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September 12, 2008

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS  
ON THE EXPANDED ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : ADM Tihonet Mixed Use Development  
PROJECT MUNICIPALITY : Carver, Plymouth and Wareham  
PROJECT WATERSHED : Buzzards Bay  
EEA NUMBER : 13940A  
PROJECT PROPONENT : ADM Development Services LLC  
DATE NOTICED IN MONITOR : July 23, 2008

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **requires** the preparation of an Environmental Impact Report (EIR). In a separate Draft Record of Decision, I propose granting a Phase One Waiver to allow a portion of the project (Phase A) to proceed to state permitting prior to completion of the EIR for the entire project. The DROD will be noticed in the September 24, 2008 issue of the *Environmental Monitor* for a 14-day public comment period. Within seven days of the close of comments, I shall reconsider, modify, or confirm the waiver in a Final Record of Decision.

The proposed project consists of development of a 6,074-acre site in the towns of Wareham, Carver and Plymouth. The project is proposed as a phased development over the next 25 years or more. The site currently contains the corporate headquarters of the A.D. Makepeace (ADM) Company, and includes cranberry bogs as well as undeveloped lands considered ecologically significant due to the presence of BioMap Core Habitat, Priority Habitat for rare and endangered species, and the underlying sole source aquifer.

A Special Review Procedure (SRP) was issued for the project in a Certificate dated January 29, 2007. In accordance with the SRP, the proponent has filed an Expanded

Environmental Notification Form (EENF) that includes baseline environmental resource assessment and infrastructure assessment for the entire project site, and information and analysis pertaining to the proposed Phase A and Phase B developments. Pursuant to the SRP, I am issuing a Scope for the EIR for Phase B (the Business Development Overlay and General Commercial District) and a Draft Record of Decision (DROD) for Phase A. The SRP allows for subsequent phases of the project to file a new ENF and includes requirements for cumulative impact assessment, public outreach, and extended public comment periods.

### Phase One Waiver

The proponent has requested that Phase A of the project be allowed to proceed to state permitting prior to completion of an EIR for the entire project. Phase A (which includes A1 and A2) and Phase B are located within the Town of Wareham. Phase A1 consists of construction of 115,200 square feet (sf) of office, laboratory and office space on the southeastern quadrant (approximately 18.4 acres) of the 60-acre Tihonet Technology Park. Phase A2 consists of construction of a 40,000 sf medical office facility, on a six-acre parcel located at Lou Avenue off Route 28.

The proposed Phase A involves alteration of approximately 20 acres of land and creation of 11 acres of new impervious area. Phase A is expected to generate approximately 2,250 vehicle trips on an average weekday and includes 577 parking spaces. Water use and wastewater generation is estimated in the EENF at approximately 8,000 gallons per day. The Phase A1 project site includes priority habitat for state-listed species and Phase A will most likely result in a "take". The EENF proposes an on-site Title V septic system for Phase A1 with enhanced nitrogen removal. The preferred alternative for Phase A2 is a municipal sewer tie-in. However, if this is not feasible, a Title V system with enhanced nitrogen removal is proposed. Potable water supply for Phase A will be provided by the Wareham Fire District.

### Project Description

The phased development as proposed in the EENF consists of a mixed-use village community that will incorporate principles of smart growth, open space preservation, low impact development, traditional village design, and pedestrian orientation. The EENF proposes the use of Transfer of Development Rights (TDR) to concentrate development in certain areas and ensure conservation of ecologically significant lands. As further detailed above, Phase A includes 155,200 sf of commercial development. Phase B consists of development of a 1,140-acre portion of the site. The conceptual plan for Phase B entails construction of approximately 1.7 millions sf of development to include retail, manufacturing, warehouse, light industry, office, medical office, research and development uses, and a hotel.

The EENF includes a conceptual plan for Phase C, which includes the remaining portions of the project site (approximately 4,910 acres) in the towns of Carver, Plymouth and Wareham. The conceptual plan is based on current zoning that would allow development of 1,366 single-family homes, 380 condominiums, and 110 apartments. As discussed in the EENF, the proponent is working with the surrounding communities to implement TDR and other innovative zoning

tools. The Phase C development plan will likely include agricultural, mixed-use residential, village-scale retail, with the remainder to be held as conservation land.

Phase B will result in alteration of approximately 130 acres of land, including 80 acres of new impervious area. Wetlands impacts include 3,000 square feet of Bordering Vegetated Wetlands (BVW) alteration on-site and an additional 0.3 - 1 acre of alteration associated with off-site roadway improvements. Phase B will also impact 5,800 sf of other wetlands including Bordering Land Subject to Flooding (BLSF) on-site and 1-2 acres of BLSF off-site as a result on proposed roadway improvements. Phase B may also impact Riverfront Area. Phase B is expected to generate 17,854 trips on an average weekday and includes 4,000 parking spaces. The EENF proposes that a portion of the Phase B wastewater (32,000 gallons per day (gpd)) be discharged to the municipal sewer system and the remainder (89,000 gpd) be collected, treated and disposed on-site through one or more wastewater treatment facilities. The average water demand for Phase B is estimated in the EENF at 66,000 gpd and will be provided by the Wareham Fire District.

### Permits and Jurisdiction

Permits required for Phase A include a Vehicular Access Permit from the Massachusetts Highway Department (MassHighway) for access onto Route 28 and a Conservation and Management Permit from the Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program (NHESP). Phase A also requires an Order of Conditions from the Wareham Conservation Commission (and, on appeal only, a Superseding Order from the Massachusetts Department of Environmental Protection (MassDEP)).

Phase B requires a MassHighway Vehicular Access Permit, a Conservation and Management Permit from NHESP, and an Order of Conditions from the Wareham Conservation Commission (and, on appeal only, a Superseding Order from MassDEP). Phase B also requires a Groundwater Discharge Permit, 401 Water Quality Certification, Water Supply System Distribution Modification, and a Sewer Extension/Connection Permit from MassDEP. Phases A and B may be subject to federal consistency review by the Massachusetts Office of Coastal Zone Management (CZM). The project is subject to review by the Massachusetts Historical Commission (MHC). The project is also subject to the Executive Office of Energy and Environmental Affairs (EEA)/MEPA Greenhouse Gas Emissions Policy and Protocol. Phase C will require additional permits including a Groundwater Discharge Permit and New Source Approval from MassDEP and a Conservation and Management Permit from NHESP.

The project is undergoing environmental review and subject to the requirements for an EIR because it requires state agency permits and exceeds MEPA review thresholds, including several thresholds for a mandatory EIR. The project is undergoing review pursuant to: Section 11.03(1)(a)(1) and (2) because it will involve alteration of 50 or more acres of land and creation of 10 or more acres of new impervious area; Section 11.03(2)(b)(2) because it will likely result in a taking of a state-listed species; Section 11.03 (3)(b)(d) and (f) because it involves alteration of 5,000 or more sf of BVW and alteration of one-half or more acres of other wetlands; Section 11.03(4)(b)(3) because it involves construction of one or more new water mains five or more miles in length; Section 11.03(5)(b)(3)(c) because it will result in construction of five or more miles of new sewer main; and Section 11.03(6)(a)(6) and (7) because it will result in generation

of 3,000 or more new vehicle trips and 1,000 or more new parking spaces. Phase B may also exceed the mandatory EIR threshold at 11.03(1)(1)(a) for alteration of one or more acres of BVW. Phase C may exceed other MEPA review thresholds.

The EENF indicates that the proponent may apply for financial assistance from the Commonwealth, including grants from the Massachusetts Technology Collaborative and the Massachusetts Opportunity Relocation and Expansion (MORE) Program. If the project involves financial assistance from the Commonwealth, MEPA jurisdiction will be broad and extend to all aspects of the project likely to cause damage to the environment as defined in the MEPA regulations. In the absence of financial assistance, MEPA jurisdiction would extend to aspects of the project within the subject matter of required state permits that are likely to cause damage to the environment as defined in the MEPA regulations. In this case, MEPA jurisdiction would extend to water supply, wastewater, wetlands, water quality, rare species, historical and archaeological resources, transportation, land and stormwater.

#### Expanded Environmental Notification Form (EENF) Review

The EENF presents a baseline environmental resource assessment as required by the SRP that includes a description of wetlands and water resources, rare species and wildlife habitat, land uses, historical and archaeological resources. The EENF includes maps, aerial photographs and other figures to supplement the baseline assessment. The EENF also provides information on existing water supply, wastewater, utility, and transportation infrastructure.

The EENF provides information on existing and proposed conditions for Phase A, and includes a Greenhouse Gas (GHG) Emissions analysis and traffic study for Phase A. The proposed development program for Phase A has changed since the Certificate on the SRP was issued. Phase A1 has been reduced from 150,000 sf to 115,000 sf and its location has changed to the southeast quadrant of the Tihonet Technology Park. In addition, a 40,000 sf medical office building is proposed as Phase A2 on another parcel located on Lou Avenue off Route 28. The proponent has committed to implement Low Impact Development (LID) measures for Phase A.

The EENF indicates that no wetlands alteration will occur as part of Phase A1 and that it uses a disturbed portion of the site. The EENF concludes that a "take" of state-listed species is unlikely. However, NHESP disagrees with this conclusion. The proponent is in consultation with NHESP and will be filing an application for a Conservation and Management Permit. The alternatives analysis indicates that development of Phase A1 in other quadrants may impact riverfront area and result in more land alteration compared with the preferred alternative. The proponent has requested flexibility as part to develop Phase A1 on another quadrant of the 60-acre site. I note that the Draft Record of Decision (DROD) on the Phase One Waiver requires the submission of a Notice of Project Change if the proponent chooses to develop Phase A1 on another part of the site.

Based on the EENF, Phase A1, with mitigation, will result in emissions of 3,123 to 3,233 tons of Carbon dioxide (CO<sub>2</sub>) per year from building-related and transportation sources. The proposed mitigation measures are expected to result in a five percent to eight percent reduction in CO<sub>2</sub> emissions. Phase A2, with mitigation, will result in 4,173 to 4,363 tons of CO<sub>2</sub> per year. The proposed mitigation measures are expected to reduce emissions by 8 percent to 12 percent.

The proponent has committed to a range of mitigation measures including high-efficiency heating, ventilation and air conditioning (HVAC) systems, super insulation, and third party building commissioning to ensure energy performance. Transportation measures include roadway improvements and bicycle facilities. Building-related emission reduction measures contribute to a greater part of the overall reductions expected compared to transportation measures. The EENF indicates a 52 percent reduction in CO<sub>2</sub> emissions for Phase 2 building-related emissions and a 17 percent reduction for Phase A1 based on the mitigation proposed. During EENF review, the proponent made clear commitments in a letter dated September 9, 2008, to implement all of the mitigation measures identified in the EENF as part of Phase A1 and Phase A2, with the exception of grey water re-use. The proponent will consider the re-use of grey water for future project phases.

The EENF evaluated traffic impacts of Phase A on nearby transportation infrastructure and the impacts of projects currently proposed or underway within the study area. As noted in the EOT comment letter, improvements proposed for the Wareham Crossing project (EEA# 13274) are expected to provide sufficient capacity to accommodate the impacts of Phase A. The proponent has also proposed additional mitigation measures along the Route 28 corridor that include traffic signal optimization, minor geometric improvements, pavement markings and sign upgrades at the Route 28/Lou Avenue intersection, and a monitoring program at the Route 28/Tihonet Road intersection to determine whether a signal is warranted. The proponent is committed to install the signal if warranted. The proponent has also committed to Transportation Demand Measures (TDM) for Phase A. The proponent should provide EOT with a letter of commitment to implement the mitigation measures proposed.

As described in the EENF, Phase B includes the Business Development Overlay District (BDOD) located north of Route 25 and an additional 300-acre General Commercial District located south of Route 25. Phase B encompasses 1,140 acres in total. In addition to the retail, manufacturing and other uses proposed, Phase B will include a continuation of existing agricultural activities. The EENF includes a conceptual plan for development consisting of 24 lots (1.7 million sf of development) and information on potential impacts including land and wetlands alteration, water demand and wastewater generation, rare species, traffic and historical and archaeological resources. The EENF described existing and proposed conditions and includes a traffic impact study. The EENF notes that Phase B could accommodate several million sf of development compared to the 1.7 million sf proposed as a "moderate build". However, the EENF does not include a detailed alternatives analysis, which should be provided in the DEIR as detailed in the Scope below.

The traffic study in the EENF provides an evaluation of cumulative traffic impacts of Phase A and Phase B on nearby transportation infrastructure and includes a comprehensive package of mitigation measures. In its comment letter, EOT generally concurs that the proposed mitigation measures will mitigate the impacts of the project as proposed. However, the DEIR should include additional information and analysis as further detailed in the Scope below and in EOT's comment letter.

The EENF included a conceptual plan for Phase C based on current zoning for residential uses, and considered impacts associated with residential development as part of the

transportation study. The proponent is working with the Towns of Carver, Plymouth and Wareham regarding use of Transfer of Development Rights (TDR) and other innovative zoning tools that would allow a mix of development for Phase C and protect large areas of contiguous habitat. Phase C may also include an expansion of existing agricultural activities. The proponent is considering certification under the Leadership in Energy and Environmental Design (LEED) for Neighborhood Development for Phase C, and investigating renewable energy options for the project. The proponent has committed to a smart-growth, low-impact village-scale design for Phase C. The EENF proposes development of on-site water supply wells and wastewater treatment and disposal facilities to support Phase C. As noted in the EENF and in comment letters received, portions of Phase C are a significant distance from existing water supply, wastewater, and transportation infrastructure. The proponent should coordinate closely with state and regional planning agencies and other stakeholders in developing the Master Plan for the project, and solutions to infrastructure needs that are consistent with the smart growth and low impact design goals of the project.

## SCOPE

### General

The proponent should prepare a Draft EIR (DEIR) in accordance with the general guidance for outline and content found in Section 11.07 of the MEPA regulations as modified by this Scope. Although this DEIR Scope is for the proposed Phase B, it also requires that certain aspects and impacts of Phase C be addressed in order to avoid segmentation (pursuant to Section 11.03(2)(c)), evaluate cumulative impacts, and ensure that implementation of Phase B will not preclude options to avoid, minimize, or mitigate environmental impacts associated with future phases.

The DEIR should include an analysis of the cumulative impacts of Phase A and Phase B. The DEIR should discuss the consistency of the proposed Phase B with the conceptual Master Plan presented in the EENF. The DEIR should include a revised and updated Master Plan for the entire project site, including Phase C. I expect that the Master Plan will identify specific locations and development boundaries of the Phase C components and include more detail on the types of uses proposed, areas designated for conservation, and infrastructure plans. The DEIR should evaluate cumulative impacts of greenhouse gas (GHG) emissions and nitrogen loading for all phases of the project (A, B, and C) as further detailed in the Air Quality and Wastewater sections below. The DEIR should include information and analysis to demonstrate that implementation of the proposed Phase B will not preclude options to avoid, minimize or mitigate environmental impacts associated with future project phases.

The DEIR should evaluate trade-offs inherent in the evaluation of impacts to land, such as the potential for increased nitrogen loading in some areas that may result from the transfer of development rights from cranberry bogs (where classified as open space) to other areas, as discussed in the comment letter from the Town of Wareham.

The DEIR should include a copy of this Certificate, the Certificate establishing a Special Review Procedure, and any Record of Decision or other Certificates issued for the project. The DEIR should include a copy of each comment letter received and responses to comments. The DEIR should include a description of all aspects of the project and a schedule for construction and other development activities. The DEIR should include maps and plans at a reasonable scale, a project summary, a list of permits required and a description of any changes since the filing of the EENF. The DEIR should include an overlay of the proposed project in the context of sensitive resources on, and in the vicinity of, the project site to facilitate review and assessment of potential impacts.

I expect that the proponent will consult with the Towns of Wareham, Carver and Plymouth, and with state and regional planning agencies, during preparation of the DEIR and refinement of the preferred alternative and mitigation plans.

### *Open Space and Conservation*

The DEIR should clarify, for the entire project, the amount and type of open space and describe proposed mechanisms for permanent protection of wildlife habitat and other open space areas. The proponent should consider using the definitions and categories of open space proposed by the Southeastern Regional Planning and Economic Development District (SRPEDD) and the Plymouth/Carver Aquifer Advisory Committee in their comment letters. This may help to clarify the proponents open space plans and to identify, on site plans, where the proposed contiguous areas of open space and wildlife corridors will be located.

The DEIR should include an update on any zoning changes relevant to the project and discuss plans to use Transfer of Development Rights (TDR) bylaws to concentrate development impacts while protecting open space resources. The DEIR should identify proposed sending and receiving areas. I encourage the proponent to continue working with the towns, state agencies and other organizations to ensure that areas of significant ecological value, such as the Frogfoot area in the Plymouth portion of the project site, are permanently protected.

### Alternatives

The DEIR should include an evaluation of all feasible alternatives and describe how the preferred alternative will avoid, minimize and mitigate environmental impacts to the maximum extent feasible. The alternatives analysis should include a clear comparison (quantified to the extent feasible) of the impacts of each alternative and its project components (including but not limited to acres of land alteration, impervious area, wetlands, habitat impacts, water use and wastewater generation, traffic and parking, open space and conservation). The DEIR should provide a rationale to explain why certain alternatives were selected and others ruled out for further consideration.

The EENF included a conceptual plan for Phase B identifying 24 development lots. The DEIR should include site plans for the proposed project layout and alternative configurations indicating the locations and footprints of proposed buildings and other project elements. The DEIR should present overlays of alternative project configurations in the context of sensitive

resources to facilitate an assessment and comparison of impacts. The "moderate build" alternative proposed in the EENF would result in development on portions of each of the 24 lots. The DEIR should compare this with an alternative layout that concentrates development on a smaller number of lots to further increase the amount of contiguous undeveloped habitat. The DEIR should discuss the alternatives in the context of the Master Plan goal to promote smart growth and to preserve large amounts of contiguous habitat and wildlife corridors.

According to the EENF, Phase B involves construction of 1.7 million square feet of development space and 4,000 parking spaces, and will result in 80 acres of new impervious area. The DEIR should evaluate alternatives to minimize the amount of impervious area and consider options for parking such as shared parking, structured parking, pervious pavement, reserve areas, and providing parking underneath buildings.

The DEIR should provide more detailed information and analysis on the proposed Low Impact Development (LID), green building, and other sustainable design alternatives. The DEIR should include alternatives to avoid and minimize wetlands, wastewater, rare species, and other potential impacts as further detailed in the Scope below.

#### Wastewater and Nutrient Loading

Potential impacts of the project include degradation of water quality in the Wareham River estuary and Buzzards Bay as a result of nitrogen loading and related problems of eutrophication. As noted in many comment letters received, the Wareham river estuary is a state-listed impaired estuary due to excessive nutrients. The Town of Wareham municipal wastewater treatment facility (WWTF) is under state and federal mandates to limit nitrogen discharge. CZM and others have expressed concern that the financial investments by the Town of Wareham, and other efforts to address nitrogen pollution and protection of coastal waters, may be counteracted by unmanaged nitrogen loading from the proposed project.

The DEIR should include a cumulative analysis of nitrogen loading for all phases of the project (A, B, and C) that evaluates loadings from agricultural lands, wastewater and stormwater discharges. The DEIR should include a comprehensive nitrogen management plan for the entire project. If, at the time of the DEIR filing, a Final Record of Decision (FROD) has been issued granting a Phase One Waiver, the DEIR should include an update on wastewater infrastructure development and nitrogen offsets for Phase A, including a report on project compliance with the conditions of the FROD.

I acknowledge the comments received recommending that nitrogen impacts associated with the proponent's proposed River Run project (EEA# 13580, formerly referred to as the Wareham Road Mixed Use Development ) be included in the cumulative impact analysis. I note that a Final EIR has recently been submitted for the River Run project and is under MEPA review, and that the scope for the Final EIR required the proponent to develop a nitrogen-neutral alternative and a nitrogen offset strategy for that project. Therefore, this Certificate does not direct the proponent to present a cumulative impact analysis for both projects.



The proponent should consult with MassDEP regarding the draft and final Total Maximum Daily Load (TMDL) and related technical reports for the Wareham-Agawam River watershed, which should be used to develop a comprehensive nitrogen management plan for the project. The proponent should continue to work closely with the Towns of Carver, Plymouth and Wareham, MassDEP, CZM, and environmental organizations on nutrient management issues during preparation of the DEIR. The DEIR should include an update on consultations with state, regional and local agencies, and a draft nitrogen management plan. The DEIR should discuss how the project will support the Town of Wareham's efforts to meet regulatory requirements for nitrogen loading.

The comprehensive nitrogen management plan should evaluate alternatives for wastewater treatment, including advanced technology and offsets for new loads. The DEIR should include a nitrogen-neutral alternative and a nitrogen offset strategy for the project and a detailed discussion of proposed mitigation. The proponent should consider best-available nitrogen removal technologies for wastewater, funding the sewerage of existing unsewered areas, adopting agricultural best management practices, and other measures to reduce and offset nitrogen loading. The DEIR should evaluate alternative locations for the wastewater treatment facility and discharge areas, discuss the potential environmental impacts of each alternative, and explain why the preferred location(s) is being selected and others eliminated from further consideration.

The proponent should work with the Town of Wareham on water conservation strategies in the service area to reduce flows and maximize utilization of the WWTF capacity. Water conservation could provide capacity for additional tie-ins of existing sources to offset new sources of nutrients in the watershed. The proponent should consider opportunities to promote higher levels of nutrient reduction at existing wastewater sources and consult with MassDEP prior to submission of the DEIR to discuss the groundwater discharge alternatives analysis, as recommended by MassDEP in its comment letter.

As part of the nutrient assessment and management plan, the DEIR should also discuss pollution issues relating to phosphorus loading in the watershed. The DEIR should include an assessment of the project's potential impacts on freshwater ponds and other water resources, and describe measures to avoid and minimize or mitigate impacts.

As noted in the MassDEP comment letter, any discharge of industrial wastewater (or medical wastewater, if applicable) to an on-site sanitary system is prohibited. The DEIR should discuss how any industrial and/or medical wastes will be managed and disposed of, identify applicable permits, and discuss how the project will comply with regulatory requirements.

The DEIR should discuss Phase B in the context of the Town of Wareham's Comprehensive Wastewater Management Plan (CWMP, EEA# 12562) and in response to MassDEP comments on this issue. The proponent should consult with MassDEP and the MEPA Office prior to submission of the DEIR regarding the possible requirement for a Notice of Project Change (NPC) for the CWMP and any additional evaluations that may be required.

### Rare Species and Wildlife Habitat

NHESP, in its comment letter, indicates that the initial habitat assessment included in the EENF provides useful information that will be used to develop an appropriate mitigation plan, and that it may be possible to develop a mitigation plan without conducting endangered species surveys. NHESP indicates that it is not necessary to conduct endangered species surveys at this time. However, the proponent may be required to conduct these surveys in the future.

The DEIR should include a detailed habitat assessment for Phase B developed in consultation with NHESP. The DEIR should include a description of potential impacts to state-listed species. The DEIR should describe how the project will be designed to avoid and minimize, or mitigate impacts to state-listed species, and how it will qualify for a Conservation and Management Permit(s). As part of the alternatives analysis, the DEIR should consider alternative layouts (including a more concentrated development footprint) to avoid and minimize habitat fragmentation. The DEIR should discuss project phasing as it relates to permitting under the Massachusetts Endangered Species Act (MESA).

The proponent should consult with NHESP regarding habitat assessment and survey protocols for Phase C. I remind the proponent that the DEIR should include information and analysis to demonstrate that implementation of Phase B will not preclude options to avoid and minimize or mitigate impacts to state-listed species associated with future project phases.

### Fisheries

As detailed in the comment letter from the Division of Marine Fisheries (DMF), the streams and ponds within the project site provide valuable habitat for a diverse assemblage of finfish and invertebrates, including three species of concern. DMF indicates that a prohibition on in-water turbidity producing activities from March 15 to October 1 is necessary to protect diadromous fish spawning and migration. The DEIR should respond to DMF comments and describe measures proposed to protect diadromous fish species, including the timing of project activities and measures to protect spawning, nursery and migration habitat. The DEIR should characterize the fish communities in the streams, including any rare species and anadromous fish for purposes of assessing potential impacts and any necessary mitigation.

The DEIR should describe proposed changes in water use associated with the project, including additional drawdowns and changes in cranberry bog operations, and evaluate potential impacts of the project on diadromous fish populations, including changes in stream water levels that might affect fish passage. The DEIR should provide information on proposed buffer zones along streams and ponds, and measures to avoid and minimize potential impacts to fisheries from runoff.

### Wetlands

The DEIR should describe and quantify all wetland resource area impacts (including Riverfront Area) associated with the project, which should be based on a full wetlands delineation of lands on and in the vicinity of the proposed project site. Wetlands impacts

associated with on-site and off-site components of the project should be quantified in the DEIR. Buffer zone impacts should also be quantified. The proponent should complete the delineation process with the Wareham Conservation Commission and obtain an Abbreviated Notice of Resource Area Delineation (ANRAD) prior to filing the DEIR. As noted by MassDEP, certain alterations of existing cranberry bogs may be subject to jurisdiction of the Wetlands Protection Act. The DEIR should include any such alterations in the overall assessment and quantification of wetlands impacts.

The analysis of wetlands impacts and alternatives in the DEIR should address on-site and off-site components of the project and the DEIR should demonstrate how the preferred alternative will avoid and minimize or mitigate to the maximum extent feasible. The DEIR should thoroughly evaluate alternatives to avoid crossing and filling BVW. As noted by MassDEP, any BVW alteration in excess of 5,000 square feet that does not comply with the criteria for a Limited Project pursuant to 310 CMR 10.53 is prohibited. The proponent should explore planning board variances to achieve further avoidance and/or minimization of impacts as recommended by MassDEP, and review MassDEP's Wetlands Policy # 88-1 for guidance.

The DEIR should include the results of a Wildlife Habitat Evaluation, which is required in compliance with 310 CMR 10.60. The DEIR should describe how the project will comply with the "no adverse effect" performance standard for impacts to rare wetland wildlife habitat. For additional information, I refer the proponent to the MassDEP's Wildlife Habitat Protection Guidance for Inland Wetlands, dated March 2006, and Wetlands Policy # 06-1 *Procedures for Coordinated Review Under the Endangered Species and Wetlands Protection Regulations for State-Listed Wildlife in Wetlands*.

If the proponent is rebutting the presumption concerning the accuracy of the Federal Emergency Management Agency's 100-year flood plain boundary, the DEIR should include a copy of the flood study referenced in the EENF or any other flood study conducted, which must comply with the criteria at 310 CMR 10.57(2)(a)(3). The DEIR should also include information and analysis of Riverfront Area impacts as recommended by MassDEP, including information for any areas being considered by the proponent as previously developed Riverfront Area. The DEIR should include information to demonstrate the projects consistency with *Massachusetts River and Steam Crossing Standards: Technical Guidelines*.

The DEIR should include detailed replication plans for any proposed wetlands mitigation areas. I encourage the proponent to consider establishing Conservation Restrictions (CRs) in and around the freshwater wetlands found on-site, including Riverfront Area. The proponent should consult with MassDEP regarding any proposed wetlands CRs. The proponent should also consider potential restoration projects as recommended by The Nature Conservancy in its comment letter, to restore connectivity in terrestrial and aquatic habitats.

#### Stormwater and Low Impact Development (LID)

The DEIR should describe in detail how the project will comply with the Stormwater Management Standards, which have been recently revised and incorporated into the Wetlands Protection Act (WPA) regulations at 310 CMR 10.00 and 314 CMR 9.00.

The DEIR should provide a drainage analysis and a detailed description of the proposed stormwater management system for Phase B, and demonstrate how the project will meet MassDEP's Stormwater Management Regulations. The DEIR should describe changes to site topography, hydrology and drainage patterns as a result of the proposed land alteration and impervious area. The DEIR should demonstrate how the project is being designed to avoid and minimize any adverse impacts to site hydrology and wetland resources on and adjacent to the project site. Specific low impact development (LID) measures that will be incorporated in the project should be described. The DEIR should identify the size and location of stormwater system features on site plans. The layout of the stormwater system should be presented in the context of existing natural resources and proposed development areas to facilitate assessment of potential impacts and adequacy of the system. The DEIR should discuss ownership and long-term management of the stormwater system and include an operations and maintenance plan. The DEIR should include a stormwater pollution plan that details Best Management Practices (BMPs), pollutant elimination targets, and maintenance schedules and protocols. The DEIR should provide additional information to clarify whether the proposed project will include "Land Uses with a Higher Potential Pollutant Load" and "Critical Areas" with respect to stormwater quality control.

Potential adverse impacts to the Wareham River Watershed and upland ecosystem could be significantly reduced by the use of Low Impact Development (LID) site planning techniques and best management practices (BMPs). The DEIR should include a comprehensive detailed evaluation of opportunities to incorporate LID BMPs such as bioretention, permeable pavers, green roofs, rain barrels, rain gardens, grassed swales, stormwater infiltration systems, and alternative landscaping. I refer the proponent to the Commonwealth of Massachusetts Smart Growth/Smart Energy Toolkit for more information. (<http://www.mass.gov/envir/sgtk.htm> )

### Air Quality

The DEIR should discuss air emissions and air quality permitting requirements for proposed industrial and manufacturing facilities. I refer the proponent to MassDEP's comment letter for additional information on applicable regulations. The proposed project may be subject to the Rideshare regulations (310 CMR 7.16), a clean air program that applies to employers with 250 or more daily employees. If the project may include facilities subject to this regulation, the proponent should consult with MassDEP for assistance. The DEIR should discuss project compliance with the Rideshare regulation, the Massachusetts Idling regulation (310 CMR 7.11) and other applicable air quality regulations. MassDEP recommends that the proponent participate in the MassDEP Diesel Retrofit Program and use ultra-low sulfur diesel to reduce particulate emissions during construction. The proponent should consult with MassDEP staff on this issue. The DEIR should include commitments to mitigate construction-period diesel emissions.

### *Mesoscale Analysis*

The DEIR should include a mesoscale analysis for all phases of the project as recommended by MassDEP. I refer the proponent to MassDEP's comment letter for additional detail on the mesoscale analysis including the study area boundaries and the volatile organic compounds (VOC) and nitrous oxide (NO) emission analysis. If the mesoscale analysis indicates

an increase in VOC and NO<sub>x</sub> emissions as a result of the project, the DEIR should include commitments from the proponent to develop, implement or fund adequate mitigation measures to offset these increases to the maximum extent feasible.

### *Greenhouse Gas (GHG) Emissions*

The DEIR should include an analysis of Greenhouse Gas (GHG) emissions and mitigation measures in accordance with the requirements of the MEPA GHG Emissions Policy and Protocol and as further detailed below. The proponent should consult with MassDEP regarding the modeling protocol prior to conducting the analysis. The analysis should include a cumulative assessment of GHG impacts and mitigation for all phases of the project (A, B, and C)

The EENF indicates that green power purchasing and renewable energy use is not economically feasible for the initial Phase A. However, the large scale of the overall project proposed (including Phases B and C) presents opportunities for incorporation of cost-effective innovative technologies that would significantly reduce projected GHG emissions from the project. The DEIR should include an energy/fuel consumption alternatives analysis examining the GHG impacts of the mix of renewable energy (wind, solar, geothermal), distributed generation such as combined heat and power, and traditional fossil fuel sources. Because scale is a significant factor in the cost-effectiveness of renewable energy, it is important that near-term decisions regarding energy sources for project phases that rely to a great extent on fossil fuel sources do not negatively impact long-term technical or economic viability of renewable sources. A comprehensive feasibility analysis for the entire project is consistent with the Special Review Procedure requirement for a cumulative impact assessment, and to ensure that implementation of earlier phases do not preclude options to avoid, minimize or mitigate environmental impacts associated with future phases.

The DEIR should include a comprehensive heating and cooling plan for the entire project (Phases A, B, and C) that considers clean and renewable fuels. The plan should consider all alternatives to fuel oil or electric heating and cooling for individual buildings. MassDEP has indicated in its comment letter that the project meets some of the basic screening criteria for district heating and cooling with the potential to add combined heat and power (CHP) to serve some of the electric load. A centralized heating and cooling plant has been shown to significantly reduce GHG emissions compared to individual boilers/chillers in each building or residential unit, and provides other benefits in terms of operations and maintenance, fuel flexibility, and increased usable building space. The proponent should consider fueling the central thermal plant by natural gas, biomass or geothermal. The DEIR should include an evaluation of the GHG emissions benefits and economic feasibility of this energy approach as recommended by MassDEP in its comment letter. If the analysis indicates that district heating and cooling is not feasible, the proponent should consider other options including extending a nearby natural gas line, and geothermal or wood pellet/biomass for individual buildings. I refer the proponent to the MassDEP comment letter for additional information and website resources.

I commend the proponent for selecting a Leadership in Energy and Environmental Design (LEED) certified architect to assist in the development of an energy efficient design for Phase A and encourage the proponent to continue this effort for future phases. Green

developments are a smart financial investment and at this early stage in the project, there are a multitude of opportunities for designing buildings and transportation management strategies that reduce energy consumption and substitute renewable energy sources for fossil fuel sources.

I note that one of the proposed measures in the EENF is to encourage tenants to adopt energy efficiency, renewable energy or transportation reduction measures. However, measures to "encourage" may or may not result in measurable GHG reductions and more specific commitments will be required in the DEIR. The DEIR should evaluate, and where appropriate, commit to adopting "green leasing" or other financial incentives to reduce GHG emissions and ensure that potential cumulative impacts of the phased development are avoided and minimized.

The GHG analysis as presented in the EENF, identified a range of mitigation measures. However, certain measures do not seem to be incorporated in the modeling charts. The charts also show a significant reduction in electric consumption over baseline conditions for "area lights", which is not explained. The DEIR and other future filings should include a more extensive analysis with a breakout of the project's consumption of electricity and fuel and the corresponding impact on Carbon dioxide (CO<sub>2</sub>) emissions for each of the significant mitigation measures modeled. The report should identify highly sensitive elements of the analysis as recommended by MassDEP in its comment letter. The DEIR should describe the proponent's strategy for monitoring energy performance of buildings to ensure the energy systems function as designed over the long-term. The DEIR should include an analysis of GHG impacts relating to materials management. I refer the proponent to MassDEP's comment letter for additional information and guidance.

I note that the recently passed Green Communities Act requires that the International Energy Conservation Code (IECC) be adopted and fully integrated into the state building code. Therefore, the Massachusetts requirements will be changing. The proponent should be aware that the state code is expected to be revised by November 2009. The proponent's energy model must be optimized for the Massachusetts State Building Code in accordance with the MEPA GHG Policy and Protocol. In addition, I recommend that the proponent contact the New Construction Division of its electric utility provider, NStar, to take advantage of potential rebates available. Under the Green Communities Act, utilities will be greatly enhancing their energy efficiency rebate programs with expected program changes in 2010.

The DEIR should evaluate the feasibility of orienting new buildings and constructing roofs to support the added weight of a solar photovoltaic (PV) system for potential installation during project construction or at a future date. MassDEP and the Department of Energy Resources (DOER) have indicated that a life-cycle analysis, considering the support of subsidies through the Commonwealth Solar and Renewable Portfolio Standard (RPS) Program, could show an acceptable payback from the project. The DEIR should consider installation of a PV system under two scenarios: 1) construction, ownership and operation of a PV system by the building owner; or 2) construction, ownership, and operation of a PV system by a third party who will then enter into a long-term power purchase agreement with the building owner for the electricity produced by the system. If neither scenario is considered economically feasible at this time, MassDEP and DOER recommend that the proponent consider PV installation for a future date and state its willingness to host a third-party-owned PV array under a favorable power

purchase agreement. I refer the proponent to the MassDEP comment letter for additional information.

The DEIR should include a progress report on the implementation of GHG mitigation measures for Phase A. The DEIR should justify the reasons for not implementing any measures that were proposed in the EENF.

### Transportation

The DEIR should include additional information pertaining to Phase A and Phase B as requested in the comment letter from the Executive Office Transportation (EOT). The DEIR should include a schedule for implementation of transportation mitigation measures that corresponds with each development phase. The DEIR should include additional information to demonstrate that warrants are met where traffic signals are proposed and that construction of the improvements will be coordinated to minimize impacts along transportation corridors.

The DEIR should include a transportation study that is updated with revised traffic counts and a new traffic analysis for the study area to reflect any changes in the development program and/or the time lapse between submissions. The proponent should consult with the regional planning agencies regarding their transportation comments and address these in the DEIR. The transportation analysis should consider other proposed development in the vicinity of the project including the River Run project (EEA# 13580) and the Plymouth Rock Studio project as recommended by EOT. The DEIR should include conceptual plans for roadway improvements as further detailed in EOT's comment letter. The DEIR should include an update on the proposed Transportation Demand Management (TDM) program and commitments. The proponent should continue working with the Greater Attleboro-Taunton Regional Transit Authority (GATRA) to accommodate additional transit riders and maximize public transportation access to the site. The DEIR should include an update on discussions with GATRA and identify on-site amenities to facilitate transit bus access and incentives to encourage usage.

The DEIR should include additional detail to respond to MassDEP comments on the proposed TDM program. The DEIR should discuss in detail implementation of a Commuter Tax Benefit Program, Transportation Management Association (TMA), Guaranteed Ride Home Program, and Rideshare Matching Program. The DEIR should evaluate additional measures to reduce drive-alone trips to the project including incentives for walking, bicycling, transit and carpool use, and traffic calming and shuttle services, as recommended by MassDEP in its comment letter. The DEIR should assess the feasibility of a shuttle service as recommended by MassDEP. The DEIR should include clear commitments to specific TDM measures. I encourage the proponent to commit to developing contracts with tenants to ensure implementation of additional TDM measures to reduce vehicle trips.

The proponent should continue to work with EOT to monitor and assess on-site and off-site transportation infrastructure that will be required for Phase C of the project. The DEIR should discuss the results of the consultations and assessments.

### Water Supply

Potable water services and fire protection for Phase B of the project will be provided by the Wareham Fire District (WFD). It appears that the potable water demand can be accommodated within the WFD's existing Water Management Act (WMA) Permit. The proposed withdrawal for Phase C will require an application for a new WMA permit. MassDEP indicates that the WFD will be requesting additional volume to accommodate projected increases in demand. To the extent feasible, the proponent should provide ongoing support to the WFD in developing water demand projections for the project.

The DEIR should include an analysis of the impacts associated with the proposed new water mains. The DEIR should identify the location of proposed irrigation wells and include an estimate of proposed groundwater withdrawals for irrigation and an evaluation of impacts, including any potential wetlands impacts. The DEIR should describe proposed re-use of treated water and other sustainable water conservation practices, and quantify expected reductions in water demand.

The DEIR should discuss the consistency of the project with the Plymouth/Carver Aquifer Action Plan (2007), the Plymouth/Carver Aquifer Regional Open Space Plan (2008), and the Plymouth/Carver Aquifer Advisory committee's bylaw recommendations for Aquifer communities (2008). The DEIR should describe how the project will maximize water conservation and aquifer recharge, and minimize surface and groundwater discharge of nutrients and pollutants.

### Federal Consistency Review

The proponent should consult with the Office of Coastal Zone Management (CZM) regarding its federal consistency review. The DEIR should describe how the proposed project will be consistent with CZM's enforceable program policies.

### Historical and Archaeological Resources

The DEIR should include a single comprehensive cultural resources section that expands upon the EENF as further detailed in the comment letter from the Massachusetts Historical Commission (MHC). MHC has requested additional information to clarify location of proposed development in relation to archaeological testing sites as previously reviewed by MHC. The proponent should continue consultations with MHC during DEIR preparation. MHC has recommended that the proponent meet with the Lead Federal Agency for the Section 106 review to coordinate and plan the consultation process.

### Construction Period Impacts

The DEIR should include a Construction Management Plan (CMP) describing project activities and their schedule and sequencing, site access and truck routing, and best management practices (BMPs) that will be used to avoid and minimize adverse environmental impacts. The CMP should address potential impacts and mitigation relating to land disturbance, noise, dust,



odor, nuisance, vehicle emissions, construction and demolition debris, and construction-related traffic. The CMP should discuss plans for reuse and recycling of construction materials. The CMP should include an erosion control component to address protection of water quality and wetlands resources.

I strongly encourage the proponent to commit to participation in the MassDEP Diesel Retrofit Program and to use ultra low sulfur diesel (ULSD) in off-road engines. The DEIR should describe how the proponent will minimize construction-period diesel emissions to address concerns relating to fine particulate matter (PM<sub>2.5</sub>) and related health impacts. The DEIR should also discuss measures to ensure compliance with any applicable solid waste, air quality control and disposal site regulatory requirements.

#### Proposed Mitigation and Section 61 Findings

The DEIR should include a separate chapter on mitigation measures, which should include proposed Section 61 Findings for all state permits and a summary table of all mitigation proposed. The mitigation chapter of the DEIR should describe proposed mitigation measures, contain clear commitments to mitigation and a schedule for implementation, and identify parties responsible for funding and implementing the mitigation measures.

#### Responses to Comments


To ensure that the issues raised by commenters are addressed, the DEIR should include a responses to comments. This directive is not intended to, and shall not be construed to, enlarge the Scope of the DEIR beyond what is expressly identified in this Certificate. I defer to the proponent in developing the format for this section but it should provide clear answers to the questions raised and additional information and analysis as necessary to respond to the comments.

#### Circulation and Public Outreach

The DEIR should be circulated in compliance with Section 11.16 of the MEPA regulations and copies should be sent to the list of "comments received" below. A copy of the DEIR should be made available for public review at the Carver, Plymouth and Wareham Public Libraries. I note that the proponent has agreed to notify those on the EENF distribution list of project informational meetings as part of its public outreach plan. The proponent should expand its meeting notification list to include all who commented on the SRP and EENF and those who attended the MEPA site visit and public consultation. The DEIR should include an update on the proponent's public outreach activities.

September 12, 2008

DATE



Ian A. Bowles, Secretary

## Comments received

8/01/08 Wareham Fire District  
8/13/08 Massachusetts Historical Commission  
8/28/08 Town of Plymouth  
8/29/08 Cape Cod Canal Region Chamber of Commerce  
8/29/08 Wareham Ford  
9/04/08 Plymouth/Carver Aquifer Advisory Committee  
9/04/08 Carver Conservation Commission  
9/04/08 Division of Marine Fisheries  
9/04/08 E.L. Morse Co., Inc.  
9/04/08 Plymouth Area Chamber of Commerce  
9/05/08 Town of Wareham  
9/05/08 Cape Cod Cranberry Growers' Association  
9/05/08 David Beluche  
9/05/08 Department of Environmental Protection, Southeast Regional Office  
9/05/08 Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program  
9/05/08 Buzzards Bay National Estuary Program  
9/05/08 The Nature Conservancy  
9/05/08 The Coalition for Buzzards Bay  
9/05/08 Southeastern Regional Planning and Economic Development District  
9/08/08 Office of Coastal Zone Management  
9/08/08 Plymouth Area Chamber of Commerce  
9/10/08 Old Colony Planning Council  
9/10/08 Executive Office of Transportation

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