

RESPONSE TO PUBLIC COMMENTS FOR  
DRAFT NPDES PERMIT MA0101893

TOWN OF WAREHAM  
WAREHAM WASTEWATER TREATMENT FACILITY  
6 TONY'S LANE  
WAREHAM, MA 02571

On December 7, 2007, 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 January 5, 2008.

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

**Comment No. 1:**

**The Wareham River Fails to Meet State Water Quality Standards**

“The greatest long term threat to the health of Buzzards Bay and its more than 30 harbors and coves, including the Wareham River estuary, is nitrogen pollution. In fact, the Wareham River estuary is so degraded by nitrogen as to warrant being placed on the Federal Clean Water Act’s 303(d) list of impaired waterbodies requiring a Total Maximum Daily Load (“TMDL”). CWA §303(d)(1)(C). In The Coalition’s 2007 State of the Bay report, the Buzzards Bay Health Index ranked the Agawam River, part of the Wareham River estuary, as one of two of the most eutrophic waterbodies in Buzzards Bay. For a summary of water quality data collected by The Coalition on the Agawam and Wareham River system between 1992-2005, see our website at <http://savebuzzardsbay.org/baywatchers/>.”

**Response No. 1:**

We agree that the Agawam River and Wareham River Estuary are impaired due to nitrogen, which is why a nitrogen limit was established in the previous permit and will continue in this permit. We believe, based on existing information, that the nitrogen limitation in the permit is sufficiently stringent to ensure that the discharge from the facility will not cause or contribute to the impairment.

**Comment No. 2 :**

**Release of TMDL is Imminent**

“The Commonwealth of Massachusetts, in an effort to restore waters impaired by nitrogen pollution, created the Massachusetts Estuaries Project (“MEP”) which serves as the scientific basis for the federally required TMDL. In 2007 the MEP completed a report determining the critical nitrogen loading thresholds for this estuarine system and submitted that report for review to the MassDEP. While The Coalition notes that the Fact Sheet states on page nine that “DEP does not anticipate completing it’s [TMDL] until summer of 2009”, we are

confident that a TMDL can and will be completed in 2008 and encourages MassDEP to make the issuance of this TMDL a top priority.”

“The information provided in this report is vital to the issuance of an appropriate permit for this facility and insuring that the receiving waters are protected. It is likely that the report will conclude that despite the town of Wareham’s substantial, and laudable, efforts in upgrading its wastewater treatment facility and expanded sewerage, that more remediation will be needed in order to meet water quality standards. Therefore, without proper consideration of this pending TMDL it is likely that this permit may be issued in violation of the Clean Water Act Section 301(b)(1)(C) and implementing regulations which require that a NPDES permit set effluent limitations to protect water quality standards. 40 CFR §§ 122.4(d).”

“Furthermore, Part I.A.1(a) of the draft permit states that the discharge shall not cause a violation of the water quality standards of the receiving waters. It is impossible to verify whether this permit achieves that requirement without the TMDL.”

“The Fact Sheet also states that if the TMDL or other water quality information shows that the treatment plant discharge causes or contributes to violations of water quality standards, the permit may be reopened and modified to include any necessary effluent limitations. The Coalition requests, in an effort to be timely and efficient, that the EPA delay the issuance of the final permit and consider the TMDL first as opposed to issuing a premature permit which will then be subject to reopening.”

**Response No. 2:**

We have contacted MassDEP regarding the schedule for the TMDL. They expect to release the draft TMDL at the end of 2008, whereupon they will accept public comments, make appropriate revisions (if any) and submit it to EPA for approval. This review and approval process would be expected to take at least six months, provided there are no major issues. Given the length of time until an approved TMDL will be available under the best circumstances, we have decided not to delay the issuance of this final permit.

However, as stated in the fact sheet, “If the TMDL or other water quality information shows that the treatment plant discharge causes or contributes to violations of water quality standards, the permit may be reopened and modified to include any necessary effluent limitations.”

### **Comment No. 3:**

#### **State Certification**

“The Coalition requests clarification of the applicability of Section 401(a)(1) of the Clean Water Act to this permit issuance. This section requires that the Town of Wareham obtain a MassDEP certification stating that the permit will comply with all applicable federal effluent limitations and State water quality standards. It is clearly established that the Wareham River Estuary, the receiving waters for this facility, does not meet water quality standards. Furthermore, pursuant to the analysis in the previous section of these comments, it is likely that even with these effluent limitations that water quality standards will not be met and therefore a State Certification would be unattainable. The Coalition requests an explanation.”

### **Response No. 3:**

As required by Section 401(a)(1) of the Clean Water Act and by federal regulations at 40 CFR 124.53, the applicant for an NPDES permit must obtain a certification from the State in which the discharge originates that its discharge will comply with Sections 301, 302, 303, 306, and 307 of the Clean Water Act. EPA may not issue the permit until the State has granted or waived such certification. As described by the commenter, among the conditions that the State must certify is that the permit limitations are sufficiently stringent to achieve water quality standards.

We agree with the commenter that the Agawam River and Wareham River estuary are not meeting water quality standards, but note that the state may certify a permit reauthorizing a discharge to an impaired water if it believes that the conditions in the permit are sufficiently stringent to ensure that the discharge is not causing or contributing to the impairment. Based on the currently available information, EPA believes that the limits are sufficiently stringent, and MassDEP has granted its certification.

As described previously, the ongoing TMDL may be completed and approved in 2009. If the TMDL, or other new water quality information shows that the permit's effluent limitations or other conditions are not sufficiently stringent to achieve water quality standards, such information would be new information pursuant to 40 CFR 122(a)(2) and would therefore be cause for modifying the permit. Any interested person can request EPA to modify a permit for cause (see 40 CFR 122.62 and 124.5(a)).

### **Comment No. 4:**

#### **The Town of Wareham has Reduced its Nitrogen Impact**

“It is worthy to note that the Town of Wareham has made substantial efforts in reducing the impact that nitrogen has on the Wareham River Estuary. Together with a state-of-the-art facility upgrade with enhanced nitrogen removal technology, it also continues to expand sewerage efforts throughout town. The Town's water pollution control facility has one of the

most aggressive nutrient permit limits in all of Buzzards Bay and has consistently operated at this level since construction. In addition, the facility no longer relies on chlorine as the disinfection technology but rather has moved to UV technology eliminating the impacts residual chlorine has on the ecosystem. The Coalition supports the Town in all these efforts and looks forward to working to realize water quality standards within the Wareham River Estuary.”

**Response No. 4:**

We have noted your comments.

**Comment No. 5:**

**Conclusion**

“With the issuance of the TMDL for this impaired waterbody imminent, the Coalition requests that the issuing authority delay the final permit for full information and invest the time and effort of the MassDEP in the timely establishment of a TMDL for the waterway. Thank you for the opportunity to comment. Please feel free to contact us at anytime with questions or concerns.”

**Response No. 5:**

Please see responses to Comment Nos. 2 and 3.

The following comments were received from the **Massachusetts Riverways Program:**

**Comment No. 1:**

“The facility has had some challenges meeting the Whole Effluent Toxicity (WET) limits in the existing permit. These exceedances at a municipal facility without significant industrial users are a concern and we concur with the Agency’s decision to maintain the existing WET testing and reporting requirements. Hopefully the recently completed facility upgrades will result in consistent compliance with WET limits and the frequency of testing can be revisited in the next permit review.”

**Response No. 1:**

We share the commenter’s expectation that the upgraded wastewater treatment facility will be able to achieve consistent compliance with WET limits. If it does not, EPA or MassDEP may take an enforcement action requiring the Town to take appropriate actions to correct the violation.

**Comment No. 2:**

“The effluent data and the unknown toxicity impairment in the Agawam River support the continued copper testing and reporting requirements found in the draft permit. The facility appears to have had particular problems with copper concentrations before the upgrades. The discharge monitoring data provided in the Fact Sheet documents many elevated daily maximum concentrations in 2005 and into 2006. Continuing the more frequent testing of the effluent for elevated copper concentrations is a judicious measure given the sensitivity of estuarine and marine organisms to this metal and the past history of this plant.”

**Response No. 2:**

We have noted your comments.

**Comment No. 3:**

“The draft permit includes requirements related to infiltration and inflow control. These requirements are most welcome since excessive I&I can place great strains on collection and treatment systems. The Wareham facility appears to have monthly flow averages that are trending downward though the data also shows daily maximum flows are increasing. The increase in daily maximum flows may be an indication of increasing I&I problems; problems the I&I requirements in the draft permit will help combat.”

**Response No. 3:**

The average flow data shown on Attachment A of the fact sheet are annual average flows, which have generally declined, indicating a reduction in the average flow to the facility. While the maximum daily flows reported in 2007 were greater than those reported in 2006, it does not seem that these are due to worsening I/I, given the overall reduction in average flow. We would suspect that there were larger rainfall events in 2007 than in 2006 which caused the high maximum daily flows.

Nonetheless, the ratio of maximum daily flow to average flow does indicate that additional progress needs to be made regarding I/I. We believe that the new I/I requirements in the final permit will lead to further reduction in I/I and reductions in both the average and maximum daily flows.

**Comment No. 4:**

“The carry over of total phosphorus seasonal limitations is a sound measure. This reach has documented problems with excessive aquatic vegetation; a condition that could be fueled and exacerbated by excessive nutrients. The 0.2 mg/l total phosphorus limit provides a good first milestone in nutrient control. Further assessment will be able to quantify the efficacy of this limit and provide relevant data for future permit renewal evaluations.”

**Response No. 4:**

We have noted your comments.

**Comment No. 5:**

“The facility has done an admirable job meeting the 4.0 mg/l total nitrogen seasonal limitation. The Fact Sheet and Footnote #12 appear to state the facility will average the seven monthly averages when the permit limitation is in place and report a single monthly average for the season. This rolling average would be the sole figures required to meet permit limits, (4.0 mg/l and 52 lbs/day). Is this an accurate reading of the application of the seasonal nitrogen limitation? If the facility needs to report only one averaged concentration each year to comply with the seasonal limitation then the intent of season controls on inputs into the coastal ecosystem is diluted. We would like to strongly advocate for a seasonal limit requiring each monthly average to meet the seasonal limits. In the Buzzards Bay watershed, the Gulf Stream influences water temperatures. With warmer water, marine productivity and cycles are longer and earlier than in Mass Bay. The ‘spring’ phyto and zoo plankton blooms typically occur in February. Tempering the nutrient load to stave off an uneven seasonal distribution can only help prevent unintended and undesirable nutrient loading impacts in Buzzards Bay. We would also like to encourage the permit include a request that the Permittee maximize nutrient removal, to the extent practicable, throughout the year. This request is based on the accelerated warming found in the Gulf Stream tempered Buzzards Bay area and the resulting boost it provides to ecosystem activity in late winter/early spring and into the late autumn.”

**Response No. 5:**

Your understanding of the nitrogen effluent limit is correct. The limit is a seven month average, and compliance with the limit is calculated once per year. The permit requires that the monthly average and maximum daily discharges be reported so that variations in effluent quality can be tracked. Review of data submitted in 2006 and 2007 for the months of April through October show that the monthly average total nitrogen concentration has varied from 1.3 mg/l to 4.2 mg/l, indicating stable operation.

The permit requires that all facilities and systems of treatment and control be operated properly (see Part II.B.1), so we do not believe that further optimization requirements are necessary.

We do not believe that we currently have water quality information demonstrating the need for a more stringent nitrogen limit or a different averaging period, but as described in response to comments from the Coalition for Buzzards Bay, if the anticipated TMDL, or other water quality information shows the need for more stringent effluent limitations or conditions the permit may be modified accordingly

**Comment No. 6:**

“Finally, the draft permit carries over the existing permit limits for BOD<sub>5</sub> and TSS monthly average (daily) loadings. The loadings were calculated using a significantly higher flow limit of 1.8 MGD. No explanation was provided for this atypical approach to determining the load. We strongly advocate the monthly average load be calculated in the same manner as the weekly load, (and other municipal permit loads) by using the design flow of the facility, (1.56

MGD). The facility exhibits an exceptional BOD<sub>5</sub> and TSS removal record which can more than meet a revised monthly load limit of 125 lbs/day.”

**Response No. 6:**

We have reevaluated the monthly average BOD and TSS mass limits and have decided that the limits should be calculated at the current treatment plant design flow of 1.56 MGD pursuant to 40 CFR 122.45(b), which requires that POTW permit limits be calculated based on design flow. As the commenter has noted, the facility’s past performance shows that it should easily achieve these limits. Accordingly, the monthly average limits were reduced from 150.1 lbs per day to 130.1 lbs/day.

The following comments were received from the **National Marine Fisheries Service**:

**Comment No. 1:**

“While several species of sea turtles may occur seasonally in Buzzards Bay, no listed species are known to occur in the Agawam River. As such, no further coordination with NMFS PRD is necessary. Should new information become available that changes the basis for this determination, or a new species be listed or critical habitat designated, further coordination with NMFS should be pursued.”

**Response No. 1:**

EPA acknowledges the NMFS determination and concurs that EPA will pursue further coordination with NMFS consistent with its comment.

**Other Additions :**

See table of “Summery of Report Submittals” in the following page.

### Summary of Required Report Submittals\*

Required Report	Date Due	Submitted by:	Submitted to:
Discharge Monitoring Report	By the 15 <sup>th</sup> of every month	Town of Wareham	Environmental Protection Agency Water Technical Unit (SEW) P.O. Box 8127 Boston, MA 02114
			MassDEP Bureau of Resource Protection Central Regional Office 627 Main Street Worcester, MA 01887
			MassDEP Division of Watershed Management Surface Water Discharge Permit Program 627 Main Street, 2 <sup>nd</sup> Floor Worcester, MA.01608
Whole Effluent Toxicity Test Report (Part I.A.1)	April 30 <sup>th</sup> , July <sup>31st</sup> , October <sup>31st</sup> and January <sup>31st</sup> of each year	Town of Wareham	Environmental Protection Agency Water Technical Unit (SEW) P.O. Box 8127 Boston, MA 02114
			Mass-DEP Division of Watershed Management Surface Water Discharge Permit Program 627 Main Street, 2 <sup>nd</sup> Floor Worcester, MA 01608
Annual Sludge Report (Part I.E)	Annually by February 19	Town of Wareham	Environmental Protection Agency Water Technical Unit (SEW) P.O. Box 8127 Boston, MA 02114
I / I Report (Part I.D.3)	Within six months of the effective date of the permit and annually by March <sup>31st</sup>		Mass-DEP Bureau of Resource Protection Central Regional Office 627 Main Street Worcester, MA 01887

\* This table is a summary of the reports required to be submitted under this NPDES permit as an aid to the permittee. If there are any discrepancies between the permit and this summary, the permittee shall follow the permit requirements.



