

EXHIBIT F

Environmental Assessment



Environmental Assessment

Proposed Solar Photovoltaic Array 37 Hunters Lane Southington, Connecticut

Prepared For
Tritec Americas, LLC
888 Prospect Street, Suite 200
La Jolla, California 92037

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501 Main Street, Suite 2A
Monroe, CT 06468
Office: (203) 880-5455



11 Vanderbilt Avenue, Suite 240
Norwood, MA 02062
Office: (781) 352-8491

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1.0 INTRODUCTION

Solli Engineering (Solli) has prepared this Environmental Assessment (EA) on behalf of Tritec Americas, LLC, (Petitioner) as an exhibit to the Connecticut Siting Council for a Petition for a Declaratory Ruling that a Certificate of Environmental Compatibility and Public Need is not required for the construction, maintenance, and operation of a 0.99 megawatt (MW) alternating current (AC) ground-mounted solar photovoltaic array (Project/Facility) to be located at 37 Hunters Lane in Southington, Connecticut (Site).

2.0 PROJECT DESCRIPTION

2.1 EXISTING SITE CONDITIONS

The Project area is comprised of a 6.6± acre portion of the 24.25± acre Site. The Site is bound by Hunters Lane and residential uses to the north, Interstate 84 and industrial uses to the east, town parkland to the south and residential uses to the west. The Site is located in a Residential Zone (R-12). The parcel is currently developed as a multifamily residential complex, with an existing road connecting Hunters Lane in the north to residential buildings and parking structures in the southern portion of the property. The proposed Project area is immediately surrounded by undeveloped woodlands.

Elevations on-site range from approximately 196 feet at the east side of the property to approximately 208 feet at the southwest property corner. Slopes range from 1% in the middle portion of the Project area to 8% in the eastern portion of the Project area.

The Site contains a woodland wetland in the northern portion of the Site and an intermittent stream in the southern portion of the Site. Both wetland corridors run generally from east to west. The Facility is proposed to be located outside of these existing wetland areas. Please refer to Section 3.2 for more details regarding existing water resources.

2.2 PROPOSED DEVELOPMENT

As currently designed, the proposed Project will consist of 2,590 TrinaSolar TSM-DEG19C20 540W modules, eight (8) Sungrow SG125HV 125kW inverters, AC panel boards and/or switchgear, one (1) 2,000 kVA transformer, and one (1) service interconnection line. The panels will be secured to a ground-mounted steel racking structure utilizing a single-axis tracking system, which allows the panels to rotate from east to west for more efficient capture of sunlight. The steel racking structure will be anchored to the ground using pile driven posts. The array of panels and the equipment will be surrounded by a 7-ft tall chain link security fence. Access to the Project will be from the existing access road into the multifamily residential complex via a 12-ft wide, 565± ft long gravel road. The proposed driveway onto this access road is located approximately 890± ft south of the intersection of the access road with Hunters Lane. The road will extend to the east to provide access to the proposed equipment, and will generate minimal traffic, for the primary use of operation and maintenance of the photovoltaic array. The proposed utility interconnection service poles by Eversource will be located in the northeast corner of the Site adjacent to the proposed connection on Metals Drive.

2.2.1 PUBLIC HEALTH AND SAFETY

The Project has been designed to meet all applicable local, state, national and industrial health and safety standards related to electric power generation. The Facility will not consume any raw materials, will not produce any by-products, and will be unstaffed under normal operating conditions.

A 7-ft tall chain link fence is proposed to surround the development. A 16-ft wide gate is proposed at the entrance to the Project area and will limit access to authorized personnel only. Town emergency response

personnel will have access to the Facility via a Knox padlock. The photovoltaic array will have the ability to be de-energized remotely in case of an emergency.

2.2.2 LAND USE PLAN

The solar photovoltaic array has been designed in accordance with state and federal policies and will support the State of Connecticut’s energy goals by constructing a renewable energy resource with no substantial adverse environmental impact. The solar photovoltaic array will comply with the current Connecticut State Building Code and National Electric Code.

Although the Town of Southington currently does not have any land use requirements related to commercial-grade solar photovoltaic arrays, the Project was designed to meet the Town’s land use regulations to the maximum extent practicable.

Per the *Connecticut Department of Energy & Environmental Protection (CT DEEP) Appendix I, Stormwater Management at Solar Array Construction Projects* (Appendix I), the solar array has been designed to maintain a 100-ft buffer between all solar panels and any wetland or watercourse as well as a 50-ft buffer from any property line located downgradient of the panels. Tree lines will be maintained to the best extent practicable to provide a visual buffer to adjoining properties.

The distance, direction, and address of the nearest property line and nearest off-site residence from the proposed 7’ chain link fence, transformer pad, and access drive is shown in Table 1.

Table 1: Proposed Development Limits Table

	Distance (ft)	Direction	Address
Perimeter Fence to Property Line	38’	East	8 Metals Drive
Perimeter Fence to Residence	437’	West	115 Roxbury Road
Transformer Pad to Property Line	69’	East	8 Metals Drive
Transformer Pad to Residence	905’	West	95 Roxbury Road
Access Drive to Property Line	157’	East	8 Metals Drive
Access Drive to Residence	375’	West	115 Roxbury Road
Project Area to Nearest Town Line	6,000’	South	Cheshire

Equipment

TrinaSolar TSM-DEG19C20 540W modules are solar panels consisting of a glass-cover, aluminum pane, and sealed back sheet, preventing rainwater from penetrating the panels and leaching out chemicals or substances. These solar panels have a width of 7.8 feet, a minimum height of 3 feet above grade, and a maximum height of 6 feet above grade when panels are at full tilt. The manufacturer of the solar panels, Trina Solar Co., Ltd., has conducted Toxicity Characteristic Leaching Procedure (TCLP) testing of the proposed solar panels. The solar panels are not classified as hazardous waste. For more information refer to the TCLP test results attached in Appendix F, Product Data Sheets.

Medium voltage switchgear and the 2,000 kVa transformer is proposed to be installed on the concrete pad that abuts the proposed access driveway. The proposed transformer will contain mineral oil which is not a

danger to the environment. The transformer is standard and used industry-wide, including by electrical distribution companies such as Eversource. Final dimensions of the switchgear and transformer will be available when equipment is ordered.

The Petitioner believes that this Project will benefit the local community by improving electrical service for existing and future development with the availability of a local, renewable energy source.

2.2.3 STORMWATER MANAGEMENT PLAN

The Project has been designed in accordance with the *2024 Connecticut Stormwater Quality Manual*; the *Connecticut General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities* (General Permit), effective December 31, 2020; and the *Connecticut Department of Energy & Environmental Protection (CT DEEP) Appendix I, Stormwater Management at Solar Array Construction Projects* (Appendix I). The design addresses three primary concerns: the management of peak stormwater flows, water quality volume treatment and soil and sedimentation controls (SESC) throughout the construction period.

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 the CT DEEP Stormwater Management team. The SWPCP will include monitoring of established SESC measures that are to be installed and maintained in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* and Appendix I.

The phased soil and erosion control plans and details are provided in Appendix B. To meet the requirements of the General Permit, silt fencing with wings and compost filter socks will be installed during construction activities. Perimeter SESC measures will encircle the Project area to trap sediment mobilized during construction activities. These measures will be cleaned of deposited sediment as needed during construction to maintain sufficient sediment storage capacity.

As indicated in the Stormwater Management Report, pre-development drainage patterns are proposed to be maintained, to the greatest extent possible, to maintain and/or reduce peak post-development flows to off-site areas. The proposed design results in the management/reduction of post-development peak runoff rates from existing conditions for the 2-, 25-, 50- and 100-year storm events through the installation of a stormwater infiltration basin with two, 20-ft wide rip-rap emergency spillways. According to the NRCS Soil Survey Geographic database for the State of Connecticut, the soils in which the stormwater infiltration basin is proposed, are comprised of Ludlow silt loam. The saturated hydraulic conductivity (Ksat) for these soils provides a rating of 3.9278 micrometers per second, which translates to an infiltration rate of 0.50 in/hr. Water quality treatment will be handled within the sediment forebay as well as via the seed mix proposed across the Project area which will promote a meadow-type ground cover that encourages 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.

2.24 LANDSCAPE PLAN

Vegetation buffers are proposed to shield the Facility from neighboring properties. Planting materials, consisting of a mix of evergreen species, will provide year-round screening on the western and southern sides of the Project area. Existing wetlands provide buffers on the northern and eastern sides of the Project. The south side of the Site is adjacent to residential uses.

Seed mixes for the proposed solar photovoltaic array include ERNMX-147 for final stabilization within the solar array, ERNMX-610 for areas outside of the fence line and in non-array areas, and New England Erosion Control/Restoration No Mow Mix for the stormwater basin. For more information refer to the seed mix notes in Sheet 2.11 of Appendix B.

3.0 ENVIRONMENTAL CONDITIONS

This section provides a summary of the existing environmental conditions in and around the Site, as well as the potential impacts on the environment from the proposed photovoltaic array development. The results discussed in this section demonstrate that the development complies with CT DEEP air and water quality standards and will have no adverse effect on the existing environment and ecology.

3.1 AIR QUALITY

The nature of solar energy generating facilities results in a condition where no air emissions are generated during the operations of the facility. Therefore, this development will have no adverse effect on air quality and will not require a permit.

During construction, temporary mobile source emissions may occur due to the presence of construction vehicles and equipment. Any of these potential air emissions that occur during the construction of the solar photovoltaic array can be considered de minimis. These emissions will be mitigated using measures such as limited idling times of equipment, regular maintenance of all vehicles and equipment, and watering/spraying of vehicles and equipment to minimize dust and particulate releases. Additionally, all on-site and off-road equipment will meet the latest standards for diesel emissions as prescribed by the United States Environmental Protection Agency.

3.2 WATER RESOURCES

Wetlands and watercourses onsite were identified and field delineated by Pietras Environmental Group, LLC in 2017, as shown on the survey titled *As Built Site Plan Zoning Location Survey – Record Prepared For Wonk Road Partnership, LLC Bayberry Woods 37 Hunters Lane Southington, Connecticut* prepared by Harry E. Cole & Son, last revised February 18, 2022. The survey is attached in Appendix B of this environmental assessment. William Kenny Associates LLC assessed the wetlands and watercourses as delineated by Pietras Environmental Group, LLC and concluded that all areas delineated onsite correspond to two wetland and watercourse habitats, those being a Red Maple Hardwood Swamp and an Intermittent Stream/Drainage Ditch.

3.2.1 WETLANDS AND WATERCOURSES

Red-Maple Hardwood Swamp

The broadleaf deciduous woodland wetland on the property is a Red Maple Hardwood Swamp. The principal source of hydrology for this wetland and watercourse system is groundwater discharge from the surrounding landscape as well as surface water flow conveyed from Interstate 84. The property is relatively flat throughout, with a semi-elevated plateau in the central portion of the property where improvements once were. Surface water and subsurface groundwater flows from the northwest to the southeast and west to east to the northern portion of the wetland which appears to be hydrologically isolated from other wetland areas, on and off the property. The canopy within the Red Maple Swamp consists primarily of pole-timber-sized red maple trees, which are approximately 60 years old. Pole-to-saw-timber size shagbark hickory, pignut hickory, pin oak, and swamp white oak trees are interspersed throughout the system as well. Understory trees include American hornbeam, northern catalpa, American beech, sassafras, and saplings of green ash, black cherry, American elm, yellow birch, eastern white pine tulip poplar, and invasive Norway maple. The woodland has a relatively open shrub stratum consisting of spicebush, witch hazel, highbush

blueberry, sweet pepperbush, and arrowwood viburnum as well as invasive Japanese barberry, multiflora rose, and burning bush. Woody vines are also common in the woodland within areas of open canopy and along the edge of the habitat and include greenbrier, grapevine, and poison ivy as well as invasive Japanese honeysuckle, and oriental bittersweet vines. Groundcovers within the wetland include jack in the pulpit, jewelweed, white wood aster, goldenrod, American wintergreen, Christmas fern, sensitive fern, interrupted fern, New York fern, American hog peanut, Solomons plume, broadleaf enchanters' nightshade, American jumpseed, tall hairy agrimony, false nettle, royal fern, marsh violet, sallow sedge, Canada mayflower, swamp dewberry, and invasive garlic mustard, Japanese knotweed, and common reed. The soils within this habitat are poorly drained loams formed from lodgement glacial till deposits or are forming in human-altered deposits. The deposits are from red arkosic sandstones native to the Connecticut Rift Valley. The hydrogeomorphic classification of the wetland and watercourse system is "Gently Sloping" and the USFWS National Wetlands Inventory (NWI) classification for this system is Palustrine, Forested, Broad-Leaved Deciduous (PFO1). For more information refer to Figure 2, Wetlands and Watercourses Map, included in Appendix A.

Intermittent Stream / Drainage Ditch

An intermittent watercourse and/or manmade ditch is present in the southern portion of the property and drains southwest beneath Interstate 84; however, this watercourse appears to be isolated from the wetlands in the northern portion of the property and primarily conveys stormwater from the multi-family residential development in the southwestern portion of the property, stormwater intercepted from a manmade swale within the Successional Old Field that runs parallel to the access drive to the development, and some periodic shallow subsurface groundwater. No vegetation is present within the ditch. The adjacent upland habitat is the Red Maple Woodland habitat. Soils within the habitat are poorly drained loams forming in human-altered deposits. The deposits are from red arkosic sandstones native to the Connecticut Rift Valley. The hydrogeomorphic classification of this watercourse system is "Riverine" and the USFWS NWI classification for this system is Riverine, Intermittent, Streambed, Sand, Intermittently Flooded (R4SB4J). For more information refer to Figure 2, Wetlands and Watercourses Map, included in Appendix A.

3.2.2 WETLAND IMPACTS

There are limited direct impacts to the wetlands associated with the proposed underground utility route. These temporary impacts include trenching within the Hardwood Swamp wetland area, stockpiling of excavated material next to the trench, installing conduit and backfill, and restoring the wetland surface. A Resource Protection Plan has been prepared to mitigate any long-term impacts. Please refer to Sheet 2.32 for the Resource Protection Plan.

No construction or development activities within the fenced area are proposed within a wetland or watercourse. As such, no direct impacts will occur. Furthermore, the majority of the Project Area is more than 100 feet from wetlands and watercourses save for the installation of portions of the chain link fence, landscape plantings and a portion of the gravel access drive. In the short-term during the Facility's construction, soil erosion and sedimentation control measures are proposed to prevent adverse indirect impacts to the wetlands and watercourses. In the long-term, no adverse wetland or watercourse impacts from stormwater runoff are expected due to the Facility's minimal impervious surfaces, proposed vegetated surfaces and proposed stormwater management plan.

Table 2: Wetlands Impacts Table

Wetlands Impacts	
Direct Impacts to Hardwood Swamp	0.02 Acres
Direct Impacts to Intermittent Stream	0 Acres
Direct Impacts to Upland Review Area of Hardwood Swamp	0.33 Acres
Direct Impacts to Upland Review Area of Intermittent Stream	0.56 Acres
Limit of Disturbance to Wetland	
Hardwood Swamp	0 Feet
Intermittent Stream	32 Feet

3.2.4 FLOODPLAIN AREAS

According to FEMA Flood Insurance Rate Map, Map Number 09003C0584G, effective date May 16, 2017, the Site is within an area of minimal flood hazard, also known as Zone X, which indicates areas outside of the 0.2% annual chance floodplain: also known as the 500-year floodplain. Since the Site is not located within a special flood hazard area, no special considerations relative to flooding are necessary. For more information regarding the FEMA Floodplain Boundaries refer to Figure 3, FEMA Flood Map, included in Appendix A.

3.3 WATER QUALITY

The proposed solar array facility will have no potable water uses or sanitary discharges due to the unmanned nature of the facility. The proposed development will result in a de minimis increase in impervious cover within the Project area. The development includes a stormwater management plan to mitigate changes to stormwater runoff resulting from the increase in impervious cover.

3.3.1 GROUNDWATER

The CT DEEP *Water Quality Classifications Southington, CT* map, dated October 2018, was reviewed in order to assess the quality of ground and surface water at the property. For more information refer to Figure 4, Water Quality Classifications Map, attached in Appendix A. The map classifies that the property falls within an area classified with “GB” groundwater quality. “GB” groundwater quality’s defined uses are as “industrial process water and cooling waters and baseflow for hydraulically-connected water bodies and is presumed not suitable for human consumption without treatment.” During site investigations, several groundwater quality testing wells were observed onsite, likely installed post-demolition of the existing industrial building.

According to the CT DEEP Public Water Supply Map, the property does not fall within an aquifer protection area. The nearest aquifer protection area is approximately one mile south of the property. For more information refer to Figure 5, Public Supply Watershed Map, included in Appendix A.

The proposed development will have no adverse impact on groundwater quality.

3.3.2 SURFACE WATER

The property is situated within the Quinnipiac River Local, Subregional and Regional Drainage Basins (5200-00, 5200, & 52 respectively). The Quinnipiac River is a part of the South-Central Coast Major Drainage Basin (5). According to available maps and reports, no watercourses are present onsite; however, as referenced on project plans and on the survey titled *As Built Site Plan Zoning Location Survey – Record Prepared For Wonk Road Partnership, LLC Bayberry Woods 37 Hunters Lane Southington, Connecticut* prepared by Harry E. Cole & Son, last revised February 18, 2022, an intermittent watercourse is present in the southern portion of the property. This intermittent watercourse primarily conveys stormwater, but also conveys groundwater. The stormwater is from the parking lot of the multi-family residential development collected in several catch basins and directed via subsurface pipes with flared ends. Additionally, a drainage

swale along the eastern side of the access road feeds this intermittent watercourse. According to LIDAR imagery, the intermittent watercourse drains southeast offsite and passes beneath Interstate 84. As the onsite intermittent watercourse does not appear on available public maps, no streamflow or surface water quality classifications are set for it. The water quality classification for the watercourse east of Interstate 84 in this area of Southington are listed as “Class B” surface water quality according to the CT DEEP *Water Quality Classifications Southington, CT* map. “Class B” surface water quality defined use is as follows, “habitat for fish and aquatic life and wildlife; recreation; navigation, and industrial and agricultural water supply.” “Class B” surface waters are not suitable as potential drinking water supplies. For more information refer to Figure 4, Water Quality Classifications Map, attached in Appendix A of this environmental assessment.

According to the CT DEEP Public Water Supply Map, the Site is not located within a mapped Public Drinking Supply Watershed, nor are any surface water features mapped as CT DEEP Cold Water Habitat Sites. The majority of the property falls within a Service Area of a Community Public Water System, that being the Southington Water Department; however, because the panels will not leach out any chemicals or substances which may affect groundwater per Section 2.2.2, groundwater quality should not be affected by the proposed Project. For more information, please refer to Figure 5, Public Supply Watershed Map, included in Appendix A of this environmental assessment. The onsite intermittent watercourse does not serve or have the capacity to serve as a habitat for small fish or other aquatic life or flora. As such, no impacts to cold water habitats from the project will occur. Based on the Project’s design, type, and use, as well as the proposed stormwater management measures, the Project will not have direct adverse environmental impacts on surface water quality. Information regarding stormwater management BMPs can be found below.

3.4 HABITAT & WILDLIFE

Five (5) habitat types - three upland, one wetland, and one watercourse - are present at the property. The three upland habitat types are Successional Old Field, Mowed Lawn, and Red Maple Woodland. The wetland habitat is a Red Maple Hardwood Swamp. The watercourse habitat is an Intermittent Stream/Drainage Ditch. The wetland and watercourse habitats are discussed in greater detail in Section 3.2.1. Wildlife species that can use the property are common species to the area. These species are further discussed in Section 3.4.3 and the acreage of proposed habitat alteration is provided in Table 3.

3.4.1 HABITAT TYPES

Successional Old Field

The majority of the Site is Successional Old Field habitat with upland meadow interspersed with various tree species. According to historic aerial imagery of the Site, this property was a mixture of both forested and agricultural land in 1934. By 1959, the agricultural land had naturally reverted to woodland. The area was clear-cut between 1952 and 1970 making way for a large industrial development. This development remained until around 1990 when it was demolished. After demolition, the Site remained vacant until the current multi-family residential development was constructed in the southwestern portion of the Site in 2018. The Successional Old Field habitat consists of minimal canopy trees and shrubs and is dominated by herbaceous ground covers. Overall, there is less than 20 percent canopy coverage within this habitat. Canopy trees clustered throughout the habitat consist primarily of pole-timber-sized eastern cottonwood trees. Other trees include pole-timber-sized black locust, eastern red cedar, quaking aspen, and black cherry. Some large shrubs are present, primarily situated beneath or adjacent to the canopy trees. Invasive autumn olive is the dominant shrub species in this habitat. Other shrubs within the habitat include white mulberry, red chokeberry, raspberry, willow, invasive multiflora rose and amur honeysuckle. Various seedlings of aforementioned trees such as eastern cottonwood, quaking aspen, and black cherry as well as seedlings of trees that border along the woodlands adjacent to the Successional Old Field habitat such as red maple, northern catalpa, tulip poplar and invasive Norway maple, and tree of heaven are also present. Vines

common within the shrub strata of this habitat include native grapevine, poison ivy, Virginia creeper, and virgins bower as well as invasive oriental bittersweet, Japanese honeysuckle, and mile-a-minute. Herbaceous groundcover vegetation within the habitat is dense, accounting for nearly 80 percent of the vegetative cover. It is comprised primarily of goldenrod and ragweed with clusters of hairy white oldfield aster, American burnweed, common milkweed, and hemp dogbane in patches. Some portions of this habitat are within wetlands or areas that periodically experience shallow surface water ponding. Within these portions, herbaceous groundcovers include species adapted to wetter environments such as native devils beggarticks, soft rush, sallow sedge, grass leaved rush, cattails, blue vervain, and woolgrass as well as invasive common reed, purple loosestrife, reed canary grass, rice cutgrass, jungle rice, and pinkweed. Other groundcover vegetation within the Successional Old Field habitat includes red clover, nodding spurge, American plantain, birds foot trefoil, white vervain, wild carrot, common evening primrose, yellow foxtail, knotroot bristleglass, greater plantain, yellow nutsedge, pale purple coneflower, hedge bindweed, giant foxtail, common mullein, common boneset, common St. John's wort, spotted knapweed, slender path rush, barnyard grass, Indian tobacco, pokeweed, bull thistle, black-eyed Susan, round-headed bush clover, flat-topped goldenrod, whorled milkwort, curled dock, rough cinquefoil, and New York ironweed. Invasive species in the habitat include common mugwort, purple crownvetch, Japanese knotweed, and garlic mustard. The upland soils within this habitat are primarily well-drained to moderately well-drained silty or sandy loams formed from lodgement glacial till deposits or are currently forming in human-altered deposits. The wetland soils within this habitat are poorly drained loams formed from lodgement glacial till deposits. The deposits are from red arkosic sandstones native to the Connecticut Rift Valley. Approximately 74 percent (4.0 of 5.4 acres) of the Successional Old Field habitat is proposed to be modified by the proposed project to that of an early successional meadow habitat. Please see Table 3 for the total average of habitat alteration.

Mowed Lawn

Aerial photos show that the southwest portion of the Successional Old Field habitat was altered in 2018 for the development of several multi-family single-story condominiums, garages, storage sheds and asphalt drives and parking areas. The vegetative state of this residential development is Mowed Lawn habitat. Vegetation in the habitat includes ornamental arborvitae trees used for privacy screening and cool-season grasses that are frequently maintained. The soils within this habitat are primarily well-drained to moderately well-drained silty or sandy loams formed from lodgement glacial till deposits or are forming in human-altered deposits. The deposits are from red arkosic sandstones native to the Connecticut Rift Valley. Approximately 0.35 percent (976 of 275,623 square feet) of Mowed Lawn habitat is proposed to be altered by the proposed Project. Please see Table 3 for the total acreage of habitat alteration.

Red Maple Woodland

Portions of the Site adjacent to the Red Maple Hardwood Swamp are patches of upland Red Maple Woodland. The woodland exhibits 50 to 60 percent canopy coverage. Trees throughout the woodland are of similar distribution as discussed in the Red Maple Hardwood Swamp habitat (Section 3.2.1). Shrubs throughout the habitat are sparse in density and consist of sweet pepperbush, witch hazel, highbush blueberry as well as invasive Japanese barberry and multiflora rose. Groundcover within the habitat is sparse due to canopy coverage but primarily consists of goldenrod, Christmas fern, and Pennsylvania sedge. The soils throughout the habitat are well drained to moderately well drained silty or sandy loams formed from lodgement glacial till deposits. The deposits are from red arkosic sandstones native to the Connecticut Rift Valley. Approximately 31 percent (2.6 of 8.3 acres) of the Red Maple Woodland is proposed to be altered by the proposed Project. Please see Table 3 for the total acreage of habitat alteration.

The remaining habitat types on the property are wetland and watercourse systems. A Red Maple Hardwood Swamp habitat is located in the northern and eastern portions of the property and an Intermittent Stream/Drainage Ditch is located in the southern portion of the property. Further detail of these habitat

types is provided in Section 3.2.1. The wetlands and watercourses are not proposed to be negatively impacted by the proposed development.

Table 3: Habitat Area Table

Habitat Type	Total Area On-Site (±Acres)	Area of Disturbance (±Acres)
Successional Old Field	5.4	4.0
Mowed Lawn	6.3	0.0
Red Maple Woodland	8.3	2.6
Red Maple Hardwood Swamp	4.1	0.0
Intermittent Stream	0.0	0.0

3.4.2 CORE FOREST DETERMINATION

The Connecticut Department of Energy and the Environment (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-nonforest 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 account for patches of forest that are less than 250 acres in size, MCF are 250 to 500 acres LCF are greater than 500 acres.

Through review of CT DEEP’s 2020 Connecticut Forest Plan Priority Areas Map, it was determined that no areas of core forest will be impacted by this development, nor are any of those areas present on-site. The closest core forest is an approximately 27.6-acre SCF adjacent to the southwestern corner of the property. The closest LCF according to the CT DEEP map is approximately 1.5 miles west of the property and consists of an approximately 2,067-acre forest. For more information regarding the location of core forest relative to the Site refer to Figure 10, Core Forest Map, included in Appendix A.

3.4.3 WILDLIFE

The following section provides information regarding the wildlife either observed or have the potential to use each habitat type at the property and the effects the proposed project will have on the type and relative abundance of each wildlife group.

The largest habitat currently at the property is the combination of the Red Maple Hardwood Swamp and bordering upland Red Maple Woodland habitats. This habitat accounts for approximately 51 percent of the vegetative coverage at the property, with approximately 34 percent (8.3 acres) being upland Red Maple Woodland habitat and approximately 17 percent (4.1 acres) being wetland Red Maple Hardwood Swamp habitat. Red Maple Hardwood Swamps and Red Maple Woodlands are common in Connecticut and support large amounts of generalist wildlife species. Wildlife use these habitats’ relatively closed overstory and dense shrub layer for foraging, nesting, and coverage. Wildlife expected to use this habitat include mammal, avian species, and herpetofauna species.

Large mammals, such as the white-tailed deer, red fox, and eastern coyote, use Red Maple Hardwood Swamp habitat for high-quality foraging and drinking water. Predators use this habitat for hunting small mammals or accessing the nearby Successional Old Field habitat. While a portion of the Red Maple Woodland associated with the combined habitat type will be modified in order to construct the proposed Project, areas of impact are proposed to be replaced with Early Successional Meadow habitat. This combined habitat will serve the same purposes listed prior for large mammals, with the exception of the

removed canopy. This will slightly limit the woodland corridors that large mammals utilize to traverse throughout the neighborhood but will not eliminate them. As no wetland areas within this habitat are proposed to be altered, no impacts to large mammal water-dependent uses are proposed.

Small mammals expected to use the Red Maple Hardwood Swamp habitat type include eastern cottontail, raccoon, Virginia opossum and various shrews/mice. These animals use this habitat for burrowing, foraging, and traveling via downed coarse woody debris. While a portion of the Red Maple Woodland associated with the combined habitat type will be modified to construct the proposed Project, areas of impact are proposed to be replaced with Early Successional Meadow habitat. This combined habitat will serve the same purposes listed prior for small mammals, with the exception of the removed canopy. The removal of canopy allows for the potential creation of piles of downed coarse woody debris for small mammals within the adjacent woodland to avoid environmental impacts. With the protection of the Early Successional Meadow habitat by wildlife-friendly chain link fencing, additional protection will be provided to these mammals. As no wetland areas within this habitat are proposed to be altered, no impacts to small mammal water-dependent uses are proposed.

A wide variety of avian species use the Red Maple Hardwood Swamp habitat. Some species use the canopy to perch while hunting for small mammals on the woodland floor while some species use the dense shrub layer for protected nesting. Avian species identified during field investigations are mentioned in the discussion on wildlife that utilized Successional Old Field habitat. Additional species that are expected in the Red Maple Hardwood Swamp habitat includes the worm-eating warbler, wild turkey, tree swallow and the swamp sparrow. While a portion of the Red Maple Woodland associated with the combined habitat type will be modified to construct the proposed Project, areas of impact are proposed to be replaced with Early Successional Meadow habitat. This combined habitat will serve the same purposes listed prior for avian species, with the exception of the removal of canopy. This will remove perching trees on the edge of the Successional Old Field habitat for raptor species and portions of dense shrub layer for ground-nesting birds; however, the minimal impact to the Red Maple Woodland overall is minimal and avian species will utilize other areas. Additionally, the creation of Early Successional Meadow habitat will provide a wider variety of avian species to inhabit the property. As no wetland areas within this habitat are proposed to be altered, no impacts to avian water-dependent uses are proposed.

Lastly, herpetofauna expected to use Red Maple Hardwood Swamp habitat include the northern dusky salamander, four-toed salamander, eastern newt, eastern American toad, northern spring peeper, wood frog, and the northern black racer. Herpetofauna use Red Maple Hardwood Swamp habitat for its ample amounts of water and soft soils for burrowing. Additionally, snakes use Red Maple Hardwood Swamp habitat to hunt small mammals with the aid of herbaceous cover. While a portion of the Red Maple Woodland associated with the combined habitat type will be modified in order to construct the proposed Project, areas of impact are proposed to be replaced with Early Successional Meadow habitat. This combined habitat will serve the same purposes listed prior for herpetofauna, with the exception of the removal of canopy. This will provide additional area for reptilian species to sun, and the creation of Early Successional Meadow habitat will offset the removal of woodland herbaceous cover with meadow herbaceous cover. As no wetland areas within this habitat are proposed to be altered, no impacts to herpetofauna water-dependent uses are proposed.

The second largest habitat currently on the property is the Mowed Lawn habitat. This habitat accounts for approximately 26 percent of vegetative cover at the property. Mowed Lawn habitats are very throughout Connecticut and New England and support large amounts of generalist species that specialize within human-altered environments. Wildlife groups expected to use this habitat type include mammals, avian species, and herpetofauna species.

Large mammals expected to use the Mowed Lawn habitat include the white-tailed deer, red fox, and eastern coyote. These animals use this habitat to forage for small mammals or as a corridor of travel to various habitat types on the property. Taller grasses in some areas allows for concealment while scattered buildings and evergreen trees throughout provide stalking and burrowing areas.

Small mammals expected to use the Mowed Lawn habitat include shrews, eastern cottontail, woodchuck, meadow vole, woodland vole, meadow jumping mouse, Virginia opossum, raccoon, and the striped skunk. These animals use this habitat for burrowing, foraging, and traveling. Taller grasses along the fringe provide concealment while the soft topsoil of the cool season grasses support burrowing and tunneling activities.

A wide variety of avian species use Mowed Lawn habitat. Some species use the open canopy space to soar while hunting for small mammals or herpetofauna, some perch on trees near the fringes while others forage in the grass for insects and other invertebrates. Avian species identified during field investigations are mentioned in the discussion on wildlife that utilized Successional Old Field habitat. Additional species expected to use this habitat include the common raven, wild turkey, and red-winged blackbird.

Lastly, herpetofauna expected to use the Mowed Lawn habitat include the Dekay's brown snake, eastern milk snake and eastern rat snake. Snakes use the taller grasses on the fringe of this habitat for its herbaceous cover while hunting prey. Additionally, snakes can sun themselves on hardscapes due to the lack of canopy in this habitat. As no alteration of the Mowed Lawn habitat is proposed, the utilization of this habitat by mammals, avian species and herpetofauna should not be altered by the proposed Project.

The third largest habitat currently on the property is the Successional Old Field habitat. This habitat accounts for approximately 22 to 23 percent of the vegetative coverage at the property if portions of the habitat part of onsite wetlands are considered in calculations. Successional Old Field habitat is common for this region of Connecticut and support large amounts of generalist wildlife species. Wildlife expected to use this habitat include mammals, avian species, and herpetofauna species.

Large mammals such as the white-tailed deer, red fox, and eastern coyote use Successional Old Field habitat to browse herbaceous vegetation, hunt for small mammals or bed down. While a significant portion of the Successional Old Field habitat will be modified to construct the proposed Project, this habitat is proposed to be replaced with an Early Successional Meadow habitat. This habitat will generally serve the same purposes for large mammals as those of the existing habitat, with minor exceptions. Large mammals will be excluded from the area of proposed development and the proposed Early Successional Meadow habitat via proposed chain link fencing. This removes areas for large mammals to bed down and browse herbaceous vegetation; however, due to the nature of the location of the proposed development within a suburban residential area and the proximity to the major highway (Interstate 84), large mammals are already deterred from the site and will be minimally impacted from any further development that occurs in the area, preferring to utilize woodland areas along the eastern boundary of the property and within the Town park to the south. Additionally, with the use of wildlife-friendly fencing (i.e. fencing that has a six-inch gap at the bottom), it is likely that the proposed Early Successional Meadow habitat will either result in the same yield or create a higher yield of small prey species for large mammals on the property that can be accessed outside of the Project area.

Small mammals expected to use Successional Old Field habitat include shrews, eastern cottontail, woodchuck, meadow vole, woodland vole, meadow jumping mouse, raccoon, and the striped skunk. These animals use this habitat for burrowing, foraging, and traveling via a protected (covered) corridor. The conversion of the existing Successional Old Field habitat to Early Successional Meadow habitat should have minimal effect on small mammal populations. The proposed wildlife-friendly chain link fencing around the Project area will not prevent small mammals from entering the proposed Early Successional

Meadow habitat, rather it will exclude large mammal predators. Additionally, the overhead protection from the physical solar panel units will aid in protecting these individuals from avian predators.

A wide variety of avian species utilize Successional Old Field habitats. Some species use the lack of canopy coverage within the Successional Old Field habitat to soar while hunting for small mammals or herpetofauna in the open areas below; some find perching trees spread throughout the habitat; some prowl and prod the soil in search of insects and other invertebrates; and some use the herbaceous vegetation within the habitat to build nests. Avian species identified during field investigations include the blue jay, song sparrow, American robin, and the common yellowthroat. Additional species expected to use this habitat include the northern mockingbird, willow flycatcher, field sparrow, and the northern cardinal. The conversion of the current Successional Old Field habitat to Early Successional Meadow habitat should have a minimal effect on the avian populations. Similar herbaceous vegetation will be available for nest building as that found within the Successional Old Field habitat upon the creation of the Early Successional Meadow habitat. There is potential to increase prey populations as discussed earlier, and the physical solar panel units will provide a low-covered space for ground or shrub nesting birds to utilize the proposed Early Successional Meadow habitat.

Lastly, herpetofauna expected to use the Successional Old Field habitat include the northern black racer, red belly snake, milk snake, rat snake, and the eastern box turtle. Herpetofauna use Successional Old Field habitat for its large swaths of area in direct sunlight and soft soils for burrowing/egg laying. Additionally, snakes utilize tall herbaceous cover within this habitat to hunt for small prey. The conversion of the current Successional Old Field habitat to Early Successional Meadow habitat should have a minimal effect on the herpetofauna populations. The proposed wildlife-friendly chain link fence around the Project area will not prevent herpetofauna from entering the proposed Early Successional Meadow habitat; rather, it will exclude large mammal predators. Likewise, the overhead protection from the physical solar panel units should aid in providing cover for these species from avian predators.

The smallest habitat currently on the property is the Intermittent Stream/Drainage Ditch habitat. This habitat accounts for less than one percent of vegetative cover at the property. Artificial intermittent watercourse habitats are very common throughout Connecticut and New England and support some generalist species that specialize within human-altered environments. The watercourse habitat extends through the adjacent Red Maple Woodland habitat. Wildlife groups expected to use this habitat type include mammals, avian species and herpetofauna species.

Large mammals expected to use the Intermittent Stream/Drainage Ditch habitat include the white-tailed deer, red fox, and eastern coyote. These animals use the watercourse habitat during inundated periods for fresh drinking water. The watercourse habitat provides an easy travel corridor for accessing the adjacent combined Red Maple Hardwood Swamp and Red Maple Woodland habitats or the nearby Successional Old Field habitat.

Small mammals expected to use the Intermittent Stream/Drainage Ditch habitat include shrews, eastern cottontail, woodchuck, meadow vole, woodland vole, meadow jumping mouse, Virginia opossum, raccoon, and the striped skunk. These animals use this habitat during inundated periods for fresh drinking water. The watercourse habitat provides an easy travel corridor for accessing areas to burrow in the adjacent Mowed Lawn habitat or opportunities to forage in the adjacent combined Red Maple Hardwood Swamp and Red Maple Woodland habitats.

A wide variety of avian species use Intermittent Stream/Drainage Ditch habitat. The watercourses' close proximity to the combined Red Maple Hardwood Swamp and Red Maple Woodland habitats allows perching opportunities for avian species while hunting for small mammals and herpetofauna drinking or traveling in the watercourse. Additionally, avian species can forage in the mucky soil of the watercourse

for insects and invertebrates. Avian species identified during field investigations are mentioned above. Additional species expected to use this habitat include the common raven, wild turkey, and red-winged blackbird.

Herpetofauna species such as the northern dusky salamander, four-toed salamander, eastern newt, eastern American toad, and the northern spring peeper utilize the Intermittent Stream/Drainage Ditch habitat in periods of drought and hydration. When the watercourse does not continually support flowing water, herpetofauna species can use this area as an easy travel corridor with access to the adjacent combined Red Maple Hardwood Swamp and Red Maple Woodland habitats to burrow in leaf litter. During periods of hydration, the intermittent watercourse provides a safe habitat, free from finfish predation while providing inundated sandy soils needed for burrowing.

The onsite Intermittent Stream/Drainage Ditch habitat does not serve or have the capacity to serve as habitat for small fish and other aquatic wildlife or flora. The nearest trout-stocked area is approximately 0.52 miles northwest of the property within the Eightmile River. The onsite intermittent watercourse is not a cold-water habitat according to the CT DEEP Cold Water Habitat Maps. As no alteration of the Intermittent Stream/Drainage Ditch habitat is proposed, the utilization of this habitat by mammals, avian species and herpetofauna should not be altered by the proposed Project.

Due to the proposed Project, the diversity and abundance of wildlife using the property including the Project site is expected to increase in some areas and decrease in others. The proposed Project will modify 75 percent of the existing Successional Old Field habitat (approximately 4.0 acres) and 31 percent of the Red Maple Woodland habitat (approximately 2.6 acres). This includes converting the area of the Successional Old Field and Red Maple Woodland habitats within the Project area to Early Successional Meadow habitat. The proposed Project will neither eliminate nor modify wetland and watercourse habitats at the property.

Although modification of portions of the Successional Old Field and Red Maple Woodland habitats are proposed, the proposed conversion of these portions of habitat within the Project area to Early Successional Meadow habitat should result in an increase of some groups of species such as avian, herpetofauna, and small mammal. Other groups of species, specifically large mammals, will slightly decrease in abundance due to their exclusion from the Early Successional Meadow habitat by the proposed wildlife-friendly chain-link fencing.; however, it is important to note that the species inhabiting the property and Project area are common in the Town of Southington and the State of Connecticut. Generalist species are tolerant of site disturbance and will find other suitable habitats if they cannot adapt to the change. As such, the Project will not have significant adverse impacts to wildlife.

3.5 RARE SPECIES

Publicly available state and federal information was reviewed to determine whether listed species and/or critical habitats are known to be present or absent on or adjacent to the project site or could potentially be present onsite. State records indicate that listed species are present nearby the property that may be affected by proposed project activities. Federal records indicate that the property may potentially serve as habitat for listed species and/or as a stop for protected migratory birds. A limited onsite review of the property was completed on September 15, 2023. Based on the results of the review of state and federal records and field investigations, and to increase the habitat value for wildlife and listed species utilizing the area, various construction and site management protection measures are proposed to be implemented prior to and during construction of the project and that long-term habitat enhancement and management activities are proposed to be implemented post construction.

3.5.1 NATURAL DIVERSITY DATA BASE

The CT DEEP Natural Diversity Data Base (NDDB) maintains a collection of maps that show the approximate locations in Connecticut where state-endangered, threatened, and special concern species and

important natural communities are known to have been present in the past. The locations shown on the maps are based on information collected over the years by DEEP personnel and others. The maps are intended to serve as a pre-screening tool for preventing potential impacts to listed species. Maps are generated for each town, and the map for the Town of Southington is dated June 2023. To protect individuals of listed flora and fauna, their exact locations are not shown on the maps; rather, the maps show broad zones that extend over and beyond known locations of listed individuals. These zones are shown with gray line hatching and areas of critical habitat are shown with green polygons. If a Site falls within or near a hatched area, a request for determination should be filed with the CT DEEP NDDB for more accurate information and field work should occur to determine the presence or absence of these species onsite.

According to the Town of Southington NDDB map, the subject property falls within a hatched area. As such, a filing for NDDB review request was submitted to the CT DEEP and the results of this review indicate that two state-listed species have the potential to be impacted by the proposed project. The two state-listed species are the plant Nuttall's milkwort (*Polygala nuttallii*) and the eastern box turtle (*Terrapene carolina carolina*). For more information refer to Figure 7, Natural Diversity Database Map, included in Appendix A.

Nuttall's milkwort is listed as a state "threatened species" by the CT DEEP. Species classified as "threatened" by the CT DEEP are native species that will likely become an endangered species within the foreseeable future throughout all or a significant portion of its range within the state and to have no more than nine occurrences in the state. Nuttall's milkwort is a perennial vascular plant found in dry, open, sandy soils and rock outcrops and blooms from July to September. The preferred habitats of this plant species are pine barrens and sand plains which correspond best with its habitat preferences within New England. The distinct milkwort species is considered rare in the state of Connecticut.

Field verification by a certified botanist must be performed in July 2024, with the results presented to CT DEEP by August 25, 2024 to receive a final NDDB determination for the Site.

Eastern box turtles are listed as state "species of special concern" by the CT DEEP. Species classified as "threatened" by the CT DEEP are native species that have a naturally restricted range or habitat in the state, to be at a low population level, to be in such high demand by humans that its unregulated taking would be detrimental to the conservation of its population or has been extirpated from the state. Eastern box turtles typically inhabit well-drained forest bottomlands and open deciduous forests and will utilize a variety of other early successional habitats such as field edges (and other edge habitat such as utility corridors) and thickets. They also will utilize wetland habitats such as marshes, bogs, and streams at various times during their active season. Eastern box turtles are active between April 1 and November 1; in the remaining months, they are dormant, in a state of brumation a few inches under the ground surface.

The following is a summary of measures required by CT DEEP and to be used before, during and following construction to protect eastern box turtles that may potentially be encountered at the Site. All ground disturbance work associated with the Project must be conducted between April 1 and November 1, the eastern box turtles' active season. It is recommended mowing not occur during May 15 to September 15. If mowing is to occur during this time frame, whether pre- or post-construction, the CT DEEP recommends the following:

Pre-Construction:

- In preparing the site for development, exclusionary fencing that is at least 20 inches tall and that is secured and keyed into the ground, must be installed around the perimeter of the work area to prevent turtle access to the site. The work area includes all areas used for site access, equipment parking, material staging, material storage, and construction purposes. The entrance

to the site also must be cordoned off with an exclusionary method when the site is not in use. This can be accomplished with a row of hay bales that can be moved when access to the site is needed.

- If mowing needs to occur before exclusionary fence installation within the active turtle timeframe, the mowing style, mowing height, mowing directionality, mowing speed, and the location of non-mowing areas should be as follows:
 - Mowing style: Avoid flail mower heads with guide bars that ride along the ground. Sickle bar mowers will have the least impact if mowing every one to five years. In areas with more woody vegetation, a less than one to two-inch diameter Brontosaurus-style mower will have the least impact on turtles.
 - Mowing height: The retention of mowing stubble seven to twelve inches in height will reduce mortality, reduce blade wear, and will leave important cover for animals.
 - Mowing directionality: Start mowing from the center of the field and use a back-and-forth approach, or large circular pattern to avoid concentrating fleeing animals where they may be killed or stranded. In addition, leave an unmowed 30-foot strip around the perimeter of the field and mow this area last. Most turtles are found within these areas, and this provides time for them to react to the mowing activity and move out of the area. If the field is near a stream, start mowing the side furthest from the stream and work towards the stream. If the field is bordered by woodland, start mowing the side furthest from woodland and work towards woodland. If the field is bordered by a road, start mowing next to the road and work your way across the field.
 - Mowing speed: Mowing in low gear or at slow speeds will allow turtles to react and move out of the field.
 - Non-Mowing areas: Leave an unmowed field edge in high turtle-use areas until after September 15.
- Once exclusionary fencing has been installed surrounding the work area, a qualified individual must survey the area to determine if there are any turtles within the work area. If turtles are identified, they are to be carefully moved to an area outside of the work area in a safe manner that will not harm them. If listed species of turtles are identified, the qualified individual will document and report these findings to the CT DEEP in the manner identified within the NDDB determination letter. Only when the qualified individual determines that no turtles are within the work area and that the site is secure from turtles re-entering can construction begin.
- Prior to commencing activity, a meeting is to be held with all construction personnel working within the exclusion area by the qualified individual to appraise them of the species description and their duties in regard to maintaining the security of the site. Should construction personnel encounter a turtle, the qualified individual will instruct personnel during this meeting on how to carefully remove the turtle from the site, how to document their findings and to report it to the qualified individual for reporting to the CT DEEP.

Mid-Construction:

- Prior to the start of work activity each day, the exclusionary fencing is to be inspected by construction personnel and all gaps or openings at the ground level identified should be fixed or repaired immediately to prevent turtles access to the site. If a breach is identified, work shall halt until the qualified individual surveys the site and determines no turtles are within the work area.
- All heavy machinery (active or parked) must be within the limits of the exclusionary zone or on paved surfaces. No machinery is to be parked in any turtle habitat (i.e., the area outside of the exclusionary zone).
- At the end of each work day, the exclusionary measures at the entrance to the work site must be reimplemented to prevent turtles from accessing the site. If this is not done, the exclusionary zone is considered void, and a qualified individual must re-survey the site and conclude that no

turtles are present within the work area before construction activity can begin again.

Post-Construction:

- After completion of the Project, exclusionary fencing shall be removed once the area is stabilized to allow for reptile and amphibian passage to resume. If cordoning off segments of the worksite to be completed in separate phases, once these areas are stable, only then may exclusionary fencing be removed. All active areas must remain exclusionary to turtles.

In addition to these measures, the CT DEEP recommends the following be implemented into the general site design for the development to increase the value of habitat for wildlife and state-listed species:

- Create a site management plan to promote native vegetation growth in the area under the solar panels.
- Use wildlife-friendly fencing to allow wildlife movement to and from the development.
- Develop a management plan for areas of the property where development is not occurring and/or for when solar panels are decommissioned that will support state-listed species.

For more information refer to the NDDDB Preliminary Assessment Letter, dated August 25, 2023, included in Appendix D. This preliminary assessment requires additional information to be provided before August 25, 2024, in order to result in a proper NDDDB determination.

3.5.2 USFWS CONSULTATION

The US Fish and Wildlife Service (USFWS) provides an online planning tool, its Information for Planning and Consultation (IPaC) system, allowing for project planners the ability to perform a regulatory review for protected species under the Endangered Species Act (ESA) that inhabit or potentially may inhabit their Sites. 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” of listed species. “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”. In consulting this resource, projects can determine whether they are in compliance with the ESA and other federal acts. Solli Engineering filed on November 29, 2023, an IPaC review of the Site and received a letter report from the USFWS titled “*List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project*”. This report is attached in Appendix C of this environmental assessment. The report specifies that one endangered species, one candidate species and eleven migratory bird species have the potential to be impacted by the proposed Project. The endangered species is the Northern Long Eared Bat, the candidate species is the Monarch Butterfly, and the migratory birds are listed in the report in the attached Appendix C.

The Northern Long Eared Bat is listed as endangered under the ESA. This species range encompasses the entirety of Connecticut. The CT DEEP has compiled a map of towns with known Northern Long Eared Bat and other bat hibernacula within the state, and no known hibernacula are located within the Town of Southington. The nearest hibernacula according to the map is within the Town of Morris, approximately 19 miles south of the Project area. For more information regarding the locations of NLEB areas of concern, refer to the map entitled “Northern long-eared bat areas of concern in Connecticut to assist with Federal Endangered Species Act Compliance,” included in Appendix C of this environmental assessment. Regardless, to stay in compliance with the ESA, the IPaC Consultation Package Builder (CPB) was utilized to assess whether the Project would result in the “take” of Northern Long Eared Bats. The results of the CPB can be found in the attached report “*Record of project representative’s no effect determination for ‘Southington Solar Project’*” found in the attached Appendix C. The results of this report indicate that the Project is not likely to result in the unauthorized “take” of Northern Long Eared Bats and therefore does not require a permit from the USFWS.

The monarch butterfly is a candidate species for protection under the ESA. 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”. As such, until they are proposed for listing, these species are not officially entitled to legal protection under the ESA, and they are not considered when making a determination as to “take”.

3.6 SOILS & GEOLOGY

The project grading is expected to generate a net export of approximately 1,250 cubic yards of material. Before any fill material is removed or used, the topsoil will be stripped and stockpiled for later seeding of disturbed areas. Any soil exposed due to construction will be treated according to the *2024 Connecticut Guidelines for Soil Erosion and Sediment Control*.

The following soils exist on-site and in surrounding areas:

1. Urban land.
2. Ludlow silt loam, 0 to 3 percent slopes.

For more information, refer to the map Figure 8, Prime Farmland Map, included in Appendix A of this environmental assessment.

3.6.1 PRIME FARMLAND SOILS

Solli Engineering has reviewed the listed soils in accordance with the Code of Federal Regulations (“CFR”) Title 7, part 657. Prime Farmland Soils are distinguishable based on soil type. These soils are to be identified under CFR Title 7, part 657 in order to know the extent and location of the best land for producing food, feed, fiber forage and oilseed crops. Upon review, the Project contains no prime farmland. For more information, refer to the map Figure 8, Prime Farmland Map, included in Appendix A of this environmental assessment.

3.7 HISTORIC & ARCHAEOLOGICAL RESOURCES

Archaeological Consulting Services LLC performed a Phase 1A Archaeological Assessment Survey on behalf of Solli Engineering and the Petitioner. Their report discloses that a property National Register of Historic Places does not exist within the Site. Background research indicates a low sensitivity for potential prehistoric cultural resources. The low score can be attributed to fine particle fraction of the original soil context and associated moderate drainage qualities, as well as distance to nearest major bodies of water. ACS therefore recommends no further archaeological conservation efforts for the Site. For more information refer to the Phase 1A report in Appendix D, Cultural Resources included in this environmental assessment.

3.8 SCENIC AND RECREATIONAL AREAS

Interstate 84 is a state highway adjacent to the proposed solar array. Existing tree cover will shield the state highway from the Site. The Farmington Canal Heritage Trail is a protected hiking trail located approximately one-third mile east of the property on the opposite side of I-84. The closest open space is located at Panthorn Park, approximately one-third mile southwest of the property. For more information regarding resources located within one mile of the site refer to Figure 9, Scenic & Recreation Map.

3.9 LIGHTING

Permanent exterior lighting is not planned for the Project. During routine maintenance of the Facility there may be times when on-site equipment flashes small lights, which will only be activated during maintenance.

3.10 FAA DETERMINATION

The closest federally obligated airport is Waterbury-Oxford located approximately 14 miles southwest of the Site.

Solli Engineering has submitted the required 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, therefore a glare analysis is not required. For more information see Appendix G, FAA Determinations.

3.11 VISIBILITY

There will be solar trackers a maximum of 6-ft off finished grade within the solar panel facility. All disturbed areas will be contained within a 7-ft chain link fence. Trees constituting the existing tree line will be preserved and maintained to the best of the developer's ability. Most neighbors in the vicinity of the subject property will not be able to view the solar panel facility due to tree coverage; however, the facility will be visible to two (2) of the existing five (5) residential buildings on the site year-round and may be visible to one commercially used building seasonally. For more information refer to Figure 10, Proposed Conditions Viewshed Map.

The solar panel products are designed in such a way that they are not highly reflective. Because solar panels have tracking features, the panels will not reflect in one direction for an extended period of time.

3.12 NOISE

Noise from the construction of the solar panel facility is exempted under Connecticut regulations for the control of noise. For more information refer to RCSA 22a-69-1.8(h). During construction, the increase in noise will likely lead to a subsequent elevation in ambient sound levels in the immediate vicinity of the Project area. Standard construction equipment will be used for the Project, and the highest level of noise generated from this equipment - such as backhoes, bulldozers, cranes, and trucks - is expected to be approximately 88 dBA from the origin.

When construction ceases, noise from the solar panel facility will be minimal. The maximum amount of noise will be generated by inverters, during operation hours, which will emit 61 decibels measured at one meter from the inverter. The collective operational noise level of the inverters at the closest on-site residential building would be 26 decibels. The collective operational noise level of the inverters at the nearest property boundaries would be 32 decibels. This noise level meets applicable CT DEEP Noise Standards, and noise levels will effectively be reduced to zero during nighttime hours when the array is not generating electricity. For more information regarding the inverter product information refer to the specification sheets in Appendix F.

4.0 CONCLUSION

As demonstrated by the information outlined herein, the Project will have no air emissions, no significant adverse environmental impacts and will comply with the CT DEEP air and water quality standards. 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 impact, and does not require the issuance of a Certificate.