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December 21, 2018

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

PROJECT NAME : Applied Golf Photovoltaic Power System Project
PROJECT MUNICIPALITY : Amherst
PROJECT WATERSHED : Connecticut River
EEA NUMBER : 15938
PROJECT PROPONENT : Direct Energy Solar
DATE NOTICED IN MONITOR : November 21, 2018

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.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 **does not require** an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project entails the construction of an approximately 5.24-Megawatt (MW) solar photovoltaic (PV) facility. The solar facility will consist of 15,000 south-facing solar panel modules mounted on pile-supported racks. The panels will be installed in two arrays with a combined footprint of 16.4 acres. Each array will be enclosed by a six-foot (ft) high chain-link fence installed a minimum of 10 ft away from the panels to provide space for access; the total fenced area will be 22.8 acres. An approximately 240-square foot (sf) pad with a transformer and other electrical equipment will be installed within the fenced area of the western array. The arrays will be located approximately 900 ft apart and connected by an overhead wire. An approximately 1,500-ft long cable will connect the transformer to existing utility poles adjacent to West Pomeroy Lane. Crushed stone

driveways will provide access to the arrays, including a driveway from West Pomeroy Lane to the western array (1,130-ft long, 15-ft wide) and a driveway from an existing parking lot to the eastern array (1,530-ft long, 15-ft wide).

Project Site

The approximately 150-acre project site is an 18-hole golf course known as the Hickory Ridge Golf Club. It is located on West Pomeroy Lane in the southwestern section of Amherst adjacent to the Hadley municipal border. The golf course is generally bounded by farmland in Hadley to the west, a multi-family residential development to the north, residences and commercial uses along West Street (Route 116) to the east, and a residential neighborhood on the opposite side of West Pomeroy Lane to the south.

The Fort River enters the site in its northeastern corner and flows in a generally east to west direction across the center of the golf course. Muddy Brook joins the Fort River near the southeastern corner of the site and two intermittent streams flow through the golf course in a north-south direction and connect to the Fort River. Bordering Vegetated Wetlands (BVW), Land Under Water (LUW) and Inland Bank associated with the river and streams are located throughout the site. According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) (number 2501560010B, effective February 4, 1981), most of the site is located in the 100-year floodplain with a Base Flood Elevation (BFE) of 141 to 144 feet National Geodetic Vertical Datum of 1929 (NGVD 29).

Large portions of the site, including areas within the footprint of the arrays and access roads, are located in Priority and Estimated Habitat as mapped by the Division of Fisheries and Wildlife's (DFW) Natural Heritage and Endangered Species Program (NHESP). According to NHESP, rare species include Wood Turtle (*Glyptemys insculpta*), a species of Special Concern, and three species of freshwater mussel: Creeper (*Strophitus undulates*) and Eastern Pondmussel (*Ligumia nasuta*), both of which are species of Special Concern, and Dwarf Wedgemussel (*Alasmidonta heterodon*), which is state- and federally-listed Endangered species.

According to NHESP, the Fort River corridor and watershed is a conservation priority for the species listed above, and is one of only five known extant populations of the Dwarf Wedgemussel. The Fort River Wood Turtle population is well-studied and is important to the geographic range and conservation of this species in Massachusetts. Protection of the Fort River and its watershed is one of the Town of Amherst's (Town) highest conservation priorities because of its scenic beauty, important habitat and recreational value.

Environmental Impacts and Mitigation

Potential environmental impacts of the project include alteration of 24.5 acres of land and creation of 240 sf of impervious area. The project will impact 30,055 sf (0.7 acres) of Riverfront Area and 135,630 sf (3.1 acres) of Bordering Land Subject to Flooding (BLSF). Placement of pilings, fence posts and utility poles will displace 1.12 cubic yards (cy) of flood storage volume. The project will alter 11 acres of rare species habitat.

Measures to avoid, minimize, and mitigate environmental impacts include: providing mitigation for impacts to rare species habitat in accordance with the requirements of a Conservation and Management Permit (CMP) to be issued by NHESP; designing the project to avoid direct impacts to BVW and LUW; allowing native vegetation to be reestablished on parts of the golf course within the project area; and installation of a stormwater management system.

Jurisdiction and Permitting

This project is undergoing review and requires an ENF pursuant to 301 CMR 11.03(2)(b)(2) and (3)(b)(1)(f) because it requires a State Agency Action and will disturb greater than 2 acres of designated Priority Habitat that results in a Take of a state-listed species, and will alter one half or more acres of any other wetlands (BLSF and Riverfront Area). The project requires a CMP from NHESP.

The project requires an Order of Conditions from the Amherst Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions from the Massachusetts Department of Environmental Protection (MassDEP)) and a National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the U.S. Environmental Protection Agency (EPA).

Because the Proponent is not seeking Financial Assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that are within the subject matter of required or potentially required State Agency Actions and that may cause Damage to the Environment as defined in the MEPA regulations. In this case, MEPA jurisdiction extends to land alteration, rare species, wetlands and water quality.

Review of the ENF

The ENF provided a description of existing and proposed conditions, preliminary project plans, and identified measures to avoid, minimize and mitigate project impacts. During the review period, the Proponent provided supplemental information regarding the volume of fill in BLSF and regrading of the site to support MEPA review of the project.¹

I received comments from NHESP and others regarding the future use of the site. During the comment period, the Proponent indicated that if the project is not permitted, the golf course may remain open. The Proponent also indicated that it has discussed the potential transfer of portions of the course outside the footprint of the solar facility to the Town. The MEPA regulations include anti-segmentation provisions to ensure that project Proponents do not evade, defer or curtail MEPA review by segmenting one project into smaller ones that, individually, do not meet or exceed MEPA thresholds. The MEPA regulations at 301 CMR 11.01(2)(c) note that the determination as to whether various activities constitute one project should consider “whether the work or activities, taken together, comprise a common plan or independent undertakings, regardless of whether there is more than one Proponent; any time interval between the work or activities; and whether the environmental impacts caused by the work or activities are separable

¹ Emails from Alexander Patterson (ESS Group) to Alex Strysky (MEPA Office) on 12/07/18 and 12/13/18.

or cumulative." Activities within a five-year span are generally considered in making a determination regarding segmentation. The Proponent is advised that additional development of the site may require further MEPA review in the form of a Notice of Project Change (NPC) and/or an Environmental Impact Report (EIR). As detailed below, the Massachusetts Endangered Species Act (MESA) regulations also include anti-segmentation provisions that must be addressed by NHESP during project permitting.

Alternatives Analysis

The ENF provided an analysis of a No Build alternative and a Larger Project Footprint alternative. Under the No Build scenario, the golf course would be closed but the solar facility would not be constructed. As noted above, during the review period, the Proponent clarified that the golf course may remain open. If the project is not constructed, impacts associated with the solar PV facility, such as impacts to rare species habitat and wetlands alteration, would not occur. Impacts associated with routine maintenance of the golf course, such as mowing and application of herbicides, would continue. In addition, the golf course could be redeveloped with residential or commercial uses. Redevelopment of the site for a project other than the Preferred Alternative would be likely to have greater impacts than the Preferred Alternative, such as increased impervious area, traffic, water demand and wastewater generation. The Larger Project Footprint alternative would include a 5.24 MW solar PV facility with increased spacing between rows of PV modules. This configuration would have a footprint of 28.9 acres and impact 3.6 acres of Riverfront Area and 3.7 acres of BLSF.

The Preferred Alternative will generate 5.24 MW of renewable energy that will be distributed through an interconnection with the electrical grid. The arrays have been sited to avoid direct impacts to BVW, Bank and LUW. Impacts to BLSF will be minimized by supporting the solar modules with small-diameter pile-supported racks to minimize flood storage impacts. Tree clearing will be minimized by installing the arrays in relatively flat and open parts of the golf course and by expanding and reusing existing cart paths to provide access. Expansion of renewable energy sources within the Commonwealth is consistent with the mandates outlined in the Global Warming Solutions Act of 2008 for sectors of the economy to reach a target of a 25 percent reduction of Greenhouse Gas (GHG) emissions by 2020 and an 80 percent reduction by 2050. This project furthers the Commonwealth's goal of 1,600 megawatts (MW) to be generated by solar energy installations as articulated in the Solar Massachusetts Renewable Target Program regulations (225 CMR 10.00).

Land Alteration/Wetlands

Parts of the site will be regraded, including 74 cy of material to be excavated for the access roads and 41 cy of fill to be placed within the footprint of the eastern array. Excavated material will be used to level the site of the eastern array and any remaining material will be spread evenly within the fenced areas. With the exception of creation of compensatory flood storage, BLSF will not be regraded.

The solar arrays will cover 101,930 sf of BLSF. Loss of flood storage volume will be limited to 1.12 cy of fill associated with pilings, fence posts and utility poles. The ENF did not

identify any mitigation for this impact. Construction of the crushed-stone access roads will alter 33,540 sf of BLSF. Road construction will not affect flood storage because it will not add impervious area or change the grade within the floodplain. Installation of an overhead utility line between the arrays will take place within a 22,650-sf area of BLSF. The access roads will impact 30,055 sf of Riverfront Area within areas that are currently mowed and maintained as part of the golf course. The ENF did not identify mitigation for the loss of flood storage volume or impacts to the Riverfront Area.

The project will add 240 sf of impervious area to provide a concrete pad for electrical equipment. The ENF reviewed the project's compliance with the Massachusetts Stormwater Management Standards (SMS) for redevelopment projects. The analysis concluded that the project will not change peak discharge rates and volumes because of the small change in impervious area and, therefore, the project does not include any stormwater Best Management Practices (BMP). The ENF did not provide calculations or documentation to support this conclusion.

The Town has indicated that the Proponent will be required to provide additional documentation and analysis of the project's impacts to the Riverfront Area and hydrological patterns at the site and to provide mitigation to ensure that the Fort River and associated wetland resource areas are protected.

Rare Species

The installation of the solar arrays, access roads, regrading and other project activities will alter 11 acres of Priority Habitat for the Wood Turtle. NHESP has determined that the project will result in a Take. Issuance of a CMP requires that a project avoid and minimize impacts to state-listed species in accordance with the following performance standards: 1) assess alternatives that avoid or minimize temporary and permanent impacts to the state-listed species, (2) demonstrate that an insignificant portion of the local population will be impacted or that no viable alternative exists, and (3) develop and implement a conservation plan that provides a long-term net benefit to the conservation of the local population of the impacted species. The ENF did not provide these analyses or identify specific mitigation measures to be implemented by the project. The Proponent acknowledged the need to prepare a habitat management plan for NHESP's review as part of its CMP application.

As noted above, the MESA regulations include anti-segmentation provisions. Comments from NHESP indicate that information about additional development of the golf course may be necessary as part of its review pursuant to the anti-segmentation provisions at 321 CMR 10.16. Comments from NHESP indicate that, based on information presented in the ENF, it cannot fully assess potential impacts to state-listed species and their habitats associated with the project or other potential development. NHESP will identify appropriate mitigation, including protection of rare species habitat at the site.

Construction Period

The Proponent should implement measures to prevent and minimize nuisance conditions such as dust, noise, and odors during construction. The Proponent should also implement measures to reduce emissions of air pollutants from construction equipment, including anti-idling measures in accordance with the Air Quality regulations (310 CMR 7.11) which limit vehicle idling to five minutes. I encourage the Proponent to require that its contractors use construction equipment with engines manufactured to Tier 4 federal emission standards, or select project contractors that have installed retrofit emissions control devices or vehicles that use alternative fuels to reduce emissions of volatile organic compounds (VOCs), carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment. Off-road vehicles are required to use ultra-low sulfur diesel fuel (ULSD). All construction activities should be undertaken in compliance with the conditions of all State and local permits.

Conclusion

Based on a review of the ENF and comments received, and in consultation with State Agencies, I have determined that the ENF has sufficiently defined the nature and general elements of the project for the purposes of MEPA review and demonstrated that the project's environmental impacts can be avoided, minimized and/or mitigated to the extent practicable. NHESP will require additional information for permitting and has adequate regulatory authority to address outstanding issues. No further MEPA review is required. The project may proceed to permitting.

December 21, 2018

Date

Matthew A. Beaton

Comments received:

12/04/2018	Natural Heritage and Endangered Species Program (NHESP)
12/10/2018	Town of Amherst
12/11/2018	Massachusetts Department of Environmental Protection (MassDEP)/Western Regional Office (WERO)
12/11/2018	Bruce Parkin

MAB/AJS/ajs

Town of



AMHERST

Massachusetts

TOWN HALL
4 Boltwood Avenue
Amherst, MA 01002-2351

December 10, 2018

Secretary Matthew A. Beaton
MEPA Office
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: Environmental Notification Form
Applied Golf Photovoltaic Power System Project
191 West Pomeroy Lane
Amherst, Massachusetts
ESS Project No. D190-000

Dear Secretary Beaton,

The Town of Amherst Planning Board and Conservation Commission, and respective Town staff, have received and reviewed the Environmental Notification Form for the proposed Applied Golf Photovoltaic Power System Project and are providing the following statement and comments.

This solar project is proposed to be located on approximately 24.5 acres of a 150-acre parcel in South Amherst currently used as a golf course. The Fort River meanders through the middle of the property dividing it in half north and south. The Fort River is the longest unimpeded tributary of the Connecticut River, it contains both state and federally (Dwarf Wedgemussel) listed freshwater mussels, and is home to a diverse population of both resident and migratory fish and other animals, such as the wood turtle which is a state listed species of special concern. The river is treasured by the Town's residents for its scenic beauty, resource value, and recreational opportunities. It is one of the highest conservation priorities of both the Town and the state which have spent decades protecting acres of land along its banks and watershed. The state just added twenty four acres along the Fort River to the Conte National Fish & Wildlife Refuge. Development of this piece of the river's floodplain and Riverfront must be done with the least amount of impact and highest level of protection for the river.

Comments:

General Project Information - page 3-9

1. The perennial tributary to the Fort River located in the south-central portion of the property is the Muddy Brook not the Plum Brook.
2. Additional information must be provided proving that the existing bridges can hold the weight of both construction vehicles and emergency vehicles that may need to access the solar array. There is insufficient information in the ENF to confirm that a new river crossing isn't needed.
3. The alternatives analysis is weak, it should include at least an alternative with different access road locations to show that the preferred alternative has the least amount of impacts to Riverfront and BLSF.
4. The Town questions the stormwater analysis, and would like to see the calculations showing no increase in peak discharge and no change in infiltration rates. The Town did not receive a full stormwater report with the NOI submittal but the Conservation Commission may ask for one. The Town is very sensitive to any impacts this project may have on the short term and long term water quality of the Fort River.
5. The golf course floods regularly. The applicant is proposing to construct stone access drives to the arrays, and the Town is concerned that they will be regularly washed out possibly resulting in sedimentation in the river.

Land Section - page 10-12

1. The ENF states that the current use of the site does not provide significant value as open space, and the Town would argue that it currently allows for wildlife passage, habitat for a variety of species, and flood storage. Information on how the site will be revegetated after construction and how it will enhance wildlife biodiversity on the property should be included in the ENF. Due to the large amount of BLSF being impacted the Conservation Commission may require a Wildlife Habitat Study to be conducted of the site.
2. The Town questions the impact to economic development described in the ENF. The Town believes that an operating golf course has greater beneficial impact on the economics of the Town than a solar array, such as attracting people from other communities to spend money in Amherst. In terms of diversifying the town's energy sources, the energy generated by the solar array may or may not go to the town.

Rare Species Section - page 13-14

1. The Conservation Commission has received a Notice of Intent for this project which was also submitted to NHESP for their review. The NOI did include a Turtle Management Plan. The Commission will wait to receive NHESP's review letter of the NOI before issuing an Order of Conditions. The Order may be issued prior to the applicant receiving their MESA Conservation and Management Permit and will include a condition that all requirements of that permit be met.

Wetlands, Waterways, and Tidelands Section - page 15-18

1. Answer to 11.D.3, should be Yes.
2. The Town would like to see calculations for the cubic feet of flood storage lost from the installation of the racking system, access roads, and 17 utility poles, and the proposed mitigation (compensatory storage) in the ENF.
3. The ENF discusses permanent Riverfront impacts from the construction of the access roads. The Town would like to see a discussion of proposed Riverfront restoration/mitigation plans for those impacts.

Attachments

1. Attachment C should include a Special Permit from the Amherst Zoning Board of Appeals and a Tree Warden Permit to remove trees in the Town right-of-way.
2. The plan set provided in the ENF dated November 13, 2018 does not show the surveyed wetland delineation points.

Sincerely,



Christine Brestrup
Planning Director
Town of Amherst
Phone: 413-259-3145
Email: brestrupc@amherstma.gov



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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Governor

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Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

December 11, 2018

Matthew A. Beaton, Secretary
Executive Office of Energy & Environmental Affairs
Massachusetts Environmental Policy Act Office
Paige Czepiga, EEA No. 15938
100 Cambridge Street, 9th Floor
Boston, MA 02114-2524

Re: Applied Golf Photovoltaic Power
Systems, Amherst, MA

Dear Secretary Beaton,

The Massachusetts Department of Environmental Protection (MassDEP), Western Regional Office (WERO) appreciates the opportunity to comment on the Environmental Notification Form (ENF) submitted for the proposed Applied Golf Photovoltaic Power Systems Project (EEA #15938) at Hickory Ridge Golf Club, in Amherst. Potential MassDEP regulatory and permitting considerations reviewed included wetlands, air pollution, hazardous waste, waste site cleanup and solid waste.

I. Project Description

The Proponent, Direct Energy Solar, proposes a photovoltaic array, 5.24 MW renewable energy project to be developed on 16.4 acres (22 acres fenced) portion of the 150 acres Hickory Ridge Golf Club property. The Fort River, Plum and Muddy Brooks flow through the project parcel. The project will include two arrays (eastern and western) requiring construction of two gravel access roads 1,530 and 1,130 feet in length respectively. The Proponent anticipates utilizing existing Fort River crossings; the project also includes installation of utility poles and equipment platforms.

Environmental impacts associated with this project include:

- 24 acres of land alteration,
- 39,200 s.f of Buffer Zone,
- 135,630 s.f. of Bordering Land Subject to Flooding, and
- 30,055 s.f. of Riverfront Area

An Order of Conditions from the Conservation Commission is required and if appealed a Superseding Order from MassDEP.

II. Required Mass DEP Permits and/or Applicable Regulations

Wetlands

310 CMR 10.000

Air Pollution

310 CMR 7.00

Hazardous Waste

310 CMR 30.0000

Solid Waste

310 CMR 19.00

Bureau of Waste Site Cleanup

310 CMR 40.0000

III. Permit Discussion

Bureau of Water Resources

Wetlands & Waterways

The scope of the project requires that a Notice of Intent (NOI) be filed with the Amherst Conservation Commission; prior to commencement of project construction, a final Order of Conditions (OOC) must be issued by the Commission.

If a NOI is filed prior to completion of the MEPA process, the Conservation Commission will be advised to hold any hearing open until the Secretary's Certificate is issued, and all comments are received from other permitting agencies, as appropriate.

The Site appears to contain Bank, Bordering Vegetated Wetlands, Riverfront Area and Bordering Land Subject to Flooding.

The Proponent submitted a Notice of Intent to the Conservation Commission on November 29, 2018. MassDEP is reviewing the Notice and will provide comments to the Commission.

Riverfront Area General Performance Standards

Work conducted in undisturbed Riverfront Area, must meet General Performance Standards; an alternatives analysis may be require.

Redevelopment

Work conducted within existing degraded Riverfront Area may be considered under the "redevelopment" provisions.

Bordering Land Subject to Flooding General Performance Standards

The applicant should demonstrate that compensatory flood storage is adequately provided. As discussed, utilizing actual study elevation data, as opposed to maps, provides the ability to accurately quantify impacts. In addition, the Proponent should adequately demonstrate project fencing will not restrict flows causing an increased velocity or flooding.

Limited Project Provisions

The Proponent has indicated portions of the project, will be filed as a Limited Project. Although the project or portions of the project may be eligible for review under the limited project provisions at 310 CMR 10.53, the proposed work must, where possible, meet *General Performance Standards*. Work that cannot meet *General Performance Standards* may be approved as a limited project. Limited project status requires the Proponent to demonstrate practicable avoidance and minimization of alteration to jurisdictional resource areas, and then describe appropriate mitigation measures for remaining, unavoidable alteration.

Stormwater

The project is a redevelopment project. The Proponent has committed to complying with the *Stormwater Management Standards* to the extent practicable. Also as discussed, the Proponent is advised to provide adequate stormwater management during construction.

Bureau of Air and Waste

Air Pollution Control

Construction and Demolition Activities

The construction and demolition activity must conform to current Air Pollution Control Regulations. The proponent should implement measures to alleviate dust, noise, and odor nuisance conditions that may occur during the construction and demolition activities. Such measures must comply with the MassDEP's Bureau of Air and Waste Regulations 310 CMR 7.01, 7.09, and 7.10.

Construction Period Air Quality Mitigation Measures

MassDEP recommends that the project proponent participate in the MassDEP Diesel Retrofit Program. All non-road engines shall be operated using only ultra low sulfur diesel (ULSD) with a sulfur content of 15 ppm pursuant to 40 CFR 80.510.

Solid Waste

The proponent shall also properly manage and dispose of all solid waste generated by this proposed project pursuant to 310 CMR 16.00 and 310 CMR 19.000, including the regulations at 310 CMR 19.017 (waste ban).

If the Proponent determines that the nature of any soils excavated require management as a hazardous or solid waste, please refer to COMM-97-001 "*Reuse and Disposal of Contaminated Soil at Massachusetts Landfills*"

The Proponent is advised that construction activity at the site must comply with both Solid Waste and Air Quality Control statutes and regulations include M.G.L. Chapter 40, Section 54.

Hazardous Waste

If any hazardous waste, including waste oil, is generated at the site, the Proponent must ensure that such generation is properly registered; any hazardous wastes generated

must be properly managed in accordance with 310 CMR 30.0000.

Bureau of Waste Site Cleanup

If soil and/or groundwater contamination is encountered during excavation activities; the MCP details procedures to follow for the parties conducting work. Under the MCP, a Licensed Site Professional is required to oversee assessment of the impacts to the site and work conducted. MassDEP staff are available for guidance.

Spills Prevention

A spills contingency plan addressing prevention and management of potential releases of oil and/or hazardous materials from pre- and post-construction activities should be presented to workers at the site and enforced. The plan should include but not be limited to, refueling of machinery, storage of fuels, and all potential future on-site activity releases.

IV. Other Comments/Guidance

If you have any questions regarding this comment letter please do not hesitate to call Catherine Skiba at (413) 755-2119 or email: Catherine.skiba@state.ma.us.

Sincerely,

**This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
is on file at the DEP office listed on the letterhead.**

Michael Gorski
Regional Director

cc: MEPA File



MASSWILDLIFE

DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581
p: (508) 389-6300 | f: (508) 389-7890
MASS.GOV/MASSWILDLIFE

Jack Buckley, *Director*

December 4, 2018

Matthew A. Beaton, Secretary
Executive Office of Energy and Environmental Affairs
Attention: MEPA Office
Alex Strycky, EEA No. 15938
100 Cambridge Street
Boston, Massachusetts 02114

Project Name: Applied Golf Photovoltaic Power Systems
Proponent: Direct Energy Solar
Location: 191 West Pomeroy Lane (Hickory Ridge Golf Club; Assessors 19D-10)
Document Reviewed: Environmental Notification Form
EEA No.: 15938
NHESP No.: 18-37988

Dear Secretary Beaton:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the "Division") has received and reviewed the *Environmental Notification Form* (ENF) for the proposed *Applied Golf Photovoltaic Power Systems Project* (the Project) and would like to offer the following comments regarding state-listed species and their habitats.

The Project site is mapped as *Priority* and *Estimated Habitat* for the following state-listed species:

Common Name	Scientific Name	State Status	Taxonomic Group
Creeper	<i>Strophitus undulatus</i>	Special Concern	Invertebrate (freshwater mussel)
Dwarf Wedgemussel	<i>Alasmidonta heterodon</i>	Endangered**	
Eastern Pondmussel	<i>Ligumia nasuta</i>	Special Concern	
Wood Turtle	<i>Glyptemys insculpta</i>	Special Concern	Reptile

** The Dwarf Wedgemussel is also federally protected pursuant to the U.S. Endangered Species Act (ESA, 50 CFR 17.11) administered by the United State Fish & Wildlife Service (USFWS). All state-listed species and their habitats are protected pursuant to the Massachusetts Endangered Species Act (MGL c.131A) and its implementing regulations (MESA; 321 CMR 10.00). A Fact Sheet for these species can be found on our website, www.mass.gov/nhesp.

The Project is proposed on a 150-acre property currently utilized for the existing Hickory Ridge Golf Course. The property (ENF, Attachment E, Sheet C-1) contains typical golf features (greens, t-boxes, paths, water features, ruff, etc.), as well as some unaltered areas of forested and semi-forested habitat.

MASSWILDLIFE

The property is divided east to west by the Fort River. The Fort River in this section is The Fort River is unimpeded by dams and the surrounding land-use is a mixture of agriculture, residential, and open areas. The Fort River corridor and watershed is a conservation priority for the species listed above, and is one of only five known extant populations of the state- and federally-listed Dwarf Wedgemussel. Fort River Wood Turtles are well-studied and are important to the geographic range and conservation of this species in Massachusetts.

The Project is proposed to occupy 24.5-acres of the 150-acre golf course property, with panels and fencing located within the northern existing golf course/greens area. This ENF "Preferred Alternative" uses a narrowed row spacing to limit the footprint and keep panels outside of the Riverfront Area and meet the state's Stormwater Management Standards. The ENF also describes impacts to 101,930 square feet and 33,540 square feet of Bordering Land Subject to Flooding (BLSF) for the solar array and 2,660 ft of crushed stone access roads, respectively, and states that no BLSF mitigation is required (ENF, page 15). An additional 22,650 square feet of temporary BLSF impact is described for the utility inter-connection of seventeen (17) utility poles of 160-square feet of permanent impact to BLSF. Work is described as taking approximately six (6) months.

The Proponent's representative discussed this project with the Division in October 2018. Based on the concept plans presented to the Division at that time, which are consistent with the plans provided in the ENF, the Division indicated that the Project would likely require a MESA Conservation & Management Permit (CMP; 321 CMR 10.23). In order for a project to qualify for a CMP, the applicant must demonstrate that the project has avoided, minimized and mitigated impacts to state-listed species consistent with the following performance standards: (a) adequately assess alternatives to both temporary and permanent impacts to the state-listed species, (b) demonstrate that an insignificant portion of the local population will be impacted, and (c) develop and agree to carry out a conservation and management plan that provides a long-term net benefit to the conservation of the state-listed species.

During the October 2018 discussion with the Proponent's representative, the Division outlined potential, conceptual options for meeting the CMP performance standards in broad terms, but no specific conservation and management plan was proposed by the Proponent at that time. The Proponent's representative stated that the golf course would be closing and that future uses of the property were being discussed with the Town. The Division noted that any filing pursuant to the MESA will need to be in compliance with the anti-segmentation provisions (321 CMR 10.16) and that activities and projects associated with the larger property would need to be provided as part of any MESA review. Since that discussion in October 2018, no further consultation with the Division was conducted.

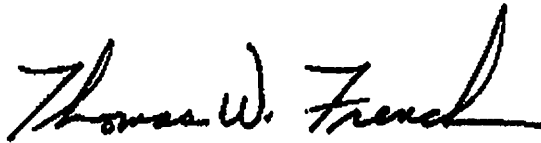
The ENF filing states that the golf course will cease to operate under all alternatives (page 4, "No Action Alternative"), which is consistent with the discussion with the Division in October 2018, but no information is offered in the ENF as to the future uses of the remaining ~75.5 acres of the golf course property. Further, the information provided in the ENF is inadequate for the Division to fully assess potential impacts to state-listed species and their habitats associated with the Project as well as other potential development plans associated with the property as a whole. The ENF filing states that a Wood Turtle Habitat Management Plan is under development and will accompany a formal application for MESA review pursuant to 321 CMR 10.18, but no materials are presented in the ENF for evaluation. Therefore, the Division recommends that the Proponent further consult with the Division to ensure a full evaluation of potential avoidance, minimization and mitigation measures, and to ensure that the Project is able to meet CMP performance standards. To ensure a full and complete assessment of

potential impacts to state-listed species, the Division also recommends that the Proponent submit additional information clarifying what additional activities or projects are being contemplated for the remaining ~75.5 acres of the property.

The Division will not render a final decision regarding the CMP until the MEPA review process and its associated public comment period is complete, and until all required application materials have been submitted to the Division. As the MESA review process is ongoing, no alteration to the soil, surface, or vegetation associated with the Project shall occur on the property until the Division has made a final decision relative to the CMP, unless otherwise approved in writing by the Division.

If you have any questions about this letter, please contact Misty-Anne Marold, Senior Endangered Species Review Biologist, at (508) 389-6356 or misty-anne.marold@state.ma.us. We appreciate the opportunity to comment on this project.

Sincerely,

A handwritten signature in black ink that reads "Thomas W. French". The signature is written in a cursive style with a large, sweeping flourish at the end.

Thomas W. French, Ph.D.
Assistant Director

cc: Town of Amherst Select Board
Town of Amherst Planning Board
Town of Amherst Conservation Commission
Joseph Rogers, DFW Northeast Wildlife District Office
Susi Von Oettingen, USFWS (susi_vonoettingen@fws.gov)
Melissa Grader, USFWS (Melissa_grader@fws.gov)
Alex Patterson, ESS Group, Inc.

December 11, 2018

Bruce Parkin
52 Montague Rd
Shutesbury, MA
01072

Secretary Matthew A. Beaton
MEPA Office
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

**RE: Environmental Notification Form
Applied Golf Photovoltaic Power System Project
191 West Pomeroy Lane
Amherst, Massachusetts 01002
ESS Project Number D190-000**

Dear Secretary Beaton,

I am writing you today to request an Environmental Impact Report regarding the above mentioned ESS Project to fully evaluate alternatives and, primarily, ways to avoid a "take" of habitats for rare species.

I also have concerns regarding the alternatives analysis. It is incomplete and misleading. Note the discrepancies in the application for this project. The application clearly states "under the no action alternative...operations of the existing golf course would cease under all alternatives...". However, not only does Applied Golf continue to maintain the course by applying fertilizers and other substances to the course, but has informed both the Golf Professional and the Course Superintendent that they both have a job at Hickory Ridge Golf Course next year. This indicates that Applied Golf will NOT cease operations should this project be halted or delayed.

I believe a full Environmental Impact Report is necessary to fully evaluate impacts and identify alternatives and methods for avoiding adverse impacts.

I appreciate your attention to these matters and hope that appropriate action will be taken.

Yours truly,

Bruce Parkin
Member Hickory Ridge Golf Course
Concerned citizen