

May 25, 2007

By Electronic Mail

Michael Ackerman
MA Department of Environmental Protection
Division of Watershed Management
627 Main Street, 2nd Floor
Worcester, MA 01608

Re: West Falmouth Harbor Embayment System – Total Maximum Daily Loads

Dear Mr. Ackerman,

The Coalition for Buzzards Bay (“The Coalition”) is pleased to have the opportunity to comment on the West Falmouth Harbor Embayment System draft Total Maximum Daily Load (“TMDL”). We acknowledge and applaud this milestone, as this is the first draft nitrogen TMDL produced for the Buzzards Bay watershed. The Coalition is a nonprofit membership organization dedicated to the restoration, protection and sustainable use and enjoyment of Buzzards Bay and its watershed. We represent more than 4,700 individuals, families, organizations, and businesses in Southeastern Massachusetts.

West Falmouth Harbor Continues to be Impaired by Nitrogen

West Falmouth Harbor, the receiving waters for the Wastewater Treatment Facility (“WWTF”), has suffered from the deleterious impacts of nutrients for almost two decades. As such, it has been placed on the States Integrated List of Impaired Waterbodies as impaired for nutrients. Pursuant to section 303(d) of the Federal Clean Water Act, a TMDL must be established by the State for this water. In September of 2006, the Massachusetts Estuaries Project (“MEP”) completed the technical report which determined the threshold limit for nitrogen at 0.35mg/L for West Falmouth Harbor. This concentration is the limit of nutrients permissible to facilitate the Harbor’s recovery. We are pleased to see the MA Department of Environmental Protection, (“DEP”) move forward with issuing this TMDL and strongly encourages EPA to expedite the adoption of a final TMDL in order to insure the restoration of West Falmouth Harbor.

Clarification on Percent Nutrient Loading from Wastewater

While DEP’s public presentation for this draft TMDL on April 11, 2007 accurately stated that the majority of the nutrient load to West Falmouth Harbor is attributed to the Wastewater Treatment Facility and on-site septic systems (~92%), the February 9, 2007

Draft (Report #92-TMDL-11 Control #243.0) made available prior to the presentation and currently posted on the DEP’s website, incorrectly attributes a significant nitrogen load (~35%) to fertilizers and runoff. This error calls into question the accuracy of a substantial portion of this draft TMDL document. The Coalition acknowledges that DEP is aware of these errors and is confident that the agency will make the necessary changes to reflect that 69% of the nutrient load to West Falmouth Harbor is generated from the WWTF and 23% is generated from on-site septic systems. To that end, the Coalition encourages DEP to pay particular attention to the analysis in the MEP technical report to insure that the TMDL document minimizes inaccuracies. The following table itemizes the errors in this draft which must be addressed.

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| <p>Figure 1, page iii – West Falmouth Harbor Percent Nutrient Loading</p> | <p>This figure inaccurately depicts Fertilizers and Runoff as being 35% of the nitrogen load to the harbor. The MEP Technical Report indicates that no more than 8% of the load should be assigned to Fertilizers and Runoff, Figure IV-6 (a-c).</p> |
| <p>Table 1A, page 2 – The West Falmouth Harbor embayment system Waterbody Segment in Category 5 of the Massachusetts 2002 and 2004 Integrated List</p> | <p>This table fails to indicate that the final 2004 Integrated List of Waters lists Nutrients, and other habitat alterations in addition to Pathogens, as impairing West Falmouth Harbor.</p> |
| <p>Problem Assessment discussion on page 4.</p> | <p>The first paragraph in the Problem Assessment section of this draft TMDL reports that “On-site septic systems contribute only about 10% of the nitrogen load to the West Falmouth Harbor System.” The MEP Technical Report attributes 23% of the nitrogen to on-site septic systems. Figure IV-6 (a-c)</p> |
| <p>Figure 4, page 6 – West Falmouth Harbor Percent Nutrient Loading</p> | <p>This figure inaccurately depicts Fertilizers and Runoff as being 35% of the nitrogen load to the harbor. The MEP Technical Report indicates that no more than 8% of the load should be assigned to Fertilizers and Runoff, Figure IV-6 (a-c). Furthermore, the text associated with this Figure inaccurately claims that “the N affecting this embayment system originates from the wastewater treatment facility, fertilizers, and runoff with a lower level coming from on-site subsurface wastewater disposal systems (septic systems)...”</p> |
| <p>Discussion page 11 to 12.</p> | <p>In discussing the controllable nitrogen load in this system, the draft TMDL on page 12 states that “the wastewater treatment facility</p> |

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| | contributes 46%, land use contributes 41%, and septic systems contribute 13%.” Again, the Coalition refers DEP to Figure IV-6 (a-c) of the MEP Technical Report. |
| Figure 5, page 16 – Percent Contribution of Locally Controllable Sources of Nitrogen. | This pie chart depicts inaccurate load allocations. It should be altered to reflect the information provided in Figure IV-6 (a-c) of the MEP Technical Report. In addition, the discussion of this Figure 5 on page 17 attributing the “overwhelming majority of locally controllable N” to “wastewater treatment facility and land use” should be corrected to reflect that the overwhelming majority of locally controllable N comes from the wastewater treatment facility and on-site septic systems (not land use). |

Problem Assessment

The Problem Assessment section of this draft TMDL attributes the nutrient load to groundwater as a function of population. (Page 4) While this is certainly an accurate statement, it is worth noting that the WWTF imports waste from the growing population outside of the West Falmouth Harbor watershed in addition to the growing number of on-site septic systems within the West Falmouth Harbor watershed.

Description of the Applicable Water Quality Standards

The Coalition suggests that a discussion of 314 CMR 5.00, the Ground Water Discharge Permit Program is warranted in the Description of Applicable Water Quality Standards section of this TMDL. Since the largest contributor of the nitrogen load to West Falmouth Harbor is the Wastewater Treatment Facility, permitted pursuant to 314 CMR 5.00, its application is directly related. Specifically, 314 CMR 5.06 restricts the issuance of a permit when the discharge will cause or contribute to a condition in contravention of water quality standards. Evidence presented in this draft TMDL suggests that the site-specific limits necessary to control accelerated or cultural eutrophication (314 CMR 4.05(5)(c)) will directly affect the limits contained within the ground water discharge permit.

West Falmouth Harbor Threshold Nitrogen Concentrations

The draft TMDL properly identifies the site-specific target for nitrogen concentrations at 0.35mg/L. (page 10) The draft also points out in Table 2, that the observed (current) nitrogen concentration at the sentinel station is 0.44mg/L and correctly concludes that “the present N loadings to West Falmouth Harbor embayment system **MUST** be reduced in order to restore conditions and to avoid further nutrient-related adverse environmental impacts.” (page 13, emphasis added) The draft further emphasizes that the critical step in

the development of the TMDL is modeling and analysis to determine the loadings required to achieve the target N concentrations.

While the draft presents one scenario as to how to reduce existing load to achieve the site specific concentration, the Coalition requests that this TMDL include a load allocation pursuant to the supplementary scenarios performed by the MEP and reported in a technical memorandum dated February 22, 2007 and distributed to The Coalition, The Town of Falmouth, The Cape Cod Commission, and The MA DEP. These scenarios helped corroborate the result in the MEP Technical Report, and cited here, that the upgraded WWTF alone will not restore West Falmouth Harbor. (page 14) Specifically, these scenario runs clarified that any discharge exceeding 0.5MGD will violate the site specific threshold limit of 0.35mg/L and furthermore, that increasing the flow to the WWTF to 0.7 or 1.0 MGD will result in large exceedences of the threshold limit of 0.35mg/L. Due to the fact that the WWTF is responsible for the largest load to the Harbor, it is critical that this TMDL site these discharge limitations.

MA DEP Responsibility

At the outset of this TMDL, the MA DEP states the intention to work with the Town to develop specific implementation strategies to reduce nitrogen loading as well as developing a monitoring plan for assessing the success of the nutrient reduction strategies. (Page 1) The Coalition requests additional information on the specific actions the DEP intends to take in order to insure compliance with the TMDL.

Reasonable Assurances

The Coalition requests that the DEP retract its statement in this draft TMDL that the TMDL “will not be used as an enforcement tool, but may be used by local communities as a management tool.” (Page 21) The Coalition is deeply concerned with the intent of this statement. First, this TMDL will function as a valuable management tool and communities MUST use it as a means toward achieving compliance with State Water Quality Standards. Secondly, the US EPA’s guidance for developing nutrient TMDLs clearly requires States to include implementation plans for 303(d) listed waters.¹ The DEP must be prepared to enforce this requirement and insure that towns move towards implementation of TMDLs.

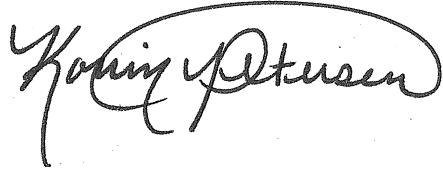
Conclusion

Nitrogen pollution is the greatest long term threat to the health of Buzzards Bay and its more than 30 harbors and coves. The Coalition applauds the DEP for its presentation of the first nitrogen TMDL for the Buzzards Bay watershed.

¹ U.S. Environmental Protection Agency. 1999. Protocol for Developing Nutrient TMDLs. EPA 84-B-99-007. Office of Water (4503F). United States Environmental Protection Agency, Washington D.C. 135pp.

Thank you for your time and consideration. I look forward to reviewing the final TMDL draft in the near future.

Sincerely,

A handwritten signature in black ink that reads "Korrin Petersen". The signature is written in a cursive style with a large, sweeping loop at the top.

Korrin N. Petersen, Esq.
Advocacy Director

Cc: Arleen O'Donnel, DEP Commissioner
Glenn Haas, DEP Acting Assistant Commissioner, Bureau of Resource Protection
Rick Dunn, DEP DWM Program Director
Steve Halterman, DEP
Robert Whritenour Town Manager, Town of Falmouth
Ed Eichner, Cape Cod Commission