

RESPONSE TO PUBLIC COMMENTS FOR
DRAFT NPDES PERMIT MA0100781

CITY OF NEW BEDFORD
NEW BEDFORD WASTEWATER TREATMENT FACILITY
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NEW BEDFORD, MA 02740

On May 22, 2008, the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MADEP) released a draft National Pollutant Discharge Elimination System (NPDES) permit for public notice and comment, for the above facility. The public comment period for this draft permit ended on June 20, 2008. Comments received are reproduced below as received and have not been edited.

The following comments were received from the **City of New Bedford**:

Comment No. 1:

“The City of New Bedford is seeking clarification as to the Towns of Acushnet and Dartmouth, as these Towns have not been co-permittees on any past New Bedford NPDES permits. Of main concern, should a co-permittee fail to meet an obligation (Section I (c) unauthorized discharges, I (d) operations and maintenance of the service system and/or a reporting requirement), how is the City to respond.”

Response:

The communities discharging to the treatment plant have been named co-permittees for conditions related to operation and maintenance of their collection systems. Each co-permittee is directly responsible for complying with the permit conditions for the collection systems it owns and operates. The City of New Bedford is not responsible for ensuring compliance with these provisions, but the permit also does not remove any authority the City of New Bedford may have pursuant to other legal mechanisms.

Comment No. 2:

“The City of New Bedford requests a similar time frame (as EPA granted with enterococci (1 year)) to achieve compliance with the newly imposed fecal coliform limit of 14. This request is primarily based on the need to study the system. Under varying operational and weather conditions, so that SOP’s may be developed to ensure consistent compliance with this parameter.”

Response:

EPA has included a compliance schedule of one year from the effective date of the permit to comply with the new, more stringent fecal coliform limits. In the interim period the existing limits will apply.

The following comments were received from the Coalition For Buzzards Bay:

Comment No. 1:

Permit Must Accelerate the Remediation of Combined Sewer Overflows in the Acushnet River Estuary

“The Coalition recognizes the City’s efforts in reducing the volume of CSO discharges by 85% from an estimated 3.13 Billion gallons/year to 467 Million gallons/year over the past 15 years. In fact, The Coalition notes that the City successfully eliminated CSO 012 this spring reducing the number of CSOs from 27 to 26. The elimination of this CSO prevents approximately 200,000 gallons of raw sewage from entering Outer New Bedford Harbor every year. However, much more work needs to be done in order to eliminate these discharges and avoid the continuous violation of water quality standards.”

“The Coalition applauds the 2006 CSO Baseline Conditions Report prepared by the City to estimate CSO frequency and volume. However, upon further review of the CSO Baseline Conditions Report, we note that very little further improvement is planned between 2011 and 2030. We encourage the EPA and the City to establish a more aggressive timeline for CSO remediation and especially as to those 13 CSOs in Inner New Bedford Harbor.”

Response:

We agree that the CSO long term control plan needs to be updated to reflect the projects already constructed and to determine appropriate further CSO abatement that can be accomplished within the City’s financial constraints. We anticipate working in conjunction with the Massachusetts DEP and the City on developing an enforceable mechanism to require such an update in the near future.

Comment No. 2:

Draft Technical Report Establishes Nitrogen Limit for Acushnet River Estuary

“The Acushnet River is listed on the Massachusetts List of Integrated Waters as impaired for nutrients requiring a Total Maximum Daily Load. (“TMDL”). In response, the Commonwealth, through the Massachusetts Estuaries Project has completed a draft technical report for nitrogen loading in the Acushnet River/New Bedford Inner Harbor. (Fact Sheet page 10) which will later serve as the basis for the TMDL. This report makes clear that among other sources, nitrogen loadings from CSOs are contributing to the

eutrophication of this system. It is well established that a permit may not cause or contribute to the violation of a TMDL. It is critical that the EPA highlight the need for the City to develop a plan to remediate those discharges impacting the Acushnet River and Inner Harbor in order to insure compliance with the pending TMDL. Once a load allocation is made, The Coalition urges the EPA and DEP to reopen this permit to insure appropriate limitations and requirements are applied to the CSOs.”

Response:

Regarding the connection between TMDLs and permits, federal regulations at 40 CFR Part 122.44(d)(vii)(B) require that water quality-based effluent limits be “consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7.” The technical report, when finalized, will be a critical tool for developing the TMDL, but the draft report does not constitute a final, approved TMDL, so the requirements of this part of the regulations are not yet applicable.

The draft technical report cited by the commenter estimates that nitrogen discharged from CSOs represents about 8.5 percent of the annual nitrogen loading to the Lower Acushnet River/ Inner Harbor, and further estimates that loading to the impacted water must be reduced by half to achieve water quality standards. The CSO flow estimates (see Attachment D to the fact sheet) show that annual CSO flows to the Acushnet River/Inner Harbor are expected to be reduced from the current 334 million gallons to 230 million gallons by 2011 with planned improvements. This represents about a 30 percent reduction in flow, which would also represent about a 30 percent reduction in nitrogen load. This would indicate that a further reduction may be necessary to achieve water quality standards. Further controls are also likely necessary to achieve water quality criteria for other pollutants, particularly bacteria (see list of impairments on page 3 of the fact sheet).

As stated above, we anticipate working in conjunction with the MassDEP and the City on developing an enforceable mechanism to require a CSO plan update. A schedule for CSO mitigation projects could then be developed.

Comment No. 3:

Nitrogen Limits

“While nitrogen pollution is the greatest long term threat to the health of Buzzards Bay, 16 years of Coalition Baywatchers data do not support a nitrogen limit for the wastewater treatment plant at this time. The Coalition would prefer to see any investments made by the City be focused primarily on remediating CSOs in the inner harbor, thereby reducing one of the primary sources of nitrogen to a federally listed impaired waterbody requiring a TMDL.”

Response:

We agree that the priority for capital wastewater projects should be CSO abatement. The nitrogen removal requirements for the wastewater treatment plant require optimization of existing facilities and do not require significant capital improvements.

Comment No.4:

Eliminate the Use of Chlorine as the Disinfection System.

“The City’s wastewater treatment plant is the only wastewater treatment plant within the Buzzards Bay watershed dependent on toxic chlorine for disinfection. All other plants have upgraded to ultraviolet technology and the Coalition supports the City’s move in that direction. This permit should require the City to establish a timeline to transition from chlorine to ultraviolet technology.”

Response:

The water quality-based effluent TRC limitations in the final permit are protective of water quality standards and are the same limits that were in the previous permit. The discharge monitoring reports submitted by the City show that the limitations have been consistently achieved. EPA may not require an alternative method of treatment when the current method is achieving effluent limitations.

The following comments are received from **David Stoff, a member of the MassCSO Network** :

Comment No. 1:

“The Draft Permit provides reasonable limits on conventional pollutants discharged from the New Bedford Wastewater treatment Facility (“New Bedford WWTF”). It also contains nitrogen monitoring requirements that will aid in determining whether the New Bedford WWTF is exacerbating nitrogen pollution in Buzzards Bay.”

“The non-profit group Coalition for Buzzards Bay has noted that nitrogen pollution is a long-term threat to Buzzards Bay. Based on the discussion of the report “New Bedford Harbor dissolved oxygen and benthic Habitat Study” in the Fact Sheet, DEP and EPA should heed these warnings and include limitations on nitrogen discharged by the New Bedford WWTF in the Draft Permit.”

“The Draft Permit also contains limits on toxic discharges such as chlorine. The chlorine limits are derived from EPA’s National Recommended Water Quality Criteria. A dilution factor of nine is used in the calculation presented in the Fact Sheet; although there is reference to a MADEP letter suggesting a dilution factor of eight. Some explanation of the scientific basis of the dilution factor would be helpful. The Fact Sheet leaves the impression that the choice of the dilution factor was arbitrary.”

“While the limits on discharges from the New Bedford WWTF may be reasonable, I can find much that is troubling in the portions of the Draft Permit dealing with the wet weather performance of the New Bedford sewer system, particularly the handling of New Bedford’s combined sewer overflows (“CSOs”).”

Response:

While the Coalition for Buzzards Bay does state that nitrogen pollution is the greatest long term threat to the health of Buzzards Bay, it goes on to state that 16 years of Coalition Baywatchers data do not support a nitrogen limit for the wastewater treatment plant at this time. We concur with the Coalition’s assessment, and as described in the fact sheet, have included nitrogen removal optimization requirements, but not numerical effluent limitations (also see response to Buzzards Bay Coalition Comment # 3).

The dilution factor is from an EPA letter dated November 12, 1992 to MaasDEP and represents the best current estimate. As described in the response to Buzzards Bay Coalition comment #4, we believe that the TRC limits are protective of water quality standards.

Responses to specific CSO issues are addressed below.

Comment No. 2:

CSO Control Plan

“The most glaring shortcoming of the Draft Permit is the lack of a requirement for implementation of the long-term CSO control plan. The Fact Sheet notes that New Bedford developed a CSO control plan in 1990, and revised the plan’s modeling predictions in 2006; yet Part F. of the Draft Permit does not contain any requirement that the Long-Term CSO Control Plan be implemented.”

“A short statement such as “the discharge frequencies and volumes for New Bedford CSO discharges are limited in accordance with the long-term control plan approved in 1990 as modified by the City’s “CSO Baseline Condition Report” is necessary.”

“The Clean Water Act conditions discharge permits upon compliance with treatment requirements (*See*, CWA sec. 402(a); CWA sec. 301). As written, the Draft Permit violates this requirement because the required treatment for CSOs includes implementation of a long-term CSO control plan in the NPDES permit. CWA sec. 402(q); EPA *Combined Sewer Overflow Control Policy*, Part IV(B)(2).”

“Similarly, the discharge volumes and frequencies in Attachment D, table 5-5, in the Fact Sheet should be incorporated into the permit’s effluent limitation. This would provide assurance that the level of performance predicted by the permittee in the CSO control plan conforms with CWA sec. 402.”

Response:

The Region considers this permit a Phase I CSO permit as there is no final, approved CSO long term control plan (LTCP) and there has been no adjustment to water quality standards to allow the CSO discharges that would remain after implementation of the 1990 LTCP. It is our approach in such permits to include requirements for implementation of technology-based requirements (the nine minimum controls) and to include narrative water quality-based limits requiring that CSO discharges not cause exceedances of water quality standards.

As noted by the commenter, the Clean Water Act at Section 402(q) requires NPDES permits to conform to the National CSO Control Policy. Further, Section 402(a) of the Clean Water Act authorizes EPA to issue NPDES permits that authorize the discharge of pollutants. Section 301 of the Clean Water Act requires that any discharges authorized in an NPDES permit must achieve appropriate technology-based and water quality-based limitations. The permit authorizes New Bedford's CSOs subject to achieving technology-based standards (the nine minimum controls) and water quality standards (see the narrative limit in Part I.F.1.b. of the permit). The permit requirements for CSOs therefore meet the general requirements of Section 402 and 301 and conform to the CSO policy in that it is at least as stringent as a permit requiring implementation of a long-term control plan.

Comment No. 3:

Water Quality Standards

“The “CLASSIFICATION” section of the Fact Sheet should be deleted as the narrative description in the “Receiving Waters” section that follows adequately explains the regulatory basis of the limitations in the Draft Permit.”

“Inclusion of the CSO qualifier creates confusion about the applicable water quality standard (*i.e.* class SB or SBcso). The CSO qualifier does not modify the designated uses or numeric criteria of either the class SA or SB water quality standard; such changes require a Use Attainability analysis.”

Response:

The commenter is correct in his statement that the CSO qualifier in the water quality standards has no effect until a UAA that specifically authorizes CSO discharges is completed and approved. For these waters there is no such UAA, so these waters must meet all water quality standards at all times.

Because the fact sheet is developed only to support the draft permit requirements, it will not be modified. This clarification is, however, part of the administrative record.

Comment No. 4:

“CSO Long-Term Control Plan Compliance Monitoring

The 1990 New Bedford CSO control plan pre-dates EPA’s 1993 *Combined Sewer Overflow Control Policy* (“*CSO Policy*”) and Congress’ incorporation of the *CSO Policy* into the Clean Water Act as CWA sec. 402(q). New Bedford has made significant commitments to controlling its CSO discharges without the benefit of the guidance offered by the current regulatory framework. The Fact Sheet notes that the City has already “separated 90 acres of combined sewer areas, constructed over 16 miles of pipes, constructed or upgraded 17 new pump stations,” and that by 2011 *all* currently planned CSO control activities will be complete.”

“Since December 21, 2000, all permits for CSO discharges are required to conform to the *CSO Policy*. The *CSO Policy* does discuss how CSO control efforts, such as those undertaken by New Bedford, are to be integrated into the *Policy’s* legal and regulatory framework.”

“Part I(C)(2) of the *CSO Policy* requires post construction water quality monitoring program that is adequate to verify compliance with water quality standards and the protection of designated uses. The discussion of CSO planning in the Fact Sheet (*i.e* Description of Discharge) does not indicate if New Bedford’s *CSO Baseline Condition Report* was the product of an ongoing program. In fact, the Fact Sheet does not present any water quality data about CSO impacts on the receiving waters.”

“More information about the impact of CSOs on receiving water quality would be helpful. Without this information it is impossible to determine if limitations on CSO discharges are stringent enough to meet water quality standards, or determine if the *CSO Baseline Condition Report* conforms to the compliance monitoring requirements of the *CSO Policy*.”

Response:

As discussed previously, we believe the CSO conditions in the permit comply with the CWA, including the National CSO Control Policy.

In response to the specific comments, while New Bedford believes that it will complete all currently planned CSO projects by 2011, these are not all of the projects recommended in the 1990 plan, nor are they all of the projects we believe that will be recommended in an updated LTCP. As envisioned by the CSO Control Policy, post-construction monitoring is required after completion of LTCP’s recommended CSO abatement projects to ensure that the implemented controls achieve water quality standards. It is certain that implementation of the City’s currently planned projects will not achieve current water quality standards so it would not be reasonable to require post construction monitoring at this time.

Comment No. 5:

Sanitary Sewer Overflows

“The Fact Sheet notes that 35% of New Bedford is served by sanitary (*i.e.* separate) sewers. The Draft Permit recognizes that Sanitary Sewer Overflows (“SSOs”) are unauthorized discharges (Part I(C)). Unfortunately the Draft Permit conflates SSO removal with I/I elimination, and hence the draft permit lacks appropriate conditions for control and elimination of SSOs.”

“Once an SSO has been identified, either through the I/I plan or MADEP’s SSO reporting requirements, it is a point source discharge, and is subject to the requirements of the Clean Water Act. CWA section 301 requires limitations on point sources, including limitations stringent enough to meet applicable state water quality standards.”

“The permit must specify how the SSO removal program achieves this level of treatment. CWA sec 402(a); 40 CFR 122.44(a)(1). The Fact Sheet should distinguish the treatment standard for SSOs that have already been identified from the standard for I/I removal, which is based on efficient wastewater treatment plant operation. (*See*, 40 CFR 35.2005).”

“The I/I plan prioritizes the identification and removal of sump pump discharges. Draft Permit Part I(D)(2). Scarce municipal resources should be preserved for priority I/I removal projects. The permit should deal with private discharges directly through the adoption, or modification, of sewer use ordinances requiring a time of transfer inspection of private sewer lines.”

“This approach would properly shift the burden of removing inflow from private roof drains and sump pumps to property owners when property is bought and sold. The New England Interstate Water Pollution Control Commission manual *Optimizing Operation, Maintenance, and Rehabilitation of Sanitary Sewer Collection Systems* provides an example of a time of transfer ordinance.”

Response:

The permit does not include effluent limitations for sanitary sewer overflows (SSOs) because it does not authorize discharges from SSOs. Such discharges are unpermitted discharges subject to appropriate enforcement response consistent with the Clean Water Act.

We do not concur that the I/I control requirements in Part D. of the permit would result in a misallocation of municipal resources. The requirements specify measures that must be components of the I/I control program, but specifically leave it to the permittee to

determine the capital programs which will best achieve the programs goals. If the permittee wishes to establish local ordinances regarding removal of private inflow as a condition of property sales as a component of its inflow control program, it is free to do so. EPA does not believe that it should or can mandate such a program in the permit.

Comment No. 6:

Alternative Methods of Reducing Sewer System Inflow During Wet Weather

“The Fact Sheet notes that New Bedford was not placed on an enforceable schedule for implementing its Long-Term CSO Control Plan because of the cost of constructing the secondary treatment facility. This underscores the role that financial capability plays in implementing CSO controls.”

“Attachment D, Table 5-5 in the Fact Sheet indicates that even with planned improvements, the sewer system will still discharge a total of 355 million gallons of untreated effluent about 48 times a year. In Massachusetts, on average, there are about 130 days a year with over 0.01 inches of rain. Even with the planned CSO controls in place New Bedford’s sewers will continue to discharge on over a third of these days. Quite simply, more must be done to control New Bedford’s CSO discharges.”

“One strategy that could provide a cost-effective method of controlling New Bedford’s CSOs is to reduce inflow during wet weather through the use of so called “green infrastructure.” EPA has announced its intent to incorporate green infrastructure as a method of reducing CSOs (See, http://www.epa.gov/npdes/pubs/gi_intentstatement.pdf). The permit should encourage use of this strategy.”

“The I/I control plan should include a requirement to identify areas where green technologies could be employed to reduce run-off volume and control inflow to the sewer system. This would modify Part I (D)(2) of the permit through the inclusion of a fifth bullet point that states the I/I plan will include:

Response:

As discussed previously, EPA intends to require an updated LTCP and believes that additional CSO abatement is necessary.

Regarding the suggestion that the inflow should be reduced through the use of green infrastructure (i.e. utilizing green roofs, trees and tree boxes, rain gardens, vegetated swales, pocket wetlands, infiltration planters, reforestation, protection and enhancement of riparian buffers and flood plains etc.), EPA supports these cost effective technologies. Currently EPA is working with National Association of Clean Water Agencies, Natural Resources Defense Council and Association of State and Interstate Water Pollution Control Administrators to develop strategies to identify, encourage, and recognize

innovative and effective use of green infrastructure. However, at this time, it does not mandate that the green infrastructure technology be used in attaining compliance.

Comment No. 7:

Additionally permit language in Part (D)(2), “The program should include the necessary funding level and sources of funding” should be modified to read “...sources of funding and identify the portion of funding devoted to implementing green infrastructure technologies.”

Response:

See response to Comment #6.