

September 13, 2005

**By Facsimile and
First Class U.S. Mail**

Secretary Steven Pritchard
Executive Office of Environmental Affairs
Attn: MEPA Office
100 Cambridge Street, 20th Floor
Boston, Massachusetts 02114

RE: **Expanded Environmental Notification Form for Wareham Road
Mixed-Use Development: EOE A No. 13580**

Dear Secretary Pritchard,

The Coalition for Buzzards Bay (the "Coalition") has reviewed the Expanded Environmental Notification Form ("EENF") for the Wareham Road Mixed-Use Development, EOE A No. 13580 (the "Project"), and offers the following comments. 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 4,000 individuals, families, organizations, and businesses in Southeastern Massachusetts.

The Proposed Project:

The project seeks an ambitious two phased development consisting of approximately 1,185 new residential units and up to 90,000 square feet of commercial space on approximately 1,320 acres. The proponent's strategy is to incorporate smart growth principles in creating compact development consistent with a traditional village design while protecting open space. This village design will depend on the use of the Town of Plymouth's new bylaws; Transfer of Development Rights ("TDR"), Traditional Rural Village Development ("TRVD") and Rural Density Development ("RDD"). The proponent asserts that "vast contiguous undeveloped open space acres" will be permanently protected under the TDR bylaw while creatively combining their cranberry operations with recreational opportunities in an environmentally-friendly sustainable community design. (See *EENF* p. 2).

Phase I:

Phase I of the proposed project includes the development of 65 residential units on 65 undeveloped acres serviced by Title V septic systems with enhanced nitrogen removal technology along with a 100,000 gallon per day community potable water supply well. Proponents request a Phase I Waiver pursuant to 301 CMR 11.11(5) in order to allow development of Phase I prior to completion of the MEPA review process.

Phase II:

Phase II of the proposed project includes the mixed-use village center including the development of 1,120 residential units and 90,000 square feet of commercial space on approximately 385 acres. A new on-site wastewater treatment facility and public water supply is proposed under Phase II.

Phase I Waiver Request:

The Coalition has identified four areas requiring further investigation prior to the approval of the Phase I waiver. These issues include; the increased nitrogen loading in the Buttermilk Bay watershed, water withdrawals, development density levels of Phase I, and clarification of protected open space.

Nitrogen Loading in Buttermilk Bay:

Nitrogen pollution is the greatest long-term threat to the health of Buzzards Bay and its more than 30 harbors and coves including Buttermilk Bay. It adversely affects water quality and degrades habitat by impacting marine organisms such as fish and shellfish. Nitrogen stimulates algae growth which results in eutrophication, a process by which the oxygen is eliminated from the water. Eutrophication causes poor water clarity, bad odors, stressed marine organisms and even fish kills. One of the principal sources of nitrogen is septic systems. Septic systems fail to remove or treat nitrogen thereby passing the pollutant through groundwater.

Phase I of the proposed development lies in the Buttermilk Bay watershed. Notably, Buttermilk Bay was the first embayment to Buzzards Bay to recognize the adverse impacts of nitrogen on the watershed and the need to limit those impacts through local zoning. The Town of Plymouth adopted the "Buttermilk Bay District Overlay" to preserve this significant economic, environmental, and recreational resource by limiting the amount of nitrogen entering the groundwater and surface waters from septic systems. (See §205-60 Plymouth Zoning Bylaw) Phase I of this project proposes 65 new septic systems thereby increasing the nitrogen load to a sensitive water body. By proponent's own admission the soils in the Phase I area are excessively drained and rapidly permeable. (See EENF p. 1-3) Even though the project proposes enhanced nitrogen removal for the on site septic systems, more economical and effective removal alternatives exist.

Onsite Septic Systems with Enhanced Nitrogen Removal Technology are Inadequate:

The proponent fails to indicate what type of enhanced nitrogen removal technology will be applied, how much nitrogen removal will occur, and who will maintain the systems. However, assuming the best onsite nitrogen removal technology is installed and properly maintained, only a small percentage of the nitrogen will be removed versus a wastewater treatment plant which can effectively achieve a nitrogen effluent of three milligrams per liter. Enhanced nitrogen removal technology for onsite septic systems requires intensive maintenance responsibilities to achieve derisory levels of effectiveness. In addition, the design, installation, operation and maintenance of the enhanced system are costly. More marketable and better performing alternatives are available and must be considered.

An onsite wastewater treatment plant with nitrogen removal technology best mitigates the affects of nitrogen in the Buttermilk Bay watershed and is the better economic investment. A wastewater treatment plant will handily out perform the proposed septic systems thereby providing greater nitrogen removal. The current good health and reduction in nitrogen in the Buttermilk Bay watershed is attributable to the removal of a large percentage of the wastewater through sewerage. (*Howes et al., Baywatchers II: Nutrient related water quality of Buzzards Bay embayments: a synthesis of Baywatchers monitoring 1992-1998 (December 1999) at 55*). New development in the watershed must continue to mitigate the impacts of nitrogen with sewerage and disallow the installation of septic systems that will adversely impact the water quality. In addition, this project is ideal for a sewerage infrastructure as it already proposes a community potable water supply requiring the construction of water line infrastructure. The Coalition encourages the proponent to invest simultaneously in the sewerage infrastructure and suggests that the market value of each lot may increase merely because the sewerage infrastructure exists.

Another alternative the proponent must consider if the onsite wastewater treatment plant is not utilized, is the use of multiple community septic systems. This alternative, while also requiring the simultaneous construction of the water and sewer infrastructure, will yield better nitrogen removal performance than the proposed individual septic systems and will require less land use in the siting. In addition, this alternative will allow future integration into the proposed Phase II wastewater treatment plant.

At the very least, the proponent must simultaneously construct both water and sewer service infrastructure to allow for future upgrades. In addition, a design-build-operate contract must be entered into to insure the proper maintenance of the enhanced nitrogen removal septic systems. The Coalition is concerned that if the burden of maintenance and expense is transferred to the homeowner, proper maintenance will be neglected thus reducing or eliminating the effectiveness. As mentioned above, the Buttermilk Bay watershed has used sewerage as an approach to mitigate the effects of nitrogen and restore the coastal embayment. It would be a violation of the

Commonwealth's water quality standards if an increase in nitrogen loading affected the resources of Buttermilk Bay.

Water Withdrawals and Recharge Clarification:

The proponent incorrectly states that Buttermilk Bay is the receiving water for the Agawam drainage basin. (See *EENF p. 3-13*) The Agawam drainage basin lies in the Wareham River watershed and drains to the Wareham River, not Buttermilk Bay. In fact, the proposed location of the Phase I well is within the Wareham River watershed and the septic systems in Phase I discharge into the Buttermilk Bay watershed. This results in a net loss of water for the Wareham River watershed. The proponent may also need to seek a permit pursuant to MGL Ch. 21 §8C to allow an otherwise prohibited interbasin transfer.

Phase I Site Location:

The proponent advocates for a Phase I waiver because the location involves minimal impacts to environmental resources and sensitive receptors. (See *EENF p. 3-12*) The Coalition agrees that the impacts of the proposed Phase I will be minimal as long as a more suitable wastewater treatment system is adopted. However, in looking at the project in its entirety, the Coalition suggests that the Phase I area is actually more suitable for a higher density development.

The Coalition suggests alleviating the impacts to the mapped priority habitat in Phase II and transferring more density to the less environmentally sensitive area of Phase I. This will allow the proponent to continue to take advantage of the TDR bylaw, as enacted by the Town of Plymouth, and protect open space. In the alternative, the proponent should assess a more suitable location for the Phase I small residential development program. A location with a less dense development would be more appropriate, preserving the current Phase I area for the denser developments of Phase II.

Open Space Protection:

Phase I:

The proponent indicates in the EENF that the Town of Plymouth's TDR by-law will be used in Phase I to create a higher density development over a smaller land area thereby reducing the environmental impacts and preserving land around Half Way Pond. The Coalition applauds the use of this innovative smart growth tool but requests additional clarification. Proponent must clearly identify the sending parcels around Half Way Pond as well as the amount of land to be preserved. Proponent should identify the third party holder of the conservation restriction pursuant to MGL c. 184 prior to the approval of a Phase I waiver.

Phase II:

The Coalition further commends proponent's intent in preserving good landscape context but requests more detail regarding how the remaining 870 undeveloped acres in the second phase will be characterized. If the Town of Plymouth's TDR by-law is to be utilized in the second phase, which proponent fails to indicate, proponent must identify the location and amount of the sending parcels to be preserved.

Conclusion:

In conclusion, the Coalition credits the proponent for advancing the use of smart growth techniques as opposed to resorting to "as-of-right" development and looks forward to reviewing and commenting on the full EIR at a later date. The Coalition is available to the MEPA staff and other agencies to answer any questions spurred by these comments and stands willing to work with the proponent on this development. We thank you for this opportunity to comment and look forward to your response.

Cordially,

Korrin N. Petersen, Esq.
Advocacy Director
The Coalition for Buzzards Bay

Cc: Senator Therese Murray
Senator Marc Pacheco
Representative Susan Williams Gifford
Representative Tom O'Brien
Representative Vinny deMacedo
Kenneth Tavares, Chair, Plymouth Board of Selectmen
Evelyn Strawn, Chair Plymouth Conservation Commission
Nicholas Filla, Chair, Plymouth Planning Board
Mark Silvia, Town Manager, Plymouth
Lee Hartman, Director of Planning, Plymouth
Bruce Sauvageau, Chair, Wareham Board of Selectmen
Douglas Westgate, Chair, Wareham Conservation Commission
Anthi Frangiadis, Chair, Wareham Planning Board
Michael Hogan, A.D. Makepeace Company