STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

October 11, 2019

Lee D. Hoffman, Esq.
Pullman & Comley
90 State House Square
Hartford, CT 06103-3702

RE: **PETITION NO. 1378** – Greenskies Renewable Energy, LLC (GRE) petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 5.0-megawatt AC solar photovoltaic electric generating facility on approximately 16.5 acres located generally east of Taugwonk Road and Taugwonk Spur Road and north of Interstate 95 in Stonington, Connecticut and associated electrical interconnection.

Dear Attorney Hoffman:

At a public meeting held on October 10, 2019, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal meets air and water quality standards of Department of Energy and Environmental Protection and would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k, would not require a Certificate of Environmental Compatibility and Public Need, with the following conditions:

1. Submission of an Invasive Species Management Plan:
2. Submission of the final Farmland Restoration Plan;
3. Approval of any minor project changes be delegated to Council staff;
4. Submission of a copy of the DEEP General Permit prior to commencement of construction;
5. Submission of the final electrical design plans and interconnection route;
6. Submission of the final structural design (for the racking system) stamped by a Professional Engineer duly licensed in the State of Connecticut prior to rack system installations;
7. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;
8. Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the Town of Stonington;

9. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

10. The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v;

11. This Declaratory Ruling may be transferred, provided the facility owner/operator/transferor is current with payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v and the transferee provides written confirmation that the transferee agrees to comply with the terms, limitations and conditions contained in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v; and

12. If the facility owner/operator is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition dated August 20, 2019 and additional information received on August 26, 2019 and September 26, 2019.

Enclosed for your information is a copy of the staff report on this project.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/MP/lm

Enclosure: Staff Report dated October 10, 2019

c: The Honorable Rob Simmons, First Selectman, Town of Stonington
Keith Brynes, Town Planner, Town of Stonington
Gina L. Wolfman, Senior Project Developer, Greenskies Renewable Energy, LLC

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Petition No. 1378
Greenskies Renewable Energy, LLC
Stonington, Connecticut
Staff Report
October 10, 2019

Introduction

On August 20, 2019, the Connecticut Siting Council (Council) received a petition from Greenskies Renewable Energy LLC (GRE or Petitioner) for a declaratory ruling (petition) pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k for the construction, operation and maintenance of a 5.0 megawatt (MW) alternating current (AC) solar photovoltaic electric generating facility on an approximately 86.8-acre parcel located at 35 Taugwonk Spur Road, Stonington, Connecticut.

Pursuant to Regulations of Connecticut State Agencies (RCSA) §16-50j-40, on or about August 15, 2019, GRE notified Town of Stonington officials, state officials and agencies, the property owner, and abutting property owners of the proposed project.

On August 26, 2019, the Council sent correspondence to GRE noting a deficiency in the completeness of the petition. Specifically, the entire text portion of the Petition was marked "DRAFT." The Council recommended that the Petitioner provide clarification in writing whether or not this was an inadvertent error on or before September 3, 2019. By email dated August 26, 2019, GRE confirmed that failure to remove the "DRAFT" watermark from the Petition was inadvertent, and it is considered the final version of the document.

Council member Robert Hannon and Michael Perrone of the Council staff visited the site on September 10, 2019 to review this proposal. Notice of the field review was provided to officials of the Town of Stonington, and the Petitioner. Lee Hoffman, Esq., Pullman & Comley, LLC (representing GRE); Megan Raymond, Soil Scientist, Milone & MacBroom; Heather Minoit, Engineer, Milone & MacBroom; Michael Gagnon, Senior Engineer, Milone & MacBroom; Gina Wolfman, Senior Project Developer, GRE; Ryan Linares, Developer, GRE; Christopher Ross, Developer, GRE; Steven Anderson, Environmental Analyst, Connecticut Department of Agriculture (DOAg); and Wayne Robinson, property owner also attended the field review.

On September 13, 2019, the Council issued interrogatories to GRE. On September 26, 2019, GRE submitted responses to Council interrogatories.

Municipal Consultation

GRE met with First Selectman Rob Simmons of the Town of Stonington (Town) to present the project, provide information on existing site conditions, the landowner, and the proposed preliminary site plan and layout. The project was well received by First Selectman Simmons and, as a follow up, GRE met with Town Planner Keith Brynes on July 15, 2019 to discuss the project. On August 1, 2019, GRE met with Scot Deledda, Town Engineer and representative of the Climate Change Task Force; and Candace Palmer, Zoning and Wetland Official for the Town. GRE submitted copies of a draft application for preliminary review, while explaining that the desired submission to the Council would be a petition. GRE arranged a site visit with both Town officials on August 6, 2019 to observe/review the condition of the existing access road, walk the proposed project area and take note of any concerns. Mr. Deledda expressed that stormwater management would be the primary focus of his review. GRE put him in touch with their civil engineer to

discuss how the stormwater analysis was performed and how the design was achieved. On August 21, 2019, the Council sent correspondence to the Town of Stonington inviting comments on the proposed project to be submitted to the Council by September 19, 2019. To date, the Council has not received any comments from the Town of Stonington.

State Agency Comments

On August 21, 2019, the Council sent correspondence requesting comments on the proposed project from the following state agencies by September 19, 2019: Department of Energy and Environmental Protection (DEEP); DOAg; Department of Public Health (DPH); Council on Environmental Quality (CEQ); Public Utilities Regulatory Authority (PURA); Office of Policy and Management (OPM); Department of Economic and Community Development (DECD); Department of Emergency Services and Public Protection (DESPP); Department of Consumer Protection (DCP); Department of Labor (DOL); Department of Administrative Services (DAS); Department of Transportation (DOT); the Connecticut Airport Authority (CAA); and the State Historic Preservation Office (SHPO). DOAg[1], CEQ, DEEP, and DOT submitted comments dated August 15, 2019, August 29, 2019, September 13, 2019, and September 16, 2019, respectively. These comments are attached hereto. No other state agencies provided written comments on the project.

Public Act 17-218

Public Act 17-218 requires "for a solar photovoltaic facility with a capacity of two or more megawatts, to be located on prime farmland or forestland, excluding any such facility that was selected by DEEP in any solicitation issued prior to July 1, 2017, pursuant to section 16a-3f, 16a-3g or 16a-3j, the DOAg represents, in writing, to the Council that such project will not materially affect the status of such land as prime farmland or DEEP represents, in writing, to the Council that such project will not materially affect the status of land as core forest." Projects selected under certain competitive energy solicitations are exempt from the provisions of Public Act 17-218, but the proposed project was selected by the Connecticut State Colleges and Universities (CSCU), not DEEP, and is therefore not exempt from Public Act 17-218.

Public Act 17-218 requires a project developer to obtain a letter from DOAg **OR** DEEP. GRE has secured written confirmation from both DOAg and DEEP.

Core Forest

Under Public Act 17-218, "core forest" means unfragmented forest land that is three hundred feet or greater from the boundary between forest land and nonforest land, as determined by the Commissioner of DEEP. UCONN's Center for Land Use Education and Research (CLEAR) defines "core forest" as forested areas that are essentially surrounded by more forested areas and fall into three classes – small core forest, medium core forest and large core forest. Small core forest is comprised of core forest patches that are less than 250 acres. Medium core forest is comprised of core forest patches that are between 250-500 acres. Large core forest is comprised of core forest patches that are greater than 500 acres.

UCONN CLEAR utilizes the concept of "edge width" to capture the influence of a non-forest feature as it extends into the forest. Research found that the "edge influence" of a clearing will typically extend about 300 feet into the forest.

According to the core forest map, the southern and western limits of the proposed solar array area and the electrical interconnection route would be located in core forest areas. See attached Core Forest Map.

[1] Details are listed in the section titled "Prime Farmland."

By email dated July 29, 2019, DEEP indicated that there would be no material impact to core forest as presented. DEEP further noted that, "If this project results in an application to the Siting Council, another review will be necessary, but if no changes are proposed as currently presented, the finding should remain the same." The Council notes that the proposed project is nearly unchanged, except for some very minor changes recommended by DEEP for the stormwater design such as the addition of level spreaders at the outlets of the stormwater basins or GRE's updates to the pole quantity for the electrical interconnection route. The proposed project footprint area is expected to remain the same.

Prime Farmland

The subject property has been used as pasture and agricultural land since the early 1900s. Approximately 14 acres of the subject property are currently used for the landowner's haying operations, half of which are located south of the existing electric right-of-way (ROW) and the proposed project area. In addition, there are approximately four acres of pasture in the northwestern portion of the site. The landowner also actively harvests the forest on site. Post-construction, the landowner would continue to hay the land south of the proposed solar facility and also plans to reclaim the four acres of western pasture for future agricultural use. Prior to leasing the land to GRE, the landowner had anticipated harvesting trees to the west of the proposed project area and converting the land to hayfields.

The subject property contains prime farmland soils according to mapping maintained by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS). Under Public Act 17-218, "prime farmland" means land that meets the criteria for prime farmland as described in 7 Code of Federal Regulations (C.F.R.) 657, as amended from time to time. 7 C.F.R. 657 defines prime farmland in relevant part as "land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses." Specifically, the proposed project area contains about 14.4 acres of Rainbow silt loam soils and 0.81-acre of Woodbridge fine sandy loam soils, both of which are considered prime farmland soils. See attached Site Property Map.

GRE plans to reduce/minimize the potential for adverse impacts to prime farmland soils and assure that their agricultural integrity is preserved throughout all phases of development, operation, maintenance, and future decommissioning of the proposed solar facility. Specifically, prime farmland soils would remain on-site and stockpiled south of the electric utility ROW in an area that would continue to be used by the landowner for agricultural purposes. The stockpile would be stabilized/seeded and would be available for future, on-site redistribution to support ongoing agricultural uses on the subject property.

Prior to construction, suitable stockpile areas would be identified. These areas would be selected based on topography and underlying soil types and would be generally level and not subject to compaction or disturbance during the operation of the solar facility. Temporary stockpile areas would be identified and adequately secured (e.g. surrounded by silt fencing) and stabilized through hydro-seeding with natural fiber matting to limit erosion. Compaction of prime farmland soils would be limited during construction. Compaction of the subbase materials would be required to construct access roads, equipment pads and utility trenches.

By letter dated August 15, 2019, DOAg noted that the proposed project would not materially affect the status of such land as prime farmland provided that the following minimum conditions are met:

a) The handling and management of any/all prime farmland soils disturbed by construction activities shall be in accordance with energy industry best management practices, adhering to the most current Federal Energy Regulatory Commission (FERC) guidelines;
b) Any/all prime farmland soils are separated and stored on the farm site, and shall be used and applied solely for agricultural purposes;

c) In consultation with the farmland owner(s), a Farmland Restoration Plan shall be developed for the property to restore, at a minimum, an amount of acreage equivalent to the area disturbed, throughout the farm property for current and future agricultural purposes;
d) DOAg shall administer the Farmland Restoration Plan. Such Farmland Restoration Plan shall be prepared by a soil scientist who is approved by DOAg and is currently on contract with a Conservation District located in Connecticut, for the purposes of preparation and review of the Farmland Restoration Plans;
e) GRE shall be responsible for the costs of the farmland restoration work;
f) In consultation with DOAg, GRE shall conduct at least two co-location or dual-use agricultural activities on the site. Such co-location or dual-use activities shall include, but not be limited to, creating native pollinator habitat, beekeeping, small livestock grazing, and select crop propagation; and
g) Any/all agricultural research reports by the University of Connecticut (UCONN), UCONN Cooperative Extension, and/or the Connecticut Agricultural Experiment Station of the dual-use agricultural activities conducted on the site shall be submitted to DOAg.

Public Benefit

The project would be a distributed energy resource facility as defined in CGS § 16-1(a)(49). CGS § 16a-35k establishes the State's energy policy, including the goal to "develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent." On February 8, 2018, DEEP issued the 2018 Comprehensive Energy Strategy (2018 CES). Guided by the long-term vision of transitioning to a zero-carbon economy, the 2018 CES highlights eight key strategies to guide administrative and legislative action over the next several years. Specifically, strategy No. 3 is "Grow and sustain renewable and zero-carbon generation in the state and region." The proposed facility is distributed generation. Specifically, the proposed facility will contribute to fulfilling the State's Renewable Portfolio Standard as a zero emission Class I renewable energy source.

In May 2018, CSCU solicited proposals from qualified developers for the provision of Virtual Net Metering (VNM) Beneficial Credits generated by renewable energy installations not located at CSCU member institutions. GRE responded to a Request for Proposal (RFP) and was awarded a contract with CSCU on June 25, 2018. GRE entered into a VNM Credit Purchase Agreement with CSCU on June 13, 2019 for three institutions within the CSCU system. All 5 MW AC would be dedicated to VNM for CSCU. Thus, the proposed project would assist CSCU in achieving its goal of energy conservation and sustainability.

This project was also selected for a power purchase agreement (PPA). The Petitioner has a signed PPA and VNM agreement for Phase 1[2] of the proposed project. The PPA has a 20-year term and a single, one time, extension option of five years. The Petitioner reserves the right to sign new revenue contracts for the sale of power after the end of the current PPA. The PPA was approved by the Office of the Attorney General. The VNM contract was approved by The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource). The Petitioner does not currently plan to participate in the ISO-NE Forward Capacity Auction.

Proposed Site

GRE proposes to construct the solar facility within a roughly 22.6-acre site on an approximately 86.8-acre parcel of property owned by Wayne Robinson. The property is located east of Taugwonk Road and Taugwonk Spur Road and north of Interstate 95. The parcel is zoned Light Industrial (LI-130) and

[2] The proposed project is divided into Phase 1 and Phase 2. Each phase is 2.5 MW AC. Phase 1 solar arrays are located east of the access drive. Phase 2 solar arrays are located west of the access drive.

residential (GB-130)[3]. The subject property is currently primarily vacant land with a gravel road on the southern portion and an agricultural field used to grow corn and hay. Onsite operations consist of the production and harvest of corn and hay. An electrical utility ROW runs roughly east to west through the central part of the eastern portion of the subject property. A small shed is also located on the central part of the eastern portion of the subject property. The immediately surrounding properties consist of a residence to the northwest; Thomas Miner Nature Preserve to the northeast; agricultural land to the east; Interstate 95 to the south; Taugwonk Spur Road followed by commercial properties to the southwest; residences to the north of the southwest portion of the subject property; vacant land to the west of the central portion of the subject property; and dwellings to the west across Taugwonk Road and southwest of the northwest portion of the subject property.

During its site search, GRE evaluated 16 potential sites for renewable energy projects in Connecticut. GRE considered former municipal landfill sites in Torrington, Ellington, Sprague, Waterbury, Ledyard, Columbia, East Lyme, and Waterford for the siting of the project. However, in each instance, the buildable acreage on these landfills was too small to construct an up to 5 MW AC facility. Alternative sites of suitable size were investigated in Lebanon, East Windsor, Monroe, Mystic, Haddam, Preston, Griswold, and Thompson. In each case, environmental concerns and cost considerations rendered the sites less suitable than the proposed site. The cost considerations were chiefly due to either measures that would need to be taken to address wetlands or wildlife concerns or due to the costs of electrical interconnection. The proposed site was selected as the site with the least amount of reconfiguration necessary to address wetlands and/or anticipated wildlife concerns associated with the construction of the project.

Proposed Project

The proposed solar field, made up of six separate generating facilities (or six arrays) totaling 5.0 MW, would have a limit of work (LOW) area (for the fenced solar arrays) of about 21.1 acres, plus 0.4 acres for the access drive (outside of the fenced array area), and about 1.1 acres for the electrical interconnection route. The entire project would be located on the host property.

Phase I of the project is located east of the proposed center access drive and contains three separate generating facilities: two 1 MW arrays and one 0.5 MW array. Phase II of the project is located west of the proposed center access drive and also consists of one 1 MW array, one approximately 0.98 MW array and one 0.5 MW array. See attached Site Plan Map. Each phase of the project would also have its own stormwater management basin.

The solar field would include a total of 16,580 solar photovoltaic modules[4] arranged in linear rows 12 feet apart. The modules would be mounted to the racking system in a portrait orientation with 20 modules per rack. GRE would install six electrical equipment pads (i.e. one for each facility) and one electrical service pad for the final interconnection.

The panels would be installed on a post driven rack support system with support posts driven approximately nine feet into the ground using a traditional pile driver or attachment to an excavator. If bedrock is encountered, ground screws are typically used. GRE does not anticipate a need for blasting for an infrastructure installation for this project.

The panels would be oriented to the south at a 25 degree angle beginning three feet above ground level (agl) and extending to a height of about eight feet agl. A 7-foot high chain-link fence would be installed to enclose

[3] The proposed solar footprint is largely within the GB-130 zone. The electrical interconnection route extends into the LI-130 zone.
[4] Phase I consists of approximately 8,320 solar panels, and Phase II consists of approximately 8,260 solar panels.

the solar field and would be consistent with the National Electrical Code (NEC). A six-inch gap at the bottom of the fence would be included for small wildlife species to pass through and into the site.
There is an existing gravel access road originating at 35 Taugwonk Spur Road and continuing roughly to the east for a distance of about 0.68-mile. A total of about 0.54-mile of this existing access would be utilized for this project. A new 15-foot wide approximately 0.4-mile long onsite access road would be constructed in a roughly north-northeast direction to reach the proposed solar arrays.

A temporary, stabilized construction entrance pad, consisting of six inches (minimum) of two-inch crushed stone would be installed and maintained during construction operations to prevent vehicular tracking of mud. An in-house pre-construction assessment of the existing access road would be conducted to determine whether any other improvements (e.g. widening or straightening of targeted areas) to the existing access drive would be required.

The power output from each inverter would feed into a step-up transformer to increase the collected 480 Volt three-phase AC output to the distribution level voltage of 13.8-kV.

The 5 MW AC nameplate capacity of the proposed facility is based on the point of interconnection, so losses have been taken into account.

The efficiency of the proposed solar panels would be about 19 percent. The power output of the panels would decline by roughly 0.5 percent per year as the panels age.

On October 1, 2018, GRE submitted three interconnection requests to Eversource for the 2.5 MW AC associated with Phase I. In June 2019, GRE submitted three additional interconnection requests to Eversource for the 2.5 MW AC associated with Phase II. Electrical interconnection impact studies are complete for Phase I and Phase II, and GRE has received draft interconnection agreements from Eversource for Phase I. The Petitioner is in the process of finalizing and executing the documents. Phase II interconnection agreements are pending.

The proposed project will use both DC and AC electrical lines, all to be contained within the project site. GRE expects to utilize underground electrical feeders throughout the site, except for the final overhead electrical connection from the proposed facility to existing distribution service on Taugwonk Road.

There is an existing, underutilized transmission line with a right-of-way that runs through the site. GRE requested that Eversource consider permitting interconnection to that line and/or allowing GRE to use existing poles within the right-of-way. Eversource informed GRE that this is not an option, due to legal concerns and utility guidelines.

The proposed overhead 13.8-kV electrical line would run from the north-central side of the array area to Taugwonk Road for the interconnection. The project would connect to the existing three-phase distribution service along Taugwonk Road. Electrical Drawing G-200 is being revised to reflect the proposed plan, as noted in LA-1 and LA-2 of the permit plan set. Approximately 21 utility poles would be installed at a spacing of about 125 feet.

Construction of Phase I of the project would commence once all permits are obtained. GRE estimates that construction would commence by Spring 2020. Construction of Phase I of the proposed project would last about three months. A construction schedule for Phase II of the proposed project is not yet finalized. Work hours would typically be 7:00 a.m. to 3:30 p.m., Monday through Friday. If weekend hours are necessary, the hours would be the same.

Environmental, Cultural and Scenic Values

A Phase I Environmental Site Assessment (Phase I ESA) was conducted at the site. The Phase I ESA revealed no evidence of recognized environmental conditions or environmental issues in connection with the subject property. Thus, no further investigation of the subject property is recommended at this time.

Existing topography on the site is gentle and slopes to the west, south and east. Site grading would be limited to the western side of the site where clearing and grubbing would be necessary. Both stormwater management basins would require excavation. Otherwise, existing site grades would remain the same for the rest of the site. Slopes would be maintained between one and three percent within the solar facility.

Earthwork for Stormwater Management Basin No. 1 would involve approximately 480 cubic yards of cut. Earthwork associated with Stormwater Management Basin No. 2 and grading of Phase II would involve approximately 8,400 cubic yards of cut. The gravel access road would be constructed to match existing grades. Approximate excavation of existing material followed by gravel fill for the roadway would be about 900 cubic yards. All excess excavated material would be stored on the owner's property south of the project site.

GRE would clear and grub about 4.7 acres for the western portion of the solar array area (or Phase II area). GRE would clear (but not grub) about 1.1 acres for the electrical interconnection route. About 0.3-acre of tree clearing would occur in wetlands for the electrical interconnection route, but the trees would be cut flush with the ground, removed and stumps would be left in place.

Pursuant to CGS Section 22a-430b, DEEP retains final jurisdiction over stormwater management. An on-site pre-application meeting was held on August 22, 2019 with the project team, a representative from the Town and DEEP stormwater personnel. During that meeting, DEEP requested the addition of level spreaders at the outlets of the stormwater basins to provide additional dissipation of outlet velocities. Lastly, shovel tests to verify the infiltration capacity of the insitu soils have been recently conducted. GRE is in process of completing its General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities (General Permit) application. The General Permit application will be filed with DEEP, and a copy will be provided to the Council.

Existing onsite grasses would be maintained beneath the arrays, except where posts would be driven into the ground and within areas where stormwater basins would be installed. All areas exposed during construction would be re-seeded with an array seed mix containing a high percentage of pollinator species.

The proposed site is not located within the Federal Emergency Management Agency designated 100-year or 500-year flood zone. The site parcel is not within a DEEP-designated aquifer protection area. There are not water supply wells in proximity to the project site.

DEEP Natural Diversity Database (NDDB) indicates the eastern box turtle (EBT), a state-listed Species of Special Concern, occurs on or within the vicinity of the subject parcel. GRE proposes protective measures to minimize impacts to the EBT including, but not limited to, the following:

a) Exclusionary fencing would be utilized with a height of at least 20 inches tall, and the bottom of the fence will be in contact with the ground;
b) Staging and storage of equipment and supplies would be confined to areas within the limits of exclusionary fencing;
c) All construction personnel working within the EBT habitat would be apprised of the species description and possible presence and would be instructed to relocate turtles out of harm's way;

d) Any turtles encountered within the immediate work area would be carefully moved to an adjacent area outside of the excluded area, and fencing would be inspected to identify and remove the access point;
e) In areas where silt fence is used for exclusion, it would be removed as soon as the area is stable and disturbance is finished to allow for reptile and amphibian passage to resume;
f) The contractor would search the work area each morning prior to any work being performed; and
g) Should the EBT be encountered during construction, the observation would be reported to DEEP.

By letter dated July 30, 2019, DEEP indicated that it concurs with GRE's protection measures for the EBT, and negative impacts to this state-listed species would not be expected.

The northern long-eared bat (NLEB), a state-listed Endangered Species and federally-listed Threatened Species, is known to occur in Connecticut. However, the nearest known NLEB hibernaculum in Connecticut is located in North Branford, which is more than 50 miles from the proposed project. Additionally, there are no known NLEB maternity roost trees in Connecticut.

GRE performed a wetland delineation and assessment on November 5, 13 and 14, 2018. GRE identified three intermittent streams known as MA1, MA2 and MA3 located in the northwestern portion of the subject property where would the proposed electrical interconnection route would be located. See attached Wetland/Watercourse Map.

GRE also identified 11 wetlands in its survey area. Wetland A is largely a palustrine forested wetland (PFO wetland) with some palustrine emergent (PEM wetland) components and is located in the southwestern part of the survey corridor, starting near the I-95 corridor. Wetlands B, C, D, E, F, and G are PFO wetlands located along an old agricultural road in the northwestern portion of the survey area.

Wetland H is a PEM/PFO wetland located in and adjacent to an active horse pasture in the northwestern portion of the survey corridor. Wetland I is a PFO wetland located off the west side of Stream MA3 along the southern survey boundary. Wetland J is a PFO wetland located by Taugwonk Road. Wetland K is an isolated PFO wetland located upslope from Wetland B.

None of the wetlands are located within the solar array or access drive footprint. The approximately 21 utility poles for the utility interconnection would be located to "straddle" wetlands and minimize potential impacts. Appropriate mitigation measures would be utilized such as swamp mats to stage equipment during tree clearing within wetland areas. Applicable best management practices would be implemented through all phases of development and operation of the proposed project. Erosion and sedimentation controls would be implemented in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control.*

A vernal pool survey was conducted on May 20, 2019. The majority of the wetland areas are broad, forested, low-gradient drainage corridors that lack sufficient geomorphology to provide pool habitat. However, wood frog tadpoles, an obligate vernal pool species, were identified in a shallow depression in Wetland A, located in the southwestern portion of the subject property. The pool appeared to have sufficient hydrology to allow complete development of tadpoles to wood frog metamorphs. Thus, one small vernal pool (approximately 2,680 square feet in area) was identified at that location.

The proposed project would comply with the 2015 U.S. Army Corps of Engineers Vernal Pool Best Management Practices to the maximum amount practicable because there would be no direct impacts to the 100-foot vernal pool envelope or the vernal pool depression. No tree clearing would occur within 920 feet of the vernal pool; thus, no new clearing[5] within the 100-foot to 750-foot critical terrestrial habitat (CTH) is

[5] A portion of the critical terrestrial habitat is currently cleared and comprised of hayfield and Interstate 95.

proposed. The proposed project maintains the directional buffer for vernal pool species migration through the overall minimization of tree clearing and maintenance of core wetland and upland forest. Due to the scope and the position of the proposed activities, the installation and utilization of the proposed solar facility would not adversely impact vernal pool habitat. Additionally, hydrology to the wetland would be maintained, and preferred overwintering habitat would not be affected; therefore, existing population dynamics within the wetland system would be maintained.

Stormwater Management Basin No. 2 (located along the western boundary of the proposed solar facility) lies approximately 920 feet from the vernal pool and 100 feet from the adjacent wetland, and it would not affect overall drainage patterns or contributing watershed to wetland resources. The basin serves to attenuate peak rates of runoff from the solar panel drip edge and modulate overland flows. As the watershed to the wetlands would not be altered and water quality would be maintained through stormwater treatment, direct wetland impacts due to hydrologic modifications would not be expected.

Heritage Consultants (Heritage) prepared a Phase 1A Cultural Resources Assessment Survey Report (Phase 1A Report) dated May 2019. Per the Phase 1A Report, there are no known properties listed on the National (or State) Register of Historic Places within a one-mile radius of the project limits of work or access drive. The Phase 1A Report noted that, "[I]t is unlikely that the proposed solar power development will impact any significant historical resources. The only potential item of concern is where the northerly access road most closely approaches the site of former farm outbuildings associated with the Davis farmstead. Analysis of the aerial photographs, however, indicates that so long as the northern access road[6] construction is built south of the visible stone walls, it will not impact any potential historical resources associated with those outbuildings." Accordingly, GRE would install its electrical interconnection route south of the stone walls.

With regard to archaeological resources, the Phase 1A Report noted that, "[T]he eastern end of the Southern Access Road[7] occupies an agricultural field that retains a moderate/high potential to yield archaeological deposits from subsoils contexts. Finally, the Limit of Work, which is situated on a prominent hilltop, also retains the potential to contain intact cultural deposits below the plow zone. Phase 1B survey of the easternmost portion of the Southern Access Road and the Limit of Work is recommended."

By letter dated May 28, 2019, GRE informed the Mohegan Tribe that the Phase 1A Report was completed and that a Phase IB Survey was planned. GRE invited the Mohegan Tribe to visit the proposed project area and provide input on the project. GRE did not receive any feedback from the Mohegan Tribe.

Heritage prepared a Phase 1B Cultural Assessment Survey Report (Phase 1B Report) dated June 2019. The Phase 1B Report concluded that, "[N]one of the identified cultural resource loci noted within the LOW associated with the Stonington project parcel retains research potential or the quantities of significance as defined by the National Register of Historic Places…In sum, no impacts to significant cultural resources are anticipated by construction of the proposed Stonington solar center." On or about July 2, 2019, GRE submitted the Phase IB Report to the SHPO.

By letter dated September 24, 2019, the SHPO indicated that it concurs with the findings of Phase 1B Report that additional archaeological investigations of the project areas are not warranted, and no historic properties would be affected by the proposed project.

The proposed project is expected to meet the DEEP noise standards at the property boundaries.

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[6] The proposed utility interconnection corridor for this project is referred to as the "Northern Access Road" in the Phase 1A Report.

[7] The proposed access road for this project is referred to as the "Southern Access Road" in the Phase 1A Report.

The project would not produce air or water emissions as a result of operation. The solar project would not produce air emissions of regulated air pollutants or greenhouse gases during operation.

The majority of the proposed project equipment is less than nine feet in height. The project site is located in a secluded part of Stonington, shielded from public view by dense forests to the north and west, hay fields to the east, and Interstate 95 to the south. Due to the location and existing screening around the site, the project would not be visible from surrounding residences or rights-of-way. Accordingly, no landscaping is proposed.

Public Safety

The proposed project would comply with the NEC, the National Electrical Safety Code and National Fire Protection Association codes and standards. The proposed solar facility would have a protection system to shut the facility down in the event of a fault within the facility or isolate the facility during an abnormal grid disturbance or power outage event.

The entire Phase I and Phase II solar facility would be surrounded by a 7-foot tall chain-link security fence. There would be locked gates at the entrance to the facility (located directly south of the solar arrays) and at the entrance to the site for the electrical interconnection route (located to the northwest off of Taugwonk Road).

The proposed site is located approximately 2.75 miles north of Stonington Airpark. A glare analysis has not been conducted. The solar panels are designed to absorb light rather than reflect it back. Given the distance of the project from the nearest airport and the lack of glare from the panels, the proposed project is not expected to adversely impact air navigation.

Typically, when a project is nearing completion and final inspection, the local fire marshal will walk the job site to inspect signage, site access in case of emergency, emergency shutoff disconnect locations and anything relevant to their response of an event. GRE expects that such a walk-through would be performed for this project. Additionally, local firefighters have electrical fire training and solar-specific training.

The proposed facility would have emergency AC disconnect switches that be used to shut down AC voltage to the system from the local utility. This would de-energize all of the equipment. There would also be DC disconnects that can be shut off to isolate the DC voltage to the inverters alone. All disconnects would be clearly labeled. GRE could install a knox box at the main entrance to allow emergency responders to access the site.

Decommissioning

A Decommissioning Plan was submitted to the Council and has provisions for project removal and component recycling when operation of the facility is discontinued. Following the removal of project related equipment; the site would be restored. GRE would stabilize and re-vegetate the site as necessary to minimize erosion.

Conclusion

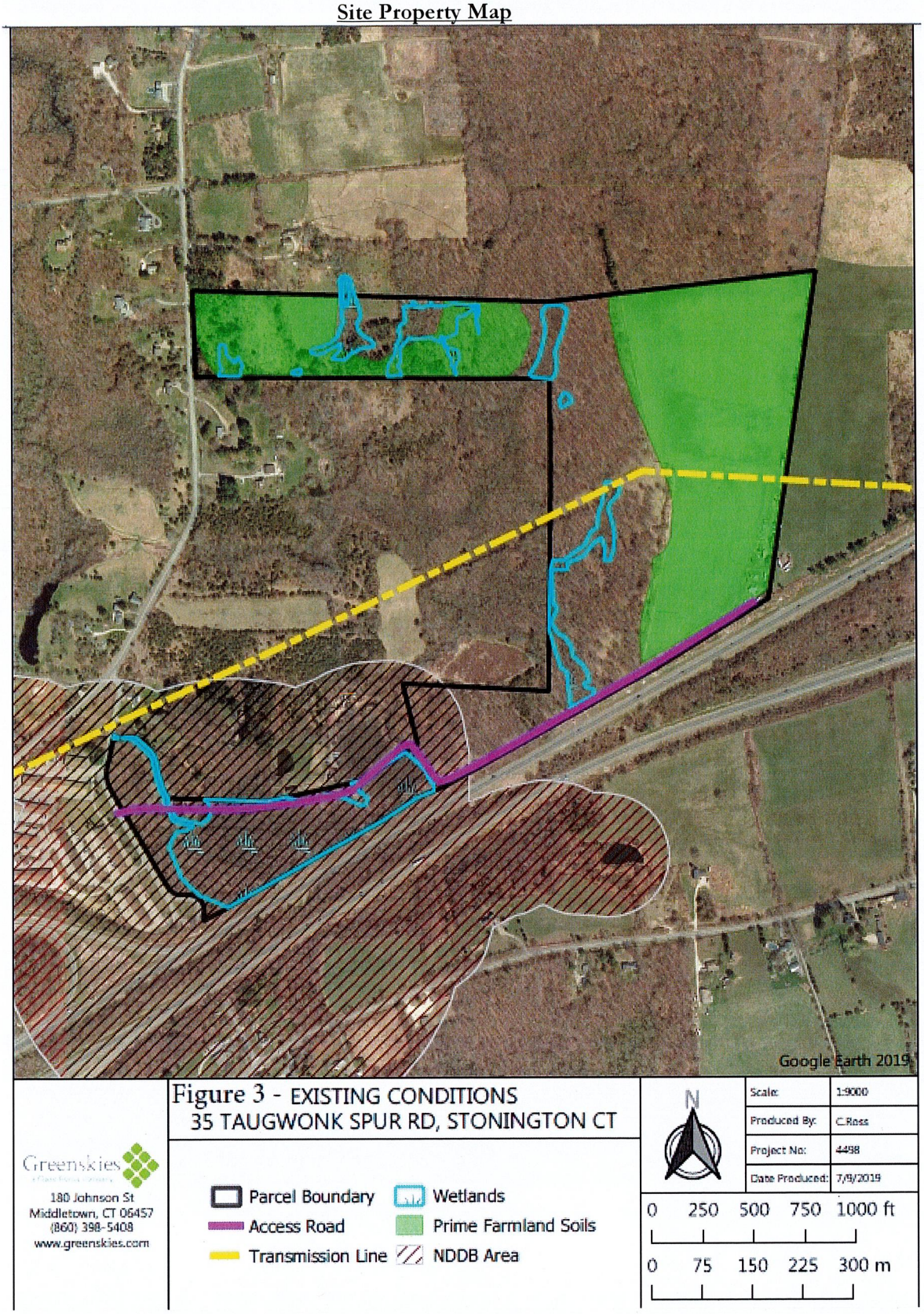
The project is a distributed energy resource with a capacity of not more than sixty-five megawatts, meets air and water quality standards of the DEEP, would not materially affect the status of prime farmland or core forest, and would not have a substantial adverse environmental effect. The proposed project will not produce air emissions, will not utilize water to produce electricity, was designed to minimize environmental impacts, and furthers the State's energy policy by developing and utilizing renewable energy resources and distributed energy resources.

Recommendations

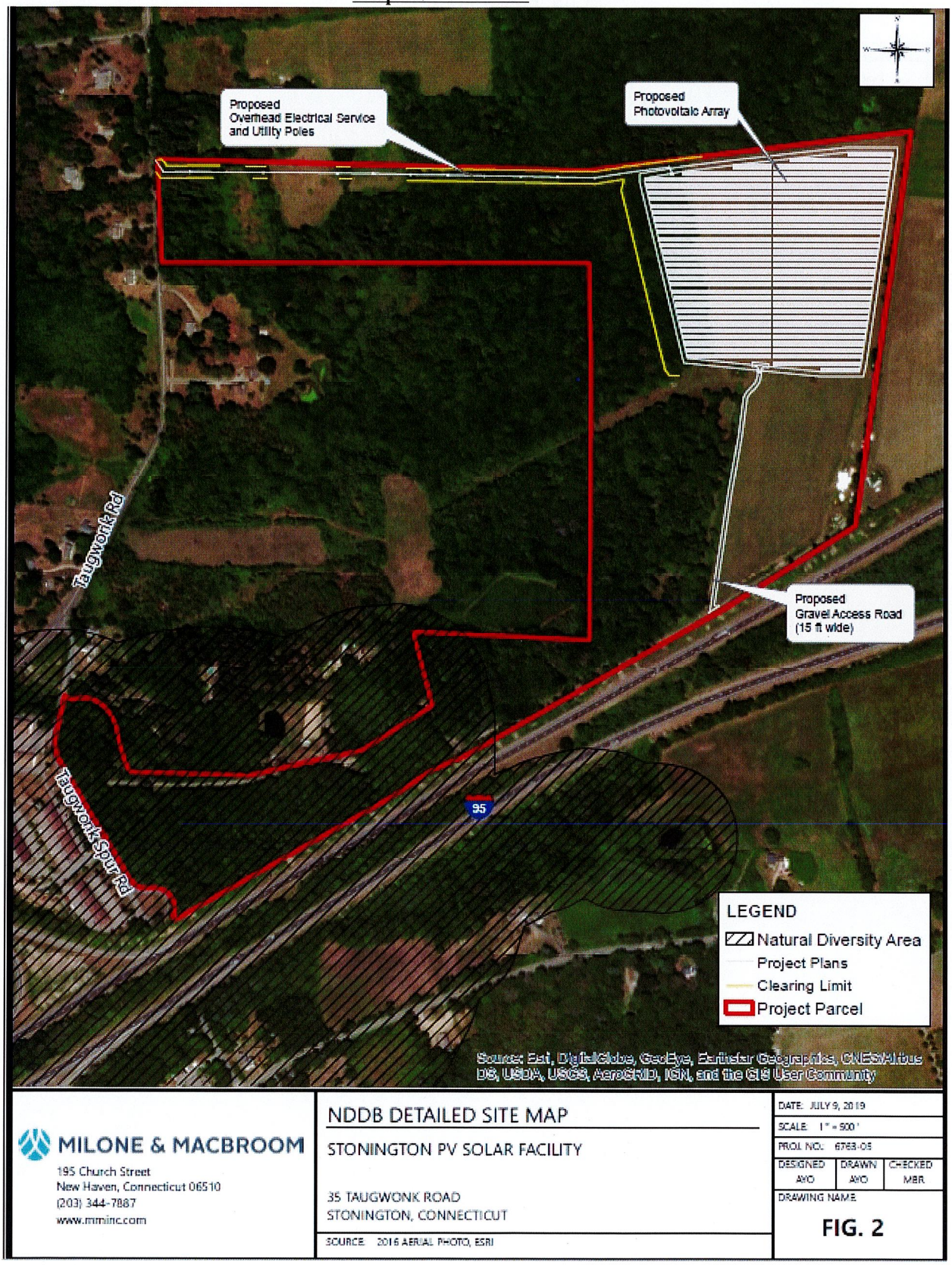
If approved, staff recommends the following conditions:

1. Approval of any minor project changes be delegated to Council staff;
2. Submission of a copy of the DEEP General Permit prior to commencement of construction;
3. Submission of the final electrical design plans and interconnection route; and
4. Submission of the final structural design (for the racking system) stamped by a Professional Engineer duly licensed in the State of Connecticut prior to rack system installations.

Site Property Map



Proposed Site Plan

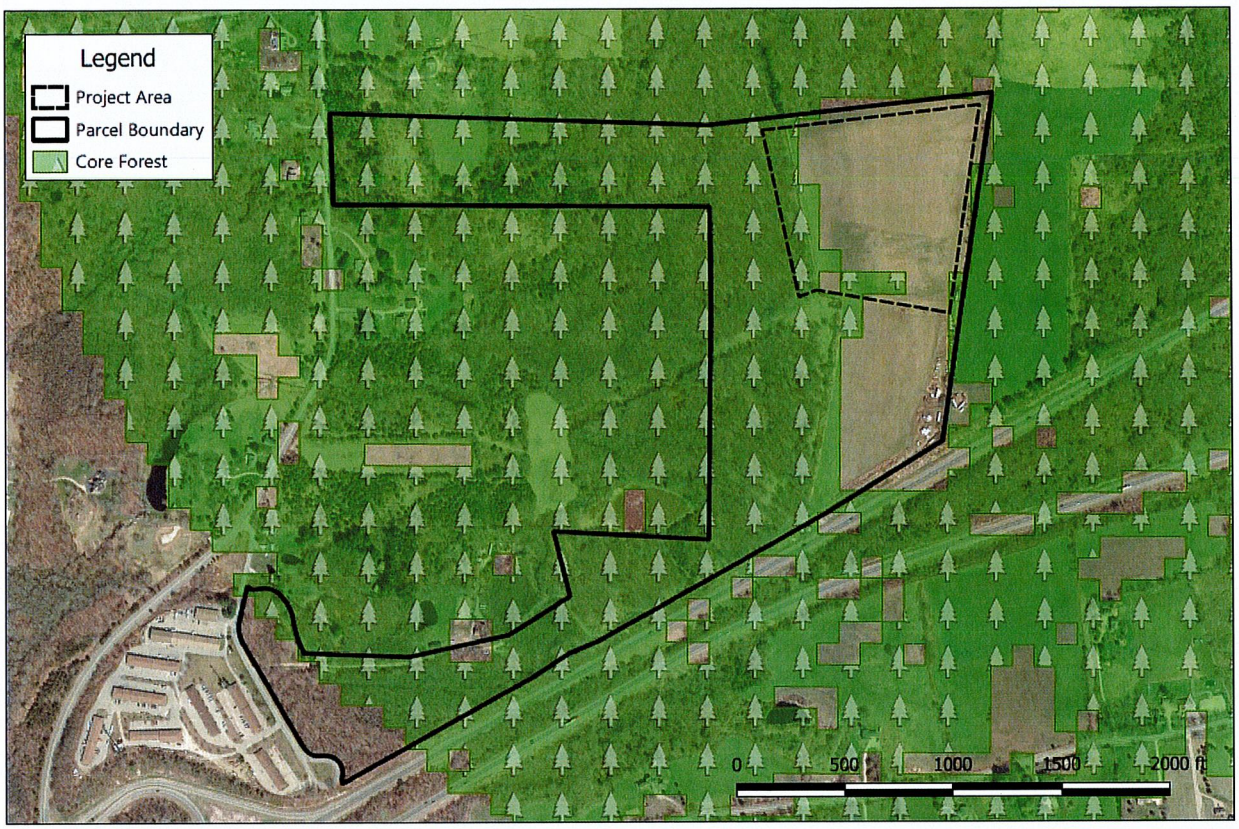


MILONE & MACBROOM
195 Church Street
New Haven, Connecticut 06510
(203) 344-7887
www.mminc.com

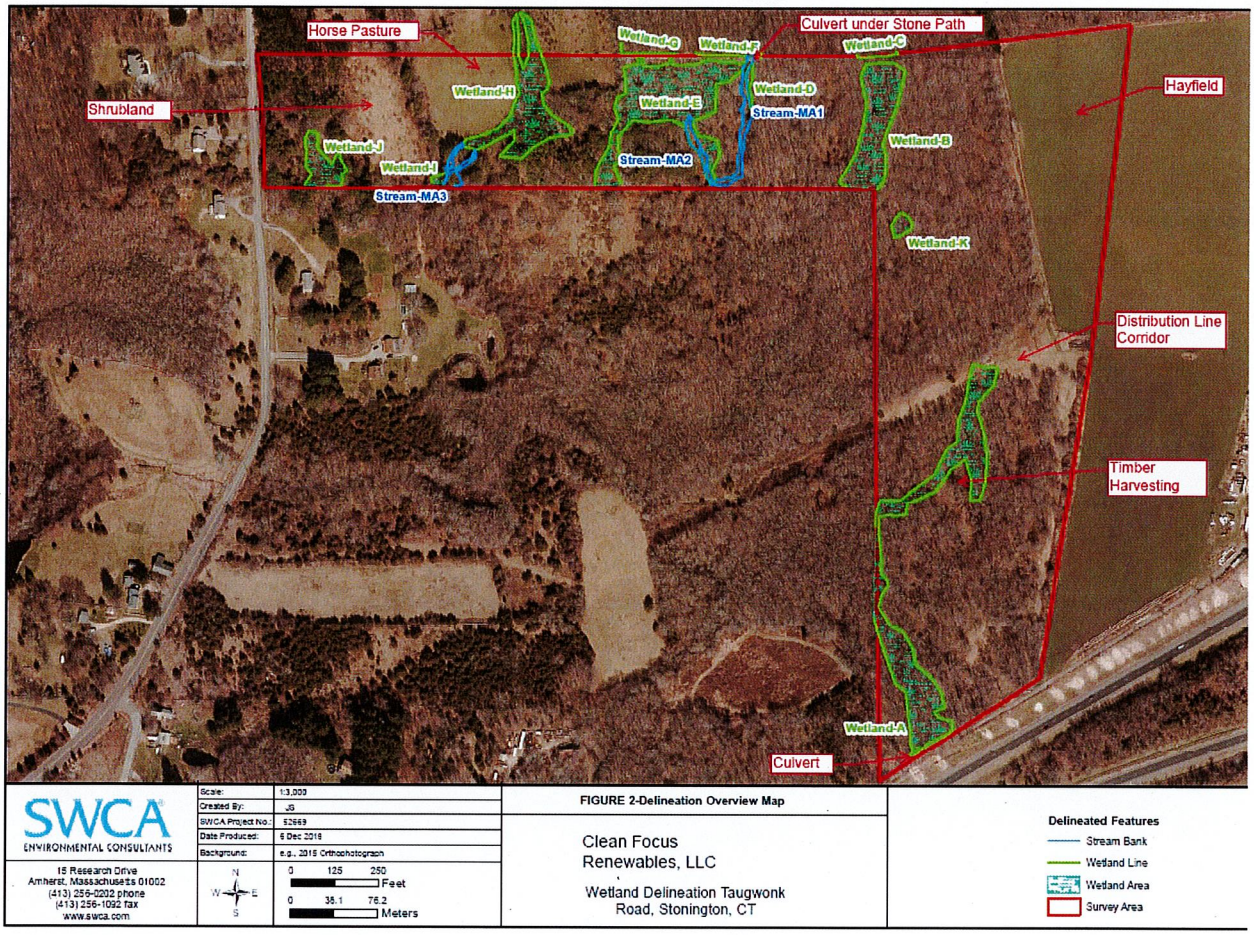
NDDB DETAILED SITE MAP
STONINGTON PV SOLAR FACILITY
35 TAUGWONK ROAD
STONINGTON, CONNECTICUT
SOURCE: 2016 AERIAL PHOTO, ESRI

DATE: JULY 9, 2019
SCALE: 1" = 500'
PROJ. NO.: 6768-05
DESIGNED AWO | DRAWN AWO | CHECKED MBR
DRAWING NAME:
FIG. 2

Core Forest Map



Wetland/Watercourse Map



Appendix - State Agency Comments

STATE OF CONNECTICUT
DEPARTMENT OF AGRICULTURE
Office of the Commissioner

Bryan P. Hurlburt
Commissioner

CONNECTICUT DEPARTMENT OF AGRICULTURE
CTGrown.gov

860-713-2501
www.CTGrown.gov

August 15, 2019

Melanie A. Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Greenskies Renewable Energy LLC ("Greenskies")
Proposed Solar Photovoltaic Development
35 Taugwonk Spur Road, Stonington, CT

Dear Ms. Bachman,

Greenskies Renewable Energy, LLC has contacted the Connecticut Department of Agriculture ("Department") and informed us of their imminent filing of a petition for a declaratory ruling with the Connecticut Siting Council ("Council"). Greenskies proposes to construct a solar photovoltaic facility with a capacity of 5.0 megawatts, to be located at 35 Taugwonk Spur Road, Stonington, CT.

Section 16-50k(a) of the Connecticut General Statutes requires that for a solar photovoltaic facility with a capacity of two or more megawatts, to be located on prime farmland, "excluding any such facility that was selected by the Department of Energy and Environmental Protection in any solicitation issued prior to July 1, 2017, pursuant to section 16a-3f, 16a-3g or 16a-3j", the Department of Agriculture must represent, in writing, to the Connecticut Siting Council (CSC) that such project will not materially affect the status of such land as prime farmland.

Approximately 16 acres of prime farmland would be impacted by the installation of the solar panels, racking systems, equipment pads, access road, and the associated site work involved with this project. Our Department has reviewed documents submitted by the petitioner concerning this project, which include the following:

1) Preliminary site layout plan, dated July 15, 2019, prepared by Milone & MacBroom;
2) Site layout & grading plan, dated July 15, 2019, prepared by Milone & MacBroom;
3) USDA-NRCS farmland and hydrologic soils report, provided by Milone & MacBroom; and
4) Greenskies Renewable Energy, LLC Permit Drawings for the Stonington PV Solar Facility, dated August 9, 2019.

Department staff also met with Greenskies representatives to discuss the project background, proposed site plan, existing site conditions, how Greenskies intends to handle and manage the prime farmland soils, and how Greenskies would incorporate agricultural dual uses on the site.

Based on the above submittals and discussions, and pursuant to Section 16-50k(a) of the Connecticut General Statutes, the Department hereby represents to the Council that this project, as proposed, will not materially affect the status of such land as prime farmland provided that the following minimum conditions are met:

1. The handling and management of any/all prime farmland soils disturbed by construction activities is in accordance with energy industry best management practices, adhering to the most current Federal Energy Regulatory Commission (FERC) guidelines;

2. Any/all prime farmland soils are separated and stored on the farm site, and shall be used and applied solely for agricultural purposes;

3. In consultation with the farmland owner(s), a Farmland Restoration Plan shall be developed for the property to restore, at a minimum, an amount of acreage equivalent to the area disturbed, throughout the farm property for current and future agricultural purposes;

4. The Department shall administer the Farmland Restoration Plan. Such Farmland Restoration Plan shall be prepared by a soil scientist who is approved by the Department of Agriculture, and is currently on contract with a Conservation District located in Connecticut, for the purposes of preparation and review of Farmland Restoration Plans;

5. Greenskies shall be responsible for the costs of the farmland restoration work;

6. In consultation with the Department of Agriculture, Greenskies shall conduct at least two co-location or dual-use agricultural activities on the site. Such co-location or dual-use activities shall include but are not limited to, creating native pollinator habitat, beekeeping, small livestock grazing, and select crop propagation; and

7. Any/all agricultural research reports by the University of Connecticut, University of Connecticut Cooperative Extension, and/or the Connecticut Agricultural Experiment Station of the dual-use agricultural activities conducted on the site shall be submitted to the Department.

While the Department of Agriculture believes any loss of prime farmland is of concern, we also fully appreciate that agricultural producers need to have the ability to make business decisions that are in the best interest of their farms and their families. With these reasonable mitigation steps, this project should be allowed to proceed with the Council's declaratory ruling process. Please contact Stephen Anderson if you have any questions or concerns regarding this letter.

Sincerely,

Bryan P. Hurlburt
Commissioner

cc: *Lee D. Hoffman, Esq., Pullman & Comley, LLC*
Gina Wolfman, Greenskies Renewable Energy, LLC
Stephen Anderson, Connecticut Department of Agriculture
Cameron Weimar, Connecticut Department of Agriculture

STATE OF CONNECTICUT

COUNCIL ON ENVIRONMENTAL QUALITY

Susan D. Merrow
Chair

Keith Ainsworth

Alicea Charamut

David Kalafa

Lee E. Dunbar

Alison Hilding

Kip Kolesinskas

Matthew Reiser

Charles Vidich

Peter Hearn
Executive Director

August 29, 2019

Melanie Bachman, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: PETITION NO. 1378 – Greenskies Renewable Energy, LLC (GRE) petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 5.0-megawatt AC solar photovoltaic electric generating facility on approximately 16.5 acres located generally east of Taugwonk Road and Taugwonk Spur Road and north of Interstate 95 in Stonington, Connecticut and associated electrical interconnection.

Dear Ms. Bachman:

The Council on Environmental Quality ("the Council") has reviewed the Petition for Declaratory Ruling noted above and offers the following comments for consideration by the Connecticut Siting Council.

1. Commendable Siting and Design

The site is composed of both forested land and farmland. The Council commends GRE for the collaboration with the Connecticut Department of Agriculture on this project to create a "Farmland Restoration Plan" for the site. If implemented, the plan would retain the site's topsoil and restore, at a minimum, an amount of acreage equivalent to the area disturbed throughout the farm property for current and future agricultural purposes. Additionally, it promises consideration of at least two "dual use agricultural activities" on the site, such as native pollinator habitat enhancement, apiculture, suitable crop cultivation, and small livestock grazing, among others. These activities, identified in consultation with Connecticut Department of Agriculture, would be appropriate conditions of approval by the Siting Council.

2. Carbon Offset

The greenhouse gas offset calculations used in the Petition were from EPA's Greenhouse Gas Equivalencies Calculator. Analysis using either ISO-New England's most recent marginal emission rates for locational marginal units (LMU) or the average emission rate for all units within the New England generation mix produces an offset value that is approximately half of the EPA (national) calculator.

Because of this discrepancy between the national and state/New England calculations, consideration of adoption of a standard for CO_2 offset computations for energy projects is encouraged. The Council acknowledges that whichever method is used, the CO_2 reduction from the solar arrays will exceed the reduction in long term carbon absorption of the three acres of forest that will be removed.

3. Inland Wetlands

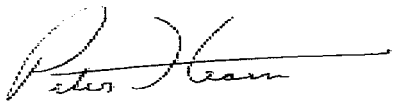
The Council notes that the proposed site contains a few areas of inland wetlands primarily along the proposed electrical service. The Council recommends that in designing the installation of the proposed electrical service, best management practices (BMP) be employed before, during, and after construction of the proposed project to help limit wetland impacts. Among these would be:

- avoiding both above and below-ground wetland crossings unless absolutely necessary;
- taking advantage of already disturbed areas such as access roads or easements;
- spanning a wetland by locating utility poles on either side of the wetland, instead of disturbing the interior; and
- preventing significant diversion of surface water and groundwater sources, which could affect nearby wetlands.

The Council recommends that the Siting Council confirm that the proposed Stormwater Management Basin No.2, located along the entire western boundary of the proposed project site, would not adversely affect flow to wetlands and to the identified vernal pool.

Thank you for your consideration of these comments. Please do not hesitate to contact the Council if you have any questions.

Sincerely,



Peter Hearn
Executive Director

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Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employ

September 13, 2019

Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

RE: 5.0-MW Solar Photo-voltaic Generating Facility
Greenskies Renewable Energy, LLC
Stonington, Connecticut
Petition No. 1378

Dear Members of the Connecticut Siting Council:

Staff of this department have reviewed the above-referenced petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need will be required for the construction of a 5.0-MW solar generating facility located off 35 Taugwonk Spur Road in Stonington. A field review of the site was conducted on September 9, 2019. Based on these efforts, the following comments are offered to the Council for your use in this proceeding.

The proposed solar array, to be located on a mixture of active hayfield and some forestland, will employ 16,680 photovoltaic panels mounted on driven posts, and will operate as six independently-metered systems. The facility will be connected to an Eversource distribution line running along Taugwonk Road via an interconnection line to be constructed mostly along the alignment of an existing unpaved woods road, described in the Petition as a cart road, with a segment of the line crossing a horse pasture on the western end of its route. It is likely that vegetative removal beyond the limb management and selective clearing described on page 39 of the Petition will be necessary to accommodate this line due to the narrow and overgrown nature of the corridor. It also appears probable that the proposed access route to the solar farm site, which is an existing narrow road from Taugwonk Spur Road to the landowner's home and then to the proposed facility site, will need to be widened and potentially straightened to accommodate the construction vehicles which will need to access the site.

Most of the solar farm footprint consists of well-vegetated, gently sloping fields. Four acres west of the hayfield will be cleared for a portion of the array as well as for the western stormwater basin and for shading management. This wooded area consists predominantly of red maple forest with much lesser amounts of ash and white oak. This portion of the site approximates flat.

No homes are visible from the proposed site. The noise environment across the site is dominated by traffic noise from neighboring Interstate 95.

Overall the Taugwonk Solar site is well-suited for this proposed use and is a much more favorable site than most others that have been proposed for this type of facility.

Core Forest Impacts

Appendix N of the Petition includes an e-mail chain between Lee Hoffman of Pullman and Comley and Chris Martin, Director of DEEP's Forestry Division concluding that there is no material impact to core forest resources arising from this project. DEEP will endeavor to provide an independent letter communicating its findings relative to core forest impacts for future petitions.

Natural Diversity Data Base

As contained in Appendix M of the Petition, by letter of July 30, 2019, DEEP's Natural Diversity Data Base program concurred that the proposed work will be outside of any mapped NDDB area and accepted the applicant's proposed protection strategies for eastern box turtle.

Agricultural Resources and Prime Farmland Soils

The host property for the proposed Taugwonk Solar Farm is in active agricultural use and contains 16 acres of prime farmland which would be impacted by the proposal. Although the assessment of impacts to prime farmland soils lies with the Connecticut Department of Agriculture, DEEP commends the evaluation done by that department and the development of specific recommendations to preserve the viability of the host property for present and future agricultural use as contained in Commissioner Hurlburt's letter of August 15, 2019.

Stormwater Management

DEEP has met with representatives of the applicant both on the site and at 79 Elm Street, Hartford regarding stormwater management at the Robinson farm in connection with the development of the Taugwonk Solar Farm. Submission of a stormwater permit application is expected in the very near future. In view of the gentle slopes on the site and the well-established vegetative cover which will be maintained during the development and operation of the solar facility, stormwater management, including the avoidance of erosion and sedimentation impacts, appears to be more easily accomplished at this site than at most other solar farm sites DEEP has reviewed. Nevertheless, to provide additional guidance, the DEEP solar farm stormwater management guidelines of September 8, 2017 are attached to these comments.

Vernal Pool

One vernal pool, located within Wetland A in the southern portion of the host property, was identified in the Petition. Property owner Wayne Robinson pointed this location out during DEEP's September 8 field review. The vernal pool, which was dry as of the time of DEEP's site visit, is actually two pools, approximately 25' apart, both with well-defined bottoms of approximately the same depth relative to the surrounding vegetation. These pools are well removed from the footprint of the panels (865' of separation according to the Petition) or from any proposed work, with wide buffers of both well-established grassed vegetation and of forest buffer. Therefore, no impact to these features is expected to arise from the construction and operation of the solar farm.

Miscellaneous Commentary

There is an apparent discrepancy between the statement on page 47 of the Petition that the lowest vertical clearance of the solar panels above the ground will be 8 +/- feet to promote vegetative growth beneath the panels and Figure SD-2, on the last page of Appendix A, which shows the tilted PV panels extending down as low as 3' above ground.

During the DEEP site review, property owner Wayne Robinson expressed a desire to have the soil stockpile area moved from its proposed location immediately south of the PV panel array. He did not specify a preferred alternative location but indicated that the proposed location was a particularly inconvenient one for his operations.

At the bottom of page 4 of the SWCA report found in Appendix L, the statement is made that work in the wetland areas will likely require an inland wetlands permit from the Stonington Inland Wetlands and Watercourses Agency. This statement is incorrect as the approval of wetlands activities is vested in the Siting Council for projects that fall under its jurisdiction.

Lastly, in section 6 of the Operations and Maintenance Plan (Appendix E), which section covers stormwater management system inspection, the instruction to contact the Town of Royalston's Department of Public Works for repair and maintenance of the King Street catch basin appears to be an error.

Thank you for the opportunity to review this petition and to submit these comments to the Council. Should Council members or Council staff have any questions, please feel free to contact me at (860) 424-4110 or at frederick.riese@ct.gov.

Respectfully yours,

Frederick L. Riese
Senior Environmental Analyst

Attachment: (1)
cc: Dept. Commissioner Betsey Wingfield
Dept. Commissioner Susan Whalen

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Stormwater Management at Solar Farm Construction Projects September 8, 2017

Solar farms are on-the-ground installations of arrays of photovoltaic cell panels, supporting structures and related equipment for the production of electricity. As with other types of construction projects, the construction of solar farms can involve land clearing, grading, excavation, trenching, dewatering and similar activities that create land disturbances which potentially result in soil erosion and sediment discharges polluting wetlands, streams and other surface waters. Construction-related land disturbances of 0.5 acres or larger are regulated in Connecticut pursuant to the Connecticut Soil Erosion and Sediment Control Act under Sections 22a-325 to 22a-329, inclusive, of the Connecticut General Statutes ("CGS"). Constructionrelated land disturbances of one (1) acre or larger are also regulated under CGS Section 22a-430 and under Section 402(p) of the federal Clean Water Act and the National Pollutant Discharge Elimination System ("NPDES") program. Prior to the start of such regulated activities, authorization is required from local authorities and, for larger projects, the Connecticut Department of Energy and Environmental Protection ("Department"). Construction projects involving five (5) or more acres of land disturbance require an individual NPDES discharge permit from the Department, or may be eligible to register for coverage under the Department's NPDES General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (general permit).

The Department has encountered repeated problems associated with solar farm construction projects covered under the general permit, from the registration process through construction activities. Although in no way an exhaustive list, the following are common problems associated with solar farm general permit registration applications and ways to address such problems:

- Applicants have been submitting registration applications that lack the requisite information or the requirements necessary for authorization under the general permit. The Department requires a complete and sufficient application when a registration application is filed, and may reject any registration application it deems to be incomplete or insufficient.
- Applicants are not adhering to the sixty (60) day/ninety (90) day time frame for Department review as required by Section 3(c) of the general permit. While the Department has on occasion shortened the review timeframe, Applicants are expected to allocate no less than the requisite time frame for the registration application review process and must plan accordingly.
- Registration applications for solar farm projects often fail to identify the project's contractor and sub-contractors. Section 5(b)(1)(viii) of the general permit mandates that this information be included in the registration application.

- Applicants have been repackaging the Siting Council submittal, which is not acceptable. Section 3(c)(2)(D) of the general permit mandates that the application submittal include only materials required to support the Stormwater Pollution Control Plan ("SWPCP"). This information must be up-to-date and accurate. Any superfluous information delays the registration application review process.
- SWPCPs for solar farm projects are often lacking sufficient detail and information. An approvable SWPCP shall include, but not be limited to, the location of all erosion, sediment and stormwater control measures including detailed design cut sheets with supporting calculations, construction means and methods, project phasing (i.e., site planning, pre-construction, construction, and post-construction stabilization, etc.), construction sequencing and a construction schedule.
- The Applicant's design professional must be well-versed in the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control ("E&S Guidelines"), specifically the techniques found in Chapter 4, Large Construction Sites, the 2004 Connecticut Stormwater Quality Manual, as well as *current* best management practices (BMPs) recognized by the International Erosion Control Association (IECA), provided such BMPs are equal to or better than the E&S Guidelines.
- From the Department's perspective, an approvable SWPCP will include methods for avoiding compaction of soils, disconnection and reduction of runoff associated with solar panel arrays, avoidance of concentration of stormwater, and other measures necessary to maintain or improve pre-construction hydrologic conditions.
- Applicants need to follow the SWPCP review checklist when preparing the SWPCP, giving specific attention to post-construction stormwater controls and the development of a detailed long-term maintenance plan to ensure that the SWPCP meets the terms and conditions of the general permit.

Subsequent to authorization for coverage under the general permit, the Registrant is responsible for ensuring compliance with all terms and conditions of the general permit and the approved SWPCP once construction has been initiated. However, for solar farm projects, Registrants often fail to comply with the terms and conditions of the general permit, including the approved SWPCP. In particular, Department staff have observed the following issues that a routine inspection protocol and proper oversight, as required under the general permit, would have prevented, including but not limited to:

- pre-construction site planning and management deficiencies (e.g., existing vegetation, scheduling, training, phasing/sequencing, tree protection, etc.)
- ineffective placement, maintenance, and/or repair of administrative/procedural, vegetative, and structural BMPs (e.g., erosion, sediment and stormwater runoff controls, good housekeeping, materials management, and training)
- lack of thorough inspections
- ineffective or untimely corrective action
- ineffective stabilization practices
- ineffective permanent post-construction controls (i.e., store, treat and direct stormwater quality and quantity to pre-construction levels)

Such issues at solar farm construction projects raise concerns, since such projects often create areas of land disruption larger than the generally accepted BMPs of five (5) acres anticipated under the general permit. As a result, any applicant seeking coverage under the general permit for a solar farm construction project should take care to address the issues noted above. While

by no means exclusive, some recommendations that should be incorporated into a SWPCP to address these issues include:

- Ensuring that only a Professional Engineer and/or Landscape Architect, as defined in Section 2 of the general permit, who meets the qualifications described in Section 5(b)(4)(A)(ii) and who has been approved in writing by the Commissioner, serve as the Commissioner's agent to inspect the site and also serve as the qualified inspector for the purposes of Section 5(b)(4) of the general permit ("authorized professional"). Such authorized professional must remain in good standing with the Connecticut Department of Consumer Protection and be technically and ethically qualified to inspect the site and be retained for the duration of the construction project until the Notice of Termination acceptable to the Commissioner has been filed as described below.
- Ensuring that the authorized professional prepare a proposed inspection checklist to assure the construction project is being conducted in compliance with the terms and conditions of the general permit, and the approved SWPCP is implemented in accordance with the general permit. The inspection checklist shall comply with Section 5(b)(4)(B)(iii) of the general permit, and include a space for the authorized professional's signature and professional stamp.
- Ensuring that the credentials for the authorized professional proposed by the Applicant and the proposed inspection checklist prepared by such authorized professional be submitted for the review and approval of the Commissioner and be included with the registration application for the general permit. No other professional may serve as the authorized professional without the prior submittal of relevant credentials and inspection checklist for the Commissioner's review and written approval.
- Ensuring that the authorized professional personally perform all pre-construction, construction, and post-construction site inspections; perform inspections at the end of any storm event whether or not such storm generates a discharge; and prepare and submit all inspection reports including the supporting inspection checklists in compliance with Sections 5(b)(4)(A) and 5(b)(4)(B) of the general permit.
- Ensuring that the authorized professional report any violations of the terms and conditions of the general permit or the SWPCP to the Commissioner's designee within two (2) hours of becoming aware of such violation, or at the start of the next business day of becoming aware of such violation outside normal business hours and shall, within five (5) days, prepare and submit a signed and stamped written report, which documents the cause of the violation, duration including dates and times, and corrective action taken or planned to prevent future occurrences.
- Ensuring that if circumstances necessitate a revision to the SWPCP, the authorized professional works with the Permittee's design professional to ensure compliance with the terms and conditions of the general permit, and any such change to the SWPCP shall be submitted for the review and written approval of the Commissioner.
- Ensure that the authorized professional reviews all stormwater monitoring reports to evaluate the effectiveness of the SWPCP and to document any adverse impacts that any stormwater controls on the construction site or discharges from the construction site may have on wetlands, streams, any other receiving waterbodies. Such evaluation shall be documented in the inspection reports and inspection checklists performed pursuant to Section 5(b)(4) of the general permit.
- Ensuring that, in the event the authorized professional identifies a violation of the terms and conditions of the general permit, the SWPCP, or otherwise identifies adverse impacts on wetlands, streams or any other receiving waterbodies, that construction

activity shall immediately cease and the site stabilized until such violation or adverse impacts have been corrected.

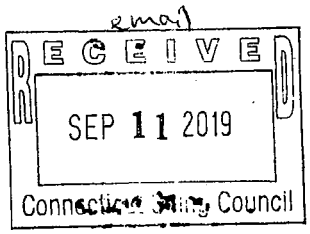
- Ensuring that reporting and record-keeping of all inspection checklists and inspection reports comply with the requirements of Section 5(d) of the general permit, except that a copy shall also be submitted electronically to the Department within ten (10) days from the date such inspection was performed.
- Ensuring that all inspection checklists and inspection reports comply with the requirements for Certification of Documents in Section 5(i) of the general permit, including the requirement that such checklists and reports shall also be prepared, stamped and signed by the authorized professional.
- After completion of a construction project, ensuring that a Notice of Termination is filed in compliance with Section 6 of the general permit, including the requirement that such Notice of Termination be stamped and signed by the authorized professional certifying that such authorized professional has personally inspected and verified that the site has been stabilized following the first full growing season (i.e., April through October) in the year following completion of the construction project.
- Ensuring that any transfer of the registration comply with the requirements of Section 5(m) of the general permit.

These recommendations are by no means intended to be exclusive. To help address the issues noted above, the Commissioner will also be considering the posting of a performance bond or other security, in accordance with Section 22a-6(a)(7) of the Connecticut General Statutes, to assure the solar farm construction project maintains compliance with the terms and conditions of the general permit and the SWPCP.

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546
Phone:

September 16, 2019



Ms. Melanie Bachman
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Dear Ms. Bachman:

Subject: Petition No. 1378
Greenskies Renewable Energy Solar
Photovoltaic Facility
Town of Stonington

The Department of Transportation has reviewed the above-mentioned Petition and offers the following comments.

The District 2 Special Services will need to review three complete sets of construction plans that show all work within the State highway right of way, all site work, any required easements and standard details for highway construction if a State Right of Way (ROW) encroachment permit is proposed. In addition, necessary permits and reviews of wetlands, watercourses, stormwater and Natural Diversity Data Base (NDDB) shall be review and acquire for the locations of interest at Taugwonk Spur Road.

Should you have any further questions, please contact, Ms. Latoya Smith, Utility Engineer (Utilities), at (860) 594-2533.

Very truly yours,

Andrzej Mysliwiec

Digitally signed by Andrzej Mysliwiec
DN: C=US, E=Andrzej.Mysliwiec@ct.gov, CN=Andrzej Mysliwiec
Date: 2019.09.11 12:30:00-04'00'

Andrzej Mysliwiec
Transportation Supervising Engineer
Bureau of Engineering and Construction

Latoya Smith:ls LS/DJB

bcc: Mark Rolfe

James A. Fallon-Leo Fontaine-Andrzej Mysliwiec-Derek Brown-Latoya Smith
James Chupas- John DeCastro-Christopher Brochu
Edgar T. Hurle-Kevin Carifa-Desmond P. Dickey

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

Screening Checklist
Connecticut Department of Transportation
Potential Transportation Infrastructure Impacts
Connecticut Siting Council Petition # 1378
Location : 39 Taugwonk Spur Rd
Stonington, CT

1. Is the proposed facility abutting the right-of-way of a State maintained highway?

   ___ No
   _X_ Yes – Specify the location and show location on a detail site plan.

2. Is access for construction and maintenance of the proposed facility needed directly from a State maintained highway.

   ___ No
   _X_ Yes – Identify specify needs and access location.

3. Is the proposed facility within or abutting a State owned Railroad Right-of Way?

   _X_ No
   ___ Yes – Please provide an area and site plan.

4. Is the proposed facility within a two mile radius of any lands classified as preserved scenic land in accordance with CGS Section 13a-85a, "Acquisition of land adjacent to state highways for preservation and enhancement of scenic beauty and development of rest and recreation areas", or any designated scenic road in accordance with CGS Section 13b-31c, "Designation of scenic roads"?

   _X_ No
   ___ Yes

STATE OF CONNECTICUT
DEPARTMENT OF AGRICULTURE
Office of the Commissioner

Bryan P. Hurlburt
Commissioner

CONNECTICUT DEPARTMENT OF AGRICULTURE
CTGrown.gov

860-713-2501
www.CTGrown.gov

August 15, 2019

Melanie A. Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Greenskies Renewable Energy LLC ("Greenskies")
Proposed Solar Photovoltaic Development
35 Taugwonk Spur Road, Stonington, CT

Dear Ms. Bachman,

Greenskies Renewable Energy, LLC has contacted the Connecticut Department of Agriculture ("Department") and informed us of their imminent filing of a petition for a declaratory ruling with the Connecticut Siting Council ("Council"). Greenskies proposes to construct a solar photovoltaic facility with a capacity of 5.0 megawatts, to be located at 35 Taugwonk Spur Road, Stonington, CT.

Section 16-50k(a) of the Connecticut General Statutes requires that for a solar photovoltaic facility with a capacity of two or more megawatts, to be located on prime farmland, "excluding any such facility that was selected by the Department of Energy and Environmental Protection in any solicitation issued prior to July 1, 2017, pursuant to section 16a-3f, 16a-3g or 16a-3j", the Department of Agriculture must represent, in writing, to the Connecticut Siting Council (CSC) that such project will not materially affect the status of such land as prime farmland.

Approximately 16 acres of prime farmland would be impacted by the installation of the solar panels, racking systems, equipment pads, access road, and the associated site work involved with this project. Our Department has reviewed documents submitted by the petitioner concerning this project, which include the following:

1) Preliminary site layout plan, dated July 15, 2019, prepared by Milone & MacBroom;
2) Site layout & grading plan, dated July 15, 2019, prepared by Milone & MacBroom;
3) USDA-NRCS farmland and hydrologic soils report, provided by Milone & MacBroom; and
4) Greenskies Renewable Energy, LLC Permit Drawings for the Stonington PV Solar Facility, dated August 9, 2019.

Department staff also met with Greenskies representatives to discuss the project background, proposed site plan, existing site conditions, how Greenskies intends to handle and manage the prime farmland soils, and how Greenskies would incorporate agricultural dual uses on the site.

Based on the above submittals and discussions, and pursuant to Section 16-50k(a) of the Connecticut General Statutes, the Department hereby represents to the Council that this project, as proposed, will not materially affect the status of such land as prime farmland provided that the following minimum conditions are met:

1. The handling and management of any/all prime farmland soils disturbed by construction activities is in accordance with energy industry best management practices, adhering to the most current Federal Energy Regulatory Commission (FERC) guidelines;

2. Any/all prime farmland soils are separated and stored on the farm site, and shall be used and applied solely for agricultural purposes;

3. In consultation with the farmland owner(s), a Farmland Restoration Plan shall be developed for the property to restore, at a minimum, an amount of acreage equivalent to the area disturbed, throughout the farm property for current and future agricultural purposes;

4. The Department shall administer the Farmland Restoration Plan. Such Farmland Restoration Plan shall be prepared by a soil scientist who is approved by the Department of Agriculture, and is currently on contract with a Conservation District located in Connecticut, for the purposes of preparation and review of Farmland Restoration Plans;

5. Greenskies shall be responsible for the costs of the farmland restoration work;

6. In consultation with the Department of Agriculture, Greenskies shall conduct at least two co-location or dual-use agricultural activities on the site. Such co-location or dual-use activities shall include but are not limited to, creating native pollinator habitat, beekeeping, small livestock grazing, and select crop propagation; and

7. Any/all agricultural research reports by the University of Connecticut, University of Connecticut Cooperative Extension, and/or the Connecticut Agricultural Experiment Station of the dual-use agricultural activities conducted on the site shall be submitted to the Department.

While the Department of Agriculture believes any loss of prime farmland is of concern, we also fully appreciate that agricultural producers need to have the ability to make business decisions that are in the best interest of their farms and their families. With these reasonable mitigation steps, this project should be allowed to proceed with the Council's declaratory ruling process. Please contact Stephen Anderson if you have any questions or concerns regarding this letter.

Sincerely,

Bryan P. Hurlburt
Commissioner

cc: *Lee D. Hoffman, Esq., Pullman & Comley, LLC*
Gina Wolfman, Greenskies Renewable Energy, LLC
Stephen Anderson, Connecticut Department of Agriculture
Cameron Weimar, Connecticut Department of Agriculture

35 TAUGWONK SPUR ROAD, STONINGTON, CT
84-1-2A (7.67 acres)

SITE PROPERTY 1 (2016 AIRPHOTO)

TAUGWONK SPUR ROAD, STONINGTON, CT
84-1-2 (86.78 acres)

SITE PROPERTY 2 (2016 AIRPHOTO)

clear open space, the site is ideal for solar and would require minimal site work. The extent of clearing would be limited to only what is necessary to minimize shading losses (3-4 acres) within the forest already harvested by Wayne. Soil disturbance will only occur for the construction of access roads and equipment pads and trenching for electrical conduits. Panel racking would involve the placement of post-driven beams, leaving the fields virtually untouched. See Figure 5 – Proposed Project Layout and Figure 11A – Site Plan and Tree Clearing.

In the course of selecting the Project Site, members of GRE evaluated 16 potential sites for renewable energy projects throughout the state. GRE attempted to use former municipal landfills in Torrington, Ellington, Sprague, Waterbury, Ledyard, Columbia, East Lyme and Waterford for the siting of the Project. Unfortunately, in each instance the size of the buildable acreage on these landfills was too small to allow for the construction of a solar array of up to 5 +/- MW.

Alternative sites that were of suitable size were investigated in the towns of Lebanon, East Windsor, Monroe, Mystic, Haddam, Preston, Griswold and Thompson. In each case, environmental concerns and cost considerations rendered the sites less suitable than the Project site. The cost considerations were chiefly due to either measures that would need to be taken to address wetlands or wildlife concerns or due to the costs of interconnection to distribution or transmission facilities from these site. As such, the Project Site was selected as the site that most appropriately balanced the land required to construct the Project with the least amount of reconfiguration necessary to address wetlands and/or anticipated wildlife concerns associated with the construction of the Project.

3.2 Project Description

3.2.1 Site Access

The site entrance for the Project will be located at the end of Taugwonk Spur Road (at the southwestern end of the site), which serves various commercial/industrial uses, including Haines Electric and a cellular tower. Taugwonk Spur Road connects to Taugwonk Road,

approximately 1,800 feet from I-95 interchange 91. The surrounding road network is anticipated to readily support construction-related traffic.

There is an existing, 3,600-foot/.68-mile gravel access road originating at 35 Taugwonk Spur Road. This pre-existing road will be utilized to access the Project site, and additional on-site, 15-foot wide gravel roads will be constructed to provide access to the proposed solar PV facility, as shown in Figure 5 – Proposed Project Layout. A total of .54 miles of existing road will be used, and approximately .4 miles of new onsite road is proposed.

The site is relatively flat and minor (if any) grading is anticipated along the proposed access roads. This extent of grading will depend on topography and stormwater management requirements from the Connecticut Department of Energy and Environmental Protection ("DEEP"). The new access roads will be constructed according to the details provided in Drawing SD-2 of the permit plan set (Appendix A). Subgrade will consist of approximately 4 – 6 inches of gravel with 2 inches of process/crushed stone aggregate. Temporary material staging areas will be used during the approximately 6-month construction period (per phase) and will be located in the eastern-central portion of the site west of the proposed access road, as shown on the site plan, Drawing SE-3 of the permit plan set (Appendix A). See also Figure 6 - Slope Analysis Map.

3.2.2 Solar Facility Design and Layout

The proposed Project is comprised of six, independently-metered systems with a total design capacity of about 5.0 +/- MW AC. There will be two construction phases, each consisting of the installation of one 500 +/- kW and two 1,000+/- kW systems, each with its own equipment pad and utility interconnection. The proposed solar PV facility has been sited on the parcel to avoid and minimize potential impacts to natural resources and other areas of interest, while maximizing the use of previously disturbed areas. The proposed facility layout is shown in Figure 5.

The basis of design for the proposed layout/site plan includes 390-watt PV design modules (final size to be determined during procurement), 12-foot row spacing, and an approximately 25-degree tilt above horizontal. The estimated panel count is 16,680. Driven post panel racking

systems will be utilized throughout the Project site, unless subsurface conditions require an alternative installation method, which will be determined during pre-construction, geotechnical analysis. Posts are typically driven into the earth to depth of 9 feet below grade. The final site plan and layout will be provided in the final permit plan/design drawing set. A standard detail of a driven post foundation is provided as a detail on Drawing SD-2, Appendix A.

Wiring that connects the panels will be placed in above grade wire systems/cable trays or trenched conduits. The area under the panels will remain vegetated and will be seeded with a pollinator mix consisting of native New England species.

3.2.3 Electrical Interconnection

The interconnection facility design will be conducted in accordance with the requirements of Eversource which is the utility for the area. The design and will allow for interconnection of the proposed Project to the existing distribution system. On October 1, 2018, GRE submitted three Interconnection Requests to Eversource for the first 2.5 +/- MW AC portion of the proposed solar PV facility – one 500+/- kW and two 1,000+/- kW systems, each separately metered. The impact/feasibility study fees were provided and impact/feasibility study results were completed in May 2019. Eversource is currently preparing the cost estimates for interconnection and is expected to provide GRE with both by the end early August 2019. See Appendix B for preliminary electrical plans; electrical drawings will be updated to reflect current site plan/layout before construction plans are initiated.

In June 2019, GRE submitted three additional Interconnection Requests to Eversource for the second 2.5+/- MW AC portion of the proposed solar PV facility – one 500+/- kW and two 1,000+/- kW systems, again, each separately metered. Review and feasibility study are pending. See Appendix B for preliminary electrical plans for the second phase of development.

The proposed Project will use both DC and AC electric lines, all to be contained within the Project Site. Buried electrical feeders are anticipated to be used throughout the site, as safety constraints are not expected. At the point of common coupling with Eversource, the feeders may transition to overhead lines, but the details of Eversource's equipment cannot be known at this time. Once Applicant receives the impact/feasibility study results, a discussion with

Eversource will be initiated and a plan for interconnection will be developed. It should be noted that there is an existing, underutilized three-phase transmission line with a right-of-way that runs through/bisects the site. GRE requested that Eversource consider permitting interconnection to that line and/or allowing GRE to use existing utility poles within the right-of-way. Unfortunately, Eversource informed GRE that this is not an option, due to legal concerns and utility guidelines. The interconnection route will run from the northwest corner of the proposed solar PV facility along the northern portion of the Project site to Taugwonk Road. At that point, there is three-phase service where the Project will interconnect.

GRE will install lines below grade and, where necessary, will run overhead lines using a prescribed number of wooden utility poles to reach Taugwonk Road. The designated points of interconnection will be determined once the impact/feasibility study results are received from Eversource.

3.2.4 Fencing and Site Security

The entire proposed solar PV facility/Project site, including all equipment, will be enclosed within a 7-foot tall chain-link fence, consistent with all applicable codes (e.g. National Electric Code and National Electric Safety Code). There will be locked gates at the entrance to the facility, located south of the proposed solar energy facility and at the northwestern corner of the Project site leading to the interconnection route. Locked gates will be used for emergency access and for standard operation and maintenance inspections and activities. All Town of Stonington emergency response personnel will be provided access codes to all on-site locks. To allow the passage of small wildlife species through and into the site, and prevent unauthorized access, all fencing will be installed with a gap at the bottom of the fencing of approximately six inches above the ground. See Figure 5 – Proposed Project Plan

3.3 Stormwater Management

Water quality measures included in the stormwater management design will maintain water quality both during construction and after completion of the Project. See Section 7.11, below, for a more detailed discussion of stormwater analysis methodology and design. Petitioner will apply to CT DEEP for a Construction Stormwater General Permit, and an on-site pre-application with DEEP stormwater personnel is currently scheduled to take place on August 22, 2019.