



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

Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL & CERTIFIED MAIL RETURN RECEIPT REQUESTED

April 14, 2023

Carrie Larson Ortolano, Esq.
General Counsel
LSE Hercules LLC
c/o Lodestar Energy LLC
40 Tower Lane, Suite 201
Avon, CT 06001
cortolano@lodestarenergy.com

RE: **PETITION NO. 1557** – LSE Hercules LLC (Lodestar Energy) petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 4-megawatt AC solar photovoltaic electric generating facility located at 99, 105 and 113 Raffia Road, Enfield, Connecticut, and associated electrical interconnection.

Dear Attorney Ortolano:

At a public meeting held on April 13, 2023, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal meets air and water quality standards of the 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. Approval of any project changes be delegated to Council staff;
2. Submit a copy of the DEEP Stormwater Permit prior to the commencement of construction;
3. Submit the final structural design for the racking systems stamped by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction;
4. Provide training to emergency responders that includes an itemized list of necessary fire suppression equipment;
5. Submit contact phone numbers and the spill response contractor contacts/phone numbers for the Spill Prevention Control Plan;
6. The site shall be monitored for erosion and stormwater flow changes related to excavation/grading on the terrace escarpment, and a report shall be submitted to the Council if additional stormwater management actions are necessary;
7. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;

8. 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;
9. 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 Enfield;
10. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
11. 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;
12. The facility owner/operator shall file an annual report on a forecast of loads and resources pursuant to Conn. Gen. Stat. §16-50r; and
13. This Declaratory Ruling may be transferred or partially transferred, provided both the facility owner/operator/transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. 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. Both the facility owner/operator/transferor and the transferee shall provide the Council with a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility, including contact information for the individual acting on behalf of the transferee.

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 January 5, 2023, and additional information dated March 1, 2023 and March 23, 2023.

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

Sincerely,



Melanie A. Bachman
Executive Director

MAB/MP/laf

Enclosure: Staff Report dated April 13, 2023

c: The Honorable Robert Cressotti, Mayor, Town of Enfield (bcressotti@enfield.org)
Ellen Zoppo-Sassu, Town Manager, Town of Enfield (ezoppo@enfield.org)
Scott Ellis, Interim Fire Marshal, Town of Enfield (sellis@thompsonvillefire.org)

STATE OF CONNECTICUT)

: ss. Southington, Connecticut

April 14, 2023

COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the Decision and Staff Report in Petition No. 1557 issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:



Melanie A. Bachman
Executive Director
Connecticut Siting Council

STATE OF CONNECTICUT)

: ss. New Britain, Connecticut

April 14, 2023

COUNTY OF HARTFORD)

I certify that a copy of the Connecticut Siting Council Decision and Staff Report in Petition No. 1557 has been forwarded by Certified First Class Return Receipt Requested mail, on April 14, 2023, to each party and intervenor, or its authorized representative, as listed on the attached service list, dated January 9, 2023.

ATTEST:



Lisa A. Mathews
Office Assistant

Connecticut Siting Council

Date: January 9, 2023

Petition No. 1557

Page 1 of 1

LIST OF PARTIES AND INTERVENORS
SERVICE LIST

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Petitioner	<input checked="" type="checkbox"/> E-mail	LSE Hercules LLC (Lodestar Energy)	Carrie Larson Ortolano, Esq. General Counsel LSE Hercules LLC c/o Lodestar Energy LLC 40 Tower Lane, Suite 201 Avon, CT 06001 Phone (860) 539-5137 cortolano@lodestarenergy.com Jeffrey J. Macel LSE Hercules LLC c/o Lodestar Energy LLC 40 Tower Lane, Suite 201 Avon, CT 06001 jmacel@lodestarenergy.com



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Petition No. 1557 **LSE Hercules LLC** **99, 105 and 113 Raffia Road, Enfield**

Staff Report
April 13, 2023

Introduction

On January 6, 2023, the Connecticut Siting Council (Council) received a petition from LSE Hercules LLC (Lodestar) for a declaratory ruling pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k for the construction, operation and maintenance of 4.0 megawatt (MW) alternating current (AC) solar photovoltaic electric generating facility located at 99¹, 105 and 113 Raffia Road, Enfield, Connecticut, and associated electrical interconnection (Petition or Project).

Pursuant to Regulations of Connecticut State Agencies (RCSA) §16-50j-40 on or about January 3, 2023, Lodestar notified the abutting property owners and Town of Enfield (Town) officials, state officials and agencies of the proposed Project.

Pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act, an administrative agency is required to take an action on a petition for a declaratory ruling within 60 days of receipt. On February 16, 2023, pursuant to CGS §4-176(e), the Council voted to set the date by which to render a decision on the Petition as no later than July 5, 2023, which is the 180-day statutory deadline for a final decision under CGS §4-176(i).

The Council issued interrogatories to Lodestar on March 3, 2023. Lodestar submitted responses to the Council's interrogatories on March 23, 2023.

Municipal Consultation

Lodestar consulted with the Town prior to filing the Petition with the Council and participated in a Town Inland Wetland and Watercourse Agency (IWWA) meeting on February 21, 2023. One abutter contacted Lodestar with concerns that field rodents would relocate to nearby properties due to site disturbance.

On January 9, 2023, the Council sent correspondence to the Town stating that the Council has received the Petition and invited the Town to contact the Council with any questions or comments by February 5, 2023. On January 18, 2023, the Assistant Town Planner submitted comments related to stormwater management and the Project Resource Protection Program (RPP). On February 1, 2023, the Town requested an extension of the comment period deadline, which was granted to February 23, 2023.²

By letter dated February 22, 2023, the Town Planning and Zoning Commission and IWWA submitted joint comments related to stormwater and water quality management in terrace escarpment areas and implementation of protection measures.

¹ By supplemental filing dated March 1, 2023, Lodestar clarified that none of the Project would be located on 95 Raffia Road.

² This extension of the comment period deadline also applied to comments submitted by any interested person.

State Agency Comments

On January 9, 2023, pursuant to RCSA §16-50j-40, the Council sent correspondence requesting comments on the proposed Project from the following state agencies by February 5, 2023: Department of Energy and Environmental Protection (DEEP); Department of Agriculture (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 Labor (DOL); Department of Administrative Services (DAS); Department of Transportation (DOT); the Connecticut Airport Authority (CAA); and the State Historic Preservation Office (SHPO).

In response to the Council's solicitation, DEEP submitted comments on February 3, 2023³ regarding site characteristics and permitting.

No other state agencies provided written comments on the Project.

While the Council is obligated to consult with and solicit comments from state agencies by statute, the Council is not required to abide by the comments from state agencies.⁴

Public Act 17-218

Public Act (PA) 17-218⁵ 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 such land as core forest.” Lodestar has secured written confirmations from both DOAg and DEEP.

Pursuant to CGS §16-50x, the Council has exclusive jurisdiction over the construction, maintenance and operation of solar photovoltaic electric generating facilities throughout the state. PA 17-218 requires developers of solar facilities with a generating capacity of more than 2 megawatts (MW) to obtain a written determination from DOAg or DEEP that the project would not materially affect the status of land as prime farmland or core forest prior to the submission of a petition for a declaratory ruling to the Council. PA 17-218 does not confer the Council's exclusive jurisdiction over the construction, maintenance and operation of solar photovoltaic electric generating facilities throughout the state upon DOAg or DEEP. PA 17-218 also does not permit DOAg or DEEP to impose any enforceable conditions on the construction, maintenance and operation of solar photovoltaic electric generating facilities under the exclusive jurisdiction of the Council.

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.” The state Comprehensive Energy Strategy (CES) examines future energy needs and identifies opportunities to reduce ratepayer costs, ensure reliable energy availability, and mitigate public health and environmental impacts. CES Strategy No. 3 is “Grow and sustain renewable and zero-carbon generation in the state and region.” The state Integrated Resource Plan

³ https://portal.ct.gov/-/media/CSC/3_Petitions-medialibrary/Petitions_MediaLibrary/MediaPetitionNos1501-1600/PE1557/ProceduralCorrespondence/PE1557_DEEPCommentsRecd_s.pdf

⁴ *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007)

⁵ Codified at Conn. Gen. Stat §16-50k(a) and §16a-3k

assesses the state's future electric needs and a plan to meet those future needs, including, but not limited to, pathways to achieve a 100 percent zero carbon electric supply by 2040. Furthermore, the Governor's Executive Orders and Council on Climate Change examine existing policies and identify new strategies to combat climate change. The proposed facility will contribute to fulfilling the State's Renewable Portfolio Standard and Global Warming Solutions Act as a zero emission Class I renewable energy source.

The Project bid into the statewide Shared Clean Energy Facility (SCEF) Program, which is a competitive procurement process administered by the state's electric distribution companies to develop utility scale renewable energy. New or incremental Class I renewable generation projects ranging in size from 100 to 5,000 kW AC are eligible to bid into the SCEF Program for a Tariff Terms Agreement (TTA) with a 20-year term. The first procurement occurred in 2020, and the Project was selected in year 3 of the SCEF program. The electricity and renewable energy credits produced by the facility would be sold to Eversource in accordance with the TTA.

The TTA includes the transfer of capacity to Eversource. Thus, Lodestar would not participate in an ISO-New England, Inc. (ISO-NE) Forward Capacity Auction.

Proposed Site

Pursuant to CGS §16-50x, the Council has exclusive jurisdiction over the proposed solar electric generating facility "site." Under RCSA, §16-50j-2a(29), "site" means a contiguous parcel of property with specified boundaries, including, but not limited to, the leased area, right-of-way, access and easements on which a facility and associated equipment is located, shall be located or is proposed to be located. The Council does not have jurisdiction or authority over any portion of the host parcel beyond the boundaries of the Project "site." This includes portions of the parcel retained by the landowner and portions of the parcel the landowner may lease to third parties. Once a facility is decommissioned, the Council no longer has jurisdiction or authority over the Project "site."

Under a lease agreement with the property owner, Lodestar proposes to construct the solar facility on an approximate 51.1-acre site located on three contiguous parcels under affiliated ownership: an approximately 10.4-acre parcel located at 99 Raffia Road and a 39.2-acre parcel located at 113 Raffia Road, both owned by Raffia Farms Inc.; and a 1.49-acre parcel located at 105 Raffia Road owned by George Raffia & Sons Inc. The southwestern portion of the site is developed with farm buildings. Much of the northern portion of the site is cleared and currently used for timber harvesting, processing and storage. An open field is located in the northwestern portion of the site. The eastern and southern portions of the site contain undeveloped wooded areas.

The 99, 105 and 113 Raffia Road parcels are zoned Residential (R-88), Business General (BG) and Residential R-33/R-44, respectively.

The site has gentle slopes with ground elevations from 50 to 140 feet above mean sea level.

Land use associated with common ownership surrounding the site consists of farm operations, including, but not limited to, timber harvesting, processing and storage. Residential and commercial development with wooded areas are located to the east. The nearest residential property line to the site is at 81 Raffia Road, located approximately 35 feet to the west. The nearest residence from the site is at 81 Raffia Road, located approximately 160 feet to the west.

Lodestar selected the site due to availability, suitability, proximity of existing electrical infrastructure and use of existing infrastructure/disturbed areas, to the extent feasible. Pursuant to CGS § 16-50p(g), the Council has no authority to compel a parcel owner to sell or lease property, or portions thereof, for the purpose of siting a facility.⁶

The Project has an operational life of 20 years. At the end of the lease, Lodestar must decommission the Project and restore the site to its pre-existing condition.

Proposed Project

The proposed 4.0 MW AC solar facility consists of 9,852 photovoltaic modules, rated at 540 Watts, installed on driven posts. The panels would be installed in one solar array area located in the northern portion of the subject parcels and enclosed by perimeter fencing.

The panels would be installed on a fixed tilt racking system, facing south at a 25 degree angle. The panels would be approximately 11 feet above grade at the highest point and 2 feet above grade at the lowest point. The vegetated aisles between the panel rows would be 13.7 feet wide.

Other equipment includes 32 inverters and two transformers to be installed on a 20-foot by 30-foot concrete pad located within the southeastern portion of the fenced facility.

Panel row wiring would extend along the racking system directly below the solar modules to reduce potential damage from weather events, maintenance activities, or animals. The AC electrical interconnection would extend underground from the equipment pad to a new customer-side riser pole to the east and would continue overhead along an additional customer-side recloser pole and four new Eversource poles to connect to existing overhead electrical distribution on the opposite side of Raffia Road. The poles would be approximately 30 to 40 feet tall.

Lodestar has completed interconnection and impact studies with Eversource and executed an interconnection services agreement. An ISO-NE interconnection review was not required. The Project is not designed to support a battery storage system at this time.

The proposed capacity factor for the Project is approximately 21.4 percent. The power output would decline over time with an anticipated annual power output loss of approximately 0.45 percent.

Access to the solar facility would be via an existing paved and gravel route that extends from Raffia Road to the southwestern corner of the facility. A new approximately 27-foot wide by 45-foot long gravel access drive with a turnaround would be installed between the access gate and the nearest solar array row. The facility would be enclosed by a seven-foot tall chain link fence.

Grading would be performed for the solar array area in locations where existing slopes exceed 15 percent.

No permanent stormwater basins are proposed for the stormwater management design.

Construction is anticipated to begin in Spring 2023 and would occur over a six to nine-month period.

The estimated cost of the Project is approximately \$7,000,000.

⁶ *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007); CGS §16-50p(g) (2023).

Public Safety

The proposed Project would comply with the current National Electrical Code, National Electrical Safety Code and National Fire Protection Association codes and standards, as applicable. The system is designed in accordance with the CT State Fire Prevention Code, Section 11.12.3 – Ground Mounted Photovoltaic System Installations by including a 15-foot wide perimeter access aisle around each array.

The nearest federally-obligated airport is Bradley International Airport located approximately 5.5 miles west-southwest. The Federal Aviation Administration (FAA) issued a Determination of No Hazard to Air Navigation for the Project on December 7, 2022. No glare analysis was required by FAA.

The proposed facility would be remotely monitored through a 24/7 data acquisition system capable of detecting weather, energy production, and safety concerns related to grid outages or faults. If a problem with the facility is detected, system diagnostics and/or facility shutdowns can be performed remotely.

Manual disconnect switches are located on-site. Lodestar would conduct facility safety and emergency response training for local emergency responders prior to site energization.

The seven-foot high chain link fence around the array complies with NEC requirements.⁷ New fencing would be installed with a 6-inch gap at the bottom to allow for small wildlife movement. The entrance to the solar array would be gated, limiting access to authorized personnel. Emergency responders would be provided access to a Knox Box at the entrance gate.

The proposed facility would be in compliance with DEEP Noise Control Standards for a commercial emitter to a residential receptor (61 dBA during daytime hours and 51 dBA during nighttime hours). The Project inverters and transformers are located on a concrete equipment pad in the southwest portion of the site. The nearest off-site property line to an electrical equipment pad is approximately 315 feet to the west, on Raffia Road. The predicted noise level at the property line from operation of the electrical equipment is approximately 30.4 dBA, below DEEP noise control criteria and comparable to the noise levels of a library or bedroom at night.⁸ Construction noise is exempt from DEEP Noise Control Standards.

The site is not located within a Federal Emergency Management Agency designated 100-year or 500-year flood zone.

Environmental Effects and Mitigation Measures

Historic and Recreational Resources

SHPO submitted correspondence to Lodestar on January 18, 2023 indicating the proposed Project would not affect historic properties. There are no “blue-blazed” trails maintained by the Connecticut Forest and Parks Association located proximate to the site.

The nearest publicly accessible recreational resource is Scantic River State Park (SRSP), located approximately 0.25 mile northeast of the proposed Project. The Project is not expected to be visible from SRSP due to intervening woodland.

⁷ Section 691.4(2) of the National Electrical Code (NEC), 2020 Edition notes that, “Access to PV electric supply stations shall be restricted by fencing or other adequate means in accordance with 110.31...” Section 110.31 notes that for over 1,000 Volts, “...a wall, screen, or fence shall be used...A fence shall not be less than 7 feet in height or a combination of 6 feet or more of fence fabric and a 1 foot or more...utilizing barbed wire or equivalent.”

⁸ https://www.faa.gov/regulations_policies/policy_guidance/noise/basics

Visibility

The site is set back from Raffia Road located behind the two existing buildings at the abutting 95 Raffia Road property. The facility would be visible from the 95 Raffia Road property; however, this property is under common ownership with the host properties. The existing wooded buffer between the facility and the nearest residence at 81 Raffia Road would be substantially maintained. Forested buffers exist around the array areas farther to the north, east and south.

No state or local designated scenic roads or scenic areas are located adjacent to the site.

Agriculture

The host parcels contain no prime farmland soils according to mapping maintained by the United States Department of Agriculture (USDA) Natural Resource Conservation Service. Under PA 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.”

By letter dated December 13, 2022, pursuant to PA 17-218, DOAg determined that the proposed Project will not materially affect the status of prime farmland.

Wetlands and Watercourses

Lodestar performed a wetlands survey on May 5, 2022 that identified one wetland in proximity to the Project area. Wetland 1 consists of two narrow seep wetlands systems confined between steep escarpment slopes that drain into interior intermittent watercourses forming headwater areas to the Scantic River located approximately 270 feet to the southeast. The two wetland systems are forested and generally located to the north and south of the Project area.

The construction limit of disturbance (LOD) for the array would be approximately 61 feet north-northwest of Wetland 1 at the closest location. All solar arrays would be located at least 100 feet from Wetland 1.

Two vernal pools (VPs) were identified within Wetland 1 and located east of the Project area. The construction LOD would be outside of the vernal pool envelopes, which extend from the vernal pool edge to a distance of 100 feet. Specifically, the facility would be located approximately 352 feet east of VP1 and 205 feet southeast of VP2. Development of the Project would not interrupt the principal VP migratory vectors that link VP1 and VP2 to adjacent forested wetland and terrestrial habitats to the north, east and south in accordance with the 2015 U.S. Army Corps of Engineers Vernal Pool Best Management Practices.

Lodestar would implement Vernal Pool and Wetland Protection Measures as part of its RPP during construction and would establish and erosion and sedimentation controls consistent with the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control*. The site plans specify the use of meshless or biodegradable fiber erosion control netting to reduce the potential entanglement of amphibian and reptile species that may inhabit the site.

Wildlife

The site is not located within a DEEP Natural Diversity Database buffered area.

The northern long-eared bat (NLEB), a state and federally-listed Endangered Species, is known to occur in Connecticut. However, the nearest known NLEB habitat resource is located approximately 8 miles west of the site, and no adverse impact to NLEB is expected. A U.S. Fish and Wildlife Service (USFWS) NLEB impact permit is not required.

The solar array areas would be seeded with Ernst Solar Farm Seed Mix, a pollinator-friendly seed mix.

Core Forest

Under PA 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 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. Forestland that does not meet the definition of core forest is considered “edge forest.” Edge forest is a forested area extending up to 300 feet from a non-forest feature such as a road.

Approximately 2.75 acres of forest would be cleared for the Project, as follows: 1.23 acres of tree topping (i.e. no grubbing) and 1.52 acres of full tree clearing and grubbing. No tree clearing would occur within core forest. All of the proposed tree clearing would occur within edge forest habitat.

By letter dated November 18, 2022, pursuant to PA 17-218, DEEP determined that the proposed Project will not materially affect the status of core forest.

Air Quality

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

Water Quality

The facility would not use or discharge water during site operations.

The northern and eastern portions of the site are located within a DEEP-designated Aquifer Protection Area (APA). The RPP includes protective measures for the APA. The site is also located within the Hazardville Water Company service area. Lodestar would consult with the Hazardville Water District prior to the commencement of construction.

Fuel is anticipated to be stored on site during construction, but it would not be located within the APA. Lodestar developed a Spill Prevention Control Plan for the construction phase of the Project.

Stormwater

Pursuant to CGS Section 22a-430b, DEEP retains final jurisdiction over stormwater management and administers permit programs to regulate stormwater discharges. DEEP regulations and guidelines set forth standards for erosion and sedimentation control, stormwater pollution control and best engineering practices. The DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (General Permit) requires implementation of a Stormwater Pollution Control Plan (SWPCP) to prevent the movement of sediments off construction sites into nearby water bodies and to address the impacts of stormwater discharges from a proposed project after construction is complete. In its discretion, DEEP could require an Individual Permit for discharges and hold a public hearing prior to approving or denying any General or Individual Permit (Stormwater Permit) application.

A DEEP-issued Stormwater Permit is required prior to commencement of construction activities. The Stormwater Permit includes erosion control measures that comply with the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control* and the 2004 *Connecticut Stormwater Quality Manual*.

A construction sequence on the site plans includes the establishment of erosion control measures, site clearing and construction and installation of stormwater management basins.

Erosion from the panel drip edges is not anticipated to have a significant effect on site drainage patterns. The gaps between each module would allow the stormwater to flow off of the panels at multiple locations; thus, channelization below the drip edge would not be expected.

Lodestar met with DEEP Stormwater Division regarding the Project on December 7, 2022. DEEP staff recommended that Lodestar remove one sediment trap from the project plans to minimize required clearing. Lodestar included such revision in the Petition drawings. Lodestar submitted an application under the General Permit, and it is currently under review. A post-construction stormwater analysis concluded that stormwater detention basins would not be required to maintain post-construction runoff below pre-construction levels.

Operation and Maintenance

A post-construction Operations and Maintenance (O&M) Plan has been developed that includes provisions for periodic inspections of physical site features and structural and electrical components.

An evaluation of the facility and performance of preventative maintenance measures would be conducted annually. The evaluation would include the electrical system/components, physical infrastructure, and site vegetation. Replacement modules would not be stored on-site.

Water would be used for module cleaning if necessary. Snow removal would be conducted on an as needed basis.

Vegetative maintenance within the array areas would be performed three times annually during the growing season. During this time, the site would be inspected for erosion, vegetation health, and vegetative growth that may have project shading impact. Pesticides and/or herbicides would not be used at the site.

Decommissioning

The Project is designed for an operational life of at least 20 years. At the end of the Project's useful life, the Project would be decommissioned and the site restored to its pre-existing condition. Project decommissioning would include removal and disposal or recycling of all above-surface project components. It is anticipated decommissioning would be completed within 8 weeks.

All recyclable materials would be transported to the appropriate nearby recycling facilities (estimated 95 percent of material). Any non-recyclable materials will be properly disposed of at a nearby landfill (estimated 5 percent of material). The transformer and electrical equipment pads would be removed. Underground infrastructure would be removed to a depth of three feet. Disturbed areas would be backfilled with native soil, stabilized and seeded.

The overhead interconnection circuit and associated utility poles would remain place unless the landowner requests their removal.

The selected solar panels for the Project meet current Toxicity Characteristic Leaching Procedure (TCLP) criteria⁹ for characterization as nonhazardous waste in the event the solar panels are not recycled at the end of the project's life.

Conclusion

The Project is a grid-side distributed resource with a capacity of not more than sixty-five megawatts, meets air and water quality standards of the DEEP, 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. Furthermore, the Project was selected under the state's SCEF Program.

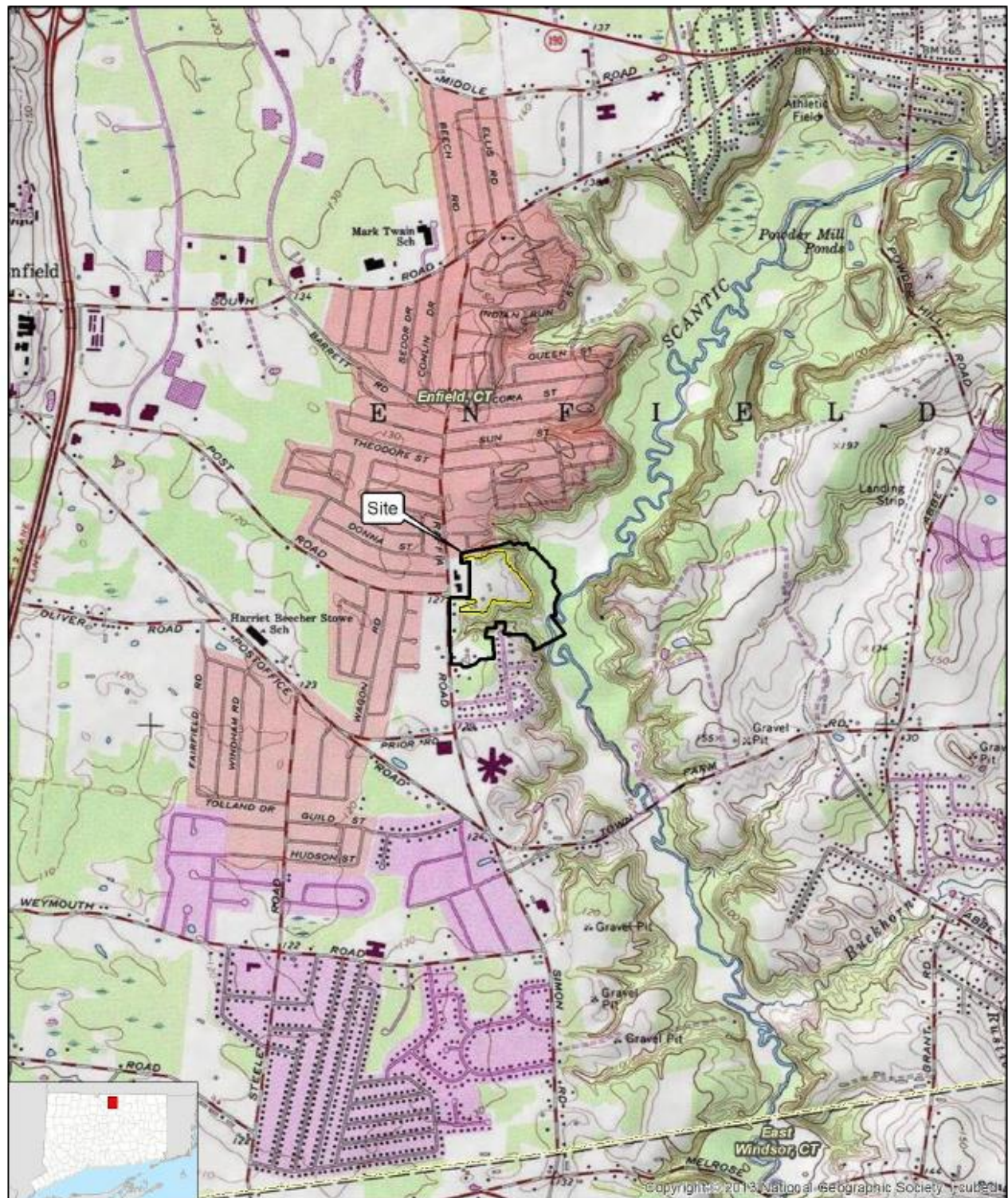
Recommendations

If approved, staff recommends the following conditions:

- 1) Approval of any project changes be delegated to Council staff;
- 2) Submit a copy of the DEEP Stormwater Permit prior to the commencement of construction;
- 3) Submit the final structural design for the racking systems stamped by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction; and
- 4) Provide training to emergency responders that includes an itemized list of necessary fire suppression equipment.

⁹ [eCFR :: 40 CFR 261.24 -- Toxicity characteristic.](#)

Site Location



Legend

- Site
- Project Area
- Municipal Boundary

Map Notes:
Base Map Source: USGS 1:5 Minute Topographic
Quadrangle Maps, Broad Brook, CT (1984)
Map Scale: 1 inch = 2,000 feet
Map Date: December 2022

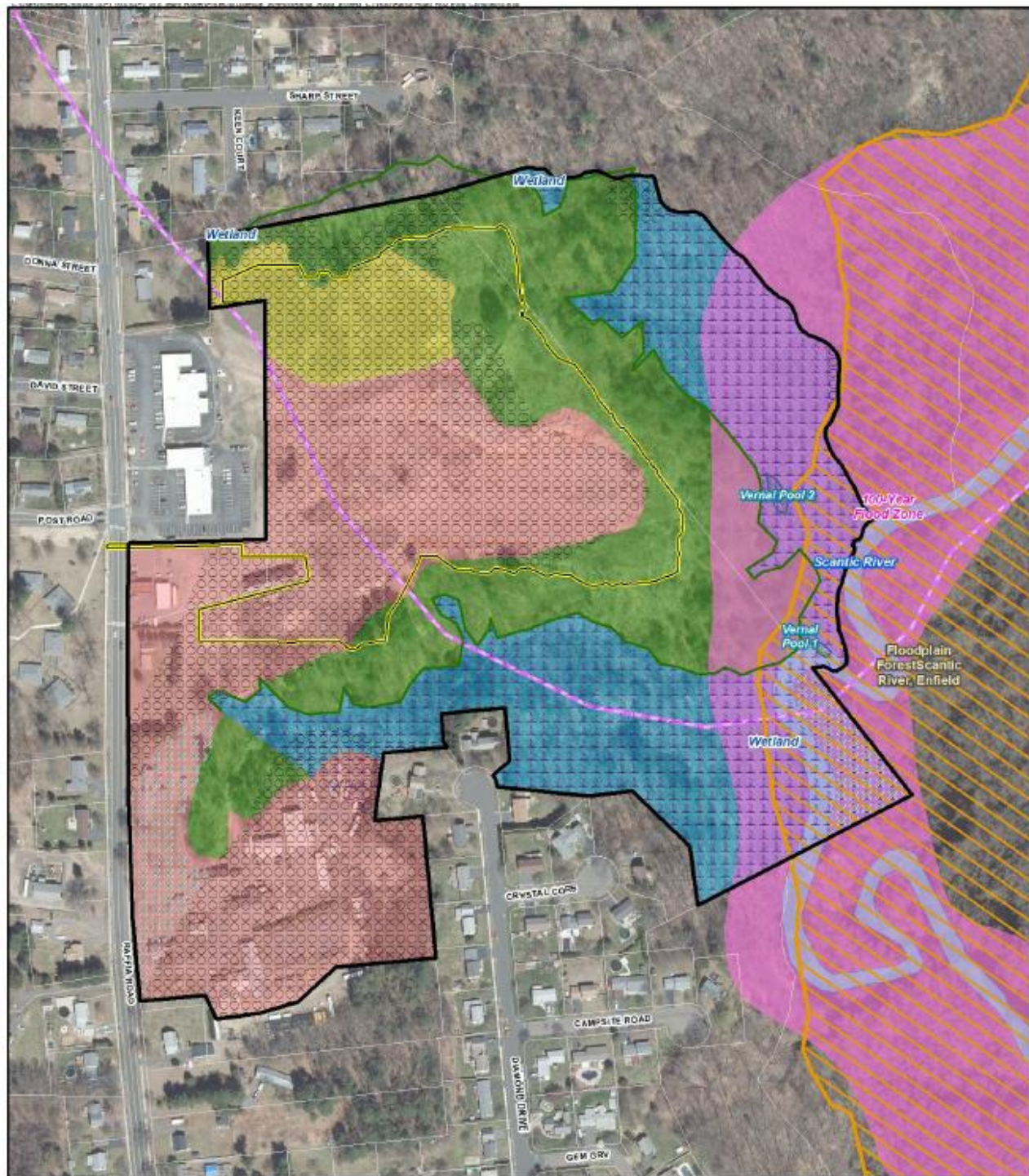


Figure 1
Site Location Map

Proposed Solar Energy Facility
Raffia Road
Enfield, Connecticut



Host Property – Existing Conditions



Legend

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> Site Project Area Approximate Parcel Boundary Delimited Wetland Boundary Wetland Area Vernal Pool | Farm land Soils <ul style="list-style-type: none"> Prime Farmland Soils Statewide Important Farmland Soils Habitat <ul style="list-style-type: none"> Developed Edge Forest Open Field Riparian | <ul style="list-style-type: none"> Critical Habitat (CTDEEP, Oct 2019) Aquifer Protection Area (Avery APA, CTDEEP, Jan 2021) 100-Year Flood Zone Open Water (CTDEEP) |
|--|---|--|

Map Notes:
Base Map Source: 2019 Aerial Photograph (CTECO)
Map Scale: 1 inch = 300 feet
Map Date: December 2022

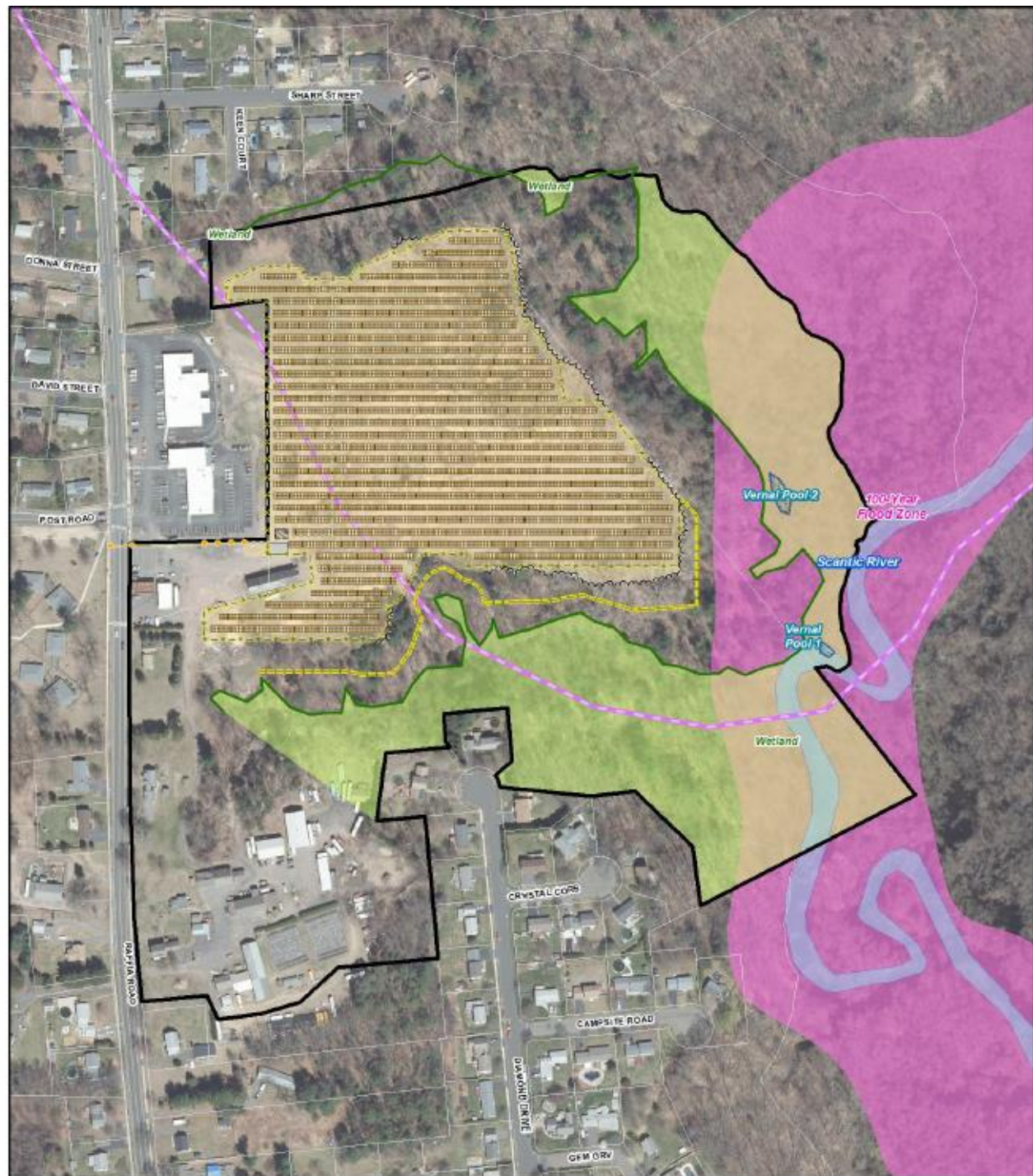


**Figure 2
Existing Conditions**

Proposed Solar Energy Facility
Raffia Road
Enfield, Connecticut



Proposed Site Layout



**Figure 3
Proposed Conditions**

Proposed Solar Energy Facility
Raffia Road
Enfield, Connecticut

Map Notes:
Base Map Source: 2019 Aerial Photograph (CTECO)
Map Scale: 1 inch = 300 feet
Map Date: December 2022

