

September 20, 2002

Secretary Bob Durand  
EOEA – MEPA Office  
Attn: Arthur Pugsley, EOEA #12683  
251 Causeway Street, Suite 900  
Boston, MA 02114

Re: Comments on Final EIR, Bay Club at Mattapoissett

Dear Secretary Durand:

The Buzzards Bay Project has reviewed the Final Environmental Impact Report (FEIR) for the Bay Club at Mattapoissett dated August 15, 2002.

The Buzzards Bay Project National Estuary Program is an advisory and planning unit of the Massachusetts Office of Coastal Zone Management. Our mission is to provide technical assistance and funding opportunities to municipalities surrounding the bay to facilitate implementation of the recommendations contained in the Buzzards Bay Comprehensive Conservation Management Plan (CCMP), a watershed management plan adopted by the Commonwealth in 1991. The CCMP outlines research conclusions and management goals and implementation strategies for the protection and restoration of water quality and living resources in the Bay and its surrounding 432 square-mile watershed.

The Buzzards Bay Project recommends that a Supplemental EIR be required based on the following comments.

**Wastewater Issues**

*1. Groundwater Infiltration and surface water quality benefits*

This project is estimated to generate a peak flow of 104,000 gallons per day (gpd) of wastewater based on state guidelines for estimating wastewater flow (310 CMR 15.203 and 314 CMR 7.15). However, the applicant has proposed to adopt the Mattapoissett Water and Sewer Commission's estimate of 70,293 GPD for average flow from the proposed development. In addition, the applicant asserts that their proposed improvements for the North Main Street sewer main will reduce average daily sewage flows to the Fairhaven Facility by 20,000 gallons per day, by the elimination of infiltration into the old sewer line, for a net expected average increase of 50,293 GPD. The applicant also claims water quality improvements to the town beach will result from the replacement of the North Street sewer line.

For planning purposes and design of sewer mains, the higher conservative DEP estimates should be employed. With respect to replacement of the North Street sewer pipe, reductions of inflow may not be as high as expected based on stormwater flows, nor will it necessarily result in stated water quality improvements.

It is true that old gravity main sewage pipes, like the one proposed to be replaced along North Street, often allow large volumes of groundwater to seep into the pipe. Not surprisingly, sewer flows in Mattapoisett are considerably higher in the winter than in summer, despite an increase in summer residents (pers. comm., W. Nicholson, Mattapoisett Water and Sewer Superintendent). During high water table periods, the groundwater is at a higher pressure than the sewage and air void in the pipe, so groundwater seeps into cracks and fissures into the pipe. Under these conditions, sewage does not flow out of the cracks and fissures into groundwater.

However, the applicant notes a 10-fold increase in sewage flow during a 3-inch rainfall. Increases in sewage flows during rainfalls are generally not the result of groundwater infiltration through pipe seams and fissures. Rather, such increases are typically the result of residential basement sump-pumps, roof downspouts connected to sump or sewer lines, and other undocumented stormwater-sewer line connections. These rainfall-related increases in sewage flow occur in Mattapoisett even during the summer during low water table and drought conditions (pers. comm. W. Nicholson, Mattapoisett Water and Sewer Superintendent) when it is unlikely groundwater would elevate sufficiently to increase infiltration into pipe seams and fissures. Thus, replacement of the North Street sewer line will only result in appreciable reduced stormwater-related inflows (and reduced sewer flows), if currently unknown sump pumps or stormwater connections are eliminated during the North Street sewer pipe replacement.

The applicant states that “the North Street Sewer main is suspected of contributing pollution to the Town Beach Brook via the Captains Lane Stormwater outfall, subsequently contributing to degradation of water quality at one of the Town’s most important public recreational resources.” With respect to these expected surface water improvements, it is conceivable that if any of the North Street sewer lines are above the water table during the summer or during drought conditions, sewage could seep out of the pipe in those areas and contaminate groundwater and or make its way via stormwater and streams in the watershed. However, any estimate of improvement is speculative, because as noted above, infiltration of groundwater into the pipe does not imply the exfiltration of effluent out of the pipe. The exfiltration of effluent depends on what portions of the sewer pipe are above the water table, and for how long. It is recognized that the water table is very close to the surface in the area of North Street.

As noted in previous comments, the Fairhaven Wastewater facility is discharging to a eutrophic system (New Bedford Harbor). The US EPA has already indicated to the Town of Fairhaven that a nitrogen limit will be established for the facility, and that the facility will need to be upgraded to this standard. Ultimately all those served by this facility will share in the costs of this upgrade, including any areas of Mattapoisett connected. A tertiary package treatment facility could treat effluent to a high standard, help maintain water budgets in the watershed, and possibly treat sewage at a lesser cost in the long term.

## **Stormwater Issues**

### *Compliance with DEP's Stormwater Policy*

Adequate information has not been submitted with the Final Environmental Impact Report (FEIR) to determine if the Department of Environmental Protection's (DEP) Stormwater Policy has been met. To evaluate this project for compliance with the DEP Stormwater Policy, the following information needs to be re-evaluated and submitted:

#### 1. *Soils*

The soil data utilized in the runoff calculations are incorrect. The Natural Resources Conservation Service (NRCS) has remapped the soils within Mattapoisett as part of their remapping effort in Plymouth County. The mapping for this project area is available through the NRCS office in West Wareham. Based on the interim soils report, the upland soils for this area are in Hydrologic Group C, not Hydrologic Group A as reported in the FEIR (Existing Conditions Section 2.2.5.1). The runoff calculations must be reevaluated utilizing the correct soils information.

#### 2. *Test Pits*

Soil test logs for each stormwater basin were not submitted with the FEIR. According to site plans, the location of each stormwater basin is in the upland soils adjacent to the wetlands. Based on the new soil mapping, the upland soils in this area are glacial till and have a perched water table of one-half foot to four feet (depending on soil type) below the ground surface. The location of the maximum high water table must be established (test pits and/or monitoring wells) to ensure adequate storage within each basin (storage credit below the maximum groundwater elevation can not be allowed) and to protect the functionality of each basin. The elevation and the location of each test pit must be established and located on the site plans.

#### 3. *Development Acreage*

All proposed development areas are not included in the runoff calculations. The acreage calculated for the pre-development conditions is higher than the post-development acreage (they should be equal). In addition, several areas (Public Function Buildings, Maintenance Buildings, and Equestrian Center to the north and some of the houses to the south) are not included in the storm water calculations. By decreasing the post-development acreage, the difference in the peak runoff calculations is reduced, resulting in inadequate storage in the storm water basins for flood, volume, and pollution controls.

#### 4. *Impervious Surface*

The amount of impervious surface proposed and the stormwater flow associated with the impervious surface is not clearly identified on the plans submitted with the FEIR. The amount of impervious acres and the associated flows can have a significant impact on all aspects of the runoff calculations and the amount of storage required for flood volume and pollution control.

#### 5. *Runoff Curve Numbers (RCN)*

The RCN for lawns in the post-development calculations is incorrect. The runoff curve number predicts the amount of runoff. Based on TR-55, the RCN for lawns, grass areas, etc. (post-development) should be 74 for "C" soil. The RCN for woods (pre-development conditions), should be 70 for "C" soils, not the same as lawns as indicated in the submitted calculations. The

higher curve number will result in larger difference between the pre- and post-development, peak runoff calculations, which will in turn affect the amount of storage, required in the storm water basins.

6. *The Time of Concentration or flow path (Tc)*

The Tc information on how the post- development (given as “User-defined”) Tc was determined was not provided in the hydrology calculations.

7. *STC (Storm Treatment Chamber?)*

Adequate information was not provided on how the two Road “A” discharges were meeting the DEP Stormwater Policy.

8. *Hydrology Summary*

All the basic assumptions to determine the appropriate storm water controls, acreage, soil conditions, flow path, water tables, and water quality treatment strategies are incorrect or missing and should be provided in a Supplemental EIR.

**Wetland Issues**

1. *Isolated Wetlands/Isolated Land Subject to Flooding*

The applicant has submitted a plan “Site Plan” prepared by Sasaki, dated June 2002 as part of the Notice of Intent that depicts wetland areas as well as isolated land subject to flooding. However, plans submitted with the FEIR aren’t consistent with the Notice of Intent “Site Plan”, particularly in the area west of Fairway 7 (compare the Notice of Intent “Key Sheet” and Figure 2-6, both in Appendix). In Figure 2-6, Wetland Mitigation Areas, there is an area west of Fairway 7 that is labeled isolated land subject to flooding (ILSF). Just to the northwest of this area is another area labeled ISLF. However, in the plans submitted for the Notice of Intent, these areas are depicted as isolated wetlands (the wetland to the northwest is even labeled a vernal pool). The actual isolated land subject to flooding is a larger polygon around each of these wetland polygons, and depicted by a broken line. Thus, it appears that these wetlands were mislabeled. It is also worth noting that DEP has not yet issued a file number for the wetlands filing because of confusion on this issue (DEP notice dated 9/17/2002, see Appendix). Accurate maps of the wetlands, depicting isolated wetlands, BVW, and isolated land subject to flooding, should be included in a Supplemental EIR in order to eliminate any confusion over this issue, and the calculation of areas affected should be reviewed to determine if the calculation of altered areas are consistent.

Figure 2-2, Road Layout and Wetland Impact Area, shows four proposed buildings along a cul-de-sac located adjacent to the southwest corner of Fairway 7. At least one of these buildings, as well as a portion of the access road, is located on isolated land subject to flooding, according to the “Site Plan” prepared for the Notice of Intent. In addition, a portion of roadway A and a portion of Roadway E are located on isolated land subject to flooding. If the proponent is proposing alteration to these locations, it must be demonstrated that the project meets performance standards found at 310 CMR 10.57(4)(h).

2. *Roadway Crossing*

The proponent is proposing to replace the existing 24-inch box culvert that currently exists at the main stream crossing with two 5-foot by 8-foot box culverts adjacent to one another. There

should be a box or arch culvert every 150 feet to minimize the distance wildlife species, especially smaller species like turtles, have to roam to find a passageway to the other side of the wetlands area. In addition, not all wildlife species will want to cross at the stream.

## **Open Space Protection Issues**

### *1. N.F. Tinkham Town Forest*

Issues concerning the conversion of the N.F. Tinkham Forest property and future public access were not adequately addressed in the FEIR and a supplemental filing should be required.

### *2. Trading of N.F. Tinkham Town Forest*

The FEIR states that incorporating the town-owned 20-acre N.F. Tinkham Forest parcel into the Bay Club at Mattapoisett site “would add cohesion to the project property and facilitate circulation. It would also allow many of the clustered house lots abutting the Tinkham Forest to be relocated further from wetland resource areas.” The proponent also states that a discussion has been initiated with the town to “trade the Tinkham Forest parcel for other undeveloped parcels that are not part of the Bay Club at Mattapoisett project site”.

The N.F. Tinkham Forest was a gift to the town’s conservation commission on November 20, 1968 under Massachusetts General Laws Ch. 40, Section 8-C for the “conservation of the natural resources and the protection of the watershed resources of the Town of Mattapoisett”. Therefore, this property is protected under Article 97 of the Constitution (see Appendix) and any change made in the use or disposition of the property would require a two thirds vote by each branch of the general court. In a letter addressed to the proponent’s lawyer, dated July 22, 2002 (see Appendix), Mattapoisett’s Town Counsel supported this opinion. If the proponent wishes to pursue this avenue, transfer of an Article 97 property would require a MEPA filing in which the proponent must provide details of mitigation measures that would be provided for the loss of this open space. Failure to do so at this point represents a segmentation of the project.

### *3. Historic Roads*

There are five historic town roads located in the vicinity of the proposed Bay Club at Mattapoisett site (see map in Appendix). These roads are documented on the Town of Mattapoisett’s Assessors’ maps as well as on maps included in the Bay Club’s FEIR. Access to the Town Forest may be gained from the Old Marion Trail (also referred to as the Sippican Trail), which bisects the forest from east to west. Alternatively, access can be gained by taking Randall Road (from the south) to Old Dirt Road, which ultimately connects to Old Marion Trail. According to a recent newspaper report, legal use of one of the five roads was relinquished at a Town Meeting on April 12, 1858. There is confusion over which of the roads the town has given up legal rights to and there is nothing in the records to suggest that votes have ever been taken to discontinue the town’s legal rights to use the remaining four roads.

According to the N.F. Tinkham Forest deed (see Appendix), the town has deeded access to the Town Forest because it was a gift to the town, “together with, as appurtant thereto, all rights of use in connection with the so-called ‘Sippican Trail’ in either direction, also in connection with the road leading south easterly (‘Old Dirt Road’) to Randall Road” (see attached deed). The Town Forest deed also indicates that the town has an ownership interest in the land on which

Fairway 7 is to be located. According to the deed the town has the “right of use over any land of the lot at the west, and to and into Solomon Road”.

#### *4. Conversion of N.F. Tinkham Forest to Park Land*

The N.F. Tinkham Forest deed states that “if, in the future, the land areas adjacent to the property conveyed to the trust hereunder shall become a thickly settled residential area, a portion of the said land may be set aside for recreational or playground purposes or all or any portion of the land may be used for public park purposes”. According to the 1998 Mattapoissett Open Space and Recreation Plan the town has only one park, Ship Yard Park. This park “does not supply any active recreational facilities, such as ball fields, swing sets, tennis courts, and the like. The town is heavily reliant on the three area school facilities and private organizations...to supply the bulk of the available recreational resources” (p 342, Mattapoissett Open Space and Recreation Plan). It should be noted that the lack of public recreational facilities in the town is an important consideration when discussing potential future uses of the N.F. Tinkham Forest property.

#### *5. Local Permitting*

According to the town of Mattapoissett’s cluster zoning bylaw, developers must set aside a minimum of forty percent of the portion of the site being developed as protected open space. Of the protected acreage, at least 60 percent must be useable upland. Similarly, the Special Residential District (SRD) zoning bylaw requires that thirty percent of the area being developed in accordance with that bylaw must be protected open space. Both the SRD bylaw and the cluster subdivision bylaw define useable upland as “an upland area with well drained soils that is suitable for recreational use.”

The proponent has not shown that the land they are putting a deed restriction on meets the definition of suitable open space with regards to the requirement of well drained soils due to the fact that the soil data contained in the DEIR and FEIR is obsolete. The soil types identified are incorrect and the correct data should be obtained from NRCS and used to revise the maps.

#### *6. Conservation Restriction Requirements in Local Permitting*

Because conservation restriction information is of interest to the Commonwealth and requires action by the Secretary of Environmental Affairs, a breakdown of the open space the proponent proposes for conservation restrictions, and the specific restrictions and public access, maintenance and oversight provisions, should be provided in a Supplemental EIR. The breakdown of open space should include the number of acres of wetlands, undeveloped upland, and upland developed as part of the golf course. It would be helpful to include a map showing where the CR will be and how it meets the bylaws, especially with regards to soil requirements.

### **Equestrian Center Issues**

#### *1. Equestrian Center*

According to the FEIR, the equestrian center design has been developed based on brochures distributed by DEP and the Massachusetts Audubon Society, however, no specific information is given as to how the manure is going to be managed, what measures will be taken to avoid runoff pollution, etc. An Equestrian Management Plan should be provided in a Supplemental EIR in order to determine the environmental impacts that may be associated with this center.

Thank you for the opportunity to comment on this significant project located within the Buzzards Bay watershed. If you have any further questions, please call me at 508-291-3625 ext. 19.

Sincerely,

Joseph E. Costa, PhD  
Executive Director  
Buzzards Bay Project

Cc: Mattapoisett Board of Selectmen  
Mattapoisett Conservation Commission  
Mattapoisett Planning Board  
Mattapoisett Water and Sewer Commission  
Daniel Perry, Perry, Hicks, Crotty and Deshaies, LLP  
William Straus, State Representative

attachments: