

**EAST WINDSOR SOLAR TWO, LLC**

**PETITION FOR A DECLARATORY RULING THAT A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS NOT REQUIRED FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF A 4.0 MW AC GROUND-MOUNTED SOLAR PHOTOVOLTAIC PROJECT AT 31 THRALL ROAD, EAST WINDSOR, CONNECTICUT**

**MAY 5, 2023**

**VEROGY**



## Table of Contents

I. INTRODUCTION .....	1
II. PETITIONER AND CONTACT INFORMATION .....	2
III. THE PROJECT .....	2
A. Project Overview.....	3
B. Site Description.....	3
C. Site Selection.....	3
D. Project Description.....	7
i. Facility Design.....	7
ii. Interconnection.....	8
iii. Stormwater Management .....	8
iv. Construction .....	11
v. Operation & Maintenance.....	11
vi. Decommissioning .....	12
IV. PROJECT BENEFITS .....	12
V. LOCAL OUTREACH AND PUBLIC NOTICE.....	13
VI. POTENTIAL ENVIRONMENTAL EFFECTS .....	15
A. Public Health and Safety.....	15
B. Land Use and Development.....	16
C. Wildlife and Cover Type.....	16
i. Cover Types.....	16
a. Project Site Cover Types .....	17
b. Potential Habitat Impact(s) and Mitigation.....	19
ii. Core Forest .....	19
iii. Threatened and Endangered Species .....	21
D. Wetlands and Potential Vernal Pools.....	22
E. Water Resources and Stormwater Management .....	29
i. Floodplain Areas .....	29
ii. Groundwater.....	29
iii. Surface Water.....	30
F. Soils and Geology .....	30
G. Historic and Archaeological Resources .....	33
H. Air Quality .....	33
I. Noise .....	33

J. Lighting.....	34
K. FAA Determination.....	34
L. Scenic and Recreational Areas .....	34
M. Visibility Evaluation.....	36
VII. CONCLUSION .....	36

## Figures

Figure 1 – Site Location Map

Figure 2 – Existing Conditions Map

Figure 3 – Proposed Conditions Map

Figure 4 – Abutting Parcels Map

Figure 5 – Forested Habitat Impacts Map

Figure 6 – Vernal Pool Analysis

Figure 7 - Farmland Soils Map

Figure 8 – Surrounding Features Map

## Appendices

Appendix A – Equipment Specifications, TCLP Report

Appendix B - Project Plans

Appendix C – Stormwater Management Report

Appendix D - Operation and Maintenance Plan

Appendix E– Decommissioning and Restoration Plan

Appendix F – Abutting Property Owner List and Sample Notice Letter

Appendix G – List of Municipal Officials and Government Agencies and Sample Notice Letter

Appendix H – CT DEEP Correspondence – Core Forest

Appendix I - USFWS and NDDB Compliance Statement

Appendix J– CT DOA Correspondence – Prime Farmland Soils

Appendix K – Phase 1A and Phase 1B Cultural Resource Assessment and Survey

Appendix L – Noise Study

Appendix M – FAA Determination

Appendix N – Viewsheds and Photo-simulations

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

IN RE: :  
 :  
 :  
 A PETITION FOR A DECLARATORY : PETITION NO. \_\_\_\_  
 RULING THAT A CERTIFICATE OF :  
 ENVIRONMENTAL COMPATIBILITY AND :  
 PUBLIC NEED IS NOT REQUIRED FOR THE :  
 CONSTRUCTION, OPERATION AND :  
 MAINTENANCE OF A 4.0 MW AC GROUND- :  
 MOUNTED SOLAR PHOTOVOLTAIC :  
 PROJECT AT 31 THRALL ROAD, EAST : May 5, 2023  
 WINDSOR, CONNECTICUT :

PETITION FOR A DECLARATORY RULING:  
 INSTALLATION HAVING NO  
SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT

**I. INTRODUCTION**

Pursuant to the Connecticut General Statutes (“CGS”) Section 4-176(a) and 16-50k(a) and Section 16-50j-38 *et seq.* of the Regulations of Connecticut State Agencies (“RCSA”), East Windsor Solar Two, LLC (the “Petitioner” or “East Windsor Solar Two”) hereby petitions the Connecticut Siting Council (the “Council”) for a declaratory ruling, that a Certificate of Environmental Compatibility and Public Need (“Certificate”) is not required for the development of a 4.0 megawatt (“MW”) alternating current (“AC”) solar-based electric generating facility (the “Facility” or “Project”) located on property at 31 Thrall Road, East Windsor, Connecticut (the “Site”).

CGS Section 16-50k(a) states, in relevant part:

*Notwithstanding the provisions of this chapter or title 16a, the council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling . . . (B) the construction or location of any . . . grid-side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as: (i) Such project meets air and water quality standards of the Department of Environmental Protection [and], (ii) the council does not find a substantial adverse environmental effect...*

. As described below, the Project will generate 4.0 MW of clean renewable energy, result in no air emissions, and no significant adverse environmental effects, and will comply with the applicable air and water quality standards of the Connecticut Department of Energy and Environmental Protection (“CT DEEP”).

## II. PETITIONER AND CONTACT INFORMATION

East Windsor Solar Two is a Connecticut limited liability company with its principal place of business at 124 LaSalle Road in West Hartford, Connecticut. East Windsor Solar Two is a subsidiary of Verogy Holdings, LLC (“Verogy”). Verogy is a professional renewable energy business with decades of experience in the solar industry; the core of its business is developing, financing, constructing, managing, and operating solar generating facilities.

Mailing Address:	East Windsor Solar Two, LLC 124 LaSalle Road, 2 <sup>nd</sup> Floor West Hartford, CT 06107
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Correspondence and other communications concerning the Project are to be addressed to, and notices, orders and other papers may be served upon the following:

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The Petitioner’s representatives consent to electronic mailings of all Council and Petition-related correspondence.

## III. THE PROJECT

## A. Project Overview

The Project was selected and awarded two 20-year contracts, one 1.0 MW AC and one 3.0 MW AC contract, for a total of 4.0 MW AC, to participate in the Connecticut Shared Clean Energy Facility (“SCEF”) program, which allows eligible customers to subscribe and receive the benefits of renewable energy generation as a credit to their monthly utility bills. Beneficiaries of Connecticut’s SCEF include low- and moderate-income customers, small businesses customers, state and municipal customers, commercial customers, and other residential customers not otherwise able to install on-site solar. At least sixty percent of the total capacity of each SCEF facility is provided to low- & moderate-income customers or low-income service organizations. The Project will help Connecticut meet its emission reduction targets via the State of Connecticut’s Renewable Portfolio Standard and meet the Governor’s goal of becoming carbon neutral by 2040. Pending approvals, the Project will commence financing, detailed engineering, procurement, and construction efforts in 2023, with commercial operation planned for the Project in 2024.

## B. Site Description

The Site is a 35.68-acre parcel, located in the Town of East Windsor’s R-3 Residential Zone at 31 Thrall Road, East Windsor, Connecticut, and is currently owned by the Catholic Cemeteries Association of the Archdiocese of Hartford. Most of the Site is an open field, formerly used for growing tobacco and now utilized for other agricultural purposes, such as hay or corn. There are existing structures located in the southwest corner of the Site near Thrall Road, consisting of an unoccupied house, several barns, and a shed. The northerly portion of the Site is comprised of undeveloped forest that drains to a wetland system to the north. The Site is bordered by Thrall Road to the south, a mix of low-density residential and agricultural uses to the east and west, and undeveloped forest and a forested wetland system to the north. The Project area is approximately 24.58 acres.

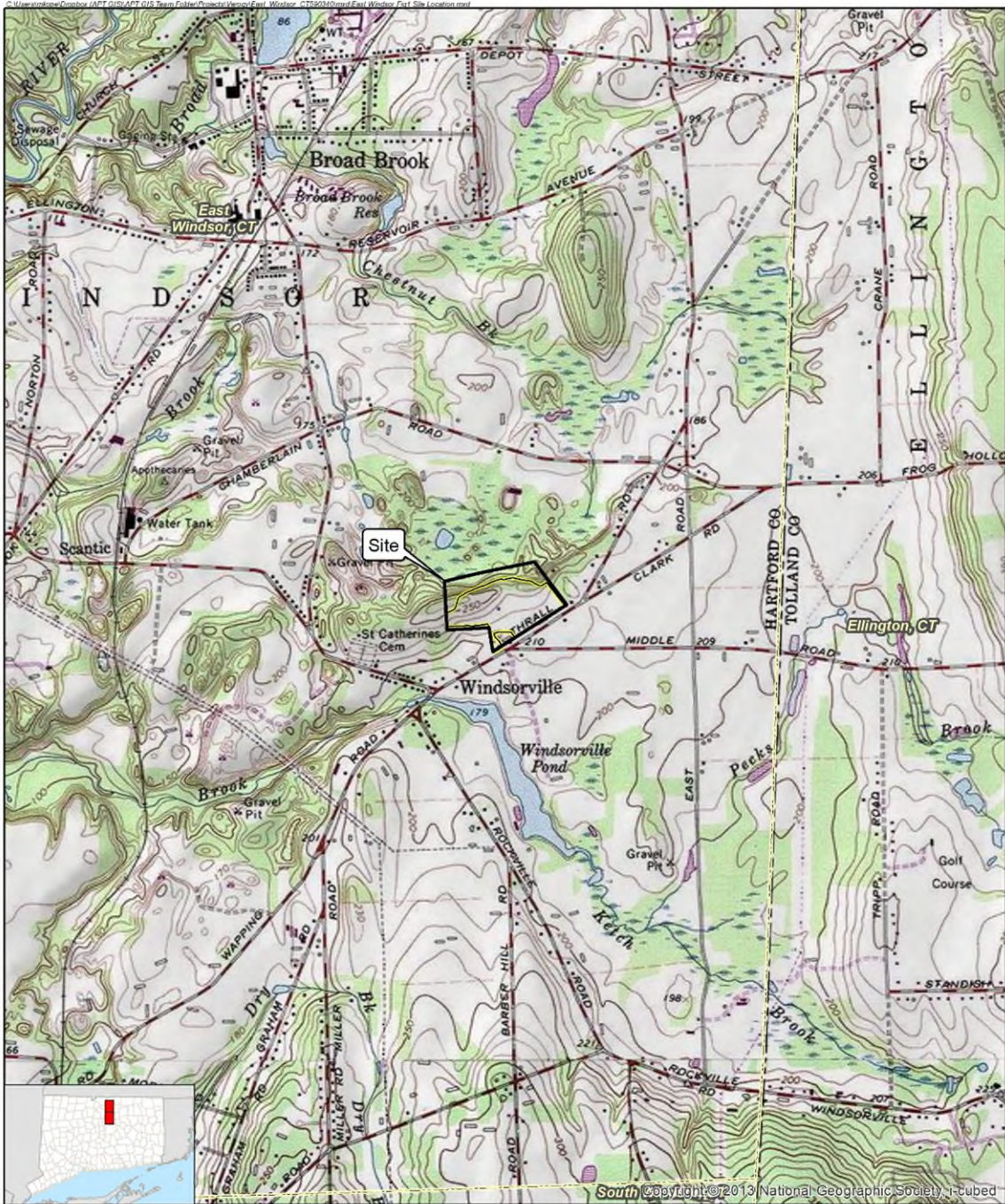
See Figure 1 (Location Map) and Figure 2 (Existing Conditions Map) for a depiction of the Site and Project area.

## C. Site Selection

The site selection for the Project was based on an evaluation of several key criteria, including but not limited to: (i) site availability; (ii) site suitability, (parcel size, site topography presence of wetlands or other environmentally sensitive features); (iii) proximity to critical utility infrastructure, including suitable electrical grid access; (iv) compatibility with surrounding land use; and (v) overall impact on the environment and the surrounding area.

Once the initial site evaluation was completed, the Petitioner assessed potential effects of the Project on the environment and sensitive resources, including but not limited to scenic views and vistas, historic and archeological resources, wetlands, water quality and water resources, rare and endangered species and air quality issues. As discussed in detail below, after this evaluation, the Petitioner determined that the Site was suitable for development of the Project and that the Project will provide a significant benefit to the public.





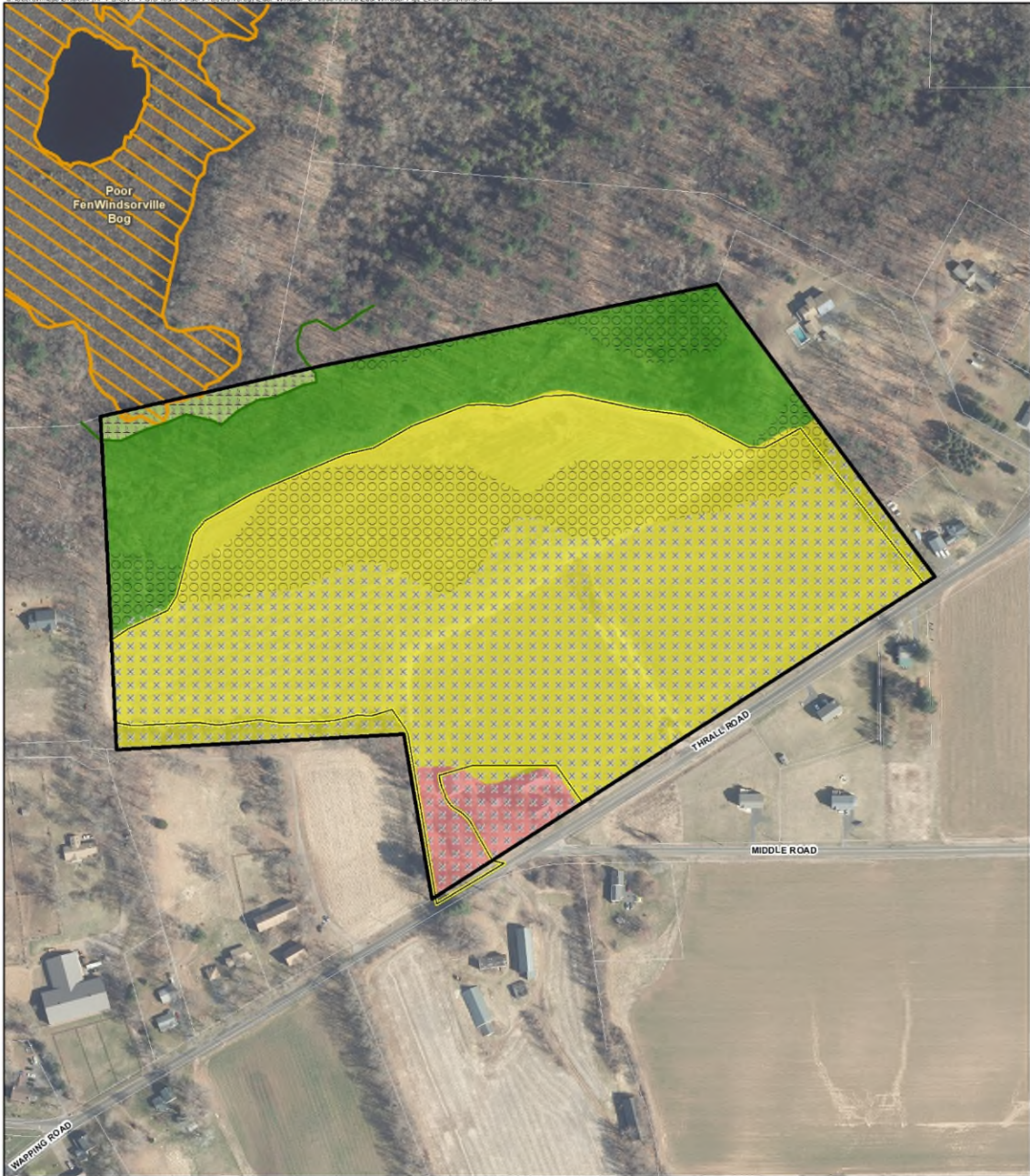
- Legend**
- Site
  - Project Area
  - Municipal Boundary

**Map Notes:**  
 Base Map Source: USGS 7.5 Minute Topographic  
 Quadrangle Maps, Broad Brook, CT (1984) and  
 Machester, CT (1992)  
 Map Scale: 1 inch = 2,000 feet  
 Map Date: March 2023



**Figure 1**  
**Site Location Map**  
 Proposed Solar Energy Facility  
 East Windsor Solar Two  
 31 Thrall Road  
 East Windsor, Connecticut





**Legend**

- Site
- Project Area
- Delineated Wetland Boundary
- Wetland Area
- Critical Habitat (CTDEEP, Oct 2019)
- Farmland Soils**
- Prime Farmland Soils
- Statewide Important Farmland Soils
- Habitat**
- Developed
- Mixed Field
- Upland Forest
- Wetland Forest

*Map Notes:*  
 Base Map Source: 2019 Aerial Photograph (CTECO)  
 Map Scale: 1 inch = 300 feet  
 Map Date: March 2023



**Figure 2**  
**Existing Conditions**

Proposed Solar Energy Facility  
 East Windsor Solar Two  
 31 Thrall Road  
 East Windsor, Connecticut



## D. Project Description

The proposed Facility will be installed in an open field, previously used for agricultural purposes. The Facility will consist of two solar generating systems totaling 4.0 MW AC, split into one 3.0 MW AC system and one 1.0 MW AC system. The Facility will be connected to the existing electric distribution system via overhead service constructed by Eversource.

### i. Facility Design

As currently designed, the proposed Project will consist of 9,932 Phono Solar Model PS545M8H-24/TH, 545-Watt solar modules, 32 CPS 600V 125kW (SCH125KTL-DO/US-600) inverters, AC panel boards and/or switchgear, a 3000 kVa transformer, and a 1000 kVa transformer. The panels will be secured to a ground mounted steel racking structure utilizing a single-axis tracking system, which allows the panels to rotate from east to west for more efficient capture of sunlight. The steel racking structure will be anchored to the ground using pile driven posts. The array of panels and the equipment will be surrounded by a seven-foot-high chain link security fence. The chain link fence will be installed with privacy mesh along Thrall Road. An existing gravel access road, located in the southernmost portion of the Site, will be used to access the Facility and will extend to the northern portion of the Site, where the Project's transformers, panel boards/switchgears, and inverters will be located. The proposed utility interconnection service poles by Eversource will be located in the southwest corner of the Site. SUMEC Energy Holdings Co. Ltd., the parent company of Phono Solar, has performed a Toxicity Characteristic Leaching Procedure ("TCLP") test on its solar modules and has determined that the panel are not characterized as hazardous waste. See [Appendix A](#) for major system component specifications and the TCLP testing report.

The Facility's panels and inverters have an anticipated service life of thirty-five (35) years. The total 4.0 MW AC system will have an expected net AC capacity factor of approximately 21.6%. The Project is expected to produce more than 7,567,000 Kilowatt-Hours (kWh) of energy in the first year of operation, enough energy to power 890 homes. Energy produced by the Project will be sold to Eversource as part of the Connecticut SCEF Program. The SCEF Program, passed by the legislature and signed into law by Governor Lamont in 2018 (Public Act 18-50), is a six-year competitive energy procurement program supporting up to 150 MW of clean energy. The Petitioner was a successful bidder in year one of the SCEF Program for 1.0 MW AC and in year two of the program for 3.0 MW AC. The SCEF Program seeks to deploy new and incremental Class 1 renewable generation projects ranging in size from 100 to 4,000 kW (AC) for a contract term of twenty (20) years.

See Figure 3 (Proposed Conditions Map) for a depiction of the Facility layout. See Appendix B, Project Plans for design details.

## **ii. Interconnection**

The Facility submitted for interconnection approval with Eversource in the Spring of 2021, was required to undergo a transmission study in addition to the distribution study. The Project did not receive the results of either of these studies until the Fall of 2022. During the Fall of 2022 there were numerous communications with Eversource about the Project because another project on the same distribution circuit had dropped from the queue, which impacted the interconnection requirements for the Facility.

The Facility received a final Interconnection Agreement from Eversource on February 6, 2023. This agreement included the results of an Impact Study that determined that the Project may safely be interconnected to the Eversource grid via a new overhead service with a single utility recloser pole, junction pole, and two utility primary meter poles, two customer disconnect switch poles, and two customer recloser poles (one associated with each SCEF contract for the Facility) for a total of eight (8) new utility poles.

## **iii. Stormwater Management**

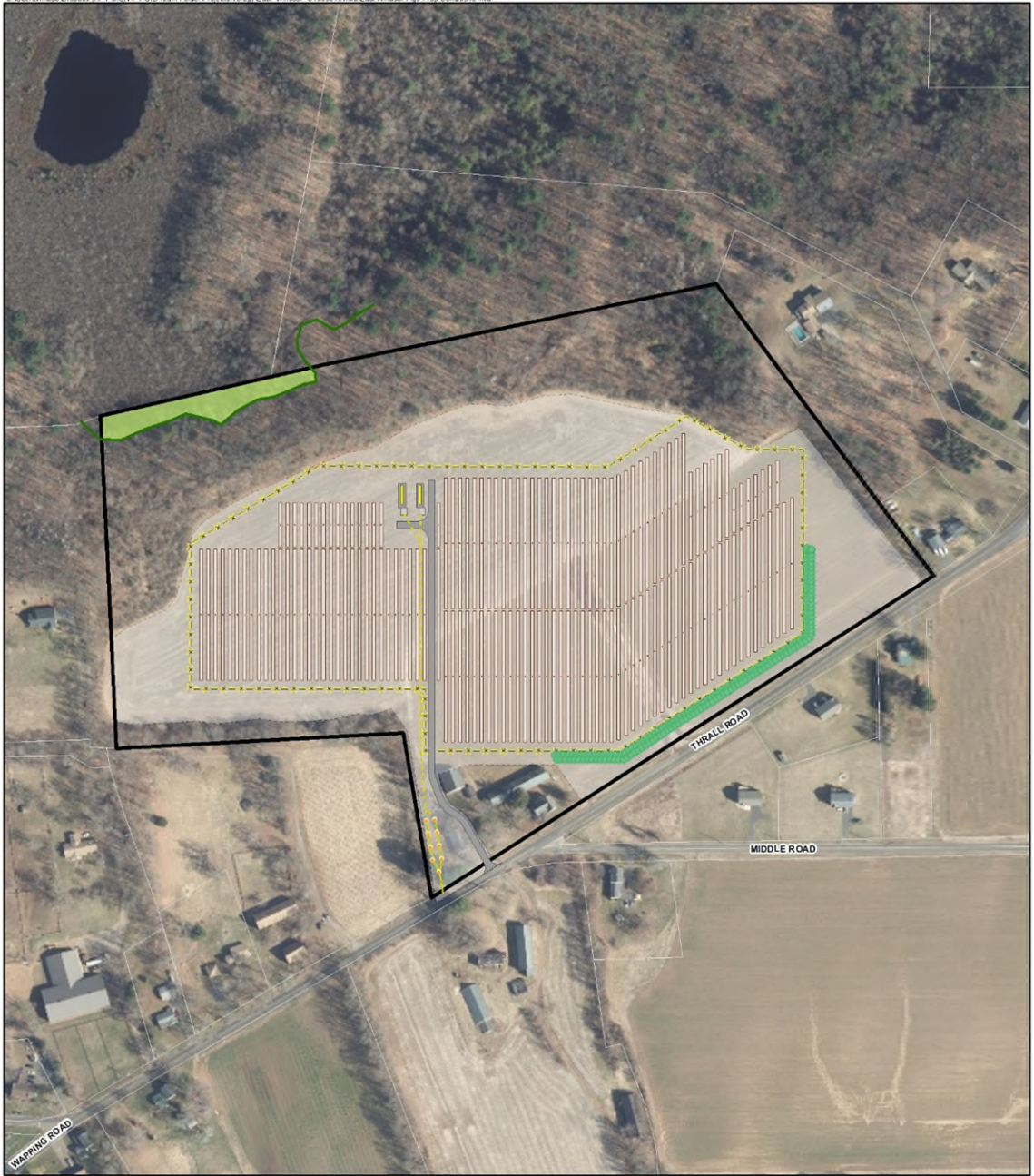
The Petitioner's Engineer and Environmental Consultant, All-Points Technology Corporation, P.C. ("APT"), has designed the Project in accordance with the 2004 State of Connecticut Stormwater Quality Manual, the Connecticut General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities ("General Permit") effective December 31, 2020; and the Connecticut Department of Energy & Environmental Protection ("CT DEEP") Appendix I, Stormwater Management at Solar Array Construction Projects ("Appendix I"). The design addresses three primary concerns: the management of peak stormwater flows, water quality volume treatment and soil erosion and sedimentation controls ("SESC") throughout the construction period. APT's Stormwater Management Report documenting the information summarized herein is attached as Appendix C.

To safeguard water resources from potential impacts during construction, the Petitioner is committed to implementing protective measures in the form of a Stormwater Pollution Control Plan ("SWPCP"), subject to review and approval by DEEP Stormwater Management team. The SWPCP will include monitoring of established SESC measures that are to be installed and maintained in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control and Appendix I.

The phased erosion control plans and details are provided in Appendix B. To meet the requirement of the General Permit, the existing onsite stormwater management basin will act as a temporary sediment basin during construction activities. Perimeter SESC measures will encircle the Project to trap sediment mobilized during construction activity. The basin will be cleaned of deposited sediment as needed during construction to maintain sufficient sediment storage capacity. Upon final site stabilization, the basin will be restored and reutilized as a permanent stormwater management basin.

The Project will include the installation of solar racking and panels, concrete pads to support certain equipment, utility poles for interconnection, underground utilities and a gravel access drive. As indicated in the Stormwater Management Report, pre-development drainage patterns are proposed to be maintained, to the greatest extent feasible, in an effort to maintain and/or reduce peak post-development flows to off-site areas. As noted above, the existing stormwater management basin is to be maintained for permanent reuse. It has adequate capacity to manage/decrease the post-construction peak runoff rates from existing conditions for the 2-, 25-, 50- and 100-year storm events. Water quality treatment will be handled within the existing basin via infiltration, within the vegetated buffer areas between the Project and adjacent downstream wetland areas, as well as via the seed mix proposed across the Site which will promote a meadow-type ground cover that encourages additional infiltration.

With the incorporation of the protective measures outlined above, the Project is not anticipated to result in an adverse impact to water quality associated with nearby surface water bodies or downstream properties.



- Legend**
- Site
  - Approximate Parcel Boundary
  - Delineated Wetland Boundary
  - Wetland Area
  - Landscape Plantings
  - Utility Pole
  - Fence
  - Interconnection Path
  - Underground Electrical Utility
  - Equipment
  - Solar Modules
  - Concrete Equipment Pad
  - Gravel Access Drive
  - Limit of Disturbance

**Figure 3  
Proposed Conditions**

Proposed Solar Energy Facility  
East Windsor Solar Two  
31 Thrall Road  
East Windsor, Connecticut

Map Notes:  
Base Map Source: 2019 Aerial Photograph (CTECO)  
Map Scale: 1 inch = 300 feet  
Map Date: March 2023



#### iv. Construction

The Petitioner anticipates that construction of the Project will begin in the third quarter of 2023 and will take approximately six (6) months to complete. Construction activities within the Project area will include: SESC measures, racking and modules, electrical trenching, the installation of interconnection infrastructure, and new access road extension. Existing grades throughout the Project area will remain and little or no grading on Site is expected.

Initial work would involve the installation of SESC measures. Upon completion of the installation of the SESC measures, the Petitioner will begin the racking installation, followed by the installation of the solar modules and other electrical equipment. Final site stabilization, Facility testing, and Project commissioning would be expected to be completed in early 2024. Construction activities would occur between the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and Saturday between the hours of 8:00 a.m. and 5:00 p.m.

As noted in Section D.i., a SWPCP would also be developed and implemented for the Project. The SWPCP will include obligations for the regular inspection of SESC measures to prevent sedimentation or water quality impacts. The Petitioner will also apply for a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities from CT DEEP. Construction sequencing is described in detail on drawing EC-1 in [Appendix B](#).

#### v. Operation & Maintenance

Throughout the operational life of the Project, periodic inspections and/or maintenance will be performed as required. Based on the Petitioner's experience, maintenance requirements would be minimal. The designated Operations & Maintenance ("O&M") service provider and/or its authorized subcontractors will visit the Site to assess site conditions on a semi-annual basis and perform maintenance as needed. Other anticipated management/maintenance activities for the Project will include:

1. Equipment Maintenance: The Petitioner and/or its authorized subcontractors will inspect and maintain electrical and photovoltaic ("PV") equipment in accordance with the manufacturers' respective requirements to maintain proper operation and warranty status. . The Petitioner will also perform the following inspections: (a) the operation of all safety devices will be reviewed and, if necessary, corrected to maintain proper function; (b) full visual inspection of all equipment, including sub-assemblies, wiring, and connectors; (c) thermal scanning of electronic equipment, wiring terminations, and connectors; (d) mechanical inspection,

including torque verification of critical connections; I string testing (IV curve test); and (f) air filter elements.

2. Module Cleaning: Although module cleaning is rarely necessary in Connecticut, if the solar modules were to experience enough soiling to adversely affect production, the modules will be cleaned using water brought in by tanker truck and soft bristle brooms. No chemicals will be used in connection with any module cleaning.
3. Snow Maintenance/Removal: The Petitioner does not intend to remove snow from the solar modules.
4. Ground Maintenance: The Petitioner proposes to use sheep grazing to maintain the grass that will be established within the fenced area of the Project. The exterior of the site will be mowed and maintained on a periodic basis.

See Appendix D for the Operation and Maintenance Plan.

#### vi. Decommissioning

At the end of the Project's useful life, the Facility will be fully decommissioned and removed from the site in accordance with the requirements of the Petitioner's land lease agreement and the Project's Decommissioning and Restoration Plan.

See Appendix E for the Decommissioning and Restoration Plan.

## IV. PROJECT BENEFITS

Generally, the Project will support the State's energy policies as set forth in CGS § 16a-35k, including the goal to "develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent." The Project will provide clean, renewable, solar-powered electricity and assist the State in meeting its legislatively-mandated obligations under the Renewable Portfolio Standard. The Project will also assist the State of Connecticut in reducing greenhouse gas emissions and reducing criteria air emissions pollutants associated with the displacement of older, less efficient, fossil fuel generation. Through the State of Connecticut's SCEF program, at least sixty percent of the total capacity of the Facility will be supplied to low- and moderate-income customers and/or low-income service organizations.



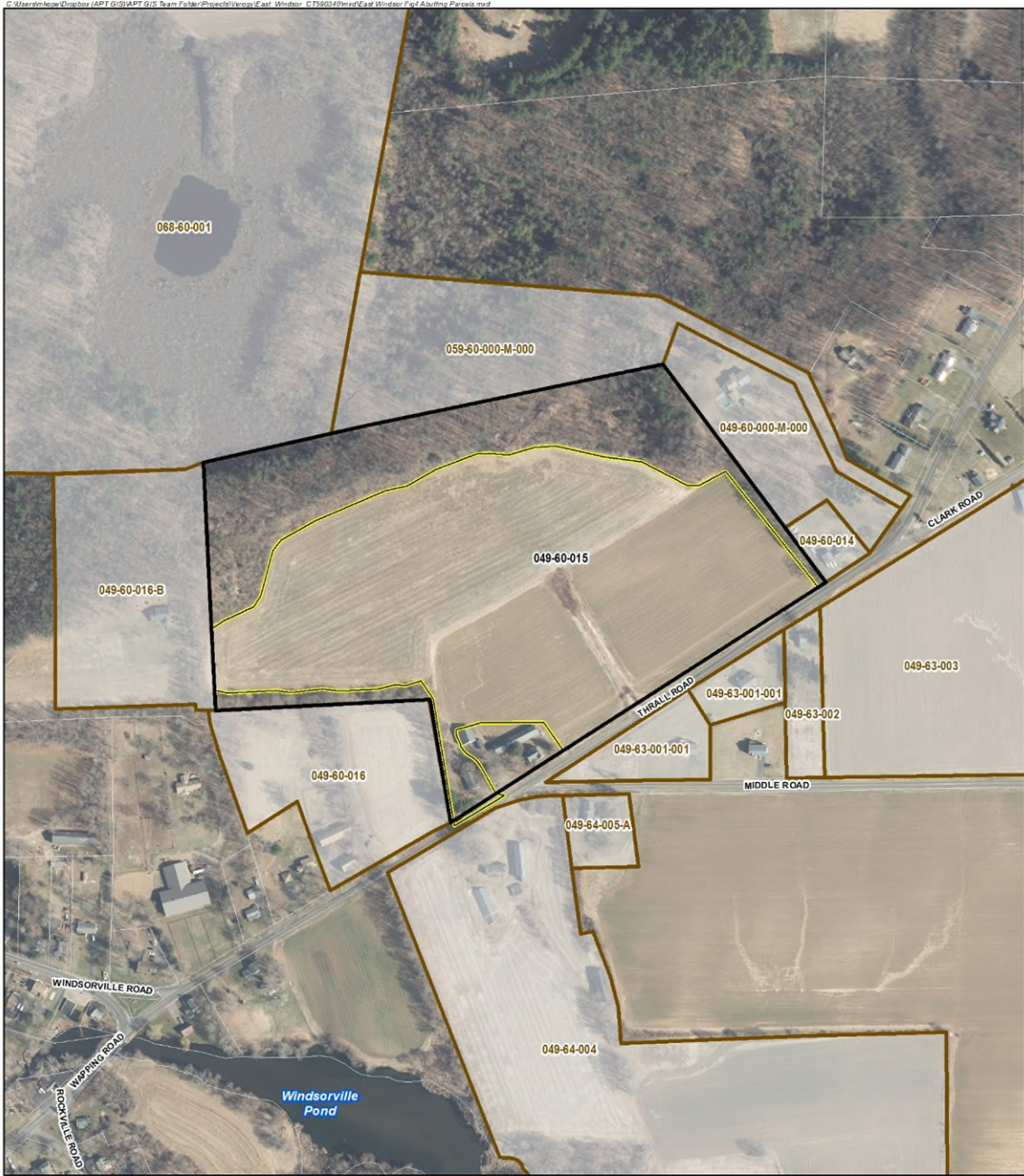
The Petitioner also intends to use, where appropriate, local and regional labor for the construction and subsequent operation of the Project and expects that new construction and operation and maintenance jobs will be created. Moreover, there will be no additional burdens placed on municipal infrastructure or demands on East Windsor services due to the development of the Project.

## V. LOCAL OUTREACH AND PUBLIC NOTICE

In the Summer of 2021, the Petitioner met with Jason Bowsza, East Windsor's First Selectman to discuss its plans to develop the Project. The Petitioner sent an update on the Project to the First Selectman on April 7, 2023. On April 6, 2023, the Petitioner formally notified the abutting property owners and required government agencies of its intent to file the Petition with the Council.

In addition to its outreach and notice to municipal officials and abutters, the Petitioner also sent a Project Fact Sheet and other related information about the Project to abutting property owners and established a Project-specific web site ([www.verogy.com/east-windsor-solar-two](http://www.verogy.com/east-windsor-solar-two)) to keep the public informed about the Project and the Petitioner's progress. Included in Appendix F are copies of Verogy's public outreach materials, including the Project Fact Sheet and a sample letter sent to abutting landowners.

See Figure 4 (Abutting Parcels Map) for a map of the Site and the identified abutting property owners. See Appendix F for the Abutting Property Owner List and Sample Notice Letter and Appendix G for the List of Municipal Officials and Government Agencies and Sample Notice Letter.



- Legend**
- Site
  - Abutting Parcel
  - Project Area
  - Approximate Parcel Boundary

**Figure 4**  
**Abutting Parcels**  
 Proposed Solar Energy Facility  
 East Windsor Solar Two  
 31 Thrall Road  
 East Windsor, Connecticut

*Map Notes:*  
 Base Map Source: 2019 Aerial Photograph (CTECO)  
 Map Scale: 1 inch = 400 feet  
 Map Date: March 2023



## VI. POTENTIAL ENVIRONMENTAL EFFECTS

As described in more detail below, the Petitioner respectfully submits that the Project will not adversely impact the natural environment, the ecological balance, public health and safety, scenic, historic or recreational values, prime farmland, forests and parks, air and water quality, or wildlife and its habitat on and around the Site.

### A. Public Health and Safety

As a Class I Renewable Energy Source, the Project represents a clean and safe method of electricity generation in the State. The Project will contribute to reducing greenhouse gas emissions to the extent it displaces fossil-fueled generating resources, and the Project, once operational, will not create any waste or other emissions that would be detrimental to public health and safety. In addition, the Project will not consume any water or produce any wastewater or otherwise involve the injection of waste or harmful or toxic substances into ground water or area wells.

The Project has been designed to meet or exceed all applicable health and safety standards and requirements related to solar photovoltaic electric power generation, including the National Electrical Safety Code (“NESC”), and those codes and standards promulgated by the National Fire Protection Association (“NFPA”).<sup>1</sup> Each employee working on the Project will:

- Receive required general and Site-specific health and safety training
- Comply with all health and safety controls as directed by local and state authorities
- Understand and employ a Project health and safety plan while on the Site
- Know the location of local emergency care facilities, travel times, ingress and egress routes
- Report all unsafe conditions to the construction manager.

The Petitioner will also coordinate with the Town of East Windsor emergency responders regarding access to the Facility and emergency shutoff switches.

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<sup>1</sup> Collectively, these provisions govern the safe installation and maintenance of electrical systems, including alterations, repairs, replacement(s), equipment, appliances, fixtures, fittings, and appurtenances thereto.

## B. Land Use and Development

The State of Connecticut has committed to reducing its reliance on fossil fuels and natural gas to mitigate the effects of climate change. This is evident by the Governor signing Executive Order No. 3, with a goal of achieving a 100% zero carbon target for the electric sector by 2040.<sup>2</sup> This Project, if approved, will help support these ambitious efforts by developing a renewable energy resource that does not have a substantial adverse environmental effect.

The Project conforms to the Town of East Windsor's 2016 Plan of Conservation and Development ("POCD") which includes among its primary goals to "Promote Additional Local Sustainable Initiatives" including "solar power/renewable energy and reduction of greenhouse gas emissions in the Town". Among the specific actions identified in the POCD, is to "Consider allowing Solar Farms as a primary use" throughout East Windsor. (POCD, pages 93-94.) Consistent with the Town's POCD, Section 101 of the East Windsor Zoning Regulations also encourages energy conservation, the use of solar and other renewable forms of energy.

## C. Wildlife and Cover Type

Provided in the following sections is information regarding: (1) the identified onsite cover types and anticipated Project impacts; (2) core forest; and (3) threatened and endangered species.

### i. Cover Types

The Site is comprised of four (4) distinct cover types (vegetative communities) separated by transitional ecotones. These habitats were assessed using remote sensing and publicly available datasets and were physically inspected during a May 13, 2021 field evaluation. The habitats occupying the Site are as follows:

- Mixed Field;
- Upland Forest;
- Wetland Forest; and
- Developed.

The Site is located entirely within the Mixed Field and Developed habitats, and is currently being utilized for agricultural and residential purposes. See Figure 2 (Existing Conditions Map).

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<sup>2</sup> See Governor Ned Lamont Executive Order No. 3, which can be found at <https://portal.ct.gov/-/media/Office-of-the-Governor/Executive-Orders/Lamont-Executive-Orders/Executive-Order-No-3.pdf>

## a. Project Site Cover Types

### **Mixed Field**

Mixed Field habitat encompasses the majority of the central portion of the Site. This habitat consists of a cultivated agricultural and hay field. The field has recently been primarily utilized for growing corn and hay, and based on observations during the May 13, 2021 investigation, remains fallow in the winter months. The field surfaces are routinely maintained via cultivation techniques (i.e., plowing, harrowing, mowing, etc.), which suppress other herbaceous and shrub species, resulting in limited wildlife habitat utilization. Transitional edge scrub/shrub habitat consisting of pockets of multiflora rose, a non-native invasive shrub, separates this habitat from surrounding Upland Forest habitat.

The Project will encompass the majority of the Mixed Field habitat. The Project's impact is not expected to be significant due to the existing high level of human activity, disturbed nature of this area from historic and current agricultural practices, limited wildlife habitat value, and minimal species utilization.

### **Upland Forest**

Upland Forest habitat occupies the northern portion of the Site and serves as a transitional area between the Mixed Field habitat to the south and Wetland Forest habitat to the north. The Upland Forest habitat is characterized by mature mixed hardwoods heavily influenced by edge effects resulting from the agricultural fields to the south. The Upland Forest habitat differs from the adjacent Wetland Forest habitat in that it occurs entirely within well-drained upland soils and consists of a significantly different vegetative species composition. Dominant species within the Upland Forest include sugar maple, red maple, white oak, black cherry, yellow birch, and scattered stands of Eastern white pine. The invasive Japanese barberry dominates the shrub layer, with co-dominant spicebush and sapling overstory tree species. Asiatic bittersweet, an invasive vine species, and foxglove also occur throughout this habitat.

No direct impacts are proposed within the Upland Forest habitat type. Any potential indirect impacts would be short-term during the Project's development stages and will be minimized through the proper stabilization of soils during construction through strict adherence to the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control*.

## Wetland Forest

Wetland Forest habitat occurs along the northwestern Site boundary and is part of a larger forested wetland complex that extends beyond the Site to the north and includes Connecticut Department of Energy and Environmental Protection-designated Critical Habitat classified as Poor fen/Windsorville Bog. The wetland area on the Site consists of a system with diverse hydrology, morphology and vegetative communities. Seasonally saturated seeps, dominated by a mixed mature forest, drain north into a broad swamp area with pockets of seasonally flooded and/or semi-permanent flooded depressions. This wetland appears to drain north and east; a historically constructed drainage swale drains the western wetland to the east.

No direct impacts to Wetland Forest habitat are proposed. All Project development activities will occur at least 100 feet south of Wetland Forest habitat. There is no tree clearing needed to develop the Facility. Any potential secondary impacts to the Wetland Forest habitat will be avoided by implementation and maintenance of erosion and sediment control measures in compliance with the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control*.

## Developed

Developed habitat encompasses the southwestern portion of the Site and consists of agricultural barns, outbuildings and an existing (vacant) residence. A portion of this developed area will be used to provide access to the proposed Facility.

Table 1, *Habitat Areas* provides the total acreages of each habitat type located on the Site and within the Project area.

**Table 1: Habitat Areas**

Habitat Areas		
Habitat Type	Total Area On-Site (+/- ac.)	Area Occupied by Project (+/- ac.)
Mixed Field	25.42	24.00
Upland Forest	8.23	0.00
Wetland Forest	0.57	0.00
Developed	1.46	0.58

## **b. Potential Habitat Impact(s) and Mitigation**

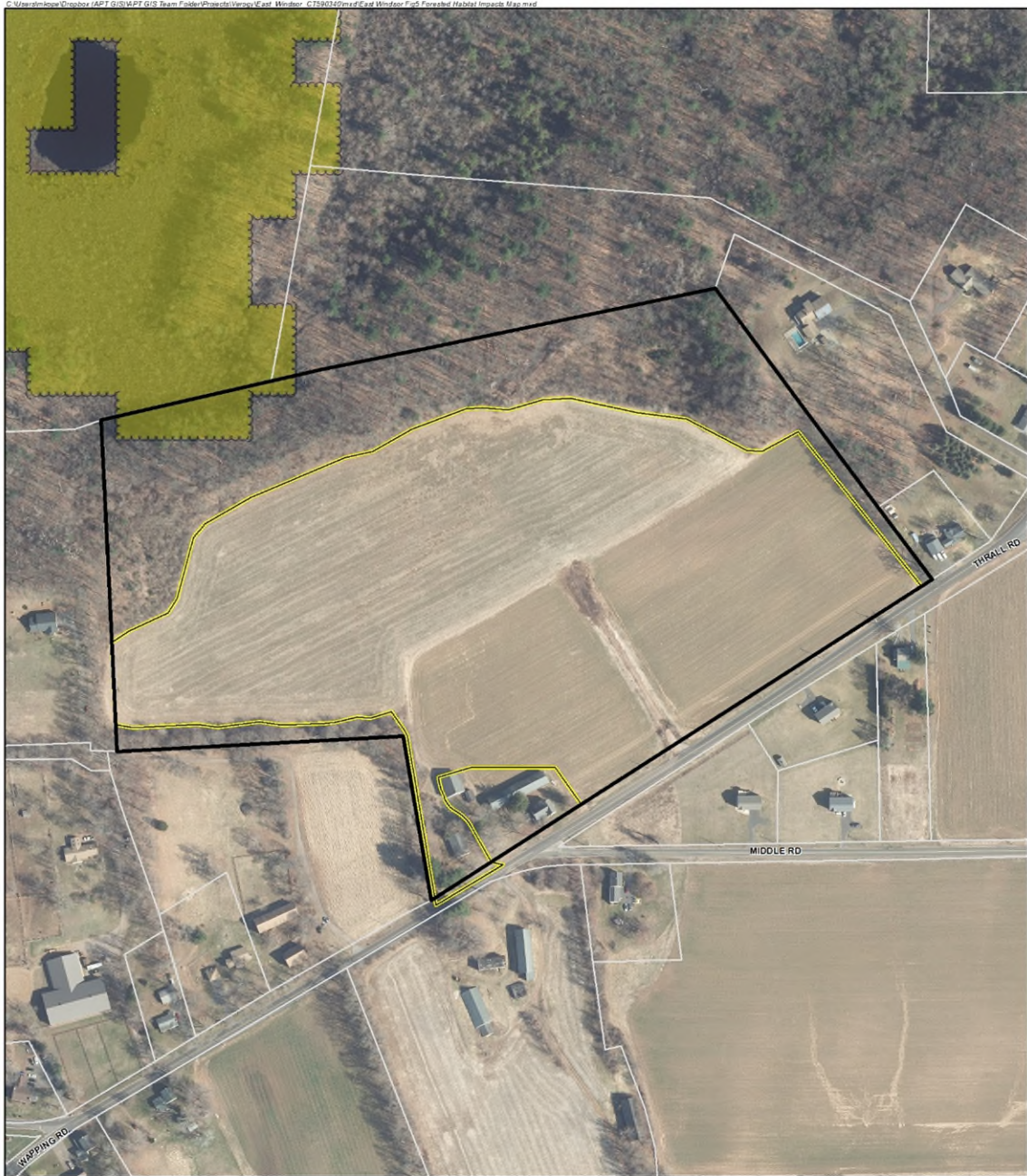
Development of the Project will occur within portions of two (2) of the Site's four (4) habitats, with a majority of the proposed Facility occupying what is currently Mixed Field. Mixed Field habitat areas currently provide limited value from a wildlife utilization standpoint as a result of routine management of these areas and high level of human activity associated with cultivated cropland. Project-related impacts within these habitats are limited and are not anticipated to adversely affect wildlife.

Based on the surrounding land uses, the adjacent edge Upland Forest located in proximity to the Project area is likely utilized by species that prefer edge forest habitat and are more tolerant of human disturbance and habitat fragmentation. Generalist wildlife species common to the region, including several resident and migrant song birds and mammals such as raccoon, striped skunk, grey squirrel, Virginia opossum, white-tailed deer, and eastern chipmunk could be expected to use this area. Given the abundance of similar habitat surrounding the Site, the Project is not anticipated to result in a significant impact to wildlife.

The Project will not encroach into the Upland Forest or Wetland Forest habitats located north of the Facility. Project development activities will occur in areas of existing disturbances associated with human use of the Mixed Field and Developed areas. As a result, wildlife utilization within these nearby forested habitats is expected to continue relatively uninterrupted. Noise and associated human activities during construction of the Facility may result in limited, temporary disruption to wildlife using nearby Upland Forest or Wetland Forest habitats. However, any wildlife displaced from these edge forested areas during construction would be expected to temporarily disperse into surrounding similar forested habitats. Post construction, operation of the Facility will not result in a likely adverse effect to wildlife using these habitats because it will be unoccupied and does not generate any significant noise, traffic, or high level of human activity.

## **ii. Core Forest**

There is no tree clearing necessary or required to develop the Facility. Therefore, the Project will not affect core forest resources. The CT DEEP Bureau of Natural Resources confirmed this determination in a letter to the Council dated March 8, 2023. See Figure 5 (Forested Habitat Impacts) and Appendix H, CT DEEP Correspondence.

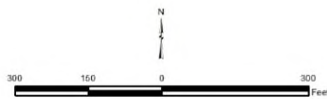


- Legend**
- Site
  - Project Area
  - Approximate Parcel Boundary
  - Forestland Habitat Impact (CTDEEP)

**Figure 5  
Forested Habitat Impacts Map**

Proposed Solar Energy Facility  
 East Windsor Solar Two  
 31 Thrall Road  
 East Windsor, Connecticut

*Map Notes:*  
 Base Map Source - 2019 Aerial Photograph (CTECO)  
 Map Scale: 1 inch = 300 feet  
 Map Date: March 2023





### iii. Threatened and Endangered Species

APT reviewed publicly available information to determine the potential presence of state/federally listed species and critical habitat on or proximate to the Site. A discussion is provided in the following sections.

#### **Natural Diversity Data Base**

The DEEP Natural Diversity Data Base (“NDDB”) program performs hundreds of environmental reviews each year to determine the impact of proposed development projects on state-listed species and to help landowners conserve the state’s biodiversity. In furtherance of this endeavor, the DEEP also developed maps to serve as a pre-screening tool to help Petitioners determine if there is the potential for project-related impact to state-listed species.

The NDDB maps represent approximate locations of (i) endangered, threatened and special concern species and, (ii) significant natural communities in Connecticut. The locations of species and natural communities depicted on the maps are based on data collected over the years by DEEP staff, scientists, conservation groups, and landowners. In some cases, an occurrence represents a location derived from literature, museum records and/or specimens. These data are compiled and maintained in the NDDB. The general locations of species and communities are symbolized as shaded (or cross-hatched) polygons on the maps. Exact locations have been masked to protect sensitive species from collection and disturbance and to protect landowner’s rights whenever species occur on private property.

APT reviewed the most recent DEEP NDDB mapping (December 2022), which revealed that no known areas of state-listed species are currently depicted within the Site. The nearest NDDB buffer is  $\pm 0.19$  mile southwest of the Site. Since the Site is not located within an NDDB buffer area, consultation with DEEP is not required in accordance with their review policy. See Appendix I USFWS and NDDB Compliance Statement.

#### **USFWS Consultation**

Federal consultation was completed in accordance with Section 7 of the Endangered Species Act (“ESA”) through the U.S. Fish and Wildlife Service’s (“USFWS”) Information, Planning, and Conservation System (“IPaC”). Based on the results of the IPaC review, one federally-listed<sup>3</sup> species is known to occur in the vicinity of the Site, northern long-eared bat (“NLEB”; *Myotis septentrionalis*). The NLEB’s range

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<sup>3</sup> Listing under the federal Endangered Species Act

encompasses the entire State of Connecticut and suitable NLEB roost habitat includes trees (live, dying, dead, or snag) with a diameter at breast height ("DBH") of three (3) inches or greater.

APT reviewed the DEEP's publicly available *Northern long-eared bat areas of concern in Connecticut to assist with Federal Endangered Species Act Compliance* map (February 1, 2016) to determine the locations of any known maternity roost trees or hibernaculum in the state. This map reveals that there are currently no known NLEB maternity roost trees in Connecticut. The nearest NLEB habitat resource to the Site is located in East Granby, Connecticut, approximately 10.6 miles to the northwest.

Effective March 31, the NLEB is classified as Endangered under the ESA. The reclassification eliminates use of the previous 4(d) rule for the NLEB, which is applicable only to Threatened species. An NLEB Interim Consultation Framework has been developed by USFWS to facilitate transition from the 4(d) rule to typical Endangered species consultation procedures for activities that are reasonably certain to occur before April 1, 2024 (date on which the NLEB Interim Consultation Framework expires). APT reviewed the new NLEB Determination Key for this Project and determined the Project will not likely result in an adverse effect or incidental take<sup>4</sup> of NLEB and does not require a permit from USFWS. A USFWS letter dated March 20, 2023 confirmed that determination.

A full review of the Endangered Species Act (ESA) Compliance Determination and USFWS's Response Letter is provided in [Appendix I](#), USFWS and NDDB Compliance Statement.

## D. Wetlands and Potential Vernal Pools

### Wetlands

APT Registered Soil Scientists conducted field inspections and wetland delineations of the Site on May 13, 2021 and identified portions of one (1) wetland on or proximate to the Site. The results of the field delineation are summarized below. The location of this resource is depicted on Figure 2, *Existing Conditions*.

The wetland is located along the northwest Site boundary and consists of a broad interior emergent swamp system with hummock/hollow microtopography and interior pockets of semi-permanent flooding, seasonally flooded margins, and seasonally saturated transitional areas resulting from hillside seepage associated with shallow groundwater discharge. Interior portions of the wetland are dominated by emergent

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<sup>4</sup> "Incidental take" is defined by the Endangered Species Act as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." For example, harvesting trees can kill bats that are roosting in the trees, but the purpose of the activity is not to kill bats.

and scrub/shrub vegetation resulting from sustained flooding conditions. Seasonally saturated margins are dominated by mixed mature forest cover. This wetland appears to drain north and east with a historically constructed drainage swale draining the western wetlands toward the east. Interior pockets in this wetland system north of the northern Site boundary contain seasonal flooding/inundation ranging from 6 inches to greater than 1 foot in depth. These off-Site areas appear to contain hydrology conditions indicative of cryptic-style vernal pool habitat. Deep organics exceeding 3 feet were observed along the north Site boundary within this wetland and appear to extend further north off-Site within interior areas of the wetland. Dominant vegetation throughout the wetland includes Red Maple, Black Gum, Sweet Pepperbush, Highbush Blueberry, Winterberry, Sensitive Fern, Skunk Cabbage, and Sphagnum moss.

The Facility will occupy central portions of the Site currently utilized as agricultural fields. There are no direct wetland impacts or tree clearing associated with the Project. Ground disturbing work for installation of the Facility's perimeter fencing (nearest point of impact) will exceed 100 feet to the nearest delineated wetland. Therefore, Project activities would not be expected to result in an adverse impact to the Site's wetland resources based on the proposed protection measures outlined herein and in [Appendix B](#), Project Plans, Sheet GN-2.

**Table 2: Wetland Impacts Table**

Table 2: Wetland Impacts		
Direct Impacts to Wetland (ac.)	0	
Project Area Proximity to Wetlands (from limit of disturbance)	Distance (+/-ft.)	Direction (of wetland/water from LOD)
Project Area Proximity to Wetland 1	169	Northwest

### Potential Vernal Pools

During the initial inspection of the Site on May 13, 2021, APT wetland scientists identified one (1) wetland area within the northwestern Site boundary consisting of a large complex system with diverse hydrology, morphology and vegetative communities.

Based on observation made from the edge of the Site at that time and interpreting inundation signatures on recent and historic aerial imagery in combination with other remote sensing techniques, it was determined that this wetland had the potential to support vernal pool breeding habitat. Please note that no breeding by obligate vernal pool species was observed during the 2021 inspection within the on-Site wetland.

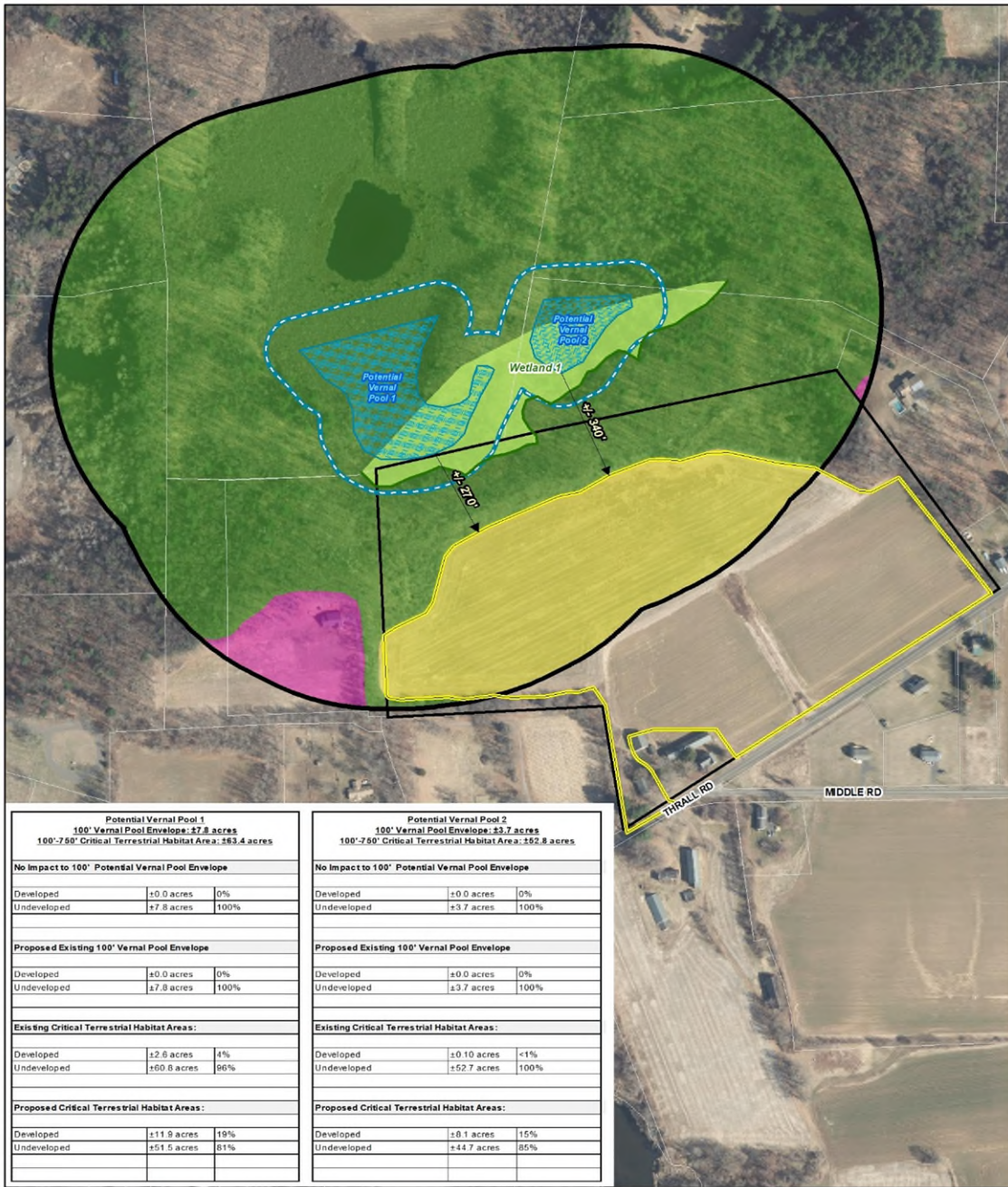
The off-Site wetland contains hummock/hollow topography with interior areas of semi-permanent flooding within bog-like habitat, particularly within the more northern portion of this large wetland system which is characteristic of potential vernal pool habitat.

A more recent inspection on April 19, 2023 revealed two distinct areas of seasonal flooding within the off-Site wetland just north of the Site, identified as Potential Vernal Pool 1 and 2 (“PVP1” and “PVP2”) as noted in Figure 6. Based on in-field observations<sup>5</sup> later correlated with aerial imagery using remote sensing techniques and based on extensive experience with evaluating vernal pool habitats in this region of Connecticut, APT concluded that the off-Site portion of the wetland has the potential to support vernal pool breeding habitat. As in 2021, no breeding by obligate vernal pool species was observed within the on-Site wetland during this more recent inspection. Also note that no vernal pool breeding was observed within the suspected off-Site wetland due to access restriction. Depths of inundation at the edge of the delineated wetland boundary on the Site were observed at 4-6 inches with apparent deeper and more expansive pockets located off-Site. This potential vernal pool habitat would be characterized as cryptic type vernal pool habitat due to its embedment within a larger wetland/bog system, with the identification of two distinct areas that exhibited physical characteristics indicative of potential vernal pool habitat.

With the inability to directly survey the suspected off-Site vernal pool areas, a conservative approach was used to evaluate the proposed Project’s potential impact to PVP1 and PVP 2, even though no breeding by obligate vernal pool species was observed. What is meant by a conservative approach is these potential off-Site vernal pool areas are assumed to support breeding by obligate vernal pool species at a high productivity and species diversity level and the extent of breeding habitat is likely larger, and potentially considerably larger, than the actual breeding habitat limits. Using this methodology is an established scientific analysis approach when access restricts the ability to directly survey suspected vernal pool habitat, as discussed in the following section.

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<sup>5</sup> Observations were made from the Site at the property boundary.



**Figure 6  
Vernal Pool Analysis Map**

Proposed Solar Energy Facility  
East Windsor Solar Two  
31 Thrall Road  
East Windsor, Connecticut

Map Notes:  
Base Map Source: 2019 Aerial Photograph (CTECO)  
Map Scale: 1 inch = 400 feet  
Map Date: April 2023



## Physical Impact to Vernal Pools and Surrounding Terrestrial Habitat

This section details a recognized scientific method for analyzing the potential impact a project may have on a particular vernal pool and its surrounding upland habitat.

Construction and operation of the Facility would not result in direct physical impact to vernal pools. It is widely documented that vernal pool dependent amphibians are not solely reliant upon the actual vernal pool habitat for breeding (i.e., egg and larval development) but do require surrounding upland forest habitat for most of their adult lives. Accepted studies recommend protection of adjacent habitat up to 750 feet from the vernal pool edge for obligate pool-breeding amphibians.<sup>6</sup>

In order to evaluate potential impacts to PVP1, PVP2, and their surrounding upland habitat, the resources were assessed using methodology developed by Calhoun and Klemens (2002) in combination with the US Army Corps of Engineers New England District's *Vernal Pool Best Management Practices (BMPs)* (January 2015)<sup>7</sup>. Collectively, these methodologies assess vernal pool ecological significance based on two (2) parameters: 1) biological value of the vernal pool and, 2) conditions of the critical terrestrial habitat. The biological rating is based on the presence of state-listed species and the abundance and diversity of vernal pool indicator species. The terrestrial habitat is assessed based on the integrity of the vernal pool envelope ("VPE" - within 100 feet of the pool's edge) and the critical terrestrial habitat ("CTH" - within 100-750 feet of the pool's edge). Based on these observations, intact forest represents the highest value habitat within both of these conservation zones to support breeding opportunities for the various obligate vernal pool indicator species that rely on forested habitat (e.g., wood frog and spotted salamander). Based on the inability to fully survey either pool, a conservative approach was taken wherein the biological criteria for a Tier I pool was assumed for both pools. Pools with 25% or less developed areas in the critical terrestrial habitat are identified as having high priority for maintaining less than 25% development within this terrestrial habitat, including site clearing, grading and construction. The BMPs guidance relies on preserving principal migratory vectors that link the vernal pools, forested aquatic habitats and forested terrestrial uplands that provide breeding, foraging, cover, and hibernation habitats for vernal pool indicator species.

The vernal pools evaluated in this assessment were rated based on these criteria for both the existing condition and the proposed condition (i.e., proposed Facility development) to determine if the proposed

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<sup>6</sup> Calhoun, A.J.K. and M.W. Klemens. 2002. Best Development Practices (BDPs): Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States. WCS/MCA Technical Paper No. 5.

<sup>7</sup> <https://www.nae.usace.army.mil/Portals/74/docs/regulatory/VernalPools/VPBMPsJan2015.pdf>

development would result in a reduction in the tier rating system or reduce the terrestrial habitat integrity below the critical 75% non-development criterion. The results of this analysis show that the proposed development will not result in further degradation of the existing tier rating or terrestrial habitat integrity of either vernal pool due to the small amount of disturbance associated with the Facility. The VPE of either pool will not be impacted by the proposed development; the proposed Facility would be located  $\pm 270$  feet north of PVP1 and  $\pm 340$  from PVP2. The total area of the CTH ( $\pm 60.8$  and  $\pm 52.7$  acres for PVP1 and PVP2 respectively) associated with the potential vernal pools primarily includes undeveloped areas (96% and 100%, PVP1 and PVP2 respectively). The vernal pool's developed CTH under the developed condition would reduce those areas to 81% and 85%, respectively for PVP1 and PVP2, which does not exceed the 75% non-development criterion. Additionally, the proposed Facility does result in the removal of any intact forest which represents the highest value habitat. Further, the Project footprint does not interrupt the principal vernal pool migratory vectors that link PVP1 and PVP2 to adjacent optimal forested wetland and terrestrial habitats to the north, east and west, all located north of the Project. Please refer to Figure 6: Vernal Pool Analysis Map for a summary of these calculations.

Although the proposed Facility is located within the CTH of both potential vernal pools, the Facility would be located entirely within a cultivated agricultural field that represents suboptimal terrestrial habitat for obligate vernal pool species. The agricultural field is considered suboptimal due to the lack of forest cover and the routine surface disturbance associated with actively cultivated cropland. Potential vernal pool species that would use PVP1 or PVP2 for breeding would utilize nearby high quality undeveloped forested terrestrial and forested wetland habitats east, west, and south of the pools. While the Facility will represent an increase in development within the CTH, it will not result in degradation to the existing tier rating of either pool. In fact, the conversion of the cultivated field to permanent meadow habitat under and surrounding the solar facility represents an improvement to the CTH. The addition of the meadow habitat's vegetation would provide an improved level of cover for any dispersing herpetofauna that may wander into the solar facility. This habitat conversion also eliminates potential mortality to these species due to current conflicts with farming implements. Considering these facts and the separating distances and no increased degradation to either pools' tier rating, the Facility would not result in a likely adverse impact to existing amphibian productivity, nor will it result in long-term adverse impact to the terrestrial habitat to either potential vernal pool.

The potential exists for possible short-term impact to herpetofauna associated with the nearby vernal pool habitat due to possible encounters with migrating and basking individuals that may intercept the proposed development footprint during construction. Short-term impacts associated with the proposed development within the terrestrial habitat proximate to the vernal pools would be minimized by the proper installation and maintenance of erosion and sedimentation controls in accordance with 2002 Connecticut Guidelines For Soil Erosion and Sediment Control. Best Management Practices (“BMPs”) are proposed during construction in a subsequent section of this document to avoid/minimize the potential for short-term impact to herpetofauna.

### **Hydraulic Alterations**

Land-use changes (i.e., clearing, increases in impervious surface) can increase surface runoff in the watershed of a vernal pool. Direct inputs of stormwater flows into a pool may produce sudden water level increases in a short period of time and may lengthen the duration of flooding (hydroperiod). Diversion of stormwater flows past a pool may have the opposite effect of decreasing water levels and shortening the pool’s hydroperiod. In addition, stormwater features that create temporary pools of water can result in a biological “sink” as breeding amphibians deposit eggs into a water body without the necessary hydraulic period to allow for successful development of the eggs into juveniles.

The proposed development will not alter existing surface or subsurface flow conditions or directions. There will be no site clearing and minimal grading activities will not de-water the nearby vernal pools or alter surface water drainage patterns associated with the pools. An existing dry stormwater management area located in the northern portion of the field will be used by the proposed Facility. This existing stormwater management area would not be considered a “decoy pool” or “sink” feature that potentially could affect breeding amphibians intercepted on their migration to the nearby vernal pool. Therefore, the proposed development will not alter the hydrology of the nearby vernal pools.

### **Vernal Pool Recommended Best Management Practices**

As a result of the proposed Facility’s location in the vernal pools’ CTH, BMPs are recommended to both protect the nearby wetland resources and to avoid unintentional impact or mortality to vernal pool/wetland herpetofauna (e.g., wood frog, salamanders, turtles, snakes) during construction activities. The vernal pool BMPs would be implemented during peak amphibian movement periods (early spring breeding [March 1st to May 15th] and late summer dispersal [July 15th to September 15th]) while the wetland BMPs



would be implemented regardless of time of year. Please refer to the Environmental Notes Resource Protection Measures provided on Sheet No. GN-2 to Appendix B, Project Plans. for complete details.

Based on the foregoing, it is APT's opinion the proposed Facility development will not result in a likely adverse impact to vernal pool resources.

## **E. Water Resources and Stormwater Management**

The Project is will not have an adverse impact on the State's water resources, as the Facility will be unstaffed, no potable water uses or sanitary discharges are planned, and no liquid fuels are proposed or necessary for the operation of the Facility. Therefore, the Project satisfies the water quality standards of CT DEEP.

### **i. Floodplain Areas**

Petitioner reviewed the United States Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Maps ("FIRM") for the Site. The area inclusive of the Site is mapped on FIRM PANEL #09003C 0245 F, dated September 26, 2008. Based upon the reviewed FIRM Map, the Site is located in an area designated as Zone X, which is defined as an area of minimal flooding, typically above the 500-year flood level.

No special design considerations or precautions relative to flooding are required for the Facility. As no portion of the Facility is proposed to be located in or impact either 100- or 500-year flood zones, no impacts are anticipated to floodplain or downstream areas. See Figure 2 (Existing Conditions Map).

### **ii. Groundwater**

Groundwater underlying the Site is classified by publicly available CT DEEP mapping as "GA".<sup>8</sup> This classification indicates groundwater within the area is presumed to be suitable for human consumption without treatment. Based upon a review of available CT DEEP mapping, the Site is not located within a mapped (preliminary or final) DEEP Aquifer Protection Area.<sup>9</sup> Thus, the Project will have no adverse environmental effect on ground water quality.

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<sup>8</sup> Designated uses in GA classified areas include existing private and potential public or private supplies of drinking water and base flow for hydraulically connected surface water bodies.

<sup>9</sup> The Hunt (A 42) Aquifer Protection Area is located approximately 2,800 feet west of the Site.

### iii. Surface Water

The Project will have no adverse environmental effect on surface water quality. Based upon CT DEEP mapping, the Site is located in Major Drainage Basin 4 (Connecticut River Basin). The northern portion of the Site and Project are located in Regional Drainage Basin 42 (Scantic River), Subregional Drainage Basin 4200 (Scantic River), and Local Drainage Basin 4200-26 (Spring Glen Brook at mouth above Scantic River). The southern portion of the Site and Project are located in Regional Drainage Basin 42 (Scantic River), Subregional Drainage Basin 4207 (Ketch Brook), and Local Drainage Basin 4207-00 (Ketch Brook above Pecks Brook).

CT DEEP mapping shows the nearest mapped waterbody is an unnamed pond located approximately 600 feet north of the Site and approximately 800 feet north of the closest portion of the Project. It is classified as a Class A surface waterbody by the DEEP.<sup>10</sup> The Project will have no effect on this surface waterbody.

Based upon the reviewed CT DEEP mapping, the Site is not located within a mapped Public Drinking Supply Watershed.

During construction, erosion and sediment (“E&S”) controls will be installed and maintained in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. Once operative, stormwater will be managed in accordance with the 2004 Connecticut Stormwater Quality Manual.

## F. Soils and Geology

All exposed soils resulting from construction activities will be properly and promptly treated in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

Based upon CT DEEP mapping, surficial materials within the Project Area are classified as deposits of sand and deposits of sand and gravel. Bedrock beneath the Subject Property is identified as Portland Arkose. Portland Arkose is described as a reddish-brown to maroon micaceous arkose and siltstone and red to black fissile silty shale.<sup>11</sup>

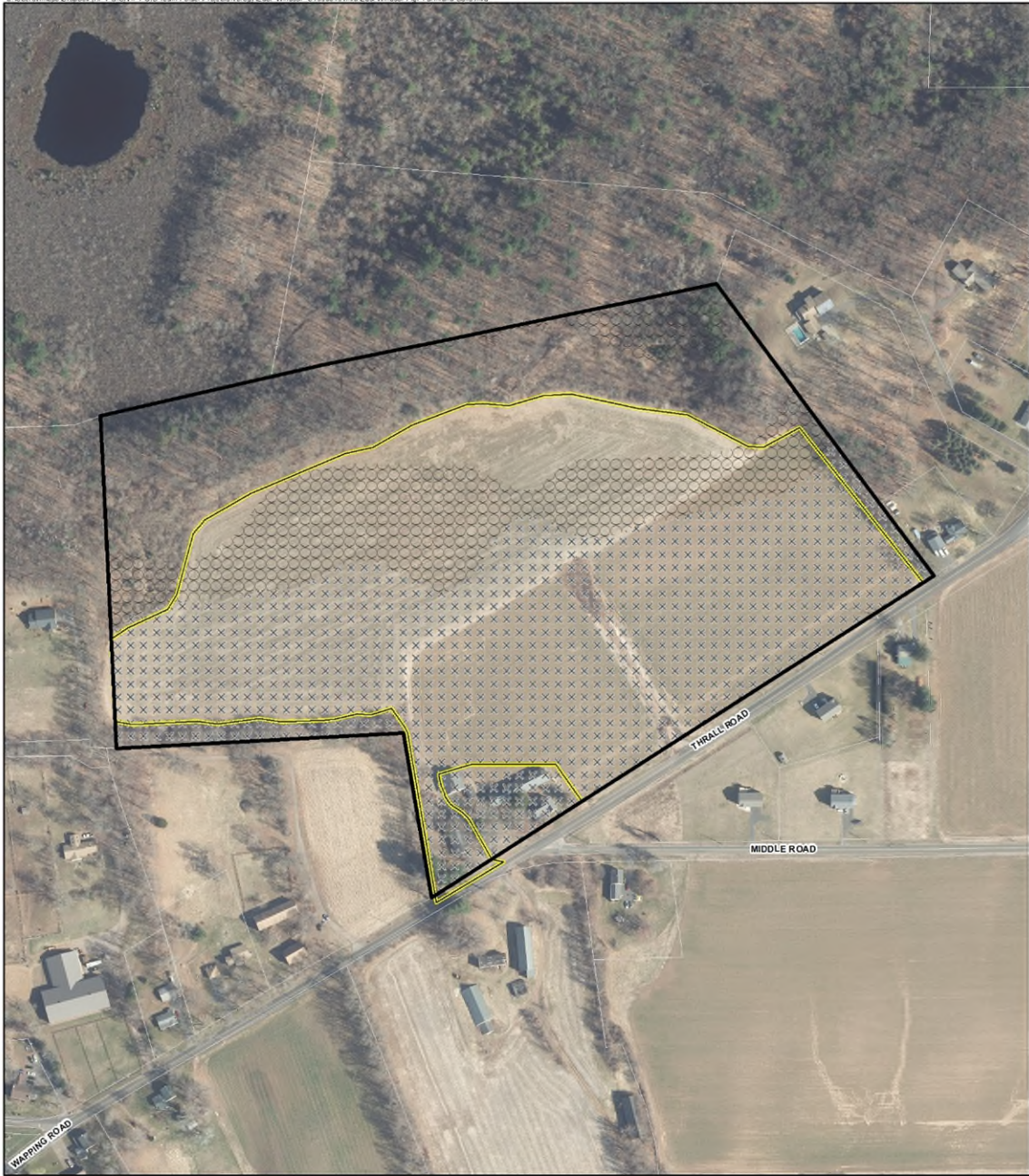
The Petitioner does not anticipate encountering bedrock during Project development.

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<sup>10</sup> Designated uses for A classified waterbodies include potential drinking water supply, fish and wildlife habitat, recreational use, agricultural and industrial supply and other legitimate uses including navigation.

<sup>11</sup> Connecticut Natural Resources Atlas Series: Bedrock Geological map, [cteco.uconn.edu/maps/state/Bedrock\\_Geologic\\_Map\\_of\\_Connecticut.pdf](http://cteco.uconn.edu/maps/state/Bedrock_Geologic_Map_of_Connecticut.pdf)

Prime Farmland Soils are found on the Site and within the Project area. No regrading is required for development of the Project, no topsoil is to be removed from the Project area, and none will leave the Site. In accordance with General Statutes §16-50k(a), the Petitioner consulted with the Connecticut Department of Agriculture (“DOA”) in May 2022, and provided information on the Project and a proposed plan for sheep grazing as an agricultural co-use as a part of the Project. Following this consultation, the DOA determined that the Project will not materially affect the status of the Site as prime farmland. See Appendix J, DOA correspondence.



**Legend**

-  Site
-  Project Area
- Farmland Soils**
-  Prime Farmland Soils
-  Statewide Important Farmland Soils

**Figure 7**  
**Farmland Soils**

Proposed Solar Energy Facility  
East Windsor Solar Two  
31 Thrall Road  
East Windsor, Connecticut

*Map Notes:*  
Base Map Source: 2019 Aerial Photograph (CTECO)  
Map Scale: 1 inch = 300 feet  
Map Date: April 2023



## G. Historic and Archaeological Resources

Heritage Consultants LLC (“Heritage”) reviewed relevant historic and archaeological information to determine whether the Site holds potential historic or cultural resource significance. Their review of historic maps and aerial images of the Site, examination of files maintained by the Connecticut State Historic Preservation Office (“SHPO”), and a pedestrian survey of the Site revealed that no archaeological resources, National Register of Historic Places (“NRHP”) properties, and Connecticut State Register of Historic Places properties are found within one (1) mile of the Site.

In terms of archaeological potential, Heritage determined that much of the Project Area retains a moderate to high potential to contain intact archaeological deposits in the subsoil. A Phase 1B cultural resources reconnaissance survey was performed, and Heritage has concluded “that no impacts to significant cultural resources are anticipated by the proposed construction and no additional archaeological investigation of the project area is recommended.” The report has been submitted to the SHPO for review.

The Phase 1A and Phase 1B reports are included in [Appendix K](#).

## H. Air Quality

Overall, the Project will have minor emissions of regulated air pollutants during construction; however, no air permit is required for these activities. During construction of the Project, any air emission effects will be temporary and will be controlled by enacting appropriate mitigation measures (e.g., water for dust control, avoiding mass early morning vehicle startups, etc.). Accordingly, any potential effects on air quality as a result of the Project construction activities will be minimized.

During operation, the Project will not produce air emissions of any regulated air pollutants or greenhouse gases (e.g., PM10, PM2.5, VOCs, GHG or Ozone). Therefore, no adverse effect on air quality is anticipated and no air permit will be required.

## I. Noise

The Facility, once operational, will have limited noise-producing equipment onsite, consisting of Project inverters and electrical transformers. The loudest piece of equipment onsite will be the Project inverters. According to the manufacturer’s specifications, the inverters will generate a maximum sound level of <65 dBA at a distance of one meter (3.281 feet).

The Petitioner has taken great care in the locating the Project inverters to reduce, to the maximum extent possible, noise impacts from the Facility on adjacent properties. The Project's equipment area, where the inverters and transformers are located, has been placed in the north-central portion of the Facility thereby maintaining the maximum setback possible from the nearest abutting property boundary hosting a residential structure. The nearest property boundary with the closest residence to the inverters is located approximately 700 feet to the southwest. The estimated sound level from the inverters at this residential property boundary is 9 dBA, well below the Connecticut permissible noise levels.

During the construction period, the Petitioner expects that some typical construction equipment noise will occur. However, construction noise is exempted in the Town of East Windsor's Noise Control Ordinance Section 8(b) – Exemptions.

See Appendix L – Solar Power Acoustical Design Study.

## J. Lighting

No exterior lighting is planned for the Facility.

## K. FAA Determination

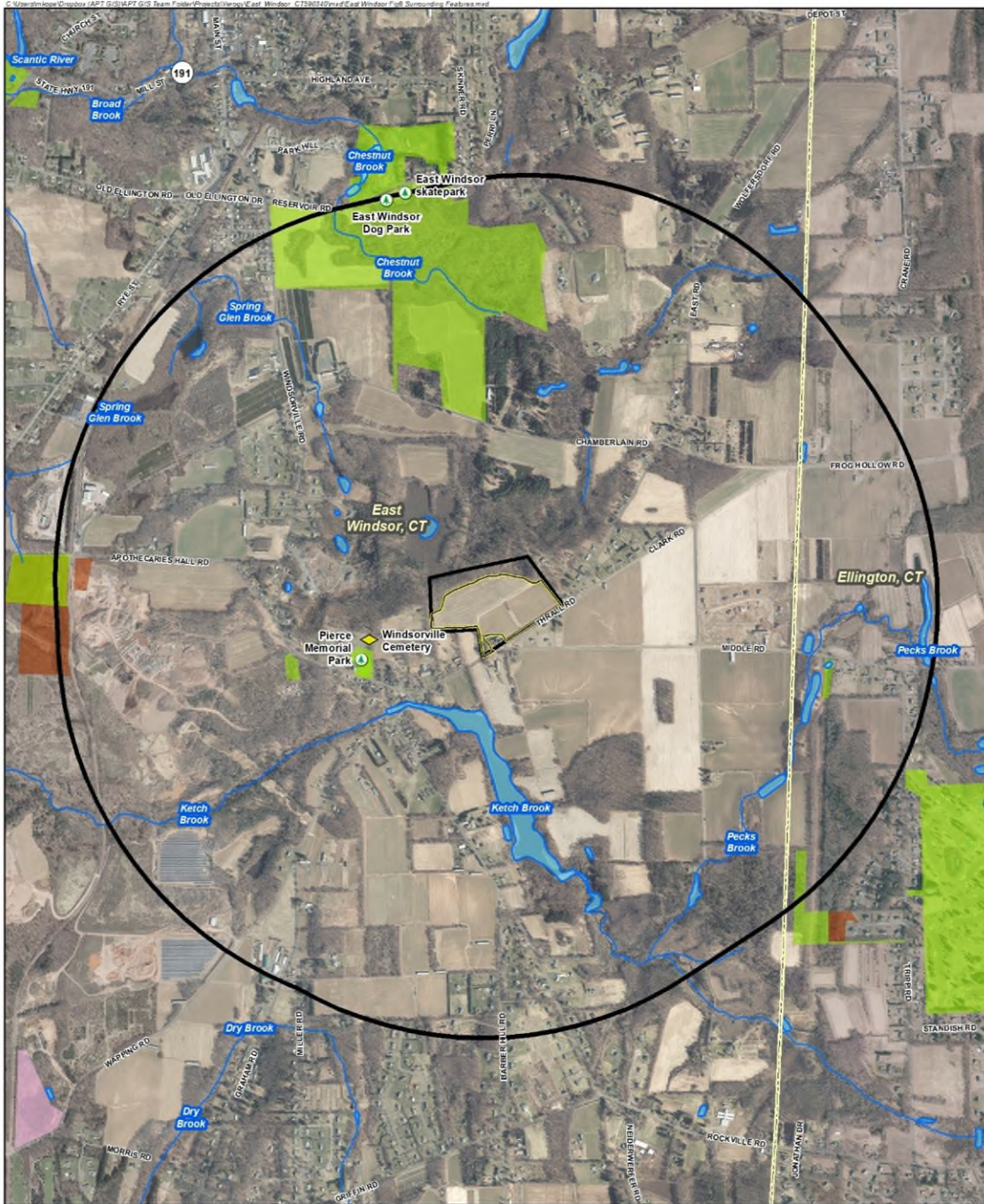
The Project was reviewed using the Federal Aviation Administration (the "FAA") Notice Criteria Tool to determine if the Project needed to file with the FAA under the provisions of 49 U.S.C., Section 44718 and Title 14 of the Code of Federal Regulations, part 77. The Project was not required to file with the FAA because it did not exceed the established notice criteria. See [Appendix M](#) for the FAA's determination on the Project.

## L. Scenic and Recreational Areas

There is one scenic or recreational area within the vicinity of the Project. Pierce Memorial Park, a Town park, is located to the west approximately 0.18 mile southwest of the Project. Portions of the Facility may be visible from Pierce Memorial Park when leaves are off the trees.

No scenic roads are found within a one-mile radius of the Site. The nearest scenic road is a portion of State Route 74, located approximately 5.7 miles southeast of the Project in the Town of Tolland.

See Figure 8, Surrounding Features Map.



- Legend**
- Site
  - Project Area
  - 1 Mile Radius
  - Surrounding Features**
  - ♣ Cemetery
  - ♣ Park / Recreation / Open Space
  - Land Trust
  - Municipal
  - Private
  - State
  - ~ Watercourse (CTDEEP)
  - ~ Open Water (CTDEEP)
  - Municipal Boundary

**Map Notes:**  
 Base Map Source: 2019 Aerial Photograph (CTECO)  
 Map Scale: 1 inch = 1,800 feet  
 Map Date: April 2023



**Figure 8**  
**Surrounding Features Map**  
 Proposed Solar Energy Facility  
 East Windsor Solar Two  
 31 Thral Road  
 East Windsor, Connecticut



## M. Visibility Evaluation

The Facility will be located in a previously cleared field. Off-Site visibility to the north will be obscured by existing mature vegetation. Year-round visibility of the Facility is predicted to the south and east within the one-mile Study Area depicted on the viewshed maps attached as Appendix N. Additional areas to the south and east are predicted to have some visibility of the top portion of the utility interconnection poles located in the southwest corner of the Project area. Seasonal views, when the leaves are off the deciduous trees in the area, may open in additional areas to the south, southwest, northwest and northeast. Near-field visibility into the Site from Thrall Road to the south and the nearest residence to the east will be mitigated by the installation of an evergreen landscaping screen proposed along the Facility's perimeter fence in these areas and by existing on-Site structures.

See Appendix N for Viewshed Analysis Maps and Photo-Simulations.

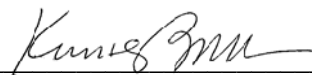
## VII. CONCLUSION

As demonstrated by the foregoing, the Project will have no air emissions, no significant adverse environmental effects and will comply with air and water quality standards of CT DEEP.

The Petitioner, therefore, respectfully requests that the Council issue a declaratory ruling that the proposed Project will comply with CT DEEP air and water quality standards, will not have a substantial adverse environmental effect, and does not require the issuance of a Certificate.

Respectfully Submitted,

EAST WINDSOR SOLAR TWO, LLC

By 

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