NORTH FRANKLIN SOLAR ONE, 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 4.975 MW AC GROUND-MOUNTED SOLAR PHOTOVOLTAIC PROJECT AT 931 ROUTE 32, NORTH FRANKLIN, CONNECTICUT

APRIL 5, 2024

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STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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	:	April 5, 2024

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

I. INTRODUCTION

Pursuant to the Connecticut General Statues ("CGS") Section 4-176(a) and 16-50k(a) and Section 16-50j-38 *et seq.* of the Regulations of Connecticut State Agencies ("RCSA"), North Franklin Solar One, LLC (the "Petitioner" or "North Franklin Solar One") 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 4.975 megawatt ("MW") alternating current ("AC") solar-based electric generating facility (the "Facility" or "Project") located on property at 931 Route 32, North Franklin, 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 4.975 megawatts ("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

North Franklin Solar One is a Connecticut limited liability company with its principal place of business at 124 LaSalle Road in West Hartford, Connecticut. North Franklin Solar One 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:	North Franklin Solar One, LLC 124 LaSalle Road, 2nd Floor West Hartford, CT 06107
Internet Address(es):	https://www.verogy.com/ https://www.verogy.com/north-franklin-solar-one/

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 consents to electronic mailings of all Council and Petition-related correspondence.

III. THE PROJECT

A. Project Overview

The Project was selected and awarded a 20-year contract for a total of 4.975 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 late 2024, with commercial operation planned for the Project in spring 2025.

B. Site Description

The Facility will be located on a 19-acre portion (the "Project Site") of a 188.18-acre parcel, at 931 Route 32, North Franklin, Connecticut (the "Property"). The Property is in Franklin's C-2 Commercial zone and is owned by the K-Best USA Trading Company. The Property is a mix of open fields, forested areas, existing industrial buildings, associated paved parking areas and access roads, and a previously completed and closed sand and gravel quarry located in the northeastern corner. The sand and gravel mining operations were completed in 2022. Existing utility poles and overhead electrical services extend into the Property along the existing access roads and provide electric service to the Property. The Property is bordered to the west by CT Rt. 32, with a mix of low-density residential and undeveloped forest to the north, south, & east. On the opposite side of Route 32 is an existing ground mounted solar array.[1] Cold Brook runs southwest to northeast through the Property and turns northward along the eastern Property boundary before emptying into the Shetucket River, located to the north.

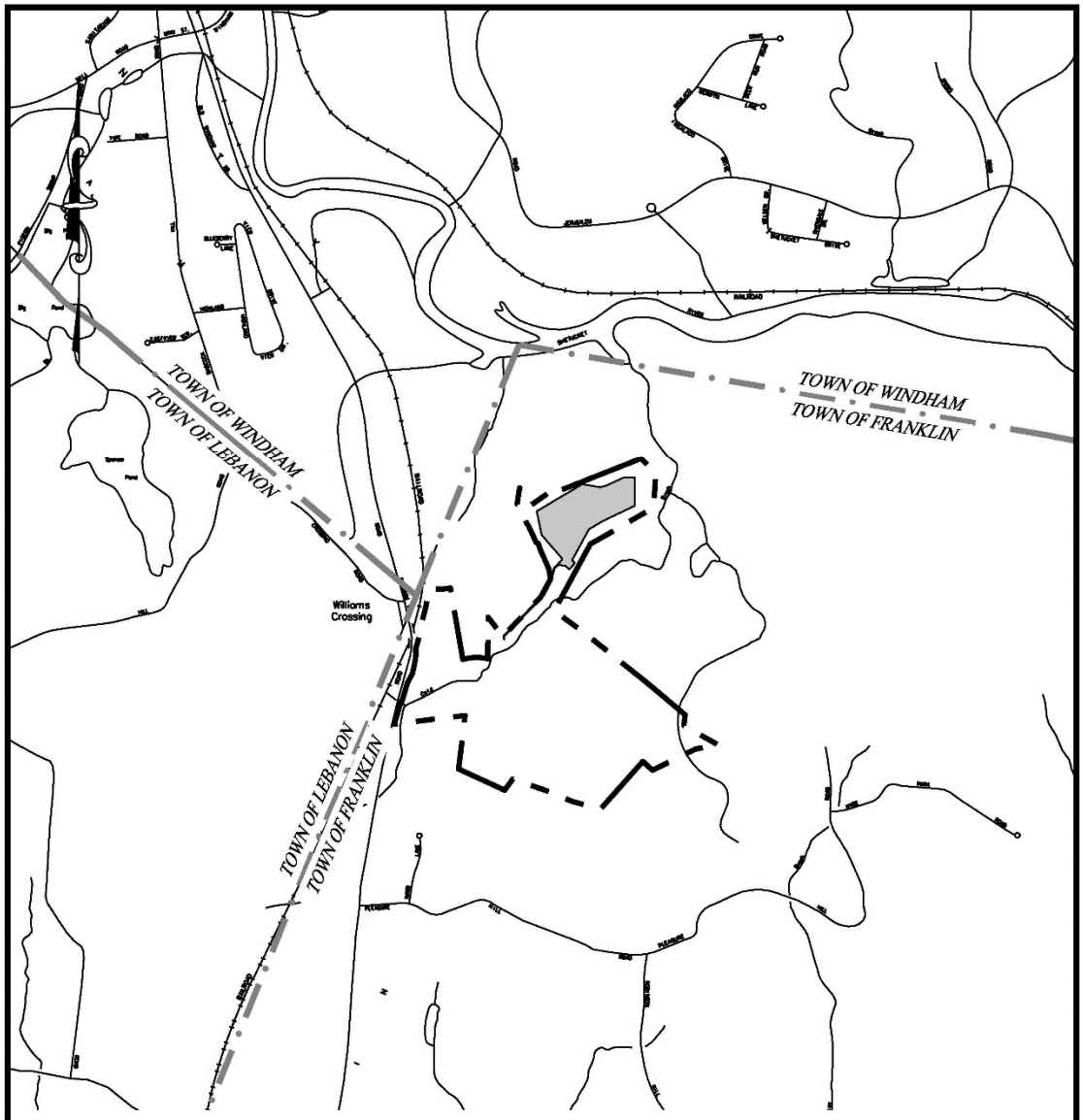
[1] The existing solar facility on the west side of Route 32 consists of five (5) 1.0 MW and one (1) 1.1 MW facilities that were approved under Petition No. 1137 by the CSC.

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

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 Property was suitable for development of the Project and that the Project will provide a significant benefit to the public.



LEGEND

PROPERTY LINE

PROJECT AREA

NOTE: BASE MAP INFORMATION TAKEN FROM CT DOT TRU MAPS 052, 070 & 163

2,000 0 1,000 2,000

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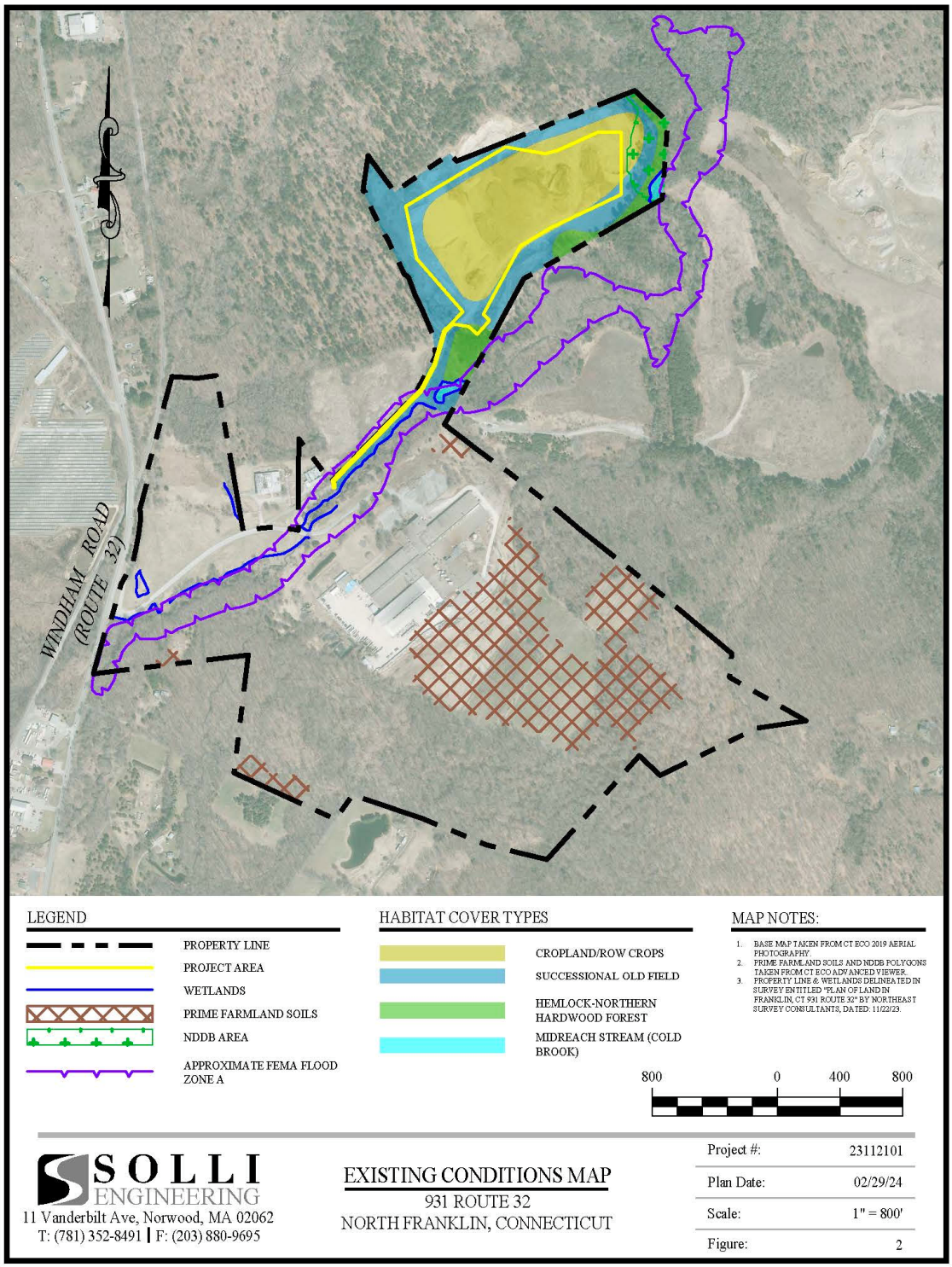
SITE LOCATION MAP

931 ROUTE 32
NORTH FRANKLIN, CONNECTICUT

Project #:	23112101
Plan Date:	02/29/24
Scale:	1" = 2,000'
Figure:	1


WINDHAM ROAD
(ROUTE 32)
LEGEND
PROPERTY LINE
PROJECT AREA
WETLANDS
PRIME FARMLAND SOILS
NDDB AREA
APPROXIMATE FEMA FLOOD ZONE A
HABITAT COVER TYPES
CROPLAND/ROW CROPS
SUCCESSIONAL OLD FIELD
HEMLOCK-NORTHERN HARDWOOD FOREST
MIDREACH STREAM (COLD BROOK)
MAP NOTES:
1. BASE MAP TAKEN FROM CT ECO 2019 AERIAL PHOTOGRAPHY.
2. PRIME FARMLAND SOILS AND NDDB POLYGONS TAKEN FROM CT ECO ADVANCED VIEWER.
3. PROPERTY LINE & WETLANDS DELINEATED IN SURVEY ENTITLED "PLAN OF LAND IN FRANKLIN, CT 931 ROUTE 32" BY NORTHEAST SURVEY CONSULTANTS, DATED: 11/22/23.
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EXISTING CONDITIONS MAP
931 ROUTE 32
NORTH FRANKLIN, CONNECTICUT
Project #: 23112101
Plan Date: 02/29/24
Scale: 1" = 800'
Figure: 2

D. Project Description

The proposed Facility will be installed in an open field, previously mined as a materials quarry. The Facility will consist of a solar generating system with a capacity of 4.975 MW AC. The Facility will be connected to the existing electric distribution system via an overhead service constructed by Eversource.

i. Facility Design

As currently designed, the proposed Project will consist of 12,038 First Solar Model FS-6465A-P-B, 465-Watt solar modules, 39 CPS 600V 125kW (SCH125KTL-DO/US-600) and 1 CPS 600V 100kW (SCH100KTL-DO/US-600 inverters, AC panel boards and/or switchgear, and two 2500 kVa transformers. The panels will be secured to a ground mounted fixed tilt steel racking structure. 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 with an access gate. An existing paved and gravel access road that runs generally in an east to west direction will be used to access the Facility from Rt. 32 and the existing utility poles on this access road will be utilized to make the overhead service connection to the utility grid. The Project's transformers, panel boards/switchgears, and inverters will be in the southwest portion of the Project Site, where the access road enters the existing quarry area. The proposed new utility interconnection service poles to be installed by Eversource will be located along the Project access road approximately 1600 feet from CT Rt. 32 and are a continuation of the existing overhead poles that service the existing Property. These new interconnection service poles will not be visible from the public right of way, due to the combination of distance, topography, and vegetation. First Solar has performed a Toxicity Characteristic Leaching Procedure ("TCLP") test on their Series 6 solar modules and have determined that the panels 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 4.975 MW AC system will have an expected net AC capacity factor of approximately 17.7%. The Project is expected to produce more than 7,718,707 Kilowatt-Hours (kWh) of energy in the first year of operation, enough energy to power 1049 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 four of the SCEF

Program. The SCEF Program seeks to deploy new and incremental Class 1 renewable generation projects ranging in size from 100 to 5,000 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 March of 2023 and was required to undergo a distribution and transmission impact study. Preliminary results of the Distribution Impact Study have been received with an indication that the Project may safely be interconnected to the Eversource distribution grid, after the upgrade of one existing service device, via a new overhead service with a utility recloser pole, a utility primary meter pole, a customer disconnect switch pole, customer recloser pole, and a customer meter/riser pole for a total of five (5) new utility poles. As noted above, these poles will be located along the Project access road approximately 1600 feet from CT Rt. 32. It is anticipated that an Interconnection Agreement will be received from Eversource in Spring of 2024, upon completion of the Transmission Impact Study.

iii. Stormwater Management

The Petitioner's Engineer, Solli Engineering ("SOLLI ENGINEERING"), and Environmental Consultant, William Kenny Associates LLC ("WKA") has designed the Project in accordance with the 2024 State of Connecticut Stormwater Quality Manual, the Connecticut General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities ("General Permit") as modified November 25, 2022; 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. Solli Engineering's Stormwater Management Report documenting the information summarized herein is attached as Appendix C.

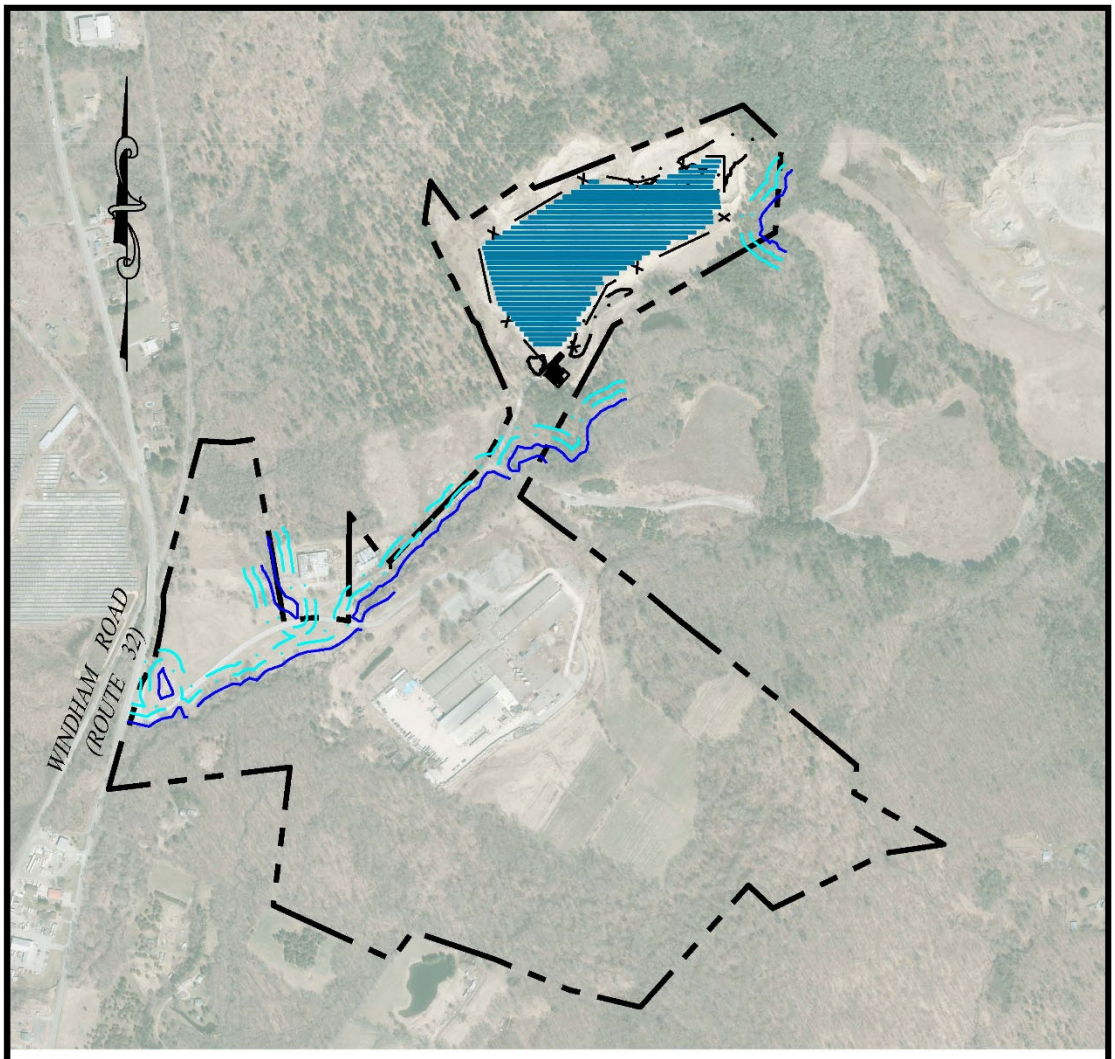
To safeguard water resources from potential impacts during construction, the Petitioner is committed to implementing protective measures in the form of a Stormwater Pollution Control Plan ("SWPCP"), subject to review and approval by DEEP Stormwater Management team. The SWPCP will include monitoring of

established SESC measures that are to be installed and maintained in accordance with the 2024 Connecticut Guidelines for Soil Erosion and Sediment Control and Appendix I.

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

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, to maintain and/or reduce peak post-development flows to off-site areas. As noted above, the existing stormwater management basins will be maintained for permanent reuse and have 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 basins 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 Project 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

- PROPERTY LINE
- WETLANDS
- UPLAND REVIEW AREA - 50 FT
- UPLAND REVIEW AREA - 100 FT
- 7' TALL CHAIN LINK FENCE
- STORMWATER BASIN
- PHONO 545W SOLAR MODULES

MAP NOTES:

1. BASE MAP TAKEN FROM CT ECO 2019 AERIAL PHOTOGRAPHY.
2. PROPERTY LINE & WETLANDS DELINEATED IN SURVEY ENTITLED "PLAN OF LAND IN FRANKLIN, CT 931 ROUTE 32" BY NORTHEAST SURVEY CONSULTANTS, DATED: 11/22/23.

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PROPOSED CONDITIONS MAP
931 ROUTE 32
NORTH FRANKLIN, CONNECTICUT

Project #:	23112101
Plan Date:	02/29/24
Scale:	1" = 800'
Figure:	3

iv. Construction

The Petitioner anticipates that construction of the Project will begin prior to the end of 2024 and will take approximately seven (7) months to complete. Construction activities within the Project Site will include: SESC measures, racking and modules, electrical trenching, the installation of interconnection infrastructure, and perimeter fencing. Existing grades throughout the Project Site will remain as little or no grading 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 perimeter fencing, the solar modules and other electrical equipment. Final site stabilization, Facility testing, and Project commissioning would be expected to be completed just prior to the end of 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 drawings 2.31 & 2.32 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 will maintain the grass that will be established within the fenced area of the Project Site through routine mowing. The exterior of the Project Site will be mowed and maintained periodically.

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 Property 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 Town of Franklin services due to the development of the Project.

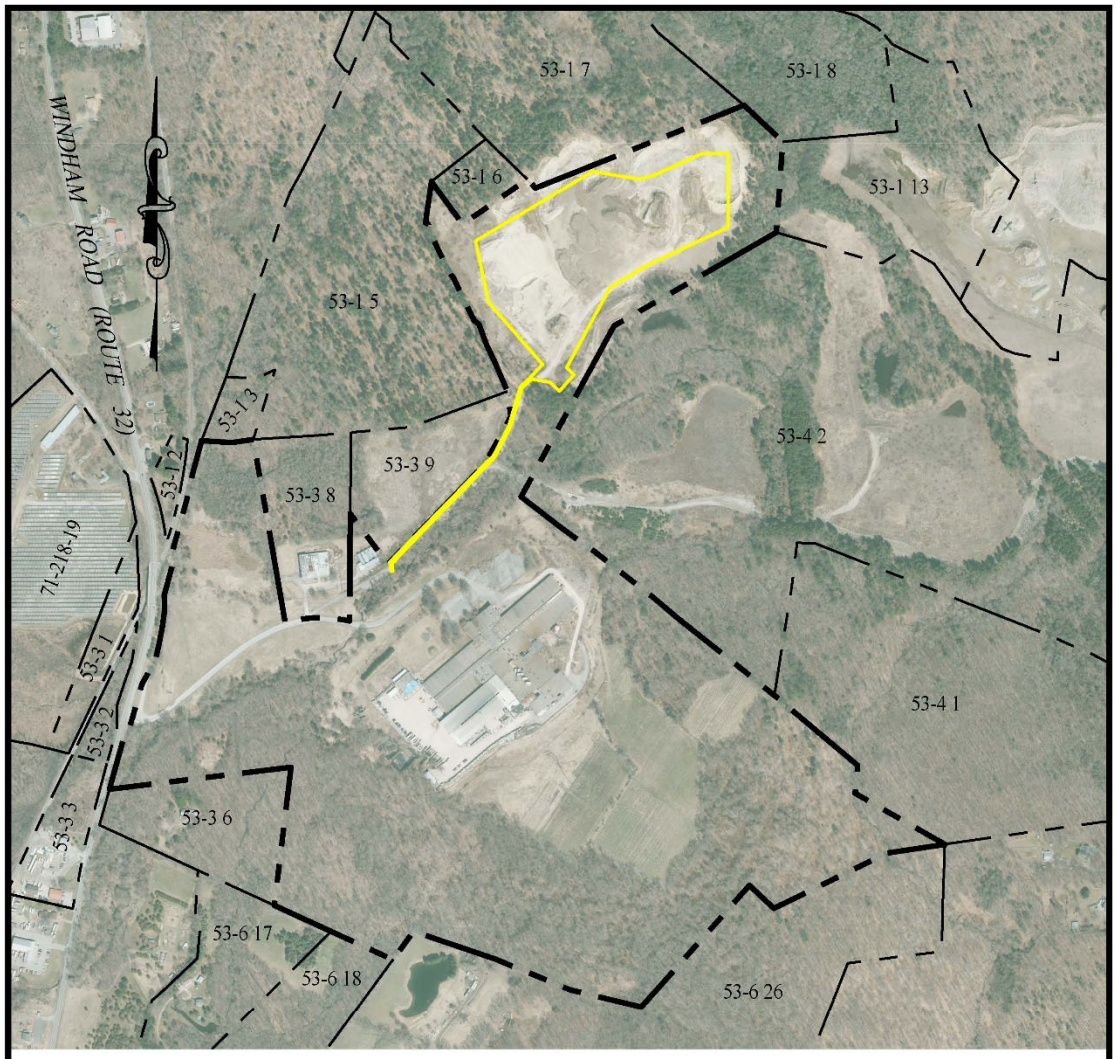
V. LOCAL OUTREACH AND PUBLIC NOTICE

On December 5, 2023, the Petitioner discussed its plans to develop the Project with Alden Miner, Franklin's First Selectman via phone. The Petitioner also followed up this phone call with an email that provided a project overview and a site layout plan. The Petitioner did not receive any correspondence back from the town following this outreach. On April 1, 2024, the Petitioner mailed notice to the abutting property owners and government officials[2] informing them 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/north-franklin-solar-one) 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. Because the property is located less than 2,500 feet from the Town lines of both the Town of Lebanon and the Town of Windham, officials from those municipalities are being notified of this Petition.

[2] In accordance with Council requirements, the Petitioner notified Public Officials from the Town of Franklin, as the host municipality, and the Towns of Lebanon and Windham, both municipalities located within 2,500 feet of the Property.



LEGEND

- PROPERTY LINE
- ADJOINING LOT LINE
- PROJECT AREA

MAP NOTES:

1. BASE MAP TAKEN FROM CT ECO 2019 AERIAL PHOTOGRAPHY.
2. PROPERTY INFORMATION TAKEN FROM SECCOG GIS.

800 0 400 800

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ABUTTING PARCELS MAP

931 ROUTE 32
NORTH FRANKLIN, CONNECTICUT

Project #:	23112101
Plan Date:	02/29/24
Scale:	1" = 800'
Figure:	4

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 Property.

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").[3] 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 Franklin emergency responders regarding access to the Facility and emergency shutoff switches.

3 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.[4] 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 Franklin's Plan of Conservation and Development ("POCD"), effective November 1, 2023, which includes among its primary goals to "Encourage commercial/industrial development in appropriate areas." The primary consideration in the POCD in regard to solar arrays is "if the project must use land that is considered prime or important farmland, the developer must be responsible for returning the land to a productive agricultural condition at the end of the useful life of the solar project."

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. Habitat Types

The Project Site is comprised of four (4) distinct habitat types (vegetative communities) separated by transitional ecotones. These habitats were assessed using remote sensing and publicly available datasets and were physically inspected during field investigations on October 12, and 26, 2023. The habitats occupying the Project Site are as follows:

- Cropland/Row Crops (2023) - Previously Completed Gravel Mining Operation Area;
- Successional Old Field (2022) - Previously Completed Gravel Mining Operation Area;
- Hemlock Northern Hardwood Forest; and
- Midreach Stream (Cold Brook).

The Project Site is located entirely within the Cropland/Row Crops and Successional Old Field habitats and is currently being utilized to attempt the planting of crops. A farmer grew feed corn onsite starting

[4] 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

in 2023 but is not returning in 2024. Due to the previously completed mining operation on the Property there was no farmland soils remaining within the Project Site, as shown in Appendix M. See Figure 2, Existing Conditions Map.

ii. Project Site Habitat Types

Cropland/Row Crops (2023) – Previously Completed Gravel Mining Operation Area

The majority of the Site consists of a planted cornfield, that was planted for the first time in 2023. According to historic aerial imagery of the Site, this area was forested land from 1934 to 1995. Sometime between 1995 and 2004 the forest here was clear-cut and turned into a mine for sand and gravel. Mining activities ceased around 2022 and the area was planted with a row crop of corn. The farmer who planted the corn is not returning in 2024 due to an under performance of the area This habitat consists primarily of corn crop, likely grown to feed cattle, with some common weeds such as clover and narrowleaf plantain growing in the bare soil between the crop rows. At the time of investigation, the cornfield had been harvested. Soils are primarily excessively to well drained sandy loams forming in human-altered deposits.

Approximately 84 percent (15.4 of 18.4 acres) of the Cropland/Row Crops habitat is proposed to be converted to Grassland habitat by the Project. The proposed Grassland will be primarily comprised of graminoids and forbs, and upkeep is proposed to limit shrub and tree growth within the habitat.

Successional Old Field (2022) - Previously Completed Gravel Mining Operation Area

Around the edges of the Cropland/Row Crop habitat is Successional Old Field habitat. The historic land use within this habitat is the same as that discussed within the Cropland/Row Crops habitat with the exception being that areas not planted with corn naturally transitioned into Successional Old Field habitat over the year since mining operations ceased. The Successional Old Field habitat consists of minimal trees and shrubs and is dominated by herbaceous groundcovers. There is approximately less than five percent canopy coverage. Trees are scattered and consist primarily of sapling-sized eastern cottonwood and quaking aspen trees. Some large invasive autumn olive shrubs and smaller native raspberry shrubs are also present. Herbaceous groundcover vegetation within the habitat accounts for approximately 90 percent of the total vegetative cover. This stratum is comprised primarily of goldenrod, cinquefoil, and yellow foxtail. Other groundcover vegetation within the Successional Old Field habitat includes native deer tongue, hairy white old-field aster, sweet fern, common evening primrose, wild indigo, purple three-awn grass, and common milkweed, non-native common mullein, and stinging nettle as well as invasive Japanese knotweed and

common mugwort. Soils are primarily excessively to well drained sandy loams forming in human-altered deposits.

Approximately 13 percent (2.4 of 18.5 acres) of the Successional Old Field is proposed to be converted to Grassland habitat by the Project.

Hemlock Northern Hardwood Forest

The eastern portion of the Project Site contains portions of Hemlock Northern Hardwood Forest habitat. According to historic aerial imagery of the Site, these areas were forested in 1934 and have remained forested until the present day. The canopy of this primarily coniferous forest is relatively closed with approximately 80 percent coverage, resulting in low sunlight on the forest floor. As such, the Hemlock Northern Hardwood Forest habitat has a relatively sparse shrub and groundcover stratums. The canopy of the forest consists of co-dominance between Canadian hemlock and sugar maple trees. Additional trees interspersed include red maple, white oak, black oak, eastern white pine, and American beech trees. The canopy understory consists of pole-timber-sized black birch and black cherry trees as well as various saplings from the aforementioned canopy trees. Sparse shrub coverage is limited to native lowbush blueberry and raspberry as well as invasive multiflora rose, Japanese barberry, and burning bush. Native poison ivy vines and invasive oriental bittersweet vines are also present within the shrub strata. Sparse groundcovers coverage is limited to hay-scented fern, wood fern, Christmas fern, Pennsylvania sedge and striped wintergreen. Soils are primarily excessively to well drained sandy loams formed from glaciofluvial deposits.

The Hemlock Northern Hardwood Forest habitat is not proposed to be altered by the Project. The previously mentioned Cropland/Row Crops and Successional Old Field habitats used to be Hemlock Northern Hardwood Forest habitat but were cleared as part of the mining operations that started sometime between 1995 and 2004 and that was completed in 2022.

Midreach Stream (Cold Brook)

This wetland and watercourse system (i.e., Cold Brook) located along the eastern bounds of the Project Site is best described as a Midreach Stream with associated woodland wet floodplain wetlands. Cold Brook enters the Property from the southwest and extends northeast, ultimately draining to the Shetucket River approximately 1,760 feet to the north of the Site. Cold Brook has a stream width of approximately 20 to 25 feet and a water depth at the time of investigation ranging from two and a half feet to six inches, with variation in areas of pooling. The speed of the watercourse increases as it drains north, and the streambed

is composed of sand sized particles to cobbles. The forested floodplain wetlands bordering the watercourse consist of vegetation like that described in the Hemlock Northern Hardwood Forest. The canopy is comprised of primarily red maple with eastern hemlock and sugar maple interspersed. Little to no understory trees are present. The shrub layer is also relatively sparse, consisting of native spicebush and witch hazel and invasive multiflora rose and Japanese barberry. Invasive oriental bittersweet vines are also highly prevalent within the floodplain wetland but are relegated to the shrub and groundcover stratums. Groundcovers within the floodplain include Christmas fern, Canada clearweed, false nettle, cinnamon fern, white wood aster, broadleaf enchanters' nightshade, large leaved avens, jewelweed, goldenrod, New York fern and invasive Japanese stilt grass, and garlic mustard. Evidence of recent flooding within the floodplain wetland was noted as bare sand deposits were present and groundcover vegetation was bent in patches consistent with the flow path of the brook. Soils primarily consist of poorly drained sandy loams formed in alluvial deposits. The hydrogeomorphic classification of this wetland and watercourse system is "Riverine" and the USFWS NWI classification for this system is Riverine, Upper Perennial, Unconsolidated Bottom, Sand, Permanently Flooded (R3UB2H).

The Midreach Stream (Cold Brook) is not proposed to be altered by the Project.

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

Table 1: Habitat Areas

Habitat Areas		
Habitat Type	Total Area On-Site (+/- ac.)	Area Occupied by Project (+/- ac.)
Cropland/Row Crops (2023) – Previous Completed Gravel Mining Operation Area	18.4	15.4
Successional Old Field (2022) – Previous Completed Gravel Mining Operation Area	18.5	2.4
Hemlock Northern Hardwood Forest	3.9	0.00
Midreach Stream (Cold Brook)	0.64	0.00

iii. Potential Habitat Impact(s) and Mitigation

Development of the Project will occur within portions of two (2) of the Project Site's four (4) habitats, with a majority of the proposed Facility occupying what is currently Cropland/Field Crops habitat. Minor development is proposed within the adjacent Successional Old Field habitat. These habitat areas were recently created as the result of the completion of the gravel mining operation in 2022. Cropland/Row Crop and Successional Old Field habitats are common within this region of Connecticut and support a large amount of generalist wildlife species. Project-related impacts within these habitats are limited and are not anticipated to adversely affect wildlife. Impacts are due to the conversion of these habitats to maintained Grassland habitat, which is a similar type of habitat in vegetative communities to Cropland/Field Crops and Successional Old Field habitats. Additional impacts come from the cordoning off of the Project Site with wildlife-friendly chain link fencing, which only excludes large wildlife from the Site, allowing avian species and species that are able to enter the Grassland habitat via the six-inch gap at the bottom of the chain link fence to still access the Project Site.

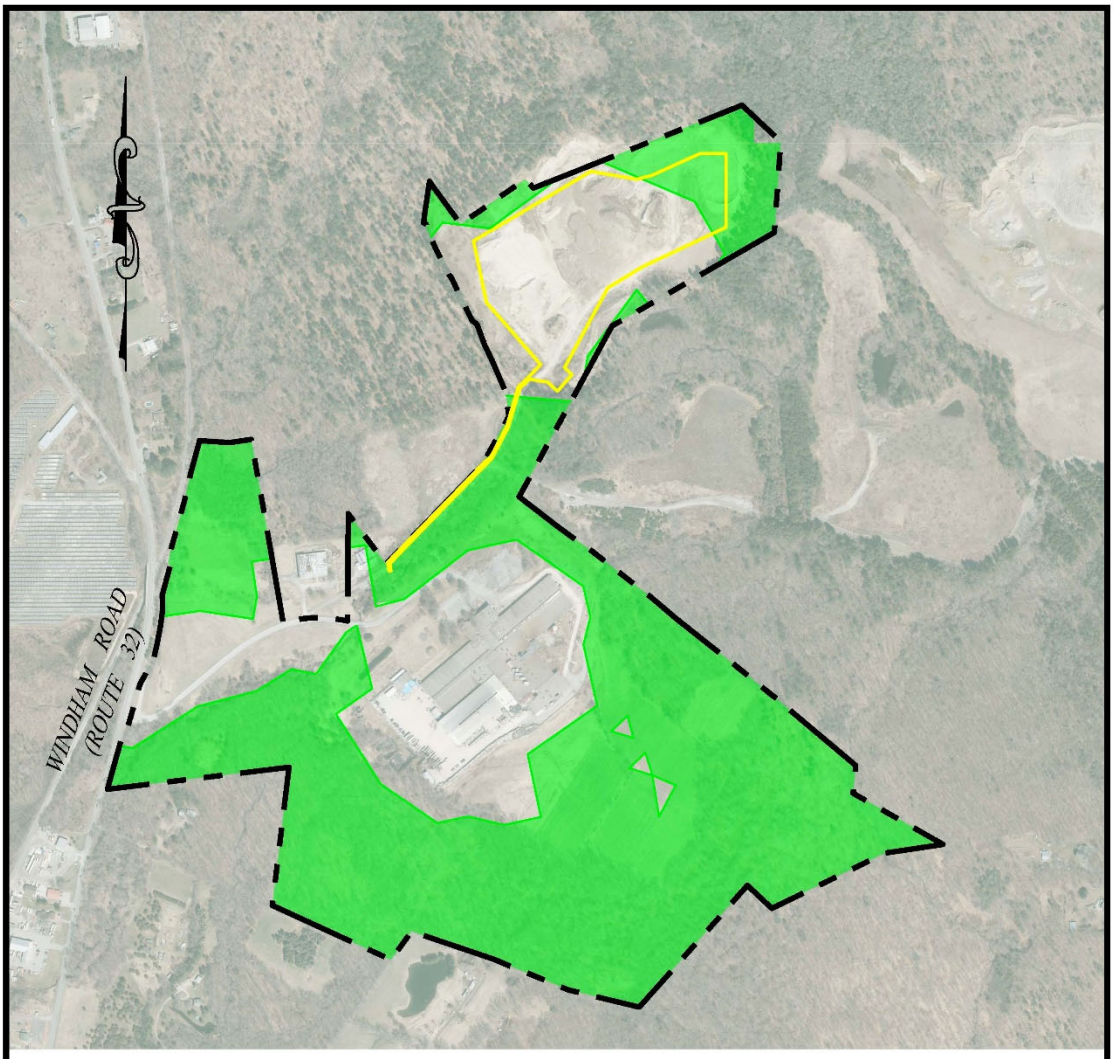
Based on the surrounding land uses, the adjacent Hemlock Northern Hardwood Forest located in proximity to the Project Site is likely utilized by species that prefer edge forest habitat and are more tolerant of human disturbance and habitat fragmentation. Coniferous forests such as these are common in northern New England and support a large amount of generalist wildlife species. Given the abundance of similar habitat surrounding the Project Site, the Project is not anticipated to result in a significant impact to wildlife.

The Project will not encroach into the Hemlock Northern Hardwood Forest or Midreach Stream (Cold Brook) habitats located east of the Facility. Project development activities will occur in areas of existing disturbances associated with human use of the previously mined areas that are now Cropland/Field Crops and Successional Old Field habitats. 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 Hemlock Northern Hardwood Forest or Midreach Stream (Cold Brook) 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 adversely affect to wildlife using these habitats because it will be unoccupied and does not generate any significant noise, traffic, or high level of human activity.

iv. Core Forest

The Connecticut Department of Energy and Environmental Protection (CT DEEP) defines "Core Forests" as "forests surrounded by other forests, and in Connecticut, it has been defined as forest features that are relatively far (more than 300 feet) from the forest-non-forest boundary. Core forests provide habitat for many species of wildlife that cannot tolerate significant disturbance. The loss of Core Forest cover diminishes water purification and habitat values, and could result in heavier runoff, which might lead to poorer water quality and impaired habitat." The CT DEEP 2020 Connecticut Forest Action Plan classifies Core Forests under three size classes, Small Core Forest (SCF), Medium Core Forest (MCF) and Large Core Forest (LCF). SCF accounts for patches of forest that are less than 250 acres in size, MCF are 250 to 500 acres LCF are greater than 500 acres.

In consulting with the CT DEEP Forestland Habitat Impact Map, approximately 10.81-acres of the Property fall within the area of forestland habitat impact. However, while the Forestland Habitat Impact Map shows forested area inside the Project Site, the Project is located within the Cropland or Successional Old Field habitat. Therefore, there is no clearing required for the installation of the solar array. Minimal tree cutting will be required for the electrical interconnection at the entrance to the Facility. A letter indicating no material impact to Core Forest was received from the Connecticut Department of Energy and Environmental Protection on April 1, 2024. See Figure 5 (Forested Habitat Impacts) and Appendix H, CT DEEP Correspondence.



LEGEND

- PROPERTY LINE
- PROJECT AREA
- FORESTLAND HABITAT (CT DEEP)

MAP NOTES:

1. BASE MAP TAKEN FROM CT ECO 2019 AERIAL PHOTOGRAPHY.
2. PROPERTY INFORMATION TAKEN FROM CONNECTICUT FORESTLAND HABITAT IMPACT MAPPING GIS.

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FORESTED HABITAT IMPACT MAP
931 ROUTE 32
NORTH FRANKLIN, CONNECTICUT

Project #:	23112101
Plan Date:	02/29/24
Scale:	1" = 800'
Figure:	5

v. Threatened and Endangered Species

WKA reviewed publicly available state and federal information to determine the potential presence of listed species and/or critical habitats on or proximate to the Property. A discussion is provided in the following sections.

Natural Diversity Data Base

The CT 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 personnel and others. 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 and areas of critical habitat are shown with green polygons. 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. WKA reviewed the most recent NDDB mapping (June 2023) for the Town of Franklin, which revealed that a portion of the Property falls within a hatched area. WKA filed for NDDB review of the Site and received a letter from the CT DEEP dated October 31, 2023. The NDDB Determination is valid until October 31, 2025.

The letter specifies that two state-listed species have the potential to be impacted by the Project. The state-listed species are the eastern pearlshell (*Margaritifera margaritifera*) and the wood turtle (*Glyptemys insculpta*).

Eastern pearlshells are listed as state 'species of special concern[5]' by the CT DEEP. These freshwater mussels inhabit clear, fast-flowing and unpolluted streams and rivers, ideally those that also serve as good trout streams. They utilize streams with a variety of substrates but are not found in lakes and ponds.

[5] Species classified as "special concern" by the CT DEEP are "native species that have a naturally restricted range or habitat in the state or have a low enough population level that the unregulated taking of these species would be detrimental to the population as a whole or could lead to the species extirpation from the state".

Ideal streams are heavily shaded by a riparian corridor, have high dissolved oxygen and stable stream channels. They are found in most major watersheds within Connecticut but are most prevalent in the northern and northwestern portions of the state.

The following is a summary of measures required by the CT DEEP and to be used before, during and following construction to protect freshwater mussels that may potentially be encountered at or are within the adjacent waterways to the project site. Using these measures, the project will prevent adverse impacts to freshwater mussels.

- Ensure the project site adheres strictly to water quality standards.

The project will have no adverse impacts to freshwater mussels as the project will strictly adhere to water quality standards through the implementation and maintenance of a SWPCP in accordance with the 2024 CT DEEP Stormwater Quality Manual.

- Address specific monitoring targets for sediment, water temperature and copper and total ammonia nitrogen (TAN) levels within on-site watercourses and those near the project site.

The project will have no adverse impacts to freshwater mussels as no activity is proposed within onsite watercourse (Cold Brook) or associated wetlands. The project also proposes no activities within the 100-foot buffer of the onsite watercourse (Cold Brook), save for the short-term, temporary work associated with a proposed electrical interconnection. The interconnection work will take place along an existing dirt and gravel access drive to the site. Potential adverse impacts from sedimentation will be avoided during construction due to the installation, monitoring, and continued maintenance of SESCs. By preventing sedimentation to watercourses with SESCs, other potential impacts caused by sedimentation, such as an increase in water temperature due to sediment particles absorbing heat, thus elevating water temperatures, are avoided. However, the primary cause of increases in water temperature arise from stormwater runoff flows from impervious surfaces. The proposed project will result in a de minimis increase in impervious surfaces. These surfaces are more than 100 feet from Cold Brook, are disconnected, and are proposed to be underplanted with native meadow vegetation. As such, most stormwater runoff flows from the solar array panels will filter through the meadow vegetation and infiltrate into the soil, avoiding adverse impacts to Cold Brook. Further, the project includes stormwater management features designed to mitigate and manage this de minimis increase in impervious surfaces and the effects this will have on stormwater runoff. These features are detailed within the SWPCP. The project will additionally not result in elevated levels in TAN and copper that can cause population die-offs of freshwater mussels. Increases in TAN to watercourses results

primarily from the runoff of fertilizer from agricultural lands, effluent discharges, or from natural processes such as the breakdown of organic waste, as exchange with the atmosphere, or directly from the excretion of nitrogenous wastes from animals. Increases in copper to watercourses results primarily from industrial pollution, wastewater, byproducts of mining, and the weathering of natural features such as copper-bearing rock. The project proposes maintaining the area beneath the panels as native vegetated meadow and proposes no fertilizer for this meadow. The project proposes no agricultural uses besides the routine vegetation maintenance by goats. The project will not result in any discharges of wastewater or other pollutants to watercourses as the Facility is over 100 feet from onsite watercourses, the project proposes stormwater management features to control post-development stormwater runoff rate changes, and the Facility will be unmanned having no potable water nor sanitary facilities. The project will not result in a change in air quality and in conclusion, the project is a less detrimental use regarding copper leaching to watercourses, than the pre-existing use of the site which was material mining.

- Do not remove any vegetation from the 100-foot buffer of waterways.

The project proposes no vegetation clearing within the 100-foot buffer of the onsite watercourse (Cold Brook), save for the short-term, temporary, and small area of work associated with a proposed electrical interconnection. Minimal vegetation (i.e. tree removal) is proposed with this work. The proposed tree cutting is minor and will not critically impact the tree canopy that shades the watercourse. Save for this activity, the project will avoid vegetation removal within the 100-foot buffer of waterways.

- Do not convert any land within the 100-foot buffer of waterways into impervious surfaces.

The project proposes no impervious surfaces within the 100-foot buffer of the onsite watercourse (Cold Brook).

- Impervious surfaces and turf grass within the surrounding watershed of waterways should be minimized.

The project proposes a de minimis increase in impervious surfaces within the watershed of the onsite watercourse (Cold Brook). This de minimis increase is from the proposed solar array panels and extension of the existing dirt/gravel drive. These surfaces are more than 100 feet from Cold Brook, are disconnected, and are proposed to be underplanted with native meadow vegetation. As such, most stormwater runoff flows from the solar array panels will filter through the meadow vegetation and infiltrate into the soil, avoiding adverse impacts to Cold Brook. Further, the project includes stormwater management features designed to

mitigate and manage this de minimis increase in impervious surfaces and the effects this will have on stormwater runoff and are detailed within the SWPCP. No turf grass is proposed with the project.

- Reconnect any waterways that are disconnected by perched, undersized or shallow stream culverts.

The project proposes no activities within wetlands or watercourses. Existing stream culverts within the area surrounding the project site are not perched, undersized or shallow culverts, and thus, the watercourse (Cold Brook) in which the culverts are located, does not need to be reconnected.

- To prevent the introduction and spread of invasive plants and bivalves, employ precautions at the project site.

The project proposes no activities within wetlands or watercourses, and therefore the introduction of invasive bivalves to the onsite watercourse (Cold Brook) is non-existent. The project proposes re-vegetating the project site with native meadow vegetation, and invasive vegetation, such as invasive shrubs, are proposed to be managed by intermittent mowing of the vegetated areas as detailed within the Operation and Maintenance Plan of the facility. No invasive vegetation is proposed to be installed.

Wood turtles are listed as state "species of special concern" by the CT DEEP. Wood turtles typically inhabit riparian ecosystems, utilizing clear, cold-water streams with a substrate comprised of sand, gravel and cobbles. They mate, forage, and hibernate in these riparian habitats. Wood turtles additionally use early successional habitats adjacent to or within 0.2 miles of their riparian habitat, such as pastures, old fields, utility corridors and woodlands during the summer months for foraging. Wood turtles are active between April 1 and November 1, in the remaining months, they are dormant, in a state of brumation, overwintering in the banks of their riverine habitat in submerged tree roots.

Measures required by the CT DEEP and to be used before, during and following construction to protect freshwater mussels, that are applicable to the project (see above), that may potentially be encountered at or are within the adjacent waterways to the Property and wood turtles that may potentially be encountered at the Project Site are included in Appendix B.

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"). The IPaC system allows project planners the ability to perform a regulatory review for protected species under the ESA that inhabit or potentially may inhabit a particular area. This resource is

designed to provide a list of potential ESA-protected and/or candidate species, migratory bird species protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, critical habitats, as well as the ability to consult whether a proposed project has the potential to result in "take[6]" of listed species.

WKA filed an IPaC review of the Site and received a letter from the USFWS dated December 18, 2023, rerun and re-recieved April 4, 2024. The letter specifies that one federally-listed[7] endangered species, one proposed[8] to be federally-listed endangered species, one candidate[9] species and six migratory bird species have the potential to be impacted by the proposed project. The endangered species is the northern long-eared bat ("NLEB"; *Myotis septentrionalis*), the proposed endangered species is the tricolored bat (*Perimyotis subflavus*), the candidate species is the monarch butterfly (*Danaus plexippus*), and the migratory birds are the bald eagle (*Haliaeetus leucocephalus*), black-billed cuckoo (*Coccyzus erythropthalmus*), bobolink (*Dolichonyx oryzivorus*), chimney swift (*Chaetura pelagica*), scarlet tanager (*Piranga olivacea*), and wood thrush (*Hylocichla mustelina*).

The NLEB's species range encompasses the entirety 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. The CT DEEP's *Northern Long-Eared Bat Areas of Concern in Connecticut to Assist with Federal Endangered Species Act Compliance* map indicates that no known hibernacula of NLEB are located within the Town of Franklin. The nearest known hibernacula is within the Town of North Branford, approximately 32.3 miles southwest of Franklin or the Town of East Granby, approximately 33.07 miles to the northwest of Franklin.

Effective March 31, 2023, 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). WKA reviewed the

[6] "Take" refers to any means to "harass, harm, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct to threatened and endangered species."
[7] An "Endangered species" is: "Any species which is in danger of extinction throughout all or a significant portion of its range. Endangered species are protected by the take prohibitions of section 9 under the ESA."
[8] A "Proposed Endangered" species is: "Any species the Service has determined is in danger of extinction throughout all or a significant portion of its range and the Service has proposed a draft rule to list as endangered. Proposed endangered species are not protected by the take prohibitions of section 9 of the ESA until the rule to list is finalized".
[9] "Candidate species" are "species which the USFWS has sufficient information to propose as endangered or threatened under the ESA, but for which their development of a proposed listing regulation is precluded by other higher priority listing activities. Candidate species are not protected by the take prohibitions of section 9 of the ESA."

new NLEB Determination Key ("DKey) for this Project and the DKey determined the Project is not reasonably certain to cause incidental take[10] of NLEB and does not require a permit from USFWS. A USFWS letter dated December 18, 2023, confirmed that determination. The IPaC was rerun on April 4, 2024 and a new species list was provided by the USFWS. The DKey was also rerun, but the resulting letter was dated December 18, 2023.

The tricolor bat is a species proposed under draft ruling by the USFWS to be endangered. Until the species is listed, this species is not officially entitled to legal protection under the ESA, and they are not considered when making a determination as to "take".

The monarch butterfly is a candidate species for protection under the ESA. As such, until this species is listed, this species is not officially entitled to legal protection under the ESA, and they are not considered when making a determination as to "take".

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

Wetlands

Wetlands and watercourses onsite were identified, field delineated and assessed by William Kenny Associates, LLC on October 12 and 26, 2023. The locations of these resources are depicted on Figure 2, Existing Conditions Map. Approximately 40 acres of the Property were investigated, including the Project Site. Within this investigation area, one wetland and watercourse system were identified and delineated. The system, which is contained within the Property, and adjacent to the Project Site, is a segment of Cold Brook, extending and flowing southwest to northeast and bordering woodland, shrubland and meadow wet floodplain wetlands. The location of these resources is depicted in the *Wetland and Watercourse Delineation* report.

The primary wetland and watercourse system within proximity of the Project Site is a segment of Cold Brook located along the eastern and southeastern bounds of the Property. This segment of Cold Brook corresponds to the Midreach Stream habitat and details regarding the onsite segment of the brook's flow path, dimensions, water depth, flow speed, streambed composition and the vegetative communities within

[10] "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.

its surrounding wetland floodplain are discussed in detail in Section (VI C II). The *CT DEEP Cold Water Habitat Map* indicates that Cold Brook is within a cold-water drainage basin. CT DEEP resources indicate Cold Brook does not contain a stocked trout population; however, Cold Brook is a tributary of the Shetucket River which is approximately 1,750 feet from the Property to the north. In 2022 the Shetucket River was stocked with approximately 9,300 adult and trophy-sized individuals of various species including brown trout, rainbow trout, tiger trout, Atlantic salmon, and American shad. It is likely that not only finfish such as trout, shad, fallfish, chubs, and various sunfish are present within Cold Brook, but it is likely that Cold Brook also sustains a freshwater mussel population as well as evidenced by the CT DEEP NDDB Determination.

The Facility will occupy the central portion of the Project Site that was part of the previous mining operation. There are no direct wetland impacts or tree clearing, except for minimal tree cutting for the electrical interconnection, 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 these wetland resources based on the proposed protection measures outlined herein.

Table 2: Wetland Impacts Table

Table 2: Wetland Impacts		
Direct Impacts to Wetland (ac.)	0	
Project Site Proximity to Wetlands (from limit of disturbance)	Distance (+/-ft.)	Direction (of wetland/water from LOD)
Project Site Proximity to Wetland 1	34	Southeast

E. Water Resources and Stormwater Management

The Project 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. The Project will result in a de minimis increase in impervious cover at the Project Site. A stormwater management plan is proposed to control stormwater at the Project Site. 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 #09011C 0042 G, dated July 18, 2011. Based upon the reviewed FIRM Map, the Property is in an area designated as "Zone X[11]" and "Zone A[12]". Most of the Project Site falls within Zone X, and only areas along existing access drive and proposed electrical interconnection route, the southeastern portions of the site (areas associated with Cold Brook), fall within Zone A.

No special design considerations or precautions relative to flooding are required for the Facility. As no portion of the Facility is proposed to be in or impact either 100- or 500-year flood zones, no impacts are anticipated to floodplain or downstream areas. The only activity proposed within Zone A is temporary work associated with the electrical interconnection trenching, which will be conducted over a short time frame and employ temporary soil erosion and sediment control measures for the duration of the work. As such, no impacts to the floodplain or downstream areas are anticipated with the electrical interconnection trenching. See Figure 2, Existing Conditions Map.

ii. Groundwater

The *CT DEEP Water Quality Classifications Franklin, CT* map, dated October 2018 classifies the groundwater underlying the Project Site as "GA".[13] This classification indicates groundwater within the area is presumed to be suitable for human consumption without treatment. The *CT DEEP Public Water Supply Map* indicates the Project Site is not located within a mapped (preliminary or final) DEEP Aquifer Protection Area[14].

iii. Surface Water

The Project will have no adverse environmental effect on surface water quality. Based upon CT DEEP mapping, the Project Site is located within two Local Drainage Basins, (3800-06) and (3800-00), both associated with the larger Shetucket River Subregional, (3800) and Regional (38) Drainage Basins. The Shetucket River drains to the Thames River Major Drainage Basin (3).

[11] "Zone X" is defined as "the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood."
[12] 'Zone A' is defined as "areas with one-percent annual chance of flooding and a 26 percent chance of flooding over the life of a 30-year mortgage."
[13] 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.
[14] The Sprague (A 147) Aquifer Protection Area is located approximately 4.7 miles southeast of the Site.

CT DEEP mapping shows one mapped waterbody, Cold Brook, is located along the eastern and southeastern bounds of the Project Site and is more than 100 feet from the Project's limits of disturbance, save for electrical interconnection trenching work proposed within approximately 50 feet of Cold Brook. The *CT DEEP Water Quality Classifications Franklin, CT* map classifies Cold Brook as a "Class A[15]" surface waterbody. The CT DEEP Streamflow map classifies Cold Brook as a first order stream with "Class 1[16] stream flow."

The *CT DEEP Public Water Supply Map* indicates that the Project Site is not located within a mapped Public Drinking Supply Watershed[17]. Additionally, the Property is not serviced by Community Public Water System Areas[18].

During construction, SESC measures will be installed and maintained in accordance with the *2024 Connecticut Guidelines for Soil Erosion and Sediment Control*. Once operative, stormwater will be managed in accordance with the *2024 Connecticut Stormwater Quality Manual*. Based on the Project design, type, and use and proposed stormwater management measures, it is concluded that the Project will have no direct adverse environmental impact on surface or groundwater quality.

F. Soils and Geology

All exposed soils resulting from construction activities will be properly and promptly treated in accordance with the 2024 Connecticut Guidelines for Soil Erosion and Sediment Control.

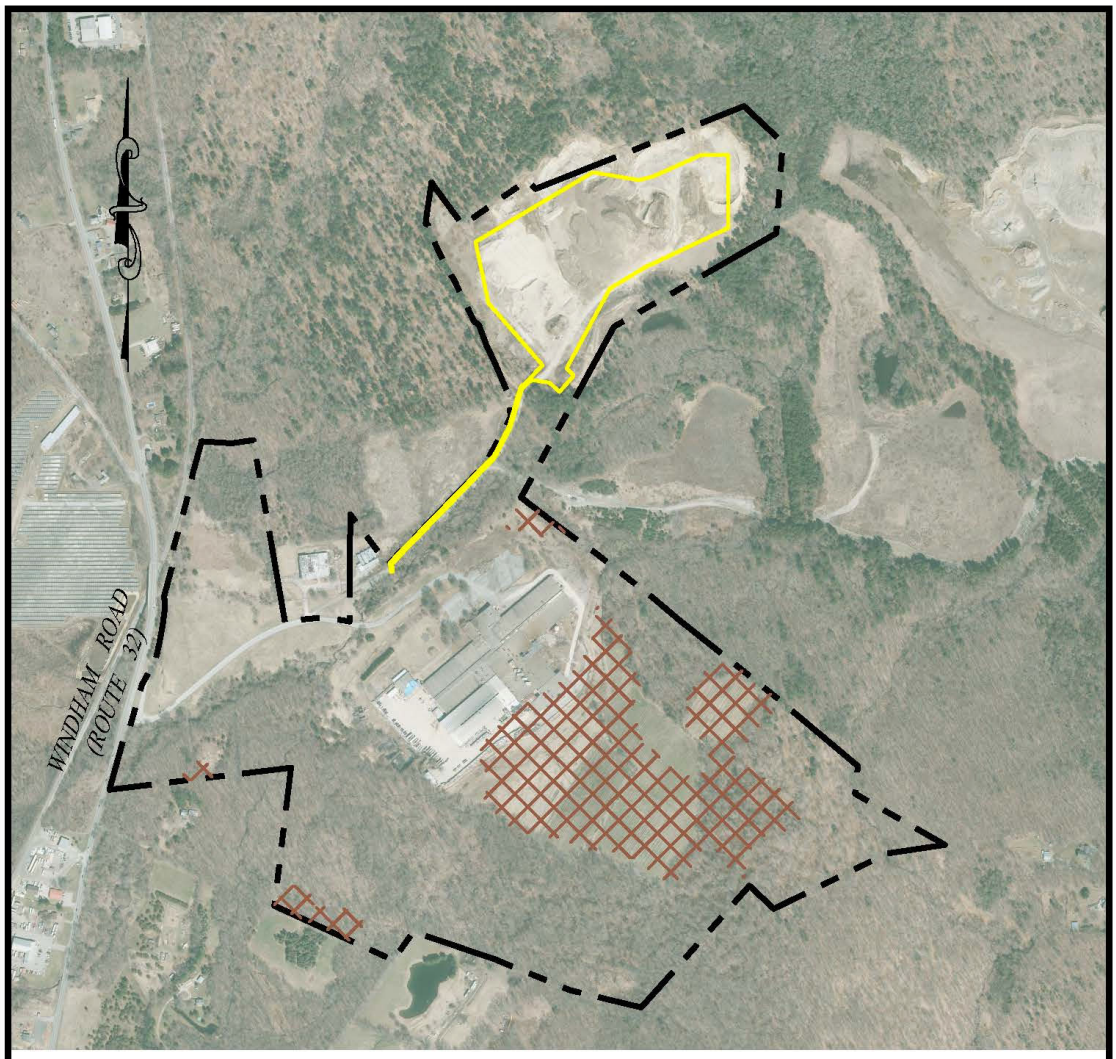
Based upon CT DEEP mapping, surficial materials within the Project Site are classified as deposits of sand and deposits of sand and gravel. Bedrock beneath the Property is identified as Portland Arkose. Portland Arkose is described as a reddish-brown to maroon micaceous arkose and siltstone and red to black fissile silty shale.[19]

The Petitioner does not anticipate encountering bedrock during Project development.

Prime Farmland Soils are found on the Property, but not within the Project Site. See Figure 6, Prime Farmlands Map. No regrading is required for development of the Project, no topsoil is to be removed from

[15] 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.
[16] "Class 1" is described as a free-flowing stream.
[17] The Norwich Public Utilities (CT 1040011) Public Drinking Supply Watershed is approximately 4.2 miles southeast of the Site.
[18] The Windham Water Works (CT 1630011) Community Public Water Systems Area is approximately 2,945 feet northwest of the Site.
[19] Connecticut Natural Resources Atlas Series: Bedrock Geological map, cteco.uconn.edu/maps/state/Bedrock_Geologic_Map_of_Connecticut.pdf

the Project Site, and none will leave the Property. In accordance with General Statutes §16-50k(a), the Petitioner consulted with the Connecticut Department of Agriculture ("DOA") in November 2023 and provided information on the Project. Following this consultation, the DOA determined that the Project will not materially affect the status of the Project Site as prime farmland. See Appendix J, DOA correspondence.



LEGEND

- PROPERTY LINE
- PROJECT AREA
- PRIME FARMLAND SOILS

MAP NOTES:

1. BASE MAP TAKEN FROM CT ECO 2019 AERIAL PHOTOGRAPHY.
2. PRIME FARMLAND INFORMATION TAKEN FROM CT ECO ADVANCED VIEWER.

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PRIME FARMLAND MAP

931 ROUTE 32
NORTH FRANKLIN, CONNECTICUT

Project #:	23112101
Plan Date:	02/29/24
Scale:	1" = 800'
Figure:	6

G. Historic and Archaeological Resources

Archaeological Consulting Services LLC ("ACS") reviewed relevant historic and archaeological information to determine whether the Property holds potential historic or cultural resource significance. Their review of historic maps and aerial images of the Property, 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, ACS determined that the Project Site has a low sensitivity for historical cultural resources. Because of a lack of evidence for direct historic occupation of the Property and intensive and extensive disturbance of subsurface contexts, ACS recommends no further archaeological conservation efforts for the Project Site. SHPO agrees with ACS's recommendation per their letter dated February 23, 2024. The completed phase 1A report and SHPO letter 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 because 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

As mentioned above, the Project is in the Town of Franklin's C-2 Mixed Commercial and Light Industrial District and all adjacent properties to the Project Site are zoned R-120 Residential District. Potential Project-related noise is regulated by Connecticut General Statutes section 22a-69 and Regulations of Connecticut State Agencies (RCSA) Section 22a-69 et. seq.

The State Noise Regulations prohibit the emission of continuous excessive noise beyond the boundary of their Noise Zone. The Project is considered a Class C Land use with residential receptors to

the north, south, east, and west of the Project Site, thus requiring a maximum level of 61 dBA during daytime hours (defined as 7 AM to 10 PM) and 51 dBA during nighttime hours (defined as 10 PM to 7 AM). Construction noise is exempt from the noise regulations.

The Facility, once operational, will have limited noise-producing equipment onsite, consisting of inverters and transformers. The loudest piece of equipment onsite will be the inverters. According to the manufacturer's specifications, this inverter will generate a maximum sound level of <65 dBA at 1m (3.281 feet) away.

The Project's equipment area, where the inverters and transformers are located, has been located at the end of the existing access road on the south side of the Facility (where still accessible by the access road). The nearest residence to the noise generating equipment (the inverters) is approximately 2,000 feet to the west. The distance from the nearest equipment pad to the nearest property line is approximately 107 feet to the southeast. Per a previously completed sound analysis, a combined inverter bank has a calculated sound power level of under 85 dBA at a distance of one (1) meter. The Petitioner applied the Inverse Square Law to evaluate the relative sound level of the inverters to the nearest residential property line, and the calculations show that an 85 dBA at one meter would drop to approximately 54.7 dBA at a distance of 107 feet (32.6 meters), which is below the maximum allowable of 61 dBA residential receptor daytime limit. The inverters only operate during daytime hours and therefore no noise generation is anticipated at night.

During the construction period, the Applicant expects that some typical construction equipment noise will occur, however the construction activities are only to 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.

J. Lighting

No exterior lighting is planned for the Facility.

K. FAA Determination

The closest federally obligated airport is Windham Airport, located approximately 6 miles north of the Project Site.

Solli Engineering has submitted the required project information to the Federal Aviation Administration (FAA) for review. The FAA reviewed multiple sample points to determine whether a potential hazard exists for air navigation. Upon review, the FAA issued a Determination of No Hazard to Air Navigation

for all points. A glare analysis is not required at this time. See Appendix L for the FAA's determination on the Project.

L. Scenic and Recreational Areas

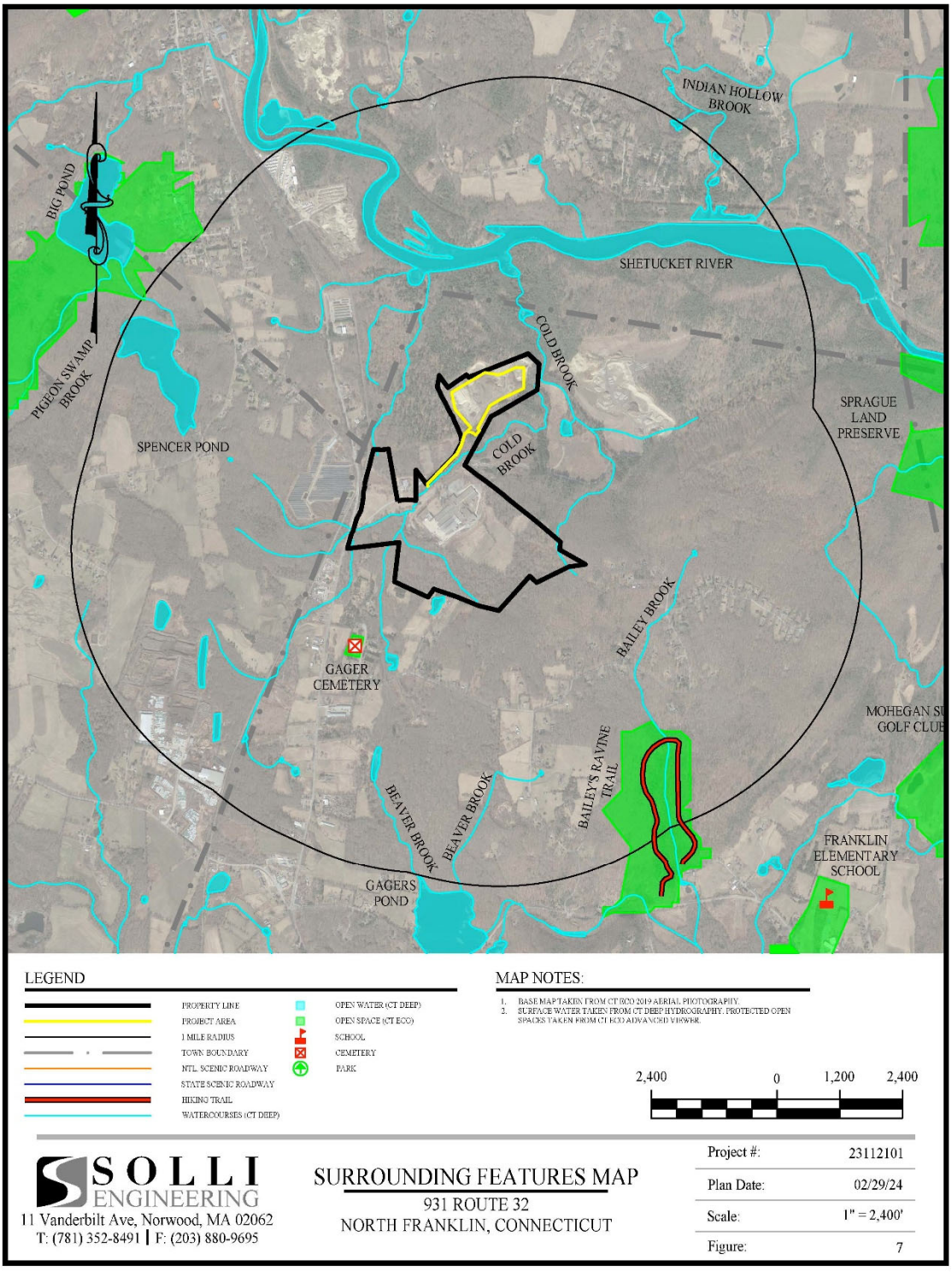
There are no public scenic or recreational areas within the immediate vicinity of the Project. Sprague Land Preserve, which exists to the east and southeast of the site in the Towns of Sprague and Franklin at its closest point is located approximately 1.3 miles southeast of the Project. Due to the combination of distance, topography, and existing vegetation, it is not anticipated that the Project would be visible from this recreation area.

No scenic roads are found within a one-mile radius of the Property. The nearest scenic road is Pond Road (State Route 207), located approximately 1.75 miles south of the Property in the Town of Franklin. Due to the combination of distance, topography, and existing vegetation, it is not anticipated that the Project would be visible from this scenic road.

See Figure 7, Surrounding Features Map.

M. Visibility Evaluation

The Facility will be located in a previously cleared field that is located more than 1,900 feet from the nearest public road. Off-Site visibility to the site will be obscured year-round by the combination of this distance, the natural topography, and the significant established vegetation. In addition, the new service connection to the utility (Eversource) grid will not be visible from the public road, as the connection is being made to an existing on-site service pole that is located more than 1,300 feet from this public road.


INDIAN HOLLOW BROOK
BIG POND
SHETUCKET RIVER
COLD BROOK
PIGEON SWAMP BROOK
SPRAGUE LAND PRESERVE
SPENCER POND
COLD BROOK
BAILEY BROOK
GAGER CEMETERY
MOHEGAN SU
GOLF CLUB
BAILEY'S RAVINE TRAIL
BEAVER BROOK
BEAVER BROOK
FRANKLIN ELEMENTARY SCHOOL
GAGERS POND
LEGEND
PROPERTY LINE
PROJECT AREA
1 MILE RADIUS
TOWN BOUNDARY
NTL. SCENIC ROADWAY
STATE SCENIC ROADWAY
HIKING TRAIL
WATERCOURSES (CT DEEP)
OPEN WATER (CT DEEP)
OPEN SPACE (CT ECO)
SCHOOL
CEMETERY
PARK
MAP NOTES:
1. BASE MAP TAKEN FROM CT ECO 2019 AERIAL PHOTOGRAPHY.
2. SURFACE WATER TAKEN FROM CT DEEP HYDROGRAPHY. PROTECTED OPEN SPACES TAKEN FROM CT ECO ADVANCED VIEWER.
2,400
0
1,200
2,400
SOLLI ENGINEERING
11 Vanderbilt Ave, Norwood, MA 02062
T: (781) 352-8491 | F: (203) 880-9695
SURROUNDING FEATURES MAP
931 ROUTE 32
NORTH FRANKLIN, CONNECTICUT
Project #: 23112101
Plan Date: 02/29/24
Scale: 1" = 2,400'
Figure: 7

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,

FRANKLIN SOLAR ONE, LLC

By_____

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