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March 18, 2011

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
PHASE B FINAL ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : ADM Tihonet Mixed Use Development
Phase B – Rosebrook Business Park/Rosebrook Place/
Charlotte Furnace Solar Energy/Rosebrook Solar Energy
PROJECT MUNICIPALITY : Carver, Plymouth and Wareham
PROJECT WATERSHED : Buzzards Bay
EEA NUMBER : 13940
PROJECT PROPONENT : ADM Development Services LLC
DATE NOTICED IN MONITOR : January 26, 2011

As Secretary of Energy and Environmental Affairs, I hereby determine that the Final Environmental Impact Report (FEIR) submitted for this phase of the project adequately and properly complies with the Massachusetts Environmental Policy Act (M.G.L. c.30, ss 61-62I) and with its implementing regulations (301 CMR 11.00). Future phases of the project will require additional filings as required by the Special Review Procedure (SRP) established for the project.

Project Description

The proposed project constitutes Phase B of a Master Plan for the A.D. Makepeace (ADM) landholdings comprising approximately 6,079 acres in the towns of Carver, Plymouth, and Wareham. Phase B of the project includes 344,700 square feet (sf) of medical and general office uses, retail space and residential buildings as well as two large-scale solar energy projects, a 3.6-megawatt and a 0.5-megawatt facility, that together will generate 6,400 megawatt hours per year (MWh/yr) of renewable energy. The mixed-use development portion of Phase B and the Rosebrook Solar Project (0.5 MW) will be located on parcels of land in the vicinity of Lou Avenue in Wareham. The larger solar project, the Charlotte Furnace Solar Project (3.6 MW) will

also be located in Wareham on a parcel of land in the northwestern portion of the project site off Charlotte Furnace Road near the Carver town line. I commend the Proponent for undertaking these significant renewable energy projects that will supply clean renewable energy power to businesses and homes in southeastern Massachusetts without generating air pollution or greenhouse gas emissions.

Phase B has been scaled back substantially compared to what was proposed at the time of the Expanded ENF filing. At that time, approximately 1.7 million sf of development was proposed on a 1,140-acre portion of the site, the Business Development Overlay District (BDOD). The Proponent has reduced the scale of development proposed at this time due to market conditions and proposes to defer further development of the BDOD to a future date as part of the project's Phase C.

The Phase B project area, as proposed in the FEIR, encompasses 337 acres of land, of which 259 acres will remain in agricultural use, and of which 78 acres will be used for Phase B development. The environmental impacts associated with the project include alteration of approximately 62 acres of land, including 12 acres of impervious area, and impacts to 34 acres of state-listed endangered species habitat. 931 parking spaces are proposed for Phase B and traffic impacts are estimated in the FEIR to be 6,450 vehicle trips per day on an average weekday and 4,396 trips on an average Saturday. The proposed project, including off-site transportation improvements, will result in alteration of approximately 14,000 sf of Riverfront Area, 33,500 sf of wetlands Buffer Zone, and 450 sf of Bordering Land Subject to Flooding (BLSF). The project includes mitigation measures for state-listed species, transportation, wetlands, and other impacts as further detailed in the Draft and Final EIRs and as outlined below in this Certificate.

Phase B of the project will connect to the Town of Wareham's municipal system for its water supply and wastewater discharge. Phase B is expected to discharge a maximum flow of 43,773 gallons per day (gpd) to the municipal sewer system, the average daily wastewater flow is expected to be less than this. The average daily water demand for Phase B is approximately 25,278 gpd.

MEPA History and Context

The ADM Tihonet Mixed Use Development 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. The conceptual Master Plan for the entire project site envisions 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 Proponent proposes the use of Transfer of Development Rights (TDR) to concentrate development in certain areas and ensure conservation of ecologically significant lands.

A Final Amended Record of Decision was issued on October 28, 2009 granting a waiver to allow the Proponent to proceed with Phase A of the project prior to completing an EIR for the entire project. Portions of Phase A, including the Phase A2 medical office building, are under

construction. A Notice of Project Change/Draft Environmental Impact Report (NPC/DEIR) for Phase B, located in Wareham, was filed in September 2010 in accordance with the Special Review Procedure (SRP) established for the project on January 29, 2007 and the Certificate on the Expanded Environmental Notification Form (EENF) dated September 12, 2008. An ENF for the proposed Phase C-1 Wankinco Cranberry Bog Expansion was filed concurrently with the NPC/DEIR. The cranberry bog expansion is located in Carver, within the Phase C portion of the project site. A Certificate on the ENF for the Wankinco Bog Expansion was issued on November 12, 2010. An EIR was not required for the Phase C-1 Wankinco Bog project. A Certificate on the NPC/DEIR was issued on November 12, 2010, which allowed a Response to Comments on the Draft EIR and Proposed Section 61 Findings to be filed in lieu of a Final EIR in accordance with 301 CMR 11.08(8)(b)(2)(b).

Permits and Jurisdiction

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. Phase B of the project exceeds the following thresholds: Section 11.03(1)(a)(1) and (2) of the MEPA regulations 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) of the regulations because it will involve alteration of two or more acres of Priority Habitat and result in a taking of a state-listed species; Section 11.03(6)(a)(6) because it will result in generation of 3,000 or more new vehicle trips; and Section 11.03(6)(b)(15) because it will result in 300 or more new parking spaces. Phase C may exceed other MEPA review thresholds.

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 for the entire project, including Phase C, would extend to water supply, wastewater, wetlands, water quality, rare species, historical and archaeological resources, transportation, greenhouse gas emissions, land alteration and stormwater.

Phase B requires a Vehicular Access Permit from the Massachusetts Department of Transportation (MassDOT), a Conservation and Management Permit from the Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program (NHESP), and an Order of Conditions from the Wareham Conservation Commission (and, on appeal only, a Superseding Order from the Massachusetts Department of Environmental Protection (MassDEP)). The project is subject to the Executive Office of Energy and Environmental Affairs (EEA)/MEPA Greenhouse Gas Emissions Policy and Protocol. The project is also subject to review by the Massachusetts Historical Commission (MHC) and may be subject to federal consistency review by the Massachusetts Office of Coastal Zone Management (CZM)

Future phases of the project will require additional permits including a 401 Water Quality Certification, a Groundwater Discharge Permit, a Water Supply System Distribution Modification, a Sewer Extension/Connection Permit, and a New Source Approval from MassDEP.

REVIEW OF FINAL EIR

Transportation

Based on appropriate Institute of Transportation Engineers (ITE) Land Use Codes for the Phase B development, on an unadjusted basis, the project is expected to generate 7,308 vehicle trips on an average weekday and 5,306 vehicle trips on an average Saturday. With adjustments for internal trips and pass-by trips, the project is expected to generate 6,450 new vehicle trips on an average weekday and 4,396 new vehicle trips on an average Saturday. The FEIR includes an updated transportation study that generally conforms to EEA/MassDOT Guidelines for EIR/EIS Traffic Impact Assessment.

In its response to comments, the Proponent provided additional analysis of accidents in the project area, using local police department data as requested by MassDOT. The FEIR indicates that crash rate for the Route 28/Tobey Road/Tow Road intersection exceeds the District 5 and statewide average for signalized and unsignalized intersections. The Proponent proposes improvements at this intersection as part of Phase B of the project that will include adjustments to the traffic signal systems designed to reduce the frequency of occurrence of motor vehicle crashes. In addition, sight line, sign, and pavement marking improvements designed to reduce crash rates are proposed at the Cranberry Road/Federal Road intersection.

The FEIR includes illustrations of intersection and lane group level of service and 50th and 95th percentile vehicle queues for the Route 28/I-195 interchange and proximate signalized intersections along the Route 28 corridor. As noted in the MassDOT comment letter, the illustration demonstrates that sufficient storage lanes are provided, and the queues would not impact operations of the I-195/Route 28 interchange. The FEIR also includes plans depicting the proposed roadway and intersection improvements with additional information requested by MassDOT. The plans have been refined to include a dedicated bicycle or widened shoulder. Bicycle detection will be incorporated at signalized intersections along the Route 28 corridor. The project is being designed to connect to the Wareham bikeway, a segment of which will travel along Main Street to the south of Route 28 and the project site. The FEIR indicates that the connection of the project to the future Wareham Bikeway will continue to be advanced as an integral part of the planning of future phases of the project, including associated roadway improvements.

The Proponent consulted with the Greater Attleboro Taunton Regional transit authority (GATRA) to discuss its comments and recommendations on the site layout as it pertains to accommodations for transit vehicles. The Proponent has committed to fund 20 percent of the cost for additional buses and bus shelters. Additional transportation mitigation commitments are outlined in the Proponent's revised letter of commitment to MassDOT, which is included in the FEIR.

State-listed Species

The revised draft Section 61 Findings for the NHESP Conservation and Management Permit, included in the FEIR, indicate the Proponent's commitment to preserving 100 acres of habitat as mitigation for state-listed species impacts. As noted in the comment letter from NHESP, the mitigation acreage has subsequently been revised and the Proponent is now proposing to permanently protect approximately 150 acres of important habitat in the eastern portion of the site and to protect Eastern Box Turtle during construction (revised acreage based on March 9, 2011 correspondence from Beals & Thomas, Inc. to the NHESP, which includes mitigation for Phase A1 Tihonet Technology Park). NHESP indicates that the proposed mitigation acreage is adequate and may even exceed the minimum requirement. The final acreage of habitat protection is in the process of being finalized and will be reflected in the Conservation and Management Permit, which NHESP expects to issue after completion of the MEPA review process.

Wastewater and Nutrient Loading

I acknowledge the comments received from the Coalition for Buzzards Bay regarding nitrogen pollution of the Wareham River and an expedited schedule for the studies being undertaken by MassDEP and the Proponent. As indicated in the FEIR and in my Certificate on the NPC/DEIR, the Proponent has agreed to work with the MassDEP Wastewater Management Program on a process to develop standardized methods for nitrogen impact analysis, which will take some time. I am confident that MassDEP will coordinate with the Proponent to ensure the studies are completed as soon as feasible. The proposed joint efforts between the Proponent and MassDEP will likely include, but not be limited to: refinements in groundwater models; a better method for cranberry bog impact assessment based on bog design, construction and operation; and a system to account for nitrogen removal that may occur before MassDEP issues a Groundwater Discharge Permit for the project.

Mitigation and Section 61 Findings

The FEIR includes draft Section 61 Findings for the NHESP Conservation and Management Permit. As noted above, mitigation acreage has since been revised to approximately 150 acres of undisturbed lands adjacent to state-owned conservation land that will be permanently protected. This proposed habitat protection will serve as mitigation for state-listed species impacts associated with the Charlotte Furnace Solar Energy project (34 acres of impact), the Phase A1 Tihonet Technology Park (10.4 acres of impact), and the Wakinco Cranberry Bog expansion (32 acres of impact). The FEIR indicates that this land will be set aside upon commencement of either Phase B or Phase C1. Other measures will be implemented during construction and following completion of work to avoid and minimize impacts to state-listed species and their habitat. These measures include including minimizing vegetation clearing to the extent practicable, observation and possible relocation of animals in accordance with protocols approved by NHESP, removal of construction-related barriers other than security fencing (which will remain in place around the perimeter of the Charlotte Furnace Road Solar Energy project).

The FEIR includes revised Section 61 Findings for the MassDOT permit that incorporates language relating to self-certification for GHG mitigation measures. This requirement for self-certification by the Proponent will be incorporated by MassDOT's MassHighway Division into its final Section 61 Findings for the project. Transportation and GHG-related mitigation commitments are outlined below.

Transportation mitigation

Safety

The Proponent has committed to implementing an optimal traffic signal timing, phasing, and coordination plan at the Route 28/Tobey Road/Tow Road intersection. The Proponent has also committed to conducting a review of signs and pavement markings, which will be upgraded and/or replaced as deemed necessary by the review. The Proponent has also committed to trimming and maintaining vegetation at this location to maximize sight distance and safety.

Off-Site Improvements

The FEIR identifies a comprehensive package of highway and traffic signal improvements, which include the following:

- Reconstruction of the Route 28/Lou Avenue intersection to provide three exiting lanes and two entering lanes separated by an island, widening of the northbound Route 28 approach to provide two general purpose lanes and extending the Route 28 southeastbound left-turn lane;
- Installation of traffic signals at the Route 28/Charge Pond Road intersection and Route 28/Charlotte Furnace Road intersection;
- Upgrades to the Route 28 intersections with Tihonet Road, Charge Pond Road, and Charlotte Furnace Road, as well as Cranberry Road/Federal Road intersection with new signs and pavement markings; and
- Monitoring of traffic volumes and operating conditions at the I-495/Route 58 northbound and southbound ramp intersections will continue as subsequent phases of the project are advanced.

The proposed mitigation program will be refined during the MassDOT permitting process and will provide safe and convenient access for all roadway users, including pedestrians and bicyclists in accordance with MassDOT Complete Streets standards. Design elements include, but are not limited to, provisions for adequate lane, median and shoulder widths, and bicycle lanes and sidewalks.

Transportation Demand Management (TDM)

The FEIR describes a comprehensive set of Transportation Demand Management (TDM) measures that include pedestrian improvements, bicycle accommodations, and traffic reduction strategies. Pedestrian connections on-site and at the Lou Avenue intersection will connect the project site with Lou Avenue sidewalks that extend to the proposed Rosebrook Business Park. These improvements will also allow connection to the existing sidewalk system along Route 28.

The Proponent has committed to bicycle accommodations on-site and along the Route 28/Tihonet Road Connector and will include bicycle detection and associated signs and pavement markings at all traffic signals to be constructed or modified as part of Phase B. The FEIR also revisited plans for bicycle accommodations and provides a dedicated bicycle lane or a widened shoulder with appropriate transitions to adjacent segments outside the limits of improvements. In addition, the Proponent has committed to make the Wareham Bikeway an integral part of the planning for future phases of the project.

The FEIR identifies trip reduction strategies to be incorporated as part of the project's TDM program. These include an on-site transportation coordinator, alternative work schedules, preferential parking for those who rideshare and use alternatively fueled vehicles, rideshare matching program through the local Transportation Management Association and through joint programs with area commercial tenants and coordination with MassRides.

Letter of Commitment

The FEIR includes a letter of commitment from the Proponent to MassDOT outlining its transportation mitigation commitments. The Proponent should consult with MassDOT to discuss any revisions that may be needed to the letter of commitment, which will be the basis for MassDOT to issue a Section 61 Finding for the project.

GHG mitigation

Based on the Draft and Final EIRs, the proposed mitigation is expected to achieve an approximately 14.5 percent reduction in carbon dioxide (CO₂) emissions from building-related sources and a 3.5 percent reduction for mobile source emissions compared with the base case. Overall, the Proponent expects that the proposed project (build with mitigation) will achieve a 10.5 percent reduction in GHG emissions from stationary and mobile sources when compared with the code-compliant base case. The code-compliant base case is expected to generate 4,737 tons per year (tpy) of CO₂ and the proposed Phase B is expected to generate 4,237 tons of CO₂.

The Proponent has proposed a range of GHG mitigation measures for Phase B, which include:

- Extension of natural gas service to the Phase B project area;
- High-efficiency HVAC systems and other equipment;
- Increased R-value insulation;
- Cooling with gas heat pump for the hotel;
- Motion sensors for lighting and climate control;
- Provision of construction and design guidelines and energy efficiency consulting services to facilitate sustainable design build-out by tenants;
- Work with the Town of Wareham to develop guidelines that include incentives for end-users to include energy-efficient building materials and appliances;
- Financial incentives, which will be market-dependent;
- Installation of meters to monitor energy use and efficiency will be considered;
- Construction materials recycling;
- Building orientation and landscaping to minimize energy use;

- Measures to maximize interior daylighting;
- Water conservation including efficient fixtures that exceed building code, rainwater collection/use, and xeriscaping;
- Window glazing;
- Building materials with recycled content and materials sourced regionally;
- Purchase and installation of energy-star rated appliances;
- Use of wood certified in accordance with Forestry Stewardship Council's principles and criteria;
- Use of low VOC adhesives, sealants, paints, concrete and wood;
- Reduce or eliminated refrigerants in HVAC system; and
- Transportation Demand Management (TDM) measures including financial support to GATRA for two low emission buses.

As indicated in its email to the MEPA Office (February 2, 2011), the Proponent consulted with GATRA during review of the FEIR and has agreed to provide up to three bus shelters and two buses to serve the project and will provide twenty percent of the funding. The Proponent will work with GATRA to facilitate this aspect of the TDM plan during buildout of Rosebrook Business Park and the Rosebrook Place mixed use development.

During consultations with the Proponent, the Department of Energy Resources (DOER) recommended additional energy efficiency measures to consider for Phase B. These include ventilation energy recovery, reduced lighting power density and HVAC improvements with rooftop units that have an energy-star rating of 13 or higher. The Proponent has committed to evaluate the additional DOER recommendations in terms of the needs of the occupant and the financial feasibility of incorporating the efficiency measures once a specific user is identified.

Upon completion of project construction, the Proponent will be required to provide a certification to the MEPA Office signed by an appropriate professional (e.g. engineer, architect, general contractor) indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve the proposed stationary source GHG emission reduction committed to in the FEIR, have been incorporated into the project. The revised Section 61 Findings in the FEIR include the Proponent's commitment to self-certification for GHG mitigation. The certification should be supported by as-built plans. For those measures that are operational in nature (i.e. TDM, recycling, use of Energy Star-rated equipment), the Proponent will be required to provide an updated plan identifying the measures, the schedule for implementation and how progress toward achieving these measures will be achieved. The certification should also include an update on the Proponent's evaluation of additional energy efficiency measures recommended by DOER.

Mitigation Summary

The Proponent has committed to a range of measures to avoid and minimize or mitigate Phase B impacts. These measures include:

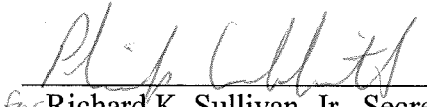
- Air Quality and GHG – renewable energy/solar projects, energy efficiency measures, use of natural gas in lieu of electric heat, and transportation measures to reduce emissions;
- Land alteration – stormwater management system including Low Impact Development (LID) and other Best Management Practices (BMPs);
- Wetlands and water quality – erosion and sedimentation controls during construction, and Riverfront Area restoration (65,990 sf of previously developed Riverfront Area and 42,810 sf of other Riverfront Area, a portion of which will be used as mitigation for Phase B);
- Rare Species – measures to protect species during construction and permanent protection of approximately 150 acres of land adjacent to state-owned conservation areas;
- Transportation – a range of roadway improvements including traffic signal installation and optimization, and a TDM program that includes funding for two low emission buses; and
- Water Conservation - measures include xeriscaping and use of rainwater for irrigation.

Conclusion

Based on the review of the FEIR and comments received, and consultation with relevant state agencies, I am satisfied that the Proponent has provided sufficient information for environmental review and has committed to measures to avoid, minimize and mitigate environmental impacts. Any outstanding issues can be addressed during state and local permitting. No further MEPA review is required for Phase B of the project. Future phases will require MEPA review as outlined in the Special Review Procedure (SRP) and previous Certificates for the project.

Phase B of the project may proceed to state permitting. The Proponent and state agencies should forward copies of final Section 61 Findings to the MEPA Office for publication in the *Environmental Monitor* in accordance with 301 CMR 11.12(5)(e) and 11.15(2).

March 18, 2011



for Richard K. Sullivan, Jr., Secretary

Comments received

3/11/2011	Department of Environmental Protection, Southeast Regional Office
3/11/2011	The Coalition for Buzzards Bay
3/11/2011	Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program
3/15/2011	Massachusetts Department of Transportation

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