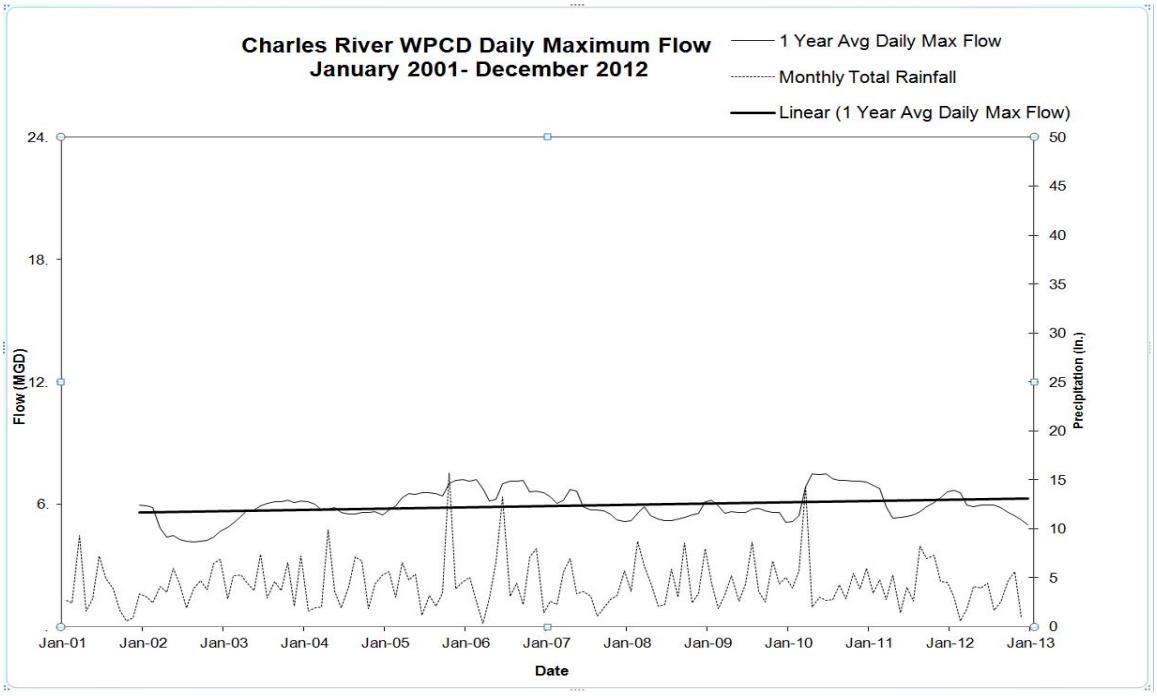
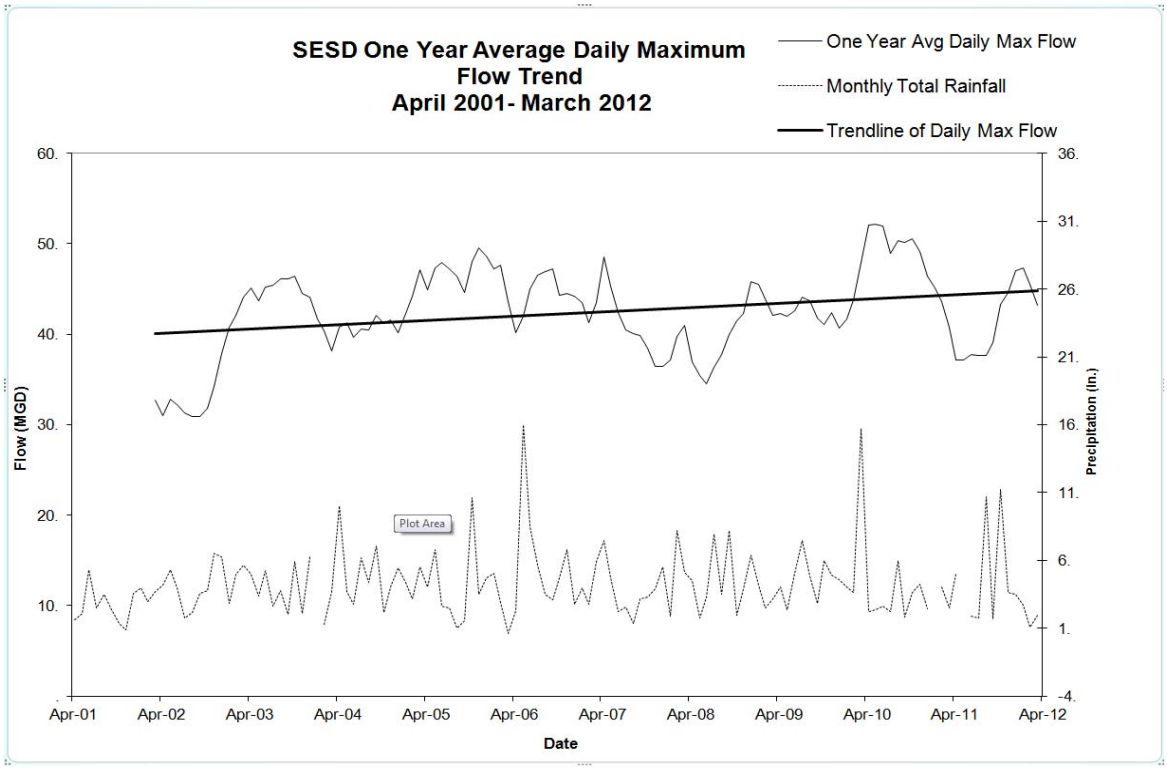


Figure B. SESD Daily Maximum Flow Trends - One Year Rolling Average of Daily Maximum Flows



Comment #25: Phosphorus Trading and Credits in the Charles River Basin

The Upper Charles River TMDL estimates that approximately 43,200 kilograms/year of phosphorus are discharged into the Upper Charles basin, of which 22% comes from municipal treatment plants, and the remaining 78 % from stormwater discharges, overland flow, atmospheric deposition and other diffuse sources. The TMDL estimates that in order to meet water quality objectives in the Upper Charles River, the phosphorus loads need to be reduced by about 52%, to 20,593 kg/yr. The Draft Permit requires the District (and other publicly owned treatment works ("POTWs") to remove proportionately more phosphorus than other sources such as stormwater, by imposing limits of 0.3 mg/l in the winter and 0.1 mg/l in the summer, which is expected to yield a reduction in the District's phosphorus discharge of 65.3% While these limits may be achievable from a technical standpoint, there is little doubt that the load allocation excessively burdens the District's members with the responsibility of reducing nutrients discharged in other communities in the basin outside the District.

A trading or credit program could rectify this, where the District or its constituent members would receive a credit for the difference between the 0.1 mg/l summer limit for phosphorus and the 0.3 mg/l for the winter months set forth in the Draft Permit and the limits that would be necessary to meet the overall 52 % reduction imposed by the Upper and Lower Charles TMDL's. In addition, the District or its members should receive a credit to the extent it reduces phosphorus below the load limits contained in the Draft Permit. Each of these credits could be applied by the member Towns against the obligations that may be imposed in any stormwater regulatory program intended to remove phosphorus under the Upper Charles TMDLs. The District recognizes that the details of such a program cannot be developed solely in the context of the District's pending Draft Permit. However, the District requests that EPA and MassDEP advance the credit and trading system within the next year, and include language in the Permit to accommodate the transfer of "excess" phosphorus reductions to our member Towns.

Response to Comment #25: The Upper Charles River TMDL provides an analysis and planning framework intended to restore and maintain water quality in all reaches of the upper and middle Charles River and achieve the total phosphorus load at the Watertown Dam designated in the Lower Charles River TMDL. Both objectives are contingent upon the treatment plants achieving the summer and winter limits designated in the Upper Charles River TMDL. This is important during the warm weather months when instream flow is low and particulate forms of phosphorus from non-point sources are also low. The phosphorus discharged from the POTWs during the summer and fall months are more bioavailable for plant and bacteria uptake. The total phosphorus winter limits are necessary to achieve the loading requirement established in the Lower Charles River TMDL. EPA does not agree with the District's assertion that their limits, which were consistent with the available WLA for the discharge, are somehow excessively burdensome relative to other communities. In addition to being consistent with the TMDL, the effluent limits in the Final Permit, 0.10 mg/l, were based on achieving the *Gold Book* guideline of 0.10 mg/l during low flow conditions in the summer and early autumn months, and were required under section 301(b)(1)(C) of the Act to assure

compliance with applicable water quality standards in the receiving waters.[13] The limits were not in other words excessive but necessary under the Act, and EPA accordingly rejects the premise that the District has "credits" to trade resulting from overly restrictive permit limits. With respect to water quality trading in general, EPA concurs with MassDEP's position as stated on page 153 of the TMDL:

> "Point and non-point source trades are not a 1 to 1 proposition as the impact from the point sources is greater than the non-point sources during the summer months when instream flows and runoff are low. The TMDL, however, does not exclude the potential for future trading options or focus on the most cost effective solutions for achieving water quality improvements in the watershed, but since no program or structure is in place today, the TMDL established reductions are based on what was considered to be technologically achievable and still meet water quality standards. Regardless of the approach chosen communities still need to move forward with developing a decision matrix for selection and implementing watershed improvements. Reductions at point sources, as well as non-point sources, need to move forward concurrently and therefore there would be no need to delay approval or implementation of the TMDL. Development and implementation of a trading program, although possible, would take considerable time and effort possibly delaying implementation of the TMDL."

In addition to reducing total phosphorus from the POTWs to meet the low flow in-stream phosphorus target, substantial reduction in phosphorus from stormwater sources are needed to address eutrophication issues in the lower Charles River and in impoundments throughout the watershed. As an example, for a town that needs to reduce its annual stormwater phosphorus load by approximately 57% implementing a trade between stormwater and wastewater would mean that a town would need to reduce their phosphorus load by more than 57%. Offsetting the POTW load with stormwater reductions would further delay the POTW reductions particularly when the reductions from stormwater have very little to do with achieving the in-stream total phosphorus target used in developing the wasteload allocations for the POTWs. Finally, the 52% reduction is also needed to meet the chlorophyll a target in the lower Charles River and to reduce seasonal chlorophyll a levels in the numerous eutrophic impoundments along the mainstem of the Charles River.

For all these reasons, EPA has determined that including language in the Permit to accommodate the transfer of "excess" phosphorus reductions to member Towns would not be justified as EPA disagrees with the premise that the limit is overly stringent; given the status of trading program development, or lack thereof, it would also be premature.

Comment #26: Phosphorus Significant Figures - Page 3 of 15 of the Draft Permit: The current phosphorus limit contains two significant digits. The existing permit had one significant digit for the phosphorus permit limit (0.2 mg/L) and the District would like the new limits to also have one significant digit (0.1 and 0.3 mg/L)

[13] Actual flow data from 1998 -2002 was used in the HSPF model for the river.

Response to Comment #26: The total phosphorus limits in the Final Permit are 0.10 mg/l (100 ug/l) for the months of April through October and 0.30 mg/l (300 ug/l) from November through March for demonstrating compliance with the Permit; the zero at the end of each number is significant. The Agencies did not intend for the total phosphorus concentration in the effluent to exceed these limits as these limits are consistent with the Upper Charles River TMDL.

When the current permit was issued as discussed in the Fact Sheet for that permit, the phosphorus limit was based on the State's highest and best practical treatment provision which is technology based. See response to comments # 3A and # 3B.

A total phosphorus monthly average concentration of 0.24 mg/l, could be reported on the DMR as 0.2 mg/l and be considered to meet the permit limit. The total phosphorus limits in the Final Permit are set to two significant digits to eliminate any misperception that a monthly average limit of 0.14 mg/l that is recorded on the DMR as 0.1 mg/l is achieving the permit limit. Additionally, use of two significant digits is prudent from the standpoint of restoring water quality; in light of the impaired condition of the water body, EPA believes it is reasonable to opt for an approach that reduces rather than increases the amount of phosphorus loading into the receiving water. This decision is, furthermore, consistent with the Region's conservative approach to permitting nutrient discharges, which is explicated more fully above The permittee should therefore report total phosphorus on the monthly DMR to 2 significant decimal places.

Comment #27: Aquatic Toxicity - Page 5 of 15 of the Draft Permit: Part I.A.1. (footnote 8) states that "if the results of any acute or chronic tests fail to comply with the LC_{50} and Chronic NOEC limits, the permittee must perform an additional test on an effluent sample obtained within fourteen days of the date on which the failed test sample was collected." The District typically does not receive the results of the testing within 14 days and thus cannot resample within that time period if one or more of the tests result in a noncompliance. The District requests that the Draft Permit state that the District has 14 days after receiving the laboratory results to perform the retest.

Response to Comment #27: The District had an opportunity to make this comment during the original public comment period in July 2008, but did not. EPA and MassDEP partially reopened the Draft Permit for public comment on August 29, 2012 only with respect to certain limited conditions. See the Fact Sheet for the partially revised Draft Permit for the specific conditions that caused the Draft Permit to be reopened and in accordance with 40 C.F.R. § 124.14(c), comments during the reopened comment period were limited to "substantial new questions that caused its reopening" only. This comment is beyond the scope of comments EPA requested during the public comment period.

Comment #28: Toxic Controls – Page 7 of 15 of the Draft Permit: Part I.A.4.b states that "the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated." The District requests the elimination of the phrase "may be promulgated" because the District does not believe that it should be held to those standards that are not yet in effect. The

District does agree with the next sentence that "upon promulgation of any such standard, this permit may be revised or amended…"

Response to Comment #28: See response to comment #27.

Comment #29: Streamlining Changes - Page 11 of 15 of the Draft Permit. Part I. F.6 requires the District to submit all required modifications to the Streamlining Rule. The District has already made these changes, submitted them to the EPA, and adopted them in September of 2010. The District would like this paragraph and the requirements removed from the Draft Permit.

Response to Comment #29: The Streamlining Rule pertains to requirements for the Pretreatment Program and are beyond the scope of comments being addressed for this public comment period.

Comment #30: NetDMR - Page 13 of 15 of the Draft Permit. Part I.I.1.a requires the District, within one year of the effective date of the Draft Permit, to submit the DMR reports electronically to the EPA. The District already reports the DMRs electronically to the EPA and would like the paragraph to be eliminated from the Draft Permit.

Response to Comment #30: See response to comment # 27.

Comment #31: Legend in Figure 2 – Attachment 1 Exhibit B.II. Figure 2: The legend should read nonexcessive I/I flow instead of nonexcessive infiltration flow.

Response to Comment #31: EPA is exercising its discretion to consider this non-substantive comment. The legend to Figure 2 has been changed to read nonexcessive I/I flow to correct this typographical error.

Comment #32: Disinfection Upgrade Time Period - Attachment 3, Page 1: The off-season for disinfection is December – February, not November – April. This should be changed to reflect the actual off-season period.

Response to Comment #32: EPA is exercising its discretion to consider this non-substantive comment. EPA does not change language in a fact sheet however, the correction is noted here for the administrative record.

Comment #33: Phosphorus Interim Limits in Fact Sheet – Partially Revised Fact Sheet Page 4 of 8: The fact sheet incorrectly states that "these are the total phosphorus limits in the existing permits." The District would like to correct this to say that the existing winter limit is report only.

Response to Comment #33: The fact sheet briefly sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the partially revised Draft Permit and is not changed once it is issued. The fact sheet incorrectly states that the total phosphorus limit in the existing permit is 1.0 mg/l. The

existing permit as noted by the commenter is a "report only" requirement. The correction is noted for the record.

Comments submitted on behalf of the Towns of Bellingham, Franklin, Medway and Millis from Robert D. Cox, Jr. Bowditch & Dewey, on September 27, 2012.

Comment #34: Satellite Collection Systems are not "Point Sources"

Missing from EPA's Analysis is any acknowledgement of or reference to the operative terms of the CWA that trigger NPDES permitting: "discharge of any pollutant by any person" from a point source. CWA § 301(a). It is the act of discharging a pollutant from a point source that gives rise to NPDES permitting. The ownership of a collection system, as part of a greater POTW, does not require a NPDES permit under the CWA. The Towns' collection systems have no point source. Nor do the Towns own, operate or control any point source. Instead, the Towns send waste water to a separately owned treatment plant for treatment and discharge at a point source. CRPCD, not any Town, is a person who discharges from a point source. Consequently, the reach of EPA's authority to regulate "dischargers" is limited to CRPCD.

Response to Comment #34: The Towns' objection relies on an overly narrow interpretation of "point source" that would restrict Region 1's permitting authority only to Outfall 001. However, a point source is "*any* discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit..." 40 C.F.R § 122.2. "The definition of a point source is to be broadly interpreted." *See Dague v. City of Burlington*, 935 F.2d 1343, 1354 (2d. Cir. 1991) (*rev'd on other grounds, see City of Burlington v. Dague*, 505 U.S. 557 (1992)). The pipes and other conveyances comprising the satellite collection systems operated by the Towns fall within this broad definition of point source,[14] and the satellite collection systems that comprise a portion of the POTW discharge pollutants into the waters of the United States.[15] Under EPA's regulations, a POTW "means a treatment works as defined by section 212 of the Act, which is owned by a State or municipality (as defined by section 502(4) of the Act)." 40 C.F.R. § 403.3(q).

The Towns may be subjected to NPDES permitting requirements because they operate portions of the POTW that discharge to U.S. waters. Section 212(2)(A) of the Act defines treatment works to mean, *inter alia*, "intercepting sewers, outfall sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances." POTW also "includes *any* devices and systems used in the *storage*, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW

[14] *See* 40 C.F.R. § 403.3(q) ("POTW . . . includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant[.]").
[15] *United States v. City of Monominee*, 727 F. Supp. 1110, 1114 (W.D. Mich. 1989) ("The CWA recognizes two classes of direct dischargers: publicly owned treatment works (POTW), and point sources other than POTW's").

Treatment Plant." 40 C.F.R. § 403.3(q) (emphasis added). Courts have upheld this broad interpretation of POTW:

> Section 1292 . . . gives a broad definition to the term 'treatment works' to include various appurtenances to a municipal sewage treatment plant . . . the EPA has defined the term 'publicly-owned treatment works' consistently with the statute. Specifically, the term 'means a treatment works as defined by section 212 of the Act, which is owned by a state or municipality. . . .' That definition goes on to provide that the term 'includes sewers, pipes and other conveyances only if they convey waste water to a POTW treatment plant,' . . . . Here, for example, the City of Burlington's sewer is included in the definition because it conveys waste water to the Massachusetts Water Resource Authority's treatment works.

United States v. Borowski, 977 F.2d 27, 30 n.5 (Oct. 7, 1992). The fact that the pollutants discharged pass through further portions of the POTW operated by others is immaterial to the status of the satellite collection facilities as point sources. *See Id.* at 1354-55; *infra* Response #35; Analysis at 11. Dischargers do not need to own, operate or control the actual discharge point (outfall) to be subject to Clean Water Act jurisdiction. EPA has authority to require permits even when the discharge goes through a conveyance owned or operated by another discharger. *See, e.g.,* 40 C.F.R. § 122.44(m) (contributors to privately owned treatment works) and 122.26(a)(4)–(6)(stormwater associated with industrial activity that is discharged through a municipal or non-municipal separate storm sewers). Therefore, the Towns may be regulated as co-permittees because the satellite collection facilities constitute point sources that discharge pollutants under the CWA.[16]

Comment #35: Satellite Collection Systems do not "Discharge"
The CWA at Section 301(a) provides that "except in compliance [with a NPDES Permit] the discharge of any pollutant by any person shall be unlawful." The term "discharge of a pollutant" means "any addition of any pollutant to navigable waters from any point source." CWA § 502(12). The CWA authorizes EPA to "issue a permit for the discharge of any pollutant." CWA § 402(a)(1). Thus, under the CWA it is only those persons who discharge a pollutant from any point source to navigable waters who are subject to NPDES permitting requirements. CWA § 502(14) (defining point source as "any discernable, confined and discreet conveyance . . . from which pollutants are . . . discharged").

EPA incorrectly states that the "NPDES regulations . . . identify the 'POTW' as *the entity subject to regulation*," citing to 40 CFR § 122.21(a). Analysis, p. 8. The "entity" subject

[16] This has been EPA's consistent position, applied in contexts other than co-permitting, *see, e.g., EPA 2008 Construction General Permit*, and is essential to the effectiveness of the Clean Water Act. If dischargers were able to sidestep the requirements of the CWA by virtue of, for instance, transferring ownership of the outfall to another entity, the CWA would be rendered ineffective. Indeed under the argument presented in the comment, it does not matter whether the co-permitted town's sewage even receives treatment – they would be outside CWA jurisdiction so long as they do not own the last section of pipe where the raw sewage entered the water body.

to regulation is the "*person* who discharges or proposes to discharge." 40 CFR §122.21(a)(1). Such persons are required to make application for a permit and "[a]pplicants for new or existing POTWs must submit information required" by 40 CFR §122.21(j), using Form 2A. 40 CFR §122.21(a)(2)(B).

While the definition of "discharge of a pollutant" includes discharges that do *not* lead to treatment works, see 40 CFR 122.2. (emphasis supplied), EPA states at footnote 12 of the Analysis that it is erroneous to argue the converse: that pollutants to waters of the United States via pipes *to a* treatment plant are not a "discharge of a pollutant." In support of this position, EPA says that there is "[o]nly one category of such discharges excluded: indirect discharges." While it is true that the definition of "discharge of a pollutant" at 40 CFR 122.2 excludes pollutants from "indirect discharges," that does not mean that only "indirect dischargers" fall outside the scope of "discharge of a pollutant" or that an interpretation of the definition of "discharge of a pollutant" which excludes waste water from separately owned collection systems is not reasonable in light of the definition of other terms, described above, that require permitting from point sources. The use of the term "treatment works" as it appears in the regulatory definition of "discharge of a pollutant" does not preclude this rational interpretation.

EPA seeks to conflate the term "discharge" used in "discharge of a pollutant" with the "transfer of flow" or "conveyance" from a municipal conveyance system to the POTW treatment plant or works that has a point source "from which pollutants are discharged." The word "discharge" is a defined term: "When used without qualification [it] means the 'discharge of a pollutant.'" 40 C.F.R. 122.2. There is no "discharge from a municipal conveyance system. And in this case there is but discharge point from a POTW. See draft permit Part I. A. I. and B. It is that point source "from which pollutants are discharged" that triggers NPDES permitting and only those persons who own or operate that point source are subject to such permitting. That point source is not owned by the Towns. In short, the jurisdictional reach under the CWA does not include persons, such as the Towns that own, operate and maintain sewer lines that provide a conveyance for waste waters for treatment and discharge by another person from its point source.

Response to Comment #35: The Towns are "persons" who "discharge" within the meaning of the Act and implementing regulations because they own or operate portions of the POTW and add pollutants to the waters of the United States. As discussed *supra* at Response #34, the satellite collection systems constitute portions of a point source (the POTW) that discharges to U.S. waters; this interpretation is consistent with the definitions of "point source," "treatment works," "POTW" and "discharge" in the CWA and its regulations.[17] The Towns argue that they merely "provide a conveyance for waste waters for treatment and discharge by another person from its point source." According to the Towns, only the POTW Treatment Plant, and not other portions of the integrated treatment works, discharges pollutants from a point source. However, this claim relies on an overly narrow definition of point source that would exclude large portions of the

[17] The Towns plainly fall within the definition of "municipality," as public bodies with jurisdiction over disposal of sewage and other wastes, and as such also fall within the express definition of "person," under 40 C.F.R. § 122.2.

POTW without any principled basis, as well as an overly restrictive definition of discharge. The Towns' collection and "conveyance" via connecting pipes and sewers of "waste waters" from one portion of the treatment works (the collection system) to another (the POTW Treatment Plant) before its ultimate discharge into the Charles River is an addition of a pollutant or combination of pollutants to water of the US from a point source. *See* 40 C.F.R. § 122.2 (defining "Discharge" and "Discharge of a pollutant"); *Id.* at 403.3(r) (defining the POTW treatment plant as a subset of the POTW). *See supra* at Response #34.

Under the Act, a party does not cease to discharge pollutants merely because the pollutants pass through a third-party conveyance before reaching the waters of the United States. *See, e.g., Dague* 935 F.2d at 1355 (holding that leachate from a landfill constituted a discharge from a pollutant even though it passed through railroad culvert owned by a third party to reach the waters of the United States); *Puerto Rico Campers' Association v. Puerto Rico Aqueduct and Sewer Authority*, 219 F. Supp. 2d 201, 217 (D. Puerto Rico 2002) (holding that conveyance of pollutants from one waste water treatment plant to another constituted a "discharge" under the CWA); *United States v. Velsicol Chemical Corp.*, 483 F. Supp. 945, 947 (D.C. Tenn. 1976) (holding that discharges into a municipal sewer system are covered under the CWA because "[d]efendant knows or should have known that the city sewers lead directly into the Mississippi River and this is sufficient to satisfy the requirements of discharging into 'water of the United States,'"). *See generally Pepperell Assocs. v. United States EPA*, 246 F.3d 15 (1st Cir. 2001) (factory owner fined for oil that spilled from a boiler gasket, into an industrial drain, through a conduit, and eventually into a creek). EPA thus rejects the Towns' attempt to impose an arbitrary limitation on the reach of the Act and NPDES permitting, *i.e.*, that the permitted entity must own the actual outfall pipe. The municipal satellite collection systems are themselves operators of point sources that discharge pollutants to U.S. waters, even if their contribution to the combination of pollutants in the final discharge from the outfall at the POTW treatment plant operated by the District cannot be easily distinguished.

Region 1 retains the option to treat a POTW comprised of a treatment plant and municipal satellite collection systems as a single, integrated discharger and imposes protective permit conditions on the several operators of satellite collection facilities, as appropriate to assure compliance with the Act, including but not limited through the prevention or minimization of SSOs, as explained more fully in the Analysis. The Region's decision to condition the permit for the discharge in this manner falls within its authority under the Act and implementing regulations. *See* CWA §§ 402(a)(2) ("The Administrator shall prescribe conditions for such permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he deems appropriate."); 301(b)(1)(C) (requiring "any more stringent limitation, including those necessary to meet water quality standards …or required to implement any applicable water quality standard established pursuant to this Act"); 40 C.F.R. §§ 122.4(a) (no permit may be issued, "When the conditions of the permit do not provide for compliance with the applicable requirements of the CWA, or regulations promulgated under CWA");

122.43 ("In addition to conditions required in all permits (122.41 and 122.42), the Director shall establish conditions, as required on a case by case basis, to provide for and assure compliance with all applicable requirements of the CWA and regulations."); 122.44(d)(5) (requiring inclusion of "any more stringent limitations…in accordance with section 301(b)(1)(C) of the Act.")[18]

The Towns' comment appears to imply that they should be treated as indirect dischargers. However, an indirect discharge is "the introduction of pollutants into a POTW from any *non-domestic* source" that is regulated by EPA's pretreatment regulations. 40 C.F.R. § 403.3(i). Non-domestic discharges are regulated separately because "Congress recognized that the pollutants which some indirect dischargers release into POTWs could interfere with the operation of the POTWs." *Environmental Protection Agency v. City of Green Forest*, 921 F.2d 1394, 1398 (8th Cir. 1990). Because of this, indirect dischargers are subject to separate pretreatment standards in order to avoid interfering with the operation of POTWs. *See Natural Resources Defense Council, Inc. v. Environmental Protection Agency*, 790 F.2d 289, 293 (Apr. 30, 1986). This exception cannot reasonably be construed to include the Towns because they discharge domestic sewage and would not be subject to the pretreatment program.

Comment #36: The Towns are not Operators of the POTW
The Region's rationale for seeking to impose co-permittee requirements upon the Towns is not consistent with the references to "municipality" in the definition of POTW found at 40 C.F.R. § 403.3(q), and the definition's statement that "[t]he term also means the municipality which has jurisdiction over the Indirect discharges to and the discharges from such a treatment works." The final sentence of the regulatory definition of POTW in the pretreatment Regulations from such a treatment works. "The term municipality" as defined in CWA § 502(4) "means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to state law and having *jurisdiction over disposal of sewage, industrial wastes, or other wastes . . .*" (emphasis supplied). The Towns have jurisdiction over only their collection systems. They have no jurisdiction over the treatment plant or point source of discharge. Thus, the Region's view that a satellite collection system is part of a POTW is inconsistent with the final sentence of the regulatory definition of POTW in the pretreatment regulations. That that sentence provides that "POTW" may "also" mean a municipality has no bearing on this limitation.

Response to Comment #36: Here the Towns rely on an overly restrictive interpretation of POTW. As stated *supra* at Response #34, these collection systems are point sources and constitute a portion of the POTW. Therefore, the Towns meet the CWA's definition

[18] This approach is analogous to EPA practice with respect to stormwater permits where multiple entities are treated as co-permittees when operating different portions of a storm sewer system. *See* National Pollutant Discharge Elimination system Permit Application Regulations for Storm Water Discharges, 55 Fed. Reg. 47,990, 48,044 (Nov. 16, 1990).

of municipality because they have jurisdiction over a portion of the system for disposal of sewage.[19] *See also* Analysis at 12-13.[20]

The Region, in addition, does not interpret the word "also" to be a statement of limitation or exclusion.[21] It is immaterial to the question at hand that the Towns have no jurisdiction over the POTW treatment plant if they fall within other portions of the definition of POTW; as one example, the POTW "includes sewers, pipes and other conveyances . . . if they convey wastewater to a POTW Treatment Plant." 40 C.F.R. § 403.3(q). As another, the Towns agree that they operate their own collection systems, which expressly fall within the definition of "treatment works," s*ee* CWA § 212(2)(A), and are moreover encompassed by CWA § 212(2)(B) ("any other method or system for preventing, abating reducing, storing….separating, or disposing of municipal waste").

Comment #37: The Towns have no duty to apply for NPDES permits
The absence of EPA authority to make the Towns co-permittees is borne out by the permitting process and EPA's regulations at 40 CFR § 122.21, Subpart B, Permit Application Requirements. 40 CFR §122.21(a), entitled "*Duty to Apply*," provides that "*[a]ny person* who discharges or proposes to discharge pollutants . . . must submit a complete application . . . in accordance with the section [122.21] and part 124 of this chapter." 40 CFR § 122.21(a)(i). (Emphasis supplied). Consistent with the CWA, EPA

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[19] "Disposal of sewage" is not limited to final discharge from of the Treatment Plant outfall. "Disposal" is defined as the "the act or process of disposing" and an "orderly placement or distribution." *Webster's Ninth New Collegiate Dictionary* (1983). The Towns' collection system, or "the common lateral sewers, within a publicly owned treatment system, which are primarily installed to receive waste waters directly from facilities which convey waste water from individual structures or from private property," *see* 40 C.F.R. § 35.905, clearly fall within this definition. They are part of method, process or system designed to receive sewage ("orderly placement") and convey it ("distribution") to the Treatment Plant.

[20] The Region's co-permitting rationale is consistent with the first part of the pretreatment program's regulatory definition of POTW, because the Region is only asserting NPDES jurisdiction over satellite collection systems that are owned by a "State or municipality (as defined by section 502(4) of the Act)." Again, the term "municipality" as defined in CWA § 502(4) "means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes…" Thus, in order to qualify under this definition, a wastewater collection system need only be "owned by a State or municipality." There is no requirement that the constituent components of a regionally integrated POTW, *i.e.*, the collection system and regional centralized POTW treatment plant, be owned by the same State or municipal entity. EPA does not believe that the commenter intends to argue that the copermittee Towns are not "municipalities" within the meaning of CWA § 502(4). To the extent that is the commenter's argument, it is not reasonable to suggest that Towns with sewer commissions and sewer departments running sewage collection systems under local sewer bylaws somehow do not have "jurisdiction over disposal of sewage" simply because they do not own the outfall. This is consistent with EPA's interpretation of the term "municipality" in other CWA contexts; for example, "grants for the construction of treatment works" under CWA § 201(g)(1) were available only to a "State, municipality, or intermunicipal or interstate agency."

[21] This sentence ensures that the municipality that owns the outfall, or has jurisdiction over the indirect discharges, shall be considered within the definition of POTW even if it is not responsible for the "devices and systems . . . or . . . sewers, pipes and other conveyances" referenced in the rest of the definition. This is the clear meaning of the word "also" (contrast this with the "only if" language in the preceding sentence of the regulatory definition), and the comment's argument that the use of the word also "has no bearing" is unpersuasive.

regulations require *persons* "who discharge pollutants" to have a NPDES Permit. See CWA § 301(a)("except in compliance with this section and [other sections] of this title, the discharge of any pollutant by any person shall be unlawful"), and CWA § 402(a)(authorizing EPA to issue a permit "for the discharge of any pollutant"). Throughout, the permit application regulations at 40 CFR § 122.21 contemplate that it is the "person" who discharges pollutants who must obtain a NPDES permit. No where [sic] in 40 CFR §122.21 is there any reference to "co-permittee" or any suggestion that separately owned and operated conveyance systems are subject to NPDES permitting. Consistent with CWA, it is the person who discharges a pollutant from a point source who is subject to NPDES permitting requirements[.]

While 40 CFR § 122.21(a)(1) requires an application only from those persons who discharge from a point source, the regulations anticipate circumstance when a facility may be owned or operated by separate entities. The permit application regulations provide that "[w]hen a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit." 40 CFR § 122.21(b). Thus, it is operator [sic] of the "point source" that must have the permit. "Owner or operator" means "the owner or operator of any "facility or activity" subject to regulation under the NPDES program." 40 CFR § 122.2. "Facility or activity" means "*any NPDES 'point source'* or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program." 40 CFR § 122.2. (emphasis supplied).

Nothing in 40 CFR § 122.21 requires or suggests that "satellite collection systems" need to make application [sic] for a NPDES permit. While the regulations contemplate that "[m]ore that one application form may be required from a facility," multiple applications are only required where there may be multiple point sources, not multiple owned parts of a POTW. See, 40 CFR § 122.21(a)(2)(i) ("More than one application form may be required from a facility depending on the number and types of discharges or outfalls found there."). Again, the regulations require persons who discharge from point sources to have the NPDES permit.

Response to Comment #37: The Towns are owners and operators of the collection systems, which as portions of the POTW are facilities or activities subject to regulation under the NPDES program within the meaning of 40 CFR § 122.2. As municipalities (*i.e.*, public bodies with jurisdiction over disposal of sewage and other wastes), they are also "persons" within the meaning of that regulation. The Region's decision to impose NPDES conditions on these point source dischargers relies on statutory authorities underlying the NPDES permitting program—Section 301(b)(1)(C), 402(a)(1)-(2) and implementing NPDES regulations, *e.g.*, §§ 122.4, .44 and .43—and is in keeping with overall objectives of the Act to restore and maintain the integrity of the Nation's waters, including through the prevention and minimization of SSOs. EPA does not view the lack of any explicit reference to "co-permittees" or similar label in 40 C.F.R. § 122.21, or to "satellite collection systems," to preclude it from framing an NPDES permit based on these authorities to encompass owners and operators of portions of the POTW that are "up system" of the ultimate outfall point but that nevertheless are point sources that add

pollutants to U.S. waters.[22] It is sufficient that the Act and implementing regulations make reference to discharges of pollutants from point sources to U.S. waters, terms that encompass discharges from the POTW's collection systems. Accordingly, the permit application requirements are not dispositive of the question of whether the Region is legally authorized to impose NPDES permit requirements on portions of the treatment works beyond the POTW treatment plant.

Federal regulations implementing the NPDES program require that any person who discharges pollutants must submit a complete permit application to the NPDES permitting Director. Specifically, 40 C.F.R. § 122.21(a) applies to the Towns because they are a point source dischargers discharging pollutants through portions of the POTW operated by them. *See supra* at Response #34, Response #35. The Towns claim that "multiple applications are only required where there may be multiple point sources. However, regulations only state that "[m]ore than one application form may be required from a facility depending on the number and types of discharges or outfalls found there;" there is nothing to indicate that EPA is barred from issuing a permit that covers each of the several operators of an regionally integrated POTW, where the combined discharge flows through a single outfall. *See* 40 C.F.R. § 122.21(a)(2)(i).

EPA regulations do not specifically address how NPDES permit coverage is to be obtained by satellite collection system components of POTWs. As explained in the Analysis, ordinarily the treatment plant operator applies for the POTW's NPDES permit, and discharges from the POTW, including those from the collection systems operated by others, are covered by the permit issued to the treatment plant. Satellite collection system operators have generally not submitted separate permit applications for coverage under the POTW permit, because the treatment plant operator generally submits the information necessary for the permit writer to write terms and conditions in the permit applicable to all components of the POTW on the basis of the treatment plant's application. Whether or not to require additional information from a satellite collection system by way of an application is separate and apart from whether the collection system should be named as a co-permittee on the POTW permit. Both are case-by-case decisions, one based on the information available to the permit writer; the second based on whether the permit writer determines that specifying co-permittees on the POTW permit is necessary for all terms and conditions of the permit to be implemented. Here, with respect to information, the Region determined that there was no need for any information from the satellite systems because it anticipated receiving substantially identical information from the District as it would from the Towns. *See* Exhibit C at 26. As a separate matter, the Region determined that naming the Towns as co-permittees was necessary for implementation of the POTW permit.[23]

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[22] The fact that standard forms do not precisely address the specific circumstances of one type of potential permittee is not indicative of the scope of CWA requirements, particularly where EPA has indicated its intent not to require separate permit applications from satellite collection systems. EPA notes that specifically tailored applications are not provided for other small subsets of facilities that do not have treatment plants, for example, the CSO discharges from the Cities of Cambridge, Somerville and Worcester.

[23] This comment as a whole reflects a flawed understanding of the Act. The commenter uses the permit application requirements as the basis for deeming satellite collection systems point source dischargers. The

Similarly, 40 C.F.R. § 122.21(b) has no bearing on whether satellite collection systems are subject to NPDES permitting requirements. That provision specifically addresses "a facility or activity [that] is owned by one person but is operated by another person." *Id.* Here, the District does not own *or* operate the satellite collection systems. Instead, like the satellite communities, the District operates a component of the POTW. Contrary to the commenter's assertion, as operators of components of the POTW, the satellite collection systems—as well as the District—are "a facility or activity" subject to NPDES permitting requirements.

This approach is similar to the approach applicable to contributors to privately owned treatment works. *See* 40 C.F.R. §122.3 and §122.44(m). As with outlying jurisdictions contributing to a POTW, the NPDES regulations do not describe the process by which the contributors to the privately owned treatment works must apply for a permit or how to issue a permit to the treatment works if contributors do not apply.[24] Nothing in EPA regulations bars EPA from issuing a permit or requiring application information from more than one owner or operator of a point source. For example, in the case of the general permit that covers discharges of stormwater from certain construction sites, EPA requires both the owner and the operator of the site to be covered by the permit. While this situation is not expressly addressed in the regulation, EPA determined that both the operator and owner needed permit coverage to control discharges from construction sites where different entities have control over different aspects of the operations necessary to comply with the NPDES permit.

The Towns have had an opportunity to express their views during the public comment process on whether they should be co-permittees on this permit. EPA has not changed its conclusion that permit coverage is necessary in order to implement the NPDES permit requirements related to the collection system and ultimately to achieve the effluent limitations applicable to the integrated POTW system. *See* response to comments #2 and #4.

Comment #38: The Region's Approach is inconsistent with Form 2A
Nowhere in Application Form 2A is there any reference to a "co-permittee" or suggestion that a person may make application, with a treatment works applicant, as co-permittee. See http://www.epa.gov/npdes/pubs/final2a.pdf. At page 1 of 21 of Form 2A, applicants "must complete questions A.8. [sic] through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9. through A.12." Part A.1 through A.8. of Form 2A asks for information about the facility and applicant, and asks "is the applicant the owner or operator (or both) of the treatment works?" (A.1., A.2.). Form 2A asks for collection system information; specifically,

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satellite collection systems are subject to permit application requirements because they are point source dischargers, not vice versa.

[24] But the regulations are clear that, as a point source that is discharging through a treatment system that they do not own or operate, the contributor's discharge may be addressed either in a permit issued to the Privately Owned Treatment System or in a permit issued to the contributor.

"information on municipalities and areas served by the facility . . . type of collection system (combined vs. separate) and its ownership (municipal, private, etc.)." (A.4.). Form 2A asks for information about the "collection system(s) used by the treatment plant." (A.7.). If the NPDES regulations contemplated permitting of collection systems, one would expect to see in each of these parts of the NPDES Application Form 2A some reference to the owners or operators of collection systems as "co-permittees." There is none. Form 2A also requires information on discharges. At Part A.8.a., Form 2A asks "Doe s the treatment works discharge effluent to waters of the U.S.? __Yes __No." form 2A obviously contemplates "discharges" from a "treatment works," not a POTW. Finally, at Part A. 1.8.a.(i)-(v), Form 2A seeks information on the "types of discharge points the treatment works uses." No "collection system" or "satellite collection system" is listed here. This should be no surprise; collection systems and satellite collection systems do not have "discharge points" under the NPDES regulations.

Response to Comment #38: The Towns' comment here erroneously presumes that Form 2A defines the scope of EPA's authority to require an operator of a point source to submit information and determines all situations for which a permit is necessary. The Towns' comments 39 and 40 further elaborate on this same theme. Form 2A is intended for gathering the requisite information, on a routine basis, in order to effectively issue NPDES permits; it is not designed to determine the scope of the NPDES program or to limit the information EPA is authorized to collect. *See* NPDES Application Requirements for POTWs and other TWTDSs [Other Treatment Works Treating Domestic Sewage], 64 Fed. Reg 42,434, 42,434 (Aug. 4, 1999) ("EPA is revising these regulations to ensure that permitting authorities obtain the information necessary to issue permits which protect the environment in the most efficient manner,"). As noted in response to the previous comment, requiring a satellite collection system to be a co-permittee is not the routine or usual situation. Therefore, the Towns' reliance on Form 2A to define the scope of Region 1's authority in implementing the NPDES program is misplaced.

The Towns claim Form 2A "obviously contemplates 'discharges' from a 'treatment [plant],' not a POTW." This is unpersuasive. Form 2A requires information on the collection system beyond the POTW treatment plant. *See* Form 2A at A.4, A.7. This implies that a permitting interest more extensive than merely the POTW treatment plant. Furthermore, the regulations creating Form 2A state that it is applicable to POTWs instead of using the more restrictive term "POTW treatment plant." NPDES Application Requirements for POTWs and other TWTDSs, 64 Fed. Reg. at 42,434; *see also* 40 C.F.R. 403.3(r) ("[t]he term POTW Treatment Plant means that portion of the POTW which is designed to provide treatment,").[25]

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[25] *See also* NPDES Application Requirements for POTWs and other TWTDSs, 64 Fed. Reg. at 42,443:

> "The permit writer needs to know what areas are served and the actual population served in order to calculate the potential domestic sewage loading to the treatment plant. The information on the community served by the NPDES permittee is also useful for providing notice and public comment for permit reissuance and for public education. One commenter requested clarification of the term "population served." By this term, EPA means the number of users of the system. EPA has expanded this requirement from the proposal in order to obtain a more complete picture of the area served by the POTW. The

The Towns next claim that the failure of Form 2A to discuss the potential status of satellite collection systems as co-permittees implies that the NPDES program is not intended to cover satellite collection systems as co-permittees. Again, Form 2A is not intended to define the scope of the NPDES permitting program, or to deal with all possible permitting variations or configurations that may be necessitated by site-specific information or circumstances relative to a discharge in order to address compliance with the Act. Here, the Region has determined that it is important to frame the permit to include requirements on the POTW's collection systems in order to address, *inter alia*, SSOs resulting in part from poorly maintained and operated collection systems and in so doing to assure compliance with the requirements of Section 301 of the Act and applicable water quality standards.

The Towns finally claim that Form 2A's inquiries into the discharge points of a POTW treatment plant imply that it is not intended to cover operators of satellite collection facilities as co-permittees. Such an inference is misplaced. Form 2A requires information regarding many portions of the POTW including both the treatment plant and the satellite collection facilities.

Comment #39: EPA may not waive application requirements without an application
In its Analysis, EPA would "waive the Towns' permit applications and all requirements of 40 CFR § 122.21. In its effort to justify including the Towns as co-permittees, EPA both misapplies and takes 40 CFR § 122.21(j) entirely out of context. First, waivers can only be granted to those persons who have submitted applications. The Towns have neither applied for nor seek any NPDES permit. § 122.21(j) provides that:

> Permit applicants *must submit* all information available at the time of permit application. . . . The director may waive any requirement *of this paragraph* if he or she has access to substantially identical information. (emphasis supplied).

40 CFR § 122.21(j) does not support the EPA's proposed waiver of any applications by the Towns; it allows only for the waiver of certain information in a permit application submitted by the applicant.

Response to Comment #39: The Region has not waived the application requirement relative to the POTW in its entirety (a facility or activity, or "point source" that is subject to regulation under the NPDES program") under 40 C.F.R. § 122.21, from which the combined effluent from the treatment works is discharged, only as to the operators of the satellite collection systems. The Region still required and received an application for the POTW discharge by the District. Receiving a single application from the operator of a

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> additional information on the satellite systems will be used by the permit writer to identify areas where there is a potential for unpermitted discharges in the collection system prior to the treatment plant. The identified areas may necessitate further investigation."

portion of the discharging POTW is a reasonable way to structure the permit application process, particularly in the case of a regionally integrated treatment works where there is a centralized administrative entity responsible for operating the POTW Treatment Plant and coordinating wastewater flows from the multiple satellite collection system operators. The Region has determined that "requiring a single permit application executed by the regional POTW treatment plant owner/operator will deliver 'substantially identical information'" to any application submitted by the Towns. Exhibit C at 26**.** Therefore, Region 1 decided to "waiv[e] NPDES permit application and signatory requirements applicable to the . . . municipal satellite collection systems." *Id.* These requirements—including signatory requirements—are present at 40 C.F.R. § 122.21(j); therefore, the Region may waive any or all of these requirements as to the municipal satellites. *See* NPDES Application Requirements for POTWs and other TWTDSs, 64 Fed. Reg. at 42440. The purpose of the waiver provision is to "allow the Director to waive *any requirement in paragraph (j)* if the Director has access to substantially identical information." NPDES Application Requirements for POTWs and other TWTDSs, 64 Fed. Reg. at 42440 (emphasis added). This broad waiver authority is intended to reduce the inefficiency of redundant information submissions by regulated entities. *Id* at 42,435. The Towns' interpretation of the waiver process would undermine this goal by requiring that the Region receive either an incomplete or redundant application before stating that the application is unnecessary. See response to comment #40.

Comment #40: EPA may not unilaterally waive application requirements
Second, EPA cannot unilaterally waive requirements of an application without a request to do so; the person must seek a waiver and that waiver must be approved by EPA. 40 CFR § 122.21(e) requires a compete [sic] application before EPA may issue a permit "([EPA] shall not issue a permit before receiving a complete application for a permit"), and a "waiver application" must be made, and approved, or not acted upon by EPA 40 CFR § 122.21(e)(2) provides:

A Permit application shall not be considered complete if a permitting authority has waived application requirements under paragraphs (j) or (q) of this section and EPA has disapproved the waiver application. If a waiver request has been submitted to EPA more than 210 days prior to permit expiration and EPA has not disapproved the waiver application 181 days prior to permit expiration, the permit application lacking the information subject to the waiver application shall be considered complete.

The Towns have not only made no applications for any NPDES permit, they have made no application for a waiver from the application requirements. 40 CFR § 122.21(j) says only that the "Director may waive any requirement of this paragraph if he or she has access to substantially identical information." This provision, in context, is obviously designed to allow waiver of some of the detailed and often duplicate information required under Section 122.21 and in EPA's permit application forms. As noted above, Form 2A consists of 21 pages and requires detailed information about the "treatment works." See Form 2A at http://www.epa.gov/npdes/pubs/final2a.pdf. Nothing in Section 122.21(j) suggests EPA may waive the requirement for application signatures and certifications and

authorizations required by 40 CFR § 122.22, none of which the Towns have provided. EPA seeks to ignore its own regulations and to issue a permit the Towns who have not applied for and do not consent to being subject to EPA's NPDES permitting authority.

Response to Comment #40: "The goal of the application requirements is to provide the permit writer with the information necessary to develop appropriate NPDES permits consistent with requirements of the CWA." *See* NPDES Application Requirements for POTWs and other TWTDSs, 64 Fed. Reg. at 42440. In this case, a timely re-application for an NPDES permit for the discharge from the POTW has been received, signed and certified by the operator of the POTW Treatment Plant. As the recipient of contributing discharges from outlying portions of the POTW for final, combined discharge into the receiving water as well as the primary coordinator of the member communities, the District is uniquely positioned to provide information regarding the wider treatment works. EPA has the necessary information relative to the POTW's collection system and system-wide I/I from the District's application and the District's Annual I/I Report (a summary of all actions taken to minimize I/I and includes flow data, I/I trend analysis and unauthorized discharges from the collection system) to process the permit.

The Towns claim that Region 1 may only waive permit application requirements after receiving a waiver application from the permit applicant. EPA disagrees, as 40 C.F.R. § 122.22(j) states, "The director may waive *any requirement of this paragraph* if he or she has access to substantially identical information." The phrase "any requirement of this paragraph" includes the requirement to submit a waiver application in the first place. The Towns further argue that the waiver provisions of section 122.21(j) are "obviously designed to allow waiver of some of the information required" but may not be used to waive the signatory and certification requirements. However, the signatory requirement is intended to certify that the information provided is—to the best of the signatory's knowledge—complete and accurate. 40 C.F.R. § 122.22(d). Such a certification and signature have been received from the operator POTW Treatment Plant. The information receiving certification adequately characterizes data and operations relative the wider treatment works, and EPA has deemed this sufficient to process the permit, and the permit application complete. In the case of permitting municipal satellite collection systems where the Region is not requesting any information from a contributing discharger, the Region has determined that certification and signature of the POTW Treatment Plant operator is sufficient. The signatory and certification requirement serves no purpose if the preceding information has been waived.

As a general matter, EPA does not foresee the need to require individual permit applications from each municipal satellite collection system operator, and anticipates that information in the POTW Treatment Plant operator's permit application and other information in the administrative record will be sufficient to establish permit terms for the entire treatment works. As EPA moves forward with its practice of co-permitting, as appropriate, municipal satellite collection facilities, it will indicate whether it requires additional material from those entities operating the outlying portions of the treatment works to render the permit application "complete" under 40 C.F.R. § 124.3(c) after

receiving and reviewing the re-application for the permit from the primary permittee, typically the operator of the POTW Treatment Plant.

Comment #41: EPA may not use its § 308 authority.
EPA would further seek to cause the Towns to "consult and coordinate with the regional POTW treatment plant operators to ensure that any information provided to EPA about their respective entities is accurate and complete." Exhibit C to Analysis. EPA would then use its authority, under CWA § 308, to compel information from the Towns, should EPA deem information provided by the permit applicant incomplete. CWA § 308, however, applies to "the owner or operator of any point source." CWA § 308(a) (A). Information may be obtained only from such owner or operator of the "point source," the "effluent source" or "the owner or operator of such source." CWA § 308(a)(B)(i) and (ii). Again, because the Towns do not own or operate any point source, CWA § 308 would not apply to them. Under EPA's Analysis, it would read out of the regulations the entire section 122.21. EPA's cobbled approach and legal analysis toward finding authority where there is none is not supported by its own regulations.

Response to Comment #41: The Towns are operators of a point source because the POTW itself is a point source and the Towns operate portions of that point source. *See* response to comments #34 and #35. Therefore, the Region may use its § 308 authority to request information.

Comment #42: The Region's Approach is inconsistent with the Permit Writer's Manual
Nothing in EPA's permit writers' manual evidences any authority to permit satellite collection systems as part of a greater POTW. Indeed, EPA's permit writers' manual make no reference to permitting of satellite collection systems or to the owner of such systems being subject to a NPDES permit as a co-permittee. See EPA NPDES Permit Writers' Manual September 2010 http://www.epa.gov/npdes/pubs/pwm_2010.pdf. Instead, the Permit Writers' manual supports the analysis provided above. It says: Under the national program, *NPDES permits are issued only to direct dischargers.*" Permit Writers' Manual Section 1.3.4. (emphasis supplied). As noted above, a "direct discharge" means the "discharge of a pollutant" and "discharge of a pollutant" means "any addition of any pollutant to navigable waters from *any point source*." CWA § 502(12). 40 CFR 122.2.

Section 4.1 of Permit Writers' Manual addresses "Who Applies for a NPDES Permit?" No mention is made in this section to satellite collection systems or to the owners of such systems. Instead, the Permit Writers' Manual states:

> The NPDES regulations at Title 40 of the Code of Federal Regulations (CFR) 122.21(a) require that any person, except persons covered by general permits under § 122.28, who discharges pollutants or proposes to discharge pollutants to waters of the United States must apply for a permit. Further, § 122.21(e) prohibits the permitting authority from issuing an individual permit until and unless a prospective discharger provided a

> complete application. This regulation is broadly inclusive and ties back to the Clean Water Act (CWA) section 301(a) provision that, except as in compliance with the act, "…the discharge of any pollutant by any person shall be unlawful." In most instances, the permit applicant will be the owner (e.g., corporate officer) of the facility. However, the regulations at § 122.21(b) require that when a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit. The regulations also require the application to be signed and certified by a high-ranking official of the business or activity. The signatory and certification requirements are at § 122.22. Permits (and applications) are required for most discharges or proposed discharges to waters of the United States; however, NPDES permits are not required for some activities as specified under the *Exclusions* provision in § 122.3.

Section 4.3. of the Permit Writers' Manual addresses what forms must be submitted and at Exhibit 4-3 describes "the types of dischargers required to submit NPDES application forms, identifies the Forms that must be submitted, and reference the corresponding NPDES regulatory citation." Again, in Section 4.3 there is no mention of satellite collection systems or need for the owners of such systems to have a NPDES permit.

Response to Comment #42: The Towns' attempt to read the quoted language from the Manual as some sort of limitation on permit coverage, or the extent of EPA's legal authority under Section 301 and 402, is unconvincing. The Permit Writers Manual does not address every permitting scenario. For example, it does not address the procedures by which dischargers into privately owned treatment systems may be designated as needing permits. Nor does it discuss the permitting of industrial discharges into a separately permitted municipal storm system. Moreover, the Permit Writers' Manual (the "Manual") is a guidance and does not contain legally binding standards concerning the issuance of NPDES permits:

> CWA provisions and regulations contain legally binding requirements. This document does not substitute for those provisions or regulations. Recommendations in this guidance are not binding; the permitting authority may consider other approaches consistent with the CWA and EPA regulations. When EPA makes a permitting decision, it will make each decision on a case-by-case basis and will be guided by the applicable requirements of the CWA and implementing regulations, taking into account comments and information presented at that time by interested persons regarding the appropriateness of applying these recommendations to the situation. This guidance incorporates, and does not modify, existing EPA policy and guidance on developing NPDES permits. EPA may change this guidance in the future.

NPDES Permit Writers' Manual, U.S. Environmental Protection Agency at inside cover page (Sept. 2010) (*available at* http://cfpub.epa.gov/npdes/writermanual.cfm). Therefore, the discussion of EPA regulations at response to comments #34 and #35 takes precedence

over any inferences drawn from the Manual. Furthermore, the Manual's discussion of POTWs makes clear that it intends to cover the entirety of the POTW and not merely the treatment plant:

> The federal regulations at § 403.3 define a POTW as a treatment works . . . that is owned by a state or municipality [as defined in CWA section 502(4)]. The definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It *also includes sewers, pipes, and other conveyances* only if they convey wastewater to a POTW.

NPDES Permit Writers' Manual at § 2.3.1. The Permit Writers Manual's discussion of the definition of "point source" also demonstrates that the term has a broad reach and includes the POTW:

> Pollutants can enter water via a variety of pathways including agricultural, domestic and industrial sources. For regulatory purposes, these sources generally are categorized as either point sources or nonpoint sources. The term point source is defined in CWA section 502(14) and § 122.2 to include *any* discernible, confined, and discrete conveyance from which pollutants are or may be discharged. *Point source discharges include discharges from publicly owned treatment works (POTWs),* industrial process wastewater discharges, runoff conveyed through a storm sewer system, and discharges from concentrated animal feeding operations (CAFOs), among others (see Exhibit 1-2). Return flows from irrigated agriculture and agricultural stormwater runoff specifically are excluded from the definition of a point source.

NPDES Permit Writers' Manual at § 1.3.4 (emphasis added). The preceding passages demonstrate that, to the extent that inferences may be drawn from the Permit Writer's Manual, any inferences support the Region's approach.

Comment #43: The Towns do not Operate the POTW's Point Source

EPA's position that the collection system is part of the POTW does not advance its argument that "satellite collection systems" should be deemed "co-permittees" in NPDES permits. If the collection system is part of the POTW, it should matter not who owns what part or portions as it is the "person" who owns or operates that portion of the POTW that "discharges a pollutant" from a point source who is required to have a permit for that discharge. EPA acknowledges that the Towns do not own or operate the entire POTW. While EPA seeks "to refashion permits issued to regionally integrated POTWs to include all owners/operators of treatment works (*i.e.*, the regional centralized POTW treatment plant and the municipal satellite collection systems)," permit conditions "pertain only to the portions of the POTW collection system that the satellites own." Analysis, p. 7. See Permit I.1.C. Because the Towns do not own or operate the point source – Outfall 001 – they are not a person who may be subject to a NPDES permit.

Response to Comment #43: The Towns here rely on an overly restrictive definition of point source. The point source in question here is not merely Outfall 001, it is the entire POTW. See response to comments #34 and #35.

Comment #44: The Region's Approach should be subject to national comment
The Analysis, providing legal authority for the co-permittee provisions of this permit, was prepared by the Region and sets forth the Region's analysis and interpretation of its permitting authority under the NPDES program. As the Region notes, the analysis is responsive to questions raised by the EAB in the *Upper Blackstone* EAB matter. See, Analysis, p. 2 ("[T]his regional interpretative statement is, in part, a response to the [EAB's] decision"). In its determination on Remand issued on July 7, 2010 in the *Upper Blackstone* EAB matter, the Region indicated it would "coordinate broadly within EPA in developing a response." Nothing in the Analysis indicates this was done. Because EPA's authority to permit satellite collection systems impacts not only the Region, but is of national significance, and because the issues raised by the EAB were limited to those raised in the *Upper Blackstone* matter, EPA's intention to permit satellite collection systems as co-permittees or otherwise through the issuance of a separate permit and EPA's legal authority to do so should be presented for review and comment on a national level.

In June 2010, EPA did seek through "listening sessions" information from the public concerning permitting of satellite collection systems. See 75 Fed. Reg. 30395 (June 1, 2010) ("EPA is considering whether to propose modifying the [NPDES] regulations as they apply to municipal sanitary were collection systems"). In contemplating a potential regulatory change, EPA asked specifically for input on the question: *Should EPA propose to require permit coverage for municipal satellite collections systems?* Because EPA was "considering clarification of the framework for regulating municipal satellite collection systems under the NPDES program," and do so via a regulatory change, the Region should not include at this time, and based on unsupported legal authority outlined above, the Towns as co-permittees in this permit. Until such time as EPA addresses this issue on a national level and gives the public the opportunity review [sic] and comment on the legal Analysis set forth by the Region, it should not include co-permittee provisions in this permit.

Response to Comment #44: The Analysis does not signify a binding change in EPA national policy and does not require comment on the national level. First, the Analysis merely interprets existing legal authority; it neither changes nor purports to change EPA's power with respect to NPDES permitting. *See* Analysis at 1 ("This interpretative statement provides an explanation to the public of *EPA Region 1's* interpretation of the Clean Water Act," (emphasis added)). Second, the Analysis does not establish binding changes to EPA's permitting practice in the future. The Analysis explicitly provides that "Region 1's decision will be made by applying the law and regulations to the specific facts" and not by automatically regulating operators of satellite collection systems through the co-permittee system. *Id.* Third, the Analysis is distinguishable from EPA's previous inquiries into permitting satellite collection facilities. In 2010, EPA inquired into whether it should "propose to *require* permit coverage for municipal satellite

collection systems." National Pollutant Discharge Elimination System (NPDES) Permit Requirements for Municipal Sanitary Sewer Collection Systems, Municipal Satellite Collection Systems, Sanitary Sewer Overflows, and Peak Wet Weather Discharges From Publicly Owned Treatment Works Treatment Plants Serving Separate Sanitary Sewer Collection Systems, 75 Fed. Reg. 30, 395, 30,401 (June 1, 2010). The Analysis, however, makes no binding changes to national NPDES regulations. Finally, even if Region 1's analysis of its legal authority is of national significance, the Towns cite no authority for the proposition that this significance alone should subject Region 1's analysis to national commentary if such commentary is not required by the Administrative Procedure Act. *See infra* response to comment #47 for discussion of the APA.

The Region coordinated within EPA, including with EPA Headquarters, in developing a response to the remand. EPA did not at any time state that it would defer this issue to a national rulemaking. New England states are unusual nationwide for the strong level of local control exercised by relatively numerous cities and towns (351 in Massachusetts), leading to at times to extensive collection systems controlled by local authorities but discharging via a regional treatment plant such as the District. EPA Region 1 also has extensive experience in permitting of these facilities as the direct permitting authority in two states. In this context this issue is both distinctive and a high priority for the Region, apart from any national rulemaking.

Comment #45: The Region may not change its position
At footnote 10 of the Analysis, EPA states that it's "position differs from that taken by the Region in the *Upper Blackstone* litigation. There, the Region stated that the treatment plant was the discharging entity for regulatory purposes." Now, according to the Region, it "has clarified this view upon further consideration of the statute, EPA's own regulations and case law and determined that a municipal satellite collection system in a POTW is a discharging entity for regulatory purposes." The Region makes this change with no basis to justify it. In the *Upper Blackstone* matter, and before the EAB, the satellite collection systems were not "discharging," but the Region could nonetheless regulate them. In the face of EAB's rejection of this argument, and in light of the Region's "clarified view," the Region now says satellite collection systems are "dischargers."

The Region's explanation for its change in position is insufficient and contrary to law. "[A]n agency changing its course must supply a reasoned analysis." *Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 57 (1983). In the Region's Analysis, it says only that it has "clarified [its] view." The Region, however, must "explain the evidence which is available" supporting that change and "must offer a 'rationale [sic] connection between the facts found and the choice made,'" *Id.* 52. The Region does not, and cannot, identify new evidence or facts. The discharge point, at Outfall 001, has not changed. The owners or operators of the POTW and satellite collection systems have not changed.

Response to Comment #45: The Analysis provided is in response to the remand order of the EAB. *See* Upper Blackstone 18-20. This fact is a sufficient basis for the Region's

clarification of the legal basis for its permitting practice. Furthermore, any changes in the Region's position are only changes to the legal basis for its action, not a change to the action itself. *Motor Vehicle Manufacturers Association* deals with multiple changes to agency regulations instead of merely clarifications of the legal basis for action; therefore, the case is inapplicable here. 463 U.S. at 37-38.

It is not clear why the commenter considers the EAB's rejection of one of the Region's previous arguments as an "insufficient" basis for EPA to reconsider and clarify the legal basis for its policy. In light of the EAB's remand, the Region reexamined its policy and performed a thorough and reasoned analysis of the legal and policy basis for its determination that co-permitting is an appropriate and necessary approach to the issues raised by satellite collection systems. That Analysis has been documented in the 16 page explanation with supporting exhibits that was included at Attachment C to the Fact Sheet.

EPA agrees that the facts have remained the same, and that indeed that is why its determination that satellite collection systems should be regulated as co-permittees has also remained the same. EPA has simply proffered an alternative legal theory in light of the EAB remand. This is not an agency "changing its course" as suggested in the comment, but a revised legal analysis. That legal analysis demonstrates that EPA has legal authority to include the Towns as "co-permittees." This policy regarding Region 1's permitting practice is not a legislative rule and did not require formal notice and comment. There is no change in substantive law or policy. Since it started imposing specific collection system requirements EPA has consistently expressed its view that satellite collection systems were in the scope of NPDES jurisdiction and that permit coverage could be required. EPA's national rulemaking starts from the same premise, asking whether EPA should, in all NPDES programs delegated or otherwise, *require* permit coverage for satellite systems. This question clearly assumes that such coverage is within the scope of the CWA's NPDES program. The salient point was not that there was a change in the definition of discharge or the scope of EPA's authority, but that EPA would have required that all permitting authorities exercise their authority in this specific way.

Comment #46: The Region has not adequately defined the POTW
Moreover, before the EAB, the Region argued, in response to the question of how far up the collection systems the Region's legal reasoning would allow the Region to impose co-permittee requirements, that it " 'would regulate it in the same way' as a single-entity POTW. EAB Oral Argument Transcript ("Tr.") at 70. 'We can regulate that which is legally part of the POTW that falls within the definition of POTW.' " *Upper Blackstone* EAB Matter, p. 14.

EPA makes the same argument here. "[A] satellite collection system owned by one municipality that transports municipal sewage to another portion of the POTW owned by another municipality can be classified as part of a single integrated POTW system discharging to waters of the U.S." analysis, pp. 10 – 11. It was that analysis that EAB found troubling, and which EPA still does not answer here; EPA does not explain in the Fact Sheet or Analysis what EAB asked the region to explain: "the extent to which

collection systems not owned by the entity owning or operating the treatment works are subject to NPDES permitting." *Upper Blackstone* EAB Matter, p. 17.

Response to Comment #46: In its analysis, the Region has clarified its test for determining where the POTW ends and users begin. Specifically, the Region relies on the definition of "sewage collection system" at 40 C.F.R. § 35.905:

> each, and all, of the common lateral sewers, within a publicly owned treatment system, which are primarily installed to receive waste waters directly from facilities which convey waste water from individual structures or from private property, and which include service connection "Y" fittings designed for connection with those facilities. The facilities which convey waste water from individual structures, from private property to the public lateral sewer, or its equivalent, are specifically excluded from the definition.

Under this interpretation, more than mere property lines affect the determination of where the POTW ends and users begin. As stated in Region 1's Analysis:

> This test (i.e., common sewer installed to receive and carry waste water from others) allows Region 1 to draw a principled, predictable and readily ascertainable boundary between the POTW's collection system and the users. This test would exclude, for example, single user branch drainpipes that collect and transport wastewater from plumbing fixtures in a commercial building or public school to the common lateral sewer, just as service connections from private residential structures to lateral sewers are excluded. This type of infrastructure would not be considered part of the collection system, because it is not designed to receive and carry wastewaters from other users. Rather, it is designed to transport its users' wastewater to such a common collection system at a point further down the sanitary sewer system.

Analysis at 11.

Comment #47: The Region's Approach is a Legislative Rule that must be subject to Notice and Comment

EPA's attempt to change the legal requirements applicable to satellite systems is a legislative rule that EPA is issuing without formal notice and comment rulemaking in violation of the Administrative Procedure Act ("APA"). In trying to distinguish between legislative rules and policy statements, courts have found that "if a document expresses a change in substantive law or policy the agency intends to make binding, or administers with binding effect, the agency may not rely upon the statutory exemption for policy statements, but must observe the APA's legislative rulemaking procedures." *Gen. Elec. Co. v. E.P.A.*, 290 F.3d 377, 383-84 (D.C. Cir. 2002. *See also Appalachian Power Co. v. EPA*, 208 F.3d 1015 (D.C. Cir. 2000) (finding that an EPA guidance document that imposed new monitoring requirements relating to the operation of permit programs under

the clean Air act was a legislative rule because it was treated as binding), *Nat'l Mining ass'n v. Jackson*, 816 F. Supp. 2d. 1272, 1283-84 (S.D. Fla. 2010) (striking Corps guidance purporting to amend the prior converted croplands exclusion because it amounted to new legislative rules that created a binding norm and the corps failed to comply with the APA).

In the case of the revised draft CRPCD permit, there is no question that EPA intends its new position regarding satellite collection systems to have binding effect. Moreover, it is telling that in 2001, EPA began a rulemaking that purported to give the agency direct authority over satellite systems, in the context of a proposed rule pertaining to sanitary sewer systems. *See* National Pollutant Discharge Elimination System (NPDES) Permit Requirements for Municipal Sanitary Sewer Collection systems, Municipal Satellite Collection Systems, and sanitary Sewer Overflows (proposal signed Jan. 3, 2001) (formerly available at http://cfpub.epa.gov/npdes/regresult.cfm?program_id=4&view=all&type=3, but now withdrawn from EPA's website). EPA later withdrew that proposed rule.

Response to Comment #47: The Towns claim that the Region's Analysis is a legislative rule that ought to be subject to notice and comment under the Administrative Procedure Act ("APA"). Under the APA, there are no procedural requirements when an agency promulgates "interpretative rules, general statements of policy, or rules of agency organization, procedure, or practice." 5 U.S.C. § 553(b). The Analysis here is an interpretative statement utilized by the Region in the context of NPDES permit proceeedings. The decision of whether to include co-permittees in any given NPDES permit is adjudicated on a case-by-case basis in light of the facts and circumstances surrounding the discharge and receiving waters. Therefore, it is not subject to the "notice and comment" requirements of the APA. *See* Approach at 1.

The D.C. Circuit has identified four factors that that may render an ostensibly interpretive rule legislative: "(1) whether in the absence of the rule there would not be an adequate legislative basis for enforcement action or other agency action to confer benefits or ensure the performance of duties, (2) whether the agency has published the rule in the Code of Federal Regulations, (3) whether the agency has explicitly invoked its general legislative authority, or (4) whether the rule effectively amends a prior legislative rule." *Syncor International Corp. v. Shalala*, 127 F.3d 90, 96 n. 8 (D.C. Cir. 1997) (citing *American Mining Congress v. Mine Safety & Health Admin.*, 995 F.2d 1106, 1112 (D.C. Cir. 1993)). However, "[t]he critical distinction between legislative and interpretative rules is that, whereas interpretative rules 'simply state what the administrative agency thinks the statute means, and only 'remind' affected parties of existing duties,' a legislative rule 'imposes new rights or duties.'" *Iowa League of Cities v. Environmental Protection Agency*, 711 F.3d 844, 873 (8th Cir. Mar. 25, 2013).

Determining whether a document is binding depends on the specific language used and tends to be a highly fact-specific inquiry. *See Iowa League of Cities*, 711 F.3d at 863-64; *South Dakota v. Ubbelohde*, 330 F.3d 1014, 1028 (8th Cir. 2003). In *Iowa League of Cities*, the Eighth Circuit found that a letter to Senator Grassley constituted a binding rule

because it purported to state "the EPA's position" and spoke in mandatory terms that certain actions "should not be permitted." 711 F.3d at 864. Similarly, in *South Dakota v. Ubbelohde*, the Eighth Circuit found that the Corps' manual for implementing the Flood Control Act was binding because it "speaks of what 'is' done or 'will' be done." 330 F.3d at 1028. However, in *Catawba County v. Environmental Protection Agency*, the D.C. Circuit found that an EPA memorandum was non-binding because it left the Agency free to exercise discretion; the memorandum spoke of the Agency's "current views," but left those views open to revision. 571 F.3d 20, 33-34 (D.C. Cir. 2009).

Based on its language, the Analysis constitutes an interpretative statement and not a legislative rule. The Analysis describes the process of listing municipalities as "EPA Region 1's practice" and not as an immutable, binding rule for all permitting authorities. Analysis at 1. This statement is similar to the memo at issue in *Catawba County* because it describes only the Region's current practices and views of the law; it is not a change to the Agency's underlying regulatory/statutory structure. *See* 571 F.3d at 33-34. Furthermore, the Analysis does not signify a change in the Region's regulatory practices, it merely "details the legal and policy bases" for prior practices. Analysis at 2; *see also* Exhibit A (showing 25 permits since September 25, 2000 where the municipality operating a satellite collection facility was made a co-permittee on a NPDES permit).

While the key factor in whether a rule is interpretative or legislative is whether the rule is binding, the four *Syncor* factors are still informative on this question. *See Syncor*, 127 F.3d at 96l. Factor one asks whether the absence of a rule would take away the legal basis for agency action. Here, the absence of the analysis would not affect Region 1's authority to regulate municipal operators of satellite collection systems because the rule merely interprets existing statutes and regulations. *See e.g.*, Analysis at 7 ("Region 1 has decided to supply a clearer, more detailed explanation regarding its use of a co-permittee structure when issuing NPDES permits,"). Furthermore, the Analysis explicates the legal basis for a permitting practice that Region 1 has generally employed since 2005. Analysis at 7. Factor two, whether the rule has been published in the CFR, does not apply to the Analysis. Factor three, whether Region 1 has invoked its legislative rulemaking authority, also does not apply here. Finally, factor four, whether the rule amends a prior legislative rule, does not apply because the Agency has never fully promulgated any rules on permitting practices for separately owned satellite collection facilities. Furthermore, response to comment # 44 provides further discussion of proposed rules on satellite collection facilities by the Agency. In sum, the practice of including municipal satellite collection system owners/operators as co-permittees on the NPDES permit issued to the POTW Treatment Plant is simply one way that a permit can be framed to assure compliance with the Act. The Analysis merely outlines the legal and technical bases for this approach, which the Region undertakes at its discretion on a case-by-case basis, and does not mandate either Region 1 (or other Regions) to follow it.

Comment #48: The Region fails to show that Inflow and Infiltration ("I/I") is a problem in the Towns

Finally, while the Analysis addresses generic problems associated with municipal sanitary sewer collection systems, including SSO's and I/I, nothing in the fact Sheet or

Analysis indicates that SSO's or I/I is not being appropriately addressed by some or all of the towns or is a problem that requires or calls for one or more of the Towns to be identified as a co-permittee in this permit, or that co-permittee status may advance any I/I or SSO problem. In Exhibit B of the Analysis, entitled "Analysis of extraneous flows trends and SSO reporting for representative systems," EPA improperly suggests that I/I is excessive in the Towns' collection systems, that permit violations and SSOs in Franklin and Bellingham are related to excessive I/I, and that I/I reduction programs to date have been unsuccessful. EPA improperly uses information to justify imposition of co-permittee requirements. As demonstrated by an analysis of this information prepared by CDM Smith appended as Attachment A to the CRPCD's written comments, EPA's conclusions are wholly unsupportable, and improperly suggest that I/I is trending upward, when it is not.

Response to Comment #48: EPA disagrees. Exhibit B demonstrates the basis for EPA's permitting decision here. EPA's analysis shows that the trends of wet-weather flows are inconsistent with a successful I/I reduction program:

> Successful I/I reduction program should result in decreases in wet weather flows to the treatment plant over the long term. Figures 5 and 6 show the trend in maximum daily flows since 2001. The maximum daily flow reflects the highest wet weather flow for each month. Charts are shown for both the reported maximum daily flow and for a one year rolling average of the maximum daily flow (provided to reduce the impact of seasonality on the regression results). The linear regressions indicates a weak trend over this time period of increasing maximum daily flow; while most of the variability from year to year is due to changes in precipitation, the trends are generally inconsistent with reduction in maximum daily flow over this time period. This indicates that I/I has not been reduced in either system.

Analysis at 21. This conclusion is also supported by the fact that SESD has failed to maintain its secondary treatment requirement during numerous wet weather events. Analysis at 24. Although this is not a permit violation, it does imply a failure of I/I prevention programs. *Id.*

Furthermore, EPA need not show that the specific Towns cited above have failed to adequately reduce I/I. Rather, in the Analysis, EPA identified as its objective the need for a comprehensive and preventative POTW-wide approach to a POTW operated by multiple persons that does not necessarily turn on the performance of any particular Town:

> Because ownership/operation of a regionally integrated POTW is sometimes divided among multiple parties, the owner/operator of the treatment plant many times lacks the means to implement comprehensive, system-wide operation and maintenance ("O&M") procedures. Failure to properly implement O&M measures in a POTW can cause, among other things, excessive extraneous flow (*i.e.*, inflow and infiltration) to enter,

> strain and occasionally overload treatment system capacity. This failure not only impedes EPA's national policy goal concerning preservation of the nation's wastewater infrastructure assets, but also frustrates achievement of the water quality—and technology-based requirements of CWA § 301 to the extent it results in sanitary sewer overflows and degraded treatment plant performance, with adverse impacts on human health and the environment.

Analysis at 1. Given that the sewer system is interconnected, and in order to address I/I issues before they worsen and result in adverse impacts on the receiving waters, EPA has determined that this protective, comprehensive approach makes sense.

Comment #49: The Region has not shown that Massachusetts regulations are insufficient

Nor does the fact Sheet or Analysis explain why operation and maintenance of the Towns' sewer systems are not being adequately regulated by under State regulations at 310 CMR 12.00. 312 CMR 12.02 defines "Sewer Systems" to mean "pipelines or conduits, pumping stations, force mains, and all other structures, devices, appurtenances, and facilities used for collecting and conveying wastes to a site or works for treatment or disposal." The purpose of 314 CMR 12.00 is to insure "proper operation and maintenance of . . . sewer systems within the Commonwealth," and sets forth numerous requirements for the proper operations and maintenance of such systems. See 314 CMR 12.03(4), (10), and (11); 12.04(4); 12.05(5), (6) and (12); and 12.07(7).

Response to Comment #49: EPA's Analysis does not depend on the sufficiency or insufficiency of State regulations. See response to comment #48.

EPA's experience with other collection systems and satellite collection systems in the state are material to its assessment of the relative strength of alternative approaches to operation and maintenance requirements for satellite collection systems. EPA notes that the District itself is not arguing that operation and maintenance of satellite systems is or can be adequately addressed through requirements placed on it as owner of the treatment plant.

EPA notes that its treatment of satellite collection systems is a subpart of a much larger effort to ensure adequate operation and maintenance of collection systems in general through permit requirements. The importance of the collection systems components has been the subject of a great deal of attention, and progressively more stringent standard permit requirements, over the last decade. The majority of collection systems are owned by the treatment plant owner and are subject to the same operation and maintenance requirements that EPA seeks to impose here, due to the importance of these systems in overall treatment works performance. The pertinent question therefore is not whether there is a specific reason that Towns are subject to these requirements, but why a simple division of ownership should excuse important portions of the treatment works from these requirements. State regulations, while welcome, are not subject to EPA enforcement and are not a substitute for permit requirements.

Comment #50: The Region's Approach is a legislative rule that should be subject to Notice and Comment

In fact, EPA's attempt to change the legal requirements applicable to satellite systems is a legislative rule that EPA is issuing without formal notice and comment rulemaking in violation of the Administrative Procedure Act. In trying to distinguish between legislative rules and policy statements, courts have found that "if a document expresses a change in substantive law or policy the agency intends to make binding, or administers with binding effect, the agency may not rely upon the statutory exemption for policy statements, but must observe the APA's legislative rulemaking procedures."*Gen. Elec. Co. v. E.P.A.*, 290 F.3d 377, 383-84 (D.C. Cir. 2002. *See also Appalachian Power Co. v. EPA*, 208 F.3d 1015 (D.C. Cir. 2000) (finding that an EPA guidance document that imposed new monitoring requirements relating to the operation of permit programs under the Clean air Act was a legislative rule because it was treated as binding), *Nat'l Mining Ass'n v. Jackson*, 816 F. Supp. 2d 37 42-49 (D.D.C. 2011) (finding a violation of the Administrative Procedure Act where EPA sought to impose a new process for obtaining section 404 permits without notice and comment rulemaking), *New Hope Power Co. v. U.S. Army Corps of Eng'rs*, 746 F. Supp. 2d. 1272, 1283-84 (S.D. Fla. 2010) (striking Corps guidance purporting to amend the prior converted croplands exclusion because it amounted to new legislative rules that created a binding norm and the Corps failed to comply with the APA).

In the case of the revised draft CRPCD permit, there is no question that EPA intends its new position regarding satellite system to have binding effect. Moreover, it is telling that in 2001, EPA began a rulemaking that purported to give the agency direct authority over satellite systems, in the context of a proposed rule pertaining to sanitary sewer systems. *See* National Pollutant Discharge Elimination System (NPDES) Permit Requirements for Municipal Sanitary Sewer Collection Systems, Municipal Satellite Collection Systems, and Sanitary Sewer Overflows (proposal signed Jan. 4, 2001) (formerly available at http://cfpub.epa.gov/npdes/regresult.cfm? program id=4&view=all&type=3, but now withdrawn from EPA's website). EPA later withdrew that proposed rule.

Until such time as EPA addresses this issue on a national level and gives the public the opportunity review and, the Region should not include co-permittee provisions in any NPDES permit.

Response to Comment #50: See response to comment #47.

Comments submitted from Mr. Robert Cantoreggi, Director of Public Works, Franklin, Massachusetts, on September 27, 2012.

Comment #51: The Comment(s) below refer to ***Section H. "Compliance Schedule"***

As the majority "Owner / Stake Holder / Member of the District"", the Town of Franklin is concerned about the time table for implementation of the 20 months for design and 48 months for complete construction as outlined in Section H on Page 12.

There are factors that may affect the timetable that the District, member Towns or EPA has no control over, specifically:

- The member Towns ability to appropriate funds through Selectmen Votes, Council Votes or Town Meeting Votes in a timely manner for EPA's proposed upgrades.
- That the District is required to follow all of the Commonwealth of Massachusetts's Procurement Laws, regarding bidding, awarding, protesting, etc, etc. and all the conditions and timetable that go along with those procurement laws.
- The Contractor(s) who is awarded the work and their construction schedule and completion schedule may be limited and non-conforming to EPA's schedule due to unforeseen circumstances such as the award date, weather conditions, availability of materials/parts/resources, labor strikes, etc.

The Town of Franklin requests that the EPA provide language in the permit procedures that will be followed if there is an unforeseen delay in implementation and how the limits would be extended (particularly for issues that that may arise that the District has no control over). The Town of Franklin would expect at a minimum that the EPA would not implement any fines for delays that the District has no control over.

Additionally, The Town of Franklin would like to comment on all the limits EPA has proposed during the construction period for the District upgrades and violations that may occur. The Town of Franklin feels that the EPA should recognize in the permit that the regulatory agencies understand that permit compliance can be difficult during construction. EPA should also recognize that historically they have not issued fines if permit limits are missed during construction particularly if they and their contractor are providing due diligence during construction project and the District is keeping, the EPA and MassDEP abreast of the situation.

Response to Comment # 51: The compliance schedule in the Final Permit has changed to reflect the Capital Plan Summary provided to EPA from the District. See response to comment #5.

EPA recognizes that construction projects may be delayed for unforeseen reasons. The Town should note that adjustment of interim compliance deadlines up to 120 days is possible through the minor modification provision at 40 C.F.R. § 122.63(c), which should allay its concerns (the Town may also pursue a major modification). Rather than attempting to capture all possible future contingencies by including permit language along the lines proposed by the Town particularly much of the work has been completed, EPA believes it is more prudent to confront individual circumstances that impact the compliance schedule as (and if) they arise, and make decisions based on the facts presented. If the District's proposed date for completion of capital improvements are delayed, the District may request a permit modification.

Comments submitted from Mark Thompson, P.E, Project Manager, Kleinfelder, Inc., on behalf of the Towns of Bellingham, Medway and Millis on September 27, 2012.

Comment # 52: Co-Permittees
The draft NPDES permit proposes to impose specific activities and conditions upon the Towns as required by Sections 1.B – Unauthorized Discharges and I.C – Operations and Maintenance of the Sewer System. The Towns have made significant and voluntary progress toward reducing infiltration and inflow (I/I), collection system O&M, collection system mapping and development of other good practices for wastewater collection system management. Additional support of this work has been included by the CRPCD letter to the EPA. As this progress has been both effective and voluntary, inclusion of the co-permittee provisions as stated in the draft NPDES permit is not necessary.

At stated above, Robert D. Cox, Jr. of Bowditch & Dewey, LLP is specifically addressing the co-permittee provision under a separate letter. We agree with and endorse the findings presented by Bowditch & Dewey, LLP fully.

Response to Comment #52: See response to comments #34-50.

Comment #53: Technical Comments and Recommendations

It is our understanding that the CRPCD is preparing to meet the proposed numerical pollutant discharge limits as stated in the draft NPDES permit. However, to be consistent with the existing NPDES permit, we request that the number of significant digits identified in the total phosphorous (TP) winter and summer limits be changed from two to one, such that the limits shall be presented as 0.3 mg/L (winter) and 0.1 mg/L (summer). By eliminating one significant digit, there will be more operational flexibility afforded to CRPCD without actually changing the ultimate numerical limit.

Response to Comment #53: See response to comment #26.

Comment #54: We request that the summer flow limit stated in the draft NPDES permit (4.5 MGD) be a rolling monthly average, which shall be calculated as the arithmetic mean of the monthly average flow from the reporting month averaged with the monthly average flow from the previous 11 *summer months* (July through September). Because there are different summer and winter flow limits, averaging flows across these two time periods may introduce unintended and inaccurate permit violations. See 2008 Fact Sheet

Response to Comment #54: The summer flow limit (4.5 MGD) in the Draft Permit incorrectly references footnote #2. This is a typographical error that has been corrected in the Final Permit. The 4.5 MGD flow limit should be reported as a monthly average applicable from July through September, consistent with the previous permit and as discussed in the 2008 fact sheet.

The Draft Permit specifies the flow limit of 5.7 MGD in the Draft Permit is required to be reported as an annual average that is applicable during October through June. This is also a typographical error that has been corrected in the Final Permit. The flow limit should be reported as an annual average that is calculated as the arithmetic mean of the monthly average flow from the reporting month and the monthly average flow from the previous 11 months according to footnote #2 in the Final Permit.

Comments submitted by Karla Sangrey, P.E. Engineer Director/Treasurer, Upper Blackstone Water Pollution Abatement District, on September 27, 2012.

Comment #55: The Region may not change its position
In the partially revised draft permit issued to CRPCD, the Region again fails to identify a legal basis for its position that it has authority to regulate the Towns as co-permittees. While the revised draft CRPCD permit fact sheet and document entitled *Analysis Supporting EPA Region 1 NPDES Permitting Approach for Publicly Owned Treatment Works that include Municipal Satellite Sewage Collection Systems* ("Region 1's Analysis") respond to questions raised by the EAB in the Remand Order concerning EPA's legal authority to regulate separately owned municipal collection systems, the Region simply sets forth a series of new arguments to justify the regulatory position it footnote 10 of Region 1's Analysis, the Region acknowledges that its "position differs from that taken by the Region in the *Upper Blackstone* litigation. There, the Region stated that the treatment plant was the discharging entity for regulatory purposes." Now, according to the Region, it "has clarified this view upon further consideration of the statute, EPA's own regulations and case law and determined that a municipal satellite collection system in a POTW is a discharging entity for regulatory purposes."

The Region makes this change with no basis to justify it. In the *Upper Blackstone* matter, and before the EAB, the satellite collection systems were not "discharging," but the Region could nonetheless regulate them. In the face of EAB's rejection of this argument, and in light of the Region's "clarified view," the Region now says satellite collection systems are "dischargers."

The Region's explanation for its change in position is insufficient and contrary to law. "[A]n agency changing its course must supply a reasoned analysis." Moto Vehicle Manufacturers Associaiton v. State Farm Mutual Automobile Isurance Co., 463 U.S. 29, 57 (1983). In Region 1's Analysis, it says only that it has "clarified [its] view." The Region, however, must "explain the evidence which is available" supporting that change and "must offer a 'rationale connection between the facts found and the choice made.'" Id. 52. The Region does not, and cannot, identify new evidence or facts. The discharge point, at Outfall 001, has not changed. The owners or operators of the POTW and satellite collection systems have not changed.

Response to Comment #55: See response to comment #45.

Comment #56: The Region's Approach should be subject to national comment

In addition, in its Determination on Remand issued to the District on July 7, 2010, the Region indicated it would "coordinate broadly within EPA in developing a response" to the *Upper Blackstone* EAB Remand Order. Nothing in Region 1's Analysis indicates this was done. Because EPA's authority to permit satellite collection systems impacts not only the Region, but is of national significance, and because the issues raised by the EAB Region's effort to permit satellite collection systems as co-permittees or otherwise through separate permits should be presented to the public for review and comment on a national level.

Response #56: See response to comment #44.

Comment #57: The Region's Approach is a legislative rule that should be subject to Notice and Comment

In fact, EPA's attempt to change the legal requirements applicable to satellite systems is a legislative rule that EPA is issuing without formal notice and comment rulemaking in violation of the Administrative Procedure Act. In trying to distinguish between legislative rules and policy statements, courts have found that "if a document expresses a change in substantive law or policy the agency intends to make binding, or administers with binding effect, the agency may not rely upon the statutory exemption for policy statements, but must observe the APA's legislative rulemaking procedures."*Gen. Elec. Co. v. E.P.A.*, 290 F.3d 377, 383-84 (D.C. Cir. 2002. *See also Appalachian Power Co. v. EPA*, 208 F.3d 1015 (D.C. Cir. 2000) (finding that an EPA guidance document that imposed new monitoring requirements relating to the operation of permit programs under the Clean air Act was a legislative rule because it was treated as binding), *Nat'l Mining Ass'n v. Jackson*, 816 F. Supp. 2d 37 42-49 (D.D.C. 2011) (finding a violation of the Administrative Procedure Act where EPA sought to impose a new process for obtaining section 404 permits without notice and comment rulemaking), *New Hope Power Co. v. U.S. Army Corps of Eng'rs*, 746 F. Supp. 2d. 1272, 1283-84 (S.D. Fla. 2010) (striking Corps guidance purporting to amend the prior converted croplands exclusion because it amounted to new legislative rules that created a binding norm and the Corps failed to comply with the APA).

In the case of the revised draft CRPCD permit, there is no question that EPA intends its new position regarding satellite system to have binding effect. Moreover, it is telling that in 2001, EPA began a rulemaking that purported to give the agency direct authority over satellite systems, in the context of a proposed rule pertaining to sanitary sewer systems. *See* National Pollutant Discharge Elimination System (NPDES) Permit Requirements for Municipal Sanitary Sewer Collection Systems, Municipal Satellite Collection Systems, and Sanitary Sewer Overflows (proposal signed Jan. 4, 2001) (formerly available at http://cfpub.epa.gov/npdes/regresult.cfm? program_id=4&view=all&type=3, but now withdrawn from EPA's website). EPA later withdrew that proposed rule.

Until such time as EPA addresses this issue on a national level and gives the public the opportunity review and, the Region should not include co-permittee provisions in any NPDES permit.

Response to Comment #57: See response to comment #47.