

**VERMONT AGENCY OF NATURAL RESOURCES  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**INDIVIDUAL WETLAND PERMIT**

In the matter of:

BDE Grand Isle Solar, LLC  
C/O Andrew Thomas  
145 Pine Haven Shores Road Suite 1150  
Shelburne, VT 05482

**Application for the development of a 5 MW solar project with an access road and vegetation management for shading mitigation with proposed impacts to 449 square feet of wetland and 28,349 square feet of buffer zone.**

109 Allen Road, Grand Isle

File #: 2015-520  
DEC ID #: EJ16-0157

Date of Decision: November 21, 2016  
Decision: **Approved**  
Expiration Date: November 21, 2021

Any activity in a Class I or Class II wetland or its associated buffer zone is prohibited unless it is an allowed use under the Vermont Wetland Rules (VWR) or unless it receives a permit allowing such activity. 10 V.S.A. § 913. Applicants for an individual permit for a proposed activity in any Class I or Class II wetland or its buffer zone must demonstrate that the proposed activity complies with the VWR and will have no undue adverse effects on protected functions and values. VWR § 9.5(a).

The Vermont Agency of Natural Resources (Agency) received an application dated October 17, 2016 from BDE Grand Isle Solar, LLC (permittee) seeking an individual Vermont Wetland Permit for a project involving activities in a wetland and associated buffer zone located in Grand Isle, Vermont. The Agency gave notice of the application in accordance with the VWR. The Agency considered all comments received during the public comment period during review of the application and issuance of this permit.

**DECISION AND PERMIT CONDITIONS**

1. Based on the Findings contained in this permit below, the Secretary has determined that the proposed project will comply with 10 V.S.A. chapter 37 and the VWR and will have no undue adverse effect on protected functions and values of the wetland. The permittee has demonstrated that the project will have no undue adverse effects on the protected functions and values of the significant wetland and associated buffer zone, provided the project is conducted in accordance with the following conditions:

- A. All activities in the wetland and buffer zone shall be completed, operated, and maintained as set forth in the permit application #2015-520 and the supporting materials submitted with the permit application including:
- BDE Grand Isle Solar Revised 248 Site Plan, authored by VHB, dated 11/24/2015 and revised 10/14/2016;
  - BDE Grand Isle Impact Exhibit\_11x17\_10-17-16.pdf, authored by VHB, dated 5/26/2016 and revised 10/20/2016; and
  - BDE Grand Isle Site Plan and VMP\_101716.pdf, authored by VHB, dated 1/11/2016 and revised 10/17/2016

No material or substantial changes shall be made to the project without the prior written approval of the Vermont Wetlands Program. Project changes, including transfer of property ownership prior to commencement of a project, may require a permit amendment and additional public notice.

- B. **Prohibitions:** No additional activities are allowed in the wetland and associated buffer zone without the approval of the Secretary unless such activities are allowed uses under VWR § 6. No draining, dredging, filling, grading, or alterations of the water flow is allowed. No cutting, clearing, or removal of vegetation within the wetland and buffer zone is allowed with the exception of the proposed project area as approved by this permit.
- C. The permittee shall record this permit in the land records of the Town of Grand Isle for all properties subject to the permit. Within 30 days of the date of issuance of this permit, the permittee shall supply the Vermont Wetlands Program with a copy of the recording of this permit.
- D. Prior to commencement of the approved project, the permittee shall notify the Vermont Wetlands Program digitally in writing of the date the project will commence.
- E. A preconstruction meeting will be scheduled with the Agency Wetlands Program prior to project commencement. The permittee shall contact the Agency a minimum of two weeks in advance of the proposed preconstruction meeting date. A site inspection with the Agency Wetlands Program will be scheduled within 20 days of the completion of construction and installation.
- F. Within 30 days of completion of the work approved by this permit, the permittee shall supply the Vermont Wetlands Program with a letter/email certifying that the project was constructed in compliance with the conditions of this permit.
- G. A continuous line of silt fencing, orange snow fence or flagging tape shall be installed along the limits of disturbance prior to the start of construction.
- H. If a stormwater construction permit is obtained for this project, the erosion prevention and control requirements of that permit shall be followed. At minimum, the permittee shall comply with the following: Care shall be taken to ensure that any silt fence is installed on the contour and not in areas of concentrated flow such as stream channels or ditches. Sediment shall be cleaned out before and after any significant storm event

or when sediment has reached less than half the height of the fence. Removed sediments shall be disposed of in a stable, upland area outside the 50-foot buffer zone at least 100 feet from waters of the state and stabilized immediately with seed and mulch at a minimum. All other disturbed soils shall be seeded and mulched within 48 hours of final grading. All sediment barriers and construction fencing shall be removed following the successful establishment of vegetation.

- I. All contractors' equipment shall be cleaned so as to contain no observable soil or vegetation prior to work in wetlands and buffer zones to prevent the spread of invasive species. The permittee shall monitor the portion of the wetland in question annually during early July for five years following construction for the nuisance plant species purple loosestrife (*Lythrum salicaria*) and common reed (*Phragmites australis*). All nuisance plants found shall be pulled by hand and disposed of by burial or burning in a non-wetland location. If hand pulling is not feasible, a state approved invasive species control plan is required.
  - J. Sections of split rail wooden fence shall be installed with signs reading "No mowing beyond this point" along the wetland buffer boundary at no greater than 75 feet apart.
  - K. Supplemental plantings of native woody stemmed vegetation species shall be planted within the first growing season following construction in accordance with the approved Vegetation Management Plan.
  - L. The permittee shall provide an annual report of vegetation planting area monitoring for a period of three years. The permittee shall provide the annual report in digital form to the Agency Wetlands Program by January 31. The annual report shall include methods, results, discussion, and any proposed mitigation.
  - M. This permit expires five years from the date of issuance. If the permittee has not completed all construction activities covered by this permit before the expiration date and wishes to continue construction, the permittee must request a permit extension or apply for a new permit. Any request for an extension must be received by the Agency at least 30 days prior to the end of the five-year period in order to prevent the expiration of the permit. A request for extension may be considered a minor modification at the discretion of the Secretary. Pursuant to VWR § 9.1, projects may not be extended beyond ten years of the issuance date.
  - N. Wetland boundary delineations are valid for five years. The delineations will need to be re-evaluated by a qualified wetland consultant if the project is not constructed during the five-year period and a request for an extension is submitted.
2. The Secretary maintains continuing jurisdiction over this project and may at any time order that remedial measures be taken if it appears that undue adverse impacts to the protected functions and values of the wetland or buffer are occurring or will occur.
  3. This permit does not relieve the permittee of the responsibility to comply with any other applicable federal, state, and local laws, regulations, and permits.
  4. The permittee shall allow the Secretary or the Secretary's representatives, at reasonable times and upon presentation of credentials, to enter upon and inspect the permitted property

for the purpose of ascertaining compliance with this permit, the VWR, and the Vermont Water Quality Standards, and to have access to and copy all records required to be prepared pursuant to this permit.

5. The Agency accepts no legal responsibility for any damage direct or indirect of whatever nature and by whomever suffered arising out of the approved project. This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to public or private property, or any invasion of personal rights, or any infringement of federal, state, or local laws or regulations. This permit does not obviate the necessity of obtaining such federal, state, or local permits or approvals as may be required by law. Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under other laws.
6. Within 15 days of the date of the decision, the permittee, any person entitled to notice under VWR § 9.2, or any person who filed written comments regarding the permit application may request in writing reconsideration of the decision by the Secretary in accordance with VWR § 9.6.
7. Any person with an interest in this matter may appeal this decision pursuant to 10 V.S.A. § 917. Pursuant to 10 V.S.A. chapter 220, any appeals of this decision must be filed with the Vermont Public Service Board pursuant to 10 V.S.A. § 8506. Any appeal under this section must be filed with the Clerk of the Public Service Board within 30 days of the date of this decision; the appellant must file with the Clerk an original and six copies of its appeal. The appellant shall provide notice of the filing of an appeal in accordance with 10 V.S.A. § 8504(c)(2), and shall also serve a copy of the Notice of Appeal on the Vermont Department of Public Service. For further information, see the Rules and General Orders of the Public Service Board, available on line at [www.psb.vermont.gov](http://www.psb.vermont.gov). The address for the Public Service Board is 112 State Street, Montpelier, Vermont, 05620-2701 (Tel. # 802-828-2358).

## **FINDINGS**

1. The Agency received a complete application from BDE Grand Isle Solar, LLC for Vermont Wetland Permit on October 17, 2016.
2. The wetland and adjacent 50-foot buffer zone are located south of Vermont Route 314 Allen Road along a gently sloping landscape, within a low-elevation basin defined by slight topographical relief. A VHD-mapped channel is located within the wetland complex. Another wetland is located approximately 150 feet to the west of this wetland complex at the southwestern edge of the Study Area; which includes a vernal pool.
3. Zapata Courage, District Wetlands Ecologist, conducted a site visit to the subject property with Patti B. Kallfelz-Werts (VHB) on October 20, 2015 and with Laura (DEC), Patti B. Kallfelz-Werts & Owen McEnroe (VHB), and Andrew Thomas (BDE) on February 2, 2016.
4. The subject wetland is contiguous to an identified palustrine wetland on the Vermont Significant Wetlands Inventory maps and therefore is designated as a Class II wetland under VWR § 4.6.

5. The wetland in question is described in detail in Sections 4 and 5 of the permit application. The wetland complex is approximately 12 acres in size composed of approximately 40% emergent, 20% scrub shrub, 40% forested wetland habitats. The undisturbed portion of the wetland is a mix of scrub-shrub (PSS) with dogwoods (*Cornus spp.*) and Spireas (*Spiraea spp.*); and forested (PFO) American elm (*Ulmus americana*), red maple (*Acer rubrum*), and green ash (*Fraxinus pensylvanica*) as the dominant plant species. The subject wetland is located at the edge of the forested and scrub shrub area along the edge of a cultivated agricultural field, which is a part of a larger complex that drains south to north. The Subject wetland is emergent (PEM); with the Reed Canary Grass (*Phalaris arundinacea*) and Jewel Weed (*Impatiens capensis*) as the dominant species. The subject wetland exhibited a depleted matrix in the soil profile and Saturation (A3) at edges; Algal mats (B4); Oxidized rhizospheres (C3). Hydrology in the rest of the wetland includes Inundation (A1), High water table (A2), Drainage patterns (B10), Saturation visible on aerial (C9).
6. The proposed project is described in detail in Sections 17 and 18 of the permit application. The project consists of the development of a 5 MW solar project with an access road and vegetation management for shading mitigation.
7. Proposed impacts to the wetland and buffer zone, summarized in Section 19 of the permit application, are as follows:

<b>Wetland Alteration:</b>		<b>Buffer Zone Alteration:</b>	
Wetland Fill:	449 sq.ft.		
Temporary:	0 sq.ft.	Temporary:	0 sq.ft.
Other Permanent: :	0 sq.ft.	Permanent: :	28,349 sq.ft.
<b>Total Wetland Impact</b>	<b>449 sq.ft.</b>	<b>Total Buffer Zone Impact:</b>	<b>28,349 sq.ft.</b>

8. The protected functions of the wetland complex include the following: water storage for flood water and storm runoff (VWR § 5.1), surface and groundwater protection (VWR § 5.2), wildlife (VWR § 5.4), threatened and endangered species habitat (VWR § 5.6), and erosion control through binding and stabilizing the soil (VWR § 5.10).
9. The following functions of the wetland complex are either not present or are present at such a minimal level as to not be protected functions: fish habitat (VWR § 5.3), exemplary wetland natural community (VWR § 5.5), education and research in natural science (VWR § 5.7), recreational value and economic benefits (VWR § 5.8), open space and aesthetics (VWR § 5.9)
10. The wetland complex is significant for the water storage for flood water and storm runoff function as demonstrated in Section 7 of the permit application. Based on the factors described in Section 7.2 of the application, as confirmed through a site visit by Agency staff, the proposed project will not result in an undue adverse impact to this function.
11. The wetland complex is significant for the surface and ground water protection function as described in Section 8 of the permit application. Based on the factors described in Section

- 8.2 of the application, as confirmed through a site visit by Agency staff, the proposed project will not result in an undue adverse impact to this function.
12. The wetland complex is significant for the wildlife and migratory bird habitat function as described in Section 10 of the permit application. Based on the factors described in Section 10.2 of the application, as confirmed through a site visit by Agency staff, the proposed project will not result in an undue adverse impact to this function.
  13. The wetland complex is significant for the rare, threatened and endangered species function as demonstrated in Section 12 of the permit application. Based on the factors described in Section 12.2 of the application, as confirmed through a site visit by Agency staff, the proposed project will not result in an undue adverse impact to this function.
  14. The wetland complex is significant for the erosion control function demonstrated in Section 16 of the permit application. Based on the factors described in Section 16.2 of the application, as confirmed through a site visit by Agency staff, the proposed project will not result in an undue adverse impact to this function.
  15. Under 10 V.S.A. § 913 and VWR § 9.5, the Secretary may authorize activities in a Class II wetland or in its buffer zone if the Secretary determines that it complies with the VWR and will have no undue adverse effect on the protected functions and values. Based on the permit application, the site visit(s) by Agency staff, and the foregoing findings and analysis, the Secretary has determined that the proposed project will have no undue adverse effects on the protected functions and values of the subject Class II wetlands.
  16. Pursuant to VWR § 9.5(b), the permittee has demonstrated that the proposed activity in the subject wetland cannot practicably be located outside the wetland or on another site owned, controlled, or available to satisfy the basic project purpose. All practicable measures have been taken in this proposal to avoid adverse impacts on protected functions, as described in the application.

This Project has gone through a series of review of alternative sites, concepts, and designs to avoid impacts to wetlands, including a renegotiation of the Power Purchase Agreement ("PPA") in effort to retain feasibility of the reduced project size. The Project shall use a different solar panel type which allows a lower number of panels and rows and all panels from wetland buffers have been removed. The design revision reduced the area of the overall Project footprint as defined by the perimeter fencing. The length of perimeter fencing occurring within wetland buffer has been reduced from approximately 1.0-acre to 0.6-acre. The perimeter fence will demarcate the project limits to avoid ongoing impacts following construction. Also, wooden fence sections with signage shall be installed at wetland buffer points to establish a visual barrier and create a no-mow zone.

A Vegetation Management Plan (VMP) was developed and approved which outlines specifications for the select topping of trees greater than 40-feet in height for shade management; cut trees will be left in place to stump sprout. The VMP includes a supplemental planting plan comprised of native shrubs, to enhance approximately 2.39 acres of Class II wetlands and buffers, currently subject to or adjacent to agricultural lands. The VMP also includes a plan for monitoring the planting and the no-mow zones within the perimeter fence where within wetland buffer.

17. No public comments were received during the public comment period.

Alyssa B. Schuren, Commissioner  
Department of Environmental Conservation

by: \_\_\_\_\_  
Laura Lapierre, Program Manager  
Wetlands Program  
Watershed Management Division

Dated at Montpelier, Vermont  
this twenty-first day of November, 2016

ABS/LVPL/ZC