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June 12, 2009

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Athletic Complex/Industrial Site (formerly reviewed as
EMC Bellingham Campus)
PROJECT MUNICIPALITIES : Bellingham
PROJECT WATERSHED : Charles River
EOEA NUMBER : 12176
PROJECT PROPONENT : LIG Development Co., LLC
DATE NOTICED IN MONITOR : May 6, 2009

As Secretary of Energy and Environmental Affairs, I hereby determine that the Supplemental Environmental Impact Report (SEIR) submitted on this project **adequately and properly complies** with the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62I) and with its implementing regulations (301 CMR 11.00).

MEPA History and Project Description

The project site is comprised of approximately 144 acres on the west side of Maple Street, with approximately 87 acres located on the north side of High Street and 57 acres on the south side of High Street. The previously proposed project on this site was the subject of full review under MEPA that culminated in 2001 with the issuance of a Certificate on the Final Environmental Impact Report (FEIR). That project, as described in the FEIR, entailed the proposed development of a 1,072,000-square foot (sf) research and development facility by EMC Corporation. The project was not constructed.

In a Notice of Project Change submitted in 2008, the current proponent proposed to construct an indoor/outdoor athletic facility comprised of six soccer fields and a 268,020-sf indoor athletic facility to accommodate two additional soccer fields, a basketball gymnasium,

batting cages, a climbing area, offices, locker rooms, and other ancillary uses. In the NPC, the proponent also proposed the potential development of a 180,000-sf industrial building and a 350,000-sf warehouse on the site, although there are no specific plans to construct these uses at this time and the proponent intends to sell these parcels rather than develop them.

MEPA Jurisdiction and Permitting Requirements

The project is undergoing MEPA review and required the preparation of an EIR pursuant to Section 11.03(1)(a)(1) and 11.03(1)(a)(2) of the MEPA regulations, because it will result in the direct alteration of more than 50 acres of land and the creation of more than 10 acres of new impervious surface; and Section 11.03(6)(a)(6) and 11.03(6)(a)(7), because, under the potential full-build-out scenario, the project may result in more than 3,000 new average daily trips (adt) and may require the construction of more than 1,000 new parking spaces.

The project, at a minimum, will require a National Pollutant Discharge and Elimination System (NPDES) Construction General Permit from the U.S. Environmental Protection Agency (EPA); and a Vehicular Access Permit from the Massachusetts Highway Department (MassHighway). Future development on the site may require a Groundwater Discharge Permit from the Department of Environmental Protection (MassDEP). The project also requires review by the Massachusetts Historical Commission (MHC). At the local level, the project received an Order of Conditions from the Bellingham Conservation Commission.

Because the Proponent is not seeking financial assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that may cause Damage to the Environment as defined in the MEPA regulations and that are within the subject matter of required or potentially required state permits. In the NPC Certificate, I assumed MEPA jurisdiction extended to land, stormwater, wastewater, transportation, greenhouse gas emissions, and historic and archeological resources. Based on information presented in the SEIR, I acknowledge that the athletic complex, on its own, is not subject to State Agency Actions for stormwater and wastewater because the project has obtained local permits for which appeal periods have been exhausted. However, if and when a Notice of Project Change (NPC) is submitted for the remainder of the project, I retain the authority to exercise MEPA jurisdiction for project's full build stormwater and wastewater impacts, as it has not yet been determined if the proposed industrial and warehouse uses would be subject to State Agency Actions.

Review of the SEIR

Stormwater

The project site is located in the Upper Charles River Watershed, for which a Total Maximum Daily Load (TMDL) requiring phosphorus reduction of 65 percent from all impervious areas is expected in the near future. MassDEP has issued draft regulations for a Stormwater General Permit (SWGPP) that will require a phosphorus reduction consistent with these TMDLs for private impervious surfaces of two acres or greater, and plans to adopt final regulations in the near future. In the Certificate on the NPC, I urged the proponent to consider Best Management Practices (BMPs) that reduce phosphorous and incorporate Low Impact

Development (LID) techniques and structural BMPs capable of reducing at least 65 percent of phosphorus and describe how the project will comply with these requirements in the SEIR.

The SEIR states that the proposed BMPs are estimated to achieve 72 percent phosphorus removal from the developed portion of the site. However, it did not fully address the scope for stormwater impacts, as detailed in the NPC Certificate. I acknowledge the comments submitted by the Charles River Watershed Association and agree that the proponent could do more to incorporate LID techniques into the project. In particular, I strongly encourage the proponent to explore the feasibility of using porous pavement for parking areas and sidewalks, as proposed parking for the project would create five acres of impervious surface. I also agree that the necessity for 654 parking spaces should be further examined, especially given that the SEIR acknowledges that many trips to the site will be either via carpool, van or bus, and that event parking can be accommodated by using existing parking at the nearby middle and high schools. Nevertheless, I note that the project was granted Site Plan Approval by the Bellingham Planning Board and an Order of Conditions by the Bellingham Conservation Commission (granted on December 12, 2008, with no subsequent appeal). Therefore, the project is not subject to the new stormwater regulations, which are still in draft form, and is not subject to further jurisdiction of MEPA at this time. Of course any future development undertaken at this site may need to comply with additional stormwater requirements that may be in effect at that time, and I will retain authority to review the cumulative impacts of the project as future phases go forward.

I note that the proponent has agreed to use xeriscaping and will not irrigate or use fertilizers. The proponent has also agreed to conduct high efficiency street sweeping on a quarterly basis and conventional brush sweeping monthly. I encourage the proponent to consider the CRWA's comments recommending regenerative air sweeping on a monthly basis.

Wastewater

The project entails the subdivision of the parcel into three lots. The athletic complex will be located on Lot 1; the 180,000 sf industrial building on Lot 2; and the 350,000-sf warehouse building on Lot 3. Based on information presented in the SEIR, each lot would have its own separate septic system, or Lots 2 and 3 could be served by the same system if a single owner purchases and develops both lots. Under that scenario, there is the potential for up to a 55,000-gallon per day (gpd) disposal area that could be located in the southwestern portion of Lot 3, as previously permitted by MassDEP for the project proposed by EMC on this site. However, as noted above, there are no current plans to construct this portion of the project.

According to the SEIR, the septic system for the athletic complex has been designed to receive wastewater flows of approximately 7,348 gpd and, therefore, does not require a Groundwater Discharge Permit from MassDEP. This system received a Sewage Disposal Construction Works Permit from the Bellingham Board of Health.

Transportation

According to the SEIR, the athletic complex would generate 1,462 vehicle-trips on an average weekday and 2,836 vehicle-trips on an average Saturday. In addition, the proponent

intends to subdivide the parcel to allow future construction of 180,000 square feet of light industrial space and 350,000 square feet of warehouse facilities. The potential industrial and warehouse uses would generate an additional 2,880 trips on an average weekday and 666 trips on an average Saturday, for a project total of 4,342 weekday and 3,502 Saturday vehicle-trips.

The SEIR includes a transportation study that generally conforms to EOEEA/EOTPW Guidelines for EIR/EIS Traffic Impact Assessment. The transportation study has evaluated the traffic impacts of the athletic complex in the vicinity of the project. The proponent has committed to implement mitigation measures to address congestion at the Maple Street/ Route 140 intersection, including widening the northbound and southbound approaches of the intersection to provide exclusive left-turn lanes. In its comments, the Executive Office of Transportation (EOT) states that it believes that these improvements would mitigate the traffic impacts of the athletic complex. However, the proponent should continue consulting with EOT regarding measures that could be implemented to promote safe pedestrian crossings at this intersection. Prior to issuance of its Section 61 Finding and Vehicular Access Permit for the project, MassHighway will require the proponent to submit a proposed plan that reflects the new exclusive left-turn lanes and pedestrian accommodation. Any proposed mitigation within the state highway layout must conform to MassHighway standards, including, but not limited to, provisions for lane, median and shoulder widths, and bicycle lanes and sidewalks.

The SEIR presented a limited Transportation Demand Management (TDM) program that committed to the provision of an on-site transportation coordinator, on-site amenities such as an Automated Teller Machine (ATM) and food service, coordination with MassRIDES, and shuttle service from nearby hotels and satellite parking during tournaments. In its comments, EOT recommends that the proponent explore other measures to minimize single occupant vehicle (SOV) trips, including sidewalks or other pedestrian access to the site, and secure bicycle storage. I acknowledge that the site's proposed use as an athletic complex makes it inherently difficult for the proponent to implement a formal and traditional TDM program. However, I also recognize that the use lends itself to informal carpool arrangements and that, in some cases, sports teams may arrive by van or bus. Therefore, I reiterate my strong encouragement to the proponent to re-examine the need for the 654 parking spaces proposed for this project, and to otherwise implement measures that encourage the use of alternative travel modes.

I note that EOT also recommends that the proponent explore other TDM measures, including the potential for a bus stop at the project site that could be served by the Greater Attleboro Taunton Regional Transit Authority (GATRA). The proponent should explore all feasible TDM measures and work cooperatively with EOT in their implementation. EOT states that prior to issuing its Section 61 Finding for the project, the proponent should report on the substance and results of discussions with the Town of Bellingham, MassRides, and GATRA regarding TDM, and on that basis, submit a revised letter of commitment letter that satisfactorily addresses TDM measures.

Greenhouse Gas Emissions

The SEIR included a GHG analysis performed in conformance with MEPA's Greenhouse Gas Emissions Policy and Protocol (the Policy). The Policy requires projects to quantify carbon

dioxide (CO₂) emissions and identify measures to avoid, minimize or mitigate such emissions. The GHG analysis evaluated CO₂ emissions for three alternatives as required by the Policy including 1) a Base Case corresponding to the 7th Edition of the Massachusetts Building Code which includes all ASHRAE 90.1-2007 and International Energy Conservation Code (IECC) supplements, 2) a Preferred Alternative, which included some energy saving design features, and 3) a Build with Mitigation Alternative, which included additional energy saving elements, notably inclusion of a 100kW photovoltaic (PV) array. The Proponent used the eQUEST model to perform the GHG analysis and has committed to constructing the project in accordance with those energy saving measures modeled in the Preferred Alternative.

As noted in the SEIR, the project's GHG emissions include direct emissions of CO₂ from natural gas combustion for heating and to power emergency generators and indirect emissions of CO₂ from project generated motor vehicle trips and electricity used for lighting, building cooling and ventilation, and operation of other equipment. The SEIR included an analysis of stationary source GHG emissions for the athletic complex (Lot 1), and deferred analysis for Lots 2 and 3 to a future Notice of Project Change (NPC). The analysis estimated the stationary source Base Case total CO₂ emissions at 1327.1 tons per year (tpy). Under the stationary source Preferred Alternative, utilizing mitigation measures as identified in the SEIR, the total CO₂ emissions were estimated at 1233.3 tpy, a reduction of 7.07% from the Base Case. Finally, in the stationary source Build with Mitigation Alternative, which implements the same mitigation measures modeled in the Preferred Alternative and a 100kW PV system and additional roof insulation, total CO₂ emissions were estimated to be 1172.1 tpy, for a total reduction of 11.68% in comparison to the Base Case.

The mitigation measures that distinguish the Base Case from the Preferred Alternative include increasing the R-value insulation in the mezzanine roof from R-19 to R-31; using natural gas rather than electricity for hot water heating (thereby yielding slightly higher air handling unit (AHU) values); installing high-efficiency lighting; installing skylights in the mezzanine; duct insulation; Low-E windows; separate customer metering; motion sensor lighting; and daylighting via translucent wall panes and a galvanized roof.

The Build with Mitigation scenario would increase the roof insulation in the non-mezzanine area and install a 100 kilowatt (kW) photo-voltaic (PV) system to provide interior power. The proponent has not committed to installation of the 100 kW PV system at this time because of the extended length of the payback period. I encourage the Proponent to consider constructing the mezzanine portion of the facility to accommodate a future PV system, as technologies, payback periods and incentives are evolving to facilitate more affordable PV systems. The analysis in the SEIR also indicates that a 45kW system for lighting the outdoor playing fields would provide a more cost-effective payback. While, based on the analysis presented in the SEIR, the Proponent has not committed to install this 45kW PV system, the Proponent has committed to installation a separate meter and control building for this potential future PV system.

The SEIR indicates that the proponent would consider committing to the 45kW PV system once the payback period is estimated to be under ten years. The analysis presented in the SEIR indicates a payback period of 10.3 years, which I believe is close enough for the proponent

to reconsider making this commitment in conjunction with the first phase of development on-site. As noted in the MassDEP comment letter, the payback analysis is based on use of the facility for seven months per year based on the outdoor athletic season and does not consider whether the PV unit could provide power for other outdoor lighting, the building or to the grid during the "off season". The analysis should be based on feasible alternatives to maximize the potential energy savings from the unit's full capacity use. In addition, comments received from the Department of Energy Resources (DOER) indicate that the proponent's analysis for both the 100 and 45 kW systems were based on an outdated estimation calculator. DOER's own calculations suggest that the payback period is likely to be even shorter than that presented in the SEIR if the updated calculator is used. On this basis, I strongly recommend that the proponent re-run the analysis and commit to implementing the 45kW PV system. I expect that future filings for this project will provide an update as to whether these additional GHG-related mitigation measures have been undertaken by the proponent.

Mobile source emissions were modeled using data gathered as part of the mesoscale study. The GHG analysis estimated CO₂ emissions for the 2008 existing conditions, 2013 No-Build conditions, and the 2013 Build with Mitigation conditions. The 2013 No-Build conditions are estimated at 18,874 tpy of CO₂. Under the 2013 Build with Mitigation conditions, the project will contribute an estimated 1,482 tpy of CO₂, for a total of 20,356 tpy within the project study area. This appears to result in an increase of 7.8% in CO₂ emissions between the 2013 No-Build Condition and the 2013 Build Condition. The reduction of CO₂ emissions is proposed through roadway improvements and TDM measures as noted previously in this Certificate. The SEIR noted that although TDM measures are proposed, given the unique nature of the facility, using the EPA COMMUTER2 Model to measure corollary CO₂ emissions reductions is minimal. Therefore, the proponent has assumed no (0 tpy) quantitative mobile source CO₂ reductions as part of the GHG analysis for the Phase I development.

Total GHG emissions, indirect and direct emissions attributable to stationary sources and indirect emissions attributable to mobile sources, are estimated at 21,590 tpy, a 93.8 tpy reduction from the Base Case total of 21,683 tpy (a 0.43% overall project reduction). Project GHG reductions were solely the result of stationary source improvements, as challenges in modeling mobile source GHG emissions reductions for a project of this nature required the proponent to adopt a conservative approach and assume zero mobile source GHG reductions attributable to the project.

Historic and Archeological Resources

At the time of the previous MEPA review for the EMC project, an intensive (locational) survey and site examination were conducted on the project site at two locations. One of these locations, the Adams/Ray Farmstead site was determined to be eligible for listing in the National Register of Historic Places. The proponent has proposed to implement a plan for avoidance and protection of this site during the construction period. Additionally, the proponent has proposed to donate a Preservation Restriction (PR) be donated to ensure the long-term preservation of the site. I commend the proponent for this commitment. Comments received from the Massachusetts Historical Commission (MHC) request that additional information be provided in

developing the final archeological avoidance and protection plan and PR, and I direct the proponent's attention to those comments.

Conclusion

The Proponent should submit an updated draft Section 61 Finding for use by EOT/MassHighway as part of the permitting process that reflects all of the Proponent's mitigation commitments, including those commitments made subsequent to the Proponent's submittal of the SEIR.

Upon completion of construction of the athletic facility, the proponent should provide a certification to the MEPA Office signed by an appropriate professional (e.g., engineer, architect, general contractor) indicating that the all of the GHG emissions mitigation measures, or equivalent measures that collectively will achieve the GHG emissions represented in the SEIR, have been incorporated into the project. The certification should be supported by as-built plans. For those measures that are operational in nature (i.e. TDM, recycling) the Proponent should provide an updated plan identifying the measures, the schedule for implementation and how progress towards achieving the measures will be obtained. I request that EOT/MassHighway incorporate this self-certification requirement into its Section 61 Finding for this project.

I hereby require that another NPC be submitted when specific plans to develop the prospective industrial and warehouse, or other proposed uses, on the site are proposed. The NPC should address the impacts resulting from the full build-out of the site, including the athletic facility. I anticipate that the NPC would be filed by a different proponent (because the current proponent intends to sell Lots 2 and 3) and, therefore, strongly encourage that proponent of those future projects to consult with the MEPA Office prior to submission of the NPC.

I find the SEIR to be adequate and am allowing the athletic complex component of the overall project to proceed to permitting. The SEIR contained adequate information on the project impacts and mitigation for the athletic complex, and provided the state permitting agencies with sufficient information to understand the environmental consequences of their permit decisions. No further MEPA review is required.

June 12, 2009
Date


for Ian K. Bowles

Comments received on the SEIR:

- 5/21/09 Massachusetts Historical Commission
- 6/5/09 Department of Environmental Protection
- 6/8/09 Charles River Watershed Association
- 6/10/09 Executive Office of Transportation

6/9/09 Department of Environmental Protection Central Regional Office
6/9/09 Department of Energy Resources

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