

EXHIBIT G

Environmental Assessment



Environmental Assessment

Proposed Solar Photovoltaic Array 0 Spencer Street Suffield, 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

www.SolliEngineering.com

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 0 Spencer Street in Suffield, Connecticut (Site).

2.0 PROJECT DESCRIPTION

2.1 EXISTING SITE CONDITIONS

The Project area is comprised of a 7.9± acre portion of the 11.71± acre Site. The Site is bound by Spencer Street to the north, undeveloped woods to the east, farmland to the south and residential uses to the west. The Site is divided into two zoning districts, with the northern portion located within a Residential Zone (R-25) and the southern portion located within the Planned Development Industrial Park Zone. The Site is currently undeveloped and is currently utilized as an agricultural field. The centrally located field is bound by wooded areas located along its perimeter. Based on information gathered from the Town of Suffield GIS, it is assumed that the neighboring residential properties are serviced by private water wells.

Elevations within the Project area range from approximately 146 feet at the southeast corner to approximately 179 feet at the northwest corner, along Spencer Street. Slopes range from 1%± in the middle of the Project area to 20%± in the northwest corner of the Project area near Spencer Street.

The Site contains two wetland corridors that run north to south along the eastern and western property lines. 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 and one (1) 2,000 kVA transformer. The panels will be secured to a ground-mounted steel racking structure utilizing a single-axis tracking system, which allows the panels to rotate from east to west for more efficient capture of sunlight. The steel racking structure will be anchored to the ground using pile driven posts. The array of panels and the equipment will be surrounded by a 7-ft tall chain link security fence. Access to the Project will be from Spencer Street via a 12-ft wide, 830± long gravel road. The road will extend to the south 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.

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. No chemicals will be used during the operation of the facility.

A 7-ft tall chain link fence surrounding the development is required per the Best Management Practices for Electric and Magnetic Fields and National Electric Code. This fence would mitigate potential electric hazards. The proposed project equipment has internal fail-safes to further mitigate the risk of electrical fires. A 26-ft wide gate is proposed at the entrance to the Project and will limit access to authorized

personnel only. Town emergency response personnel will have access to the Project 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 Suffield currently does not have any land use requirements related to solar photovoltaic arrays, the Project was designed to meet the Town’s land use regulations to the maximum extent practicable.

The Facility has been designed to have a minimum setback of 40 feet from all abutting residential properties. Tree lines will be maintained to the best extent practicable, and additional evergreen trees will be planted 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	5’	North	Spencer Street
Perimeter Fence to Residence	106’	West	191 Spencer Street
Transformer Pad to Property Line	57’	East	MBL 30-25-62
Transformer Pad to Residence	602’	Northeast	141 Spencer Street
Access Drive to Property Line	35’	East	MBL 30-25-62
Access Drive to Residence	150’	East	141 Spencer Street
Project Area to Nearest Town Line	5,600’	South	Windsor Locks

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 4 feet above grade, and a maximum height of 7.5 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.

Three (3) utility poles are proposed to be located directly adjacent to the concrete pad to provide interconnection to an existing utility pole on Spencer Street. The standard height for utility poles is between 35 and 40 feet. The poles will be mounted with Eversource owned and operated equipment. All necessary offsite improvements to facilitate the interconnection will be completed by Eversource. Eversource Energy does not pad-mount their equipment; therefore, pole-mounted equipment is necessary to complete the project.

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. Please refer to Section 3.3.3 for more information regarding stormwater management.

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 compost filter socks and geotextile silt fences with wings for areas less than 1 acre 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. Water quality treatment will be handled within the proposed stormwater basin, sediment forebay, and 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.

2.2.4 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 northern, northwestern, and northeastern sides of the Project area. Existing wetlands provide buffers on the eastern and western sides of the Project. The south side of the Site is adjacent to agricultural 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 field delineated by BL Companies on January 22, 2022. William Kenny Associates (WKA) conducted additional field investigations, including inventory and assessment of onsite wetland and watercourse conditions, on April 21, 2023. WKA concurs with BL Companies' initial assessment and location of the two wetland and watercourse systems.

3.2.1 WETLANDS AND WATERCOURSES

Small Onsite Portion of a Primarily Offsite Woodland Wetland

The first wetland system, located as a small pocket in the eastern portion of the Project area, is a portion of a primarily offsite woodland wetland. The principal source of hydrology for this wetland system is groundwater discharge from the project site. The project area is located at a high point in the surrounding landscape, with a narrow ridge that extends north to south, and the nature of the onsite soils shallow subsurface hardpan which is located at approximately 25 inches below the surface, forces groundwater to seep to the east offsite, and to the west to the other area of wetlands identified. Soils within this system consist of poorly to very poorly drained silt loams and silty clay loams formed in low lying areas of glaciolacustrine deposits. At the time of WKA's investigation, the offsite portion of this wetland appeared slightly inundated. The portion of the woodland wetland around the project area consists of a canopy of the red maple and birch with an understory of interspersed pussy willow. The shrub stratum is dominated by a thick shrub layer of red osier dogwood and invasive multiflora rose and honeysuckle shrubs are present along the border with the upland cropland. Other shrubs identified include northern arrowwood. Groundcovers within the onsite portion of the wetland include sensitive fern, goldenrod, horsetail, and a

pocket of cattails. The hydrogeomorphic classification of this wetland and watercourse system is gently sloping and the USFWS classification for this system is Palustrine, Forested, Broad-Leaved Deciduous (PFO1).

Shrubland/Woodland Wetland

The second wetland and watercourse system, located in the western portion of the Project area, is a shrubland/woodland wetland with small drainage channels interspersed. As with the other system, the principal source of hydrology for this wetland system is groundwater discharge from the subject property. Soils within this system consist of poorly to very poorly drained silt loams and silty clay loams formed in low lying areas of glaciolacustrine deposits. At the time of WKA’s investigation, the wetland appeared inundated and the small drainage channels identified had a width of approximately two feet and one to two inches of water within them. The shrubland/woodland wetland consists of primarily the same as the eastern primarily offsite woodland. The shrubland portion of the system, which is present in the southern portion, is dominated by red osier dogwood, with red maple saplings interspersed and invasive multiflora rose and honeysuckle shrubs along the border with the upland cropland, and native southern arrowwood present further west close to where the wetland transitions into woodland. The groundcover present includes various grasses as well as sensitive fern. According to historic aerial imagery of the project site (Appendix/Exhibit X) the shrubland appears to have been cultivated like the surrounding upland cropland, up until the 1990s. The woodland portion of the wetland, which is in the northern portion, includes more mature pole to saw timber sized red maples as well as ash trees. As with the shrubland portion and the eastern wetland, the shrub strata is dominated by red osier dogwood. Invasive oriental bittersweet vines are entwined within the tree canopy along with native grapevines. Groundcovers common within the woodland include sensitive fern, goldenrod, skunk cabbage, jack in the pulpit and creeping jenny. The hydrogeomorphic classification of this wetland and watercourse system is gently sloping and the USFWS classification for this system is Palustrine, Forested, Broad-Leaved Deciduous / Palustrine, Scrub-Shrub, Broad-Leaved Deciduous (PFO1/PSS1).

3.2.2 WETLAND IMPACTS

Land development has the potential to cause direct and indirect impacts to inland wetlands and watercourses in the short- and long-term from activities such as vegetation clearing, soil filling, soil excavation and/or pollution of stormwater. The proposed site improvements are designed to avoid indirect impacts in the short and long-term through the incorporation of various best management practices (BMPs) such as soil erosion and sediment control measures and stormwater management measures (further discussed in Section 3.4.3).

No activities are proposed within wetlands and watercourses, and, as such, no direct impacts will occur.

Table 1: Wetlands Impacts Table

Wetlands Impacts	
Direct Impacts to Wetland 1	0 Acres
Direct Impacts to Wetland 2	0 Acres
Direct Impacts to Upland Review Area of Wetland 1	0.57 Acres
Direct Impacts to Upland Review Area of Wetland 2	0.33 Acres

3.2.3 FLOODPLAIN AREAS

WKA reviewed the most recent available mapping from the Federal Emergency Management Agency (FEMA) in regard to the presence of floodplain or flood prone areas in and around the project area. According to the FEMA Flood Map Service Center (MSC), flood map number 09003C0208F, effective on 9/26/2008, the subject property and project area falls within “Zone X” as defined by FEMA. Zone X is

defined as “are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood”. This indicates that the project site is not within a flood zone and requires no special considerations relative to flooding for its implementation. Please see Appendix A, Figure 3 for flood map number 09003C0208F.

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 an increase in the stormwater peak discharge rate of runoff, from that of existing conditions, due the increase in gravel cover and the installation of the solar arrays. As such, the development includes a stormwater management plan to mitigate changes to stormwater runoff resulting from the increase in impervious cover.

3.3.1 GROUNDWATER

WKA reviewed the CT DEEP Water Quality Classifications Suffield, CT map, dated October 2018, in order to assess the quality of ground and surface water at the project area. The map classifies that the project area falls within an area classified by ‘GA’ groundwater quality. ‘GA’ is defined as “existing private and potential public or private supplies of water suitable for drinking without treatment and baseflow for hydraulically connected surface water bodies”.

According to the CT DEEP Public Water Supply Map, the project area does not fall within an aquifer protection area. The nearest aquifer protection area is approximately five miles to the east. However, the project site is labeled as a private well parcel, yet the nature of the project as a solar array dictate that no potable water uses are required.

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 groundwater quality. Information regarding stormwater management BMPs is provided in Section 3.4.3.

3.3.2 SURFACE WATER

The project area is situated within the Spencer Brook Local Drainage Basin (4100-15) and the Stony Brook Subregional Drainage Basin (4100). These drainage basins are part of the larger Stony Brook Drainage Basin (41) and Connecticut River Major Drainage Basin (4). Spencer Brook, which is offsite approximately 900 feet to the west, is characterized by the CT DEEP as a first order stream with ‘class 1 stream flow’ which means that it is a free-flowing stream. The water quality of the offsite Spencer Brook is listed as ‘class A’ surface water quality. Class A surface water quality are defined as “Class A designated uses are habitat for fish and other aquatic life and wildlife; potential drinking water supplies; recreation; navigation; and water supply for industry and agriculture”.

According to the CT DEEP Public Water Supply Map, the project area does not fall within a drinking water watershed. The nearest drinking water watershed is approximately 10 miles to the southwest. The offsite Spencer Brook serves as habitat for fish and other aquatic wildlife and flora, however, onsite watercourses that feed into Spencer Brook do not appear to serve as aquatic wildlife or flora habitat. Spencer Brook does not sustain a trout population according to the CT DEEP Connecticut Trout Stocking Map, however, the brook it drains into, Stony Brook, is stocked with trout. Spencer Brook is also not a cold-water habitat according to the CT DEEP Cold Water Habitat Map. For more information, please refer to Figure 5, Public Supply Watershed Map. Based on the project design, type, use, and proposed stormwater management measures, it is concluded that the project will have no direct adverse environmental impact on surface water quality. Information regarding stormwater management is provided in Section 3.3.3.

3.3.3 STORMWATER MANAGEMENT

In the short-term, wetlands can be indirectly impacted from sediment laden stormwater from the proposed construction activities. All proposed development activities are outside of inland wetlands and watercourses. The proposed access drive to the Project is proposed within the town's upland review area of the eastern wetland. No activity is proposed within the upland review area of the western wetland. The Project proposes the installation of soil erosion and sedimentation controls before construction and the maintenance of these controls throughout construction to prevent adverse indirect impacts to inland wetlands and watercourses from soil erosion and sedimentation. These controls are designed to comply with standards set by the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* published by the CT DEP (the predecessor to the CT DEEP) to manage the land disturbance from the development and protect surface water features. Such controls include but are not limited to temporary silt fencing surrounding the perimeter of the development area and an anti-tracking pad at the construction entrance. The silt fencing proposed around the perimeter of the development area will prevent sediment from migrating downslope to inland wetlands and watercourses. A double row of silt fencing is proposed around the eastern wetland and a portion of the western wetlands due to the close proximity of grading activity in this area. A chain-link fence is also proposed to follow the silt fence to deter access to the site by wildlife and civilians. The anti-tracking pad is proposed to prevent sediment from being tracked into the street. These control measures have been provided to maximize protection to wetlands and watercourses and the monitoring and maintenance of all control measures are required to ensure efficacy throughout all phases of construction.

In the long-term, and if not properly mitigated, wetlands and watercourses can be indirectly adversely impacted by stormwater runoff that flows from buildings, pavement, and vegetated surfaces. The proposed project will not cause post-construction long-term adverse impacts from stormwater runoff due to the proposed stormwater management plan, which will mitigate changes to stormwater runoff resulting in a proposed increase in impervious cover. A stormwater basin is proposed in the far southern portion of the project area at the edge of the cropland habitat. The stormwater basin has been designed to provide adequate storage of the water quality volume generated from the solar array and other impervious surfaces. The basin will allow captured stormwater to settle and gradually infiltrate into the surrounding soils. The basin will also allow for pollutants to be removed when the stormwater flows through the basin vegetation, stems, leaves, and roots. The implementation and maintenance of this BMP will protect stormwater quality and will ensure that post-construction peak discharge rates of stormwater runoff from the project site will be less than predevelopment rates for the 2-year, 25-year, 50-year, and 100-year storm events.

3.4 HABITAT & WILDLIFE

The project area is located at Spencer Street (MBL: 30-25-59) in Suffield Connecticut. Spencer Street borders the project site to the north. The surrounding land use to the north is suburban residential, to the southwest, agricultural, and to the east, undeveloped. No buildings or other structures or paved surfaces are present within the project area. Three habitat communities are present. They include cropland, woodland and wetlands and watercourses. These habitat types are further discussed in Sections 3.2.1 and 3.4.1. Wildlife species at or that can utilize the project site are species common to agricultural areas. These species are further discussed in Section 3.4.3.

3.4.1 HABITAT TYPES

Cropland

The majority of the Project area is an upland cropland. This habitat is present throughout almost the entirety of the project area except for the western portion and a small fringe bordering the northern, eastern, and southern boundaries. Corn is the only crop being grown. At the time of our investigation, the cornfield had been threshed. As this is the case, a majority of the cropland is bare soil save for the bases of the cut corn

stems and some interspersed grasses. Soils within this portion of the project area are primarily well drained silt loams formed in lodgement glacial till mantled by silt. The majority of this habitat will be replaced with the proposed solar array, the gravel access drive and other improvements and the proposed meadow. Please see Table 2 for the total acreage of habitat alteration.

Woodland

The remaining upland habitat type within the project area consists of a fringe of woodland habitat along the northern, eastern, and southern site boundaries. The woodland is relatively young with a few interspersed larger, older trees. Trees consist mainly of maples, birches, crabapples, black cherry, and quaking aspen. Native staghorn sumac, multiflora rose, and honeysuckle shrubs are also present within the fringes of woodland. Invasive oriental bittersweet vines are also present, especially entangled within trees along the northern portion of the project area along Spencer Street. Groundcovers within the fringes of the woodland consist of ground ivy, invasive garlic mustard and a small pocket of invasive common reed at the entrance to the project area on Spencer Street. Soils are primarily well drained silt loams formed in lodgement glacial till mantled by silt. Due to this habitat being along the perimeter of the project area, a small portion of this habitat is proposed to be eliminated, mainly to make way for the gravel access drive to the site and to allow for grading. Areas bordering the drive will be meadow. Conifers are proposed to be planted along the western and northern portions of the property to provide screening for nearby residences. Please see Table 2 for the total acreage of habitat alteration.

Wetlands & Watercourses

Two wetland and watercourse areas were identified and evaluated. Further detail regarding these wetlands and watercourses is provided in Section 3.2.1. The wetlands and watercourses are not proposed to be disturbed or impacted by the proposed development. Please see Table 2 for the total acreage of habitat alteration.

Table 2: Habitat Area Table

Habitat Type	Total Area on Property (±Acres)	Project Area (±Acres)
Cropland	8.6	7.2
Woodland	1.5	0.7
Wetlands	1.6	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”.

According to the CT DEEP 2020 Connecticut Forest Plan Priority Areas Map (Appendix A, Figure 11), no Core Forests are present in and around the project area, and none will be impacted by this project. The closest Core Forest to the project site is approximately 1,000 feet to the north and northwest and consists of several fragmented Small Core Forest areas.

3.4.3 WILDLIFE

The proposed project will eliminate the cropland habitat and a small portion of the woodland habitat to construct the solar array. Meadow habitat will be established within and adjacent to the solar array. These habitats support various wildlife including mammalian, amphibian, reptilian and avian species. The cropland habitat serves mammalian species, such as white-tailed deer, skunk, opossum, raccoon and voles,

moles, and mice, who scavenge remaining corn husks and/or burrow into the exposed soil. The large open field is beneficial for birds of prey as hunting ground for small game, perching in the canopy trees within the bordering woodland. Other avian species such as crows, robins and sparrows will also utilize the cropland, scavenging corn husks and predated on insects within the exposed soil.

The fringe of woodland borders the cropland and provides edge habitat. The woodland extends offsite to the south and east. The edge habitat serves the aforementioned birds of prey as perches for hunting small mammalian species that may utilize the cropland. Many of the aforementioned mammalian species will transit through the woodland and cropland. The woodland also provides foraging opportunities for species in the form of nuts and seeds and plants. Portions of the woodland, being adjacent to wetland and watercourse systems, may serve as the terrestrial habitat for wood frogs and spring peepers. It is also likely common reptile species such as eastern garter snakes utilize both the woodland fringe, wetland, and cropland. Avian species such as turkeys are likely to forage in the ground layer of the woodland while songbirds likely perch in the canopy above. It is unlikely species common to core forests reside within the project area, or immediately adjacent to the project area because the onsite and adjacent woodlands are not Core Forest.

The adjacent wetlands and watercourses serve as habitat for all aforementioned species and provide them a source of drinking water. The adjacent wetlands and watercourses do not function as vernal pools and no vernal pool areas were identified adjacent to the project site (within 100 feet) via observations made from the project site, public rights-of-way and information gathered from publicly available sources (i.e., town maps, topographic maps, aerial imagery, etc.). The western wetland does have a small stream channel extending through the central portion of this system. It likely does not function as habitat for finfish due to its shallow, intermittent nature. Please see Section 3.2.1 for additional information regarding Wetland and Watercourse conditions, and 3.3.2 for more information regarding Surface Water conditions.

It is expected that the proposed project will cause a slight decrease in the abundance of wildlife at the project area due to the loss of some vegetated areas and will cause an increase in the diversity of wildlife species due to the meadow habitat. The species that inhabit the project area are common and habitat exists for them to use in other areas of Suffield and beyond. As such, the project will not have significant adverse impacts to wildlife.

3.5 RARE SPECIES

A review of publicly available state and federal information was utilized to determine whether listed species and/or critical habitats were present onsite or adjacent to the project site or could potentially be present onsite. No state records indicate that listed species and/or critical habitats are present onsite or adjacent to the project area. Federal records indicate that the site may potentially serve as habitat for endangered species and/or as a stop for protected migratory birds. A limited onsite review of the project property was completed on April 21, 2023. Based on this field review and on the review of state and federal files, it is concluded that the proposed project will not affect listed species or critical habitats.

3.5.1 NATURAL DIVERSITY DATA BASE

The CT DEEP Natural Diversity Data Base (NDDB) is a collection of maps that show the approximate locations of state endangered, threatened, and special concern species and important natural communities in Connecticut. 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. The map for the Town of Suffield is dated December 2022. The map indicates areas where listed species have been identified in a hatched buffer area and areas of critical habitat in green polygons. The hatched buffer areas are intentionally left inaccurate to protect protected species, therefore, if the project area fell within or near a buffer, a request for

determination would have to be filed with the CT DEEP NDDDB for more accurate information and field work would need to occur to determine the presence or absence of these species onsite. According to the Town of Suffield NDDDB map, this project area does not fall within a hatched buffer area and is approximately 1,600 feet from the nearest area to the southeast of the project area surrounding Bradley International Airport. As such, no request for determination was filed for the property and the state has no records of listed species or critical habitats being present at the property. For more information, please refer to Figure 7, Natural Diversity Database Map.

3.5.2 USFWS CONSULTATION

The US Fish and Wildlife Service (USFWS) provides an online planning tool, 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 project 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” 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 are able to determine whether they follow the ESA and other federal acts. Solli Engineering filed on February 8, 2023, an IPaC review of the project 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/Exhibit X. The report specifies that one endangered species, one candidate species and 12 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 Connecticut towns known as hibernacula for Northern Long Eared and other bats. Based on this map, no known hibernacula are located within the Town of Suffield. The nearest hibernacula according to the map is within the Town of East Granby, approximately 1.3 miles southwest of the site. For more information regarding the locations of NLEB areas of concern, refer to Figure 7, Natural Diversity Database Map. Regardless, to comply 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 “Consistency letter for the ‘Spencer CT Solar Array’ project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR § 17.40(o)” 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 750 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 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

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

1. Belgrade silt loam, 0 to 5 percent slopes.
2. Broadbrook silt loam, 3 to 8 percent slopes.
3. Broadbrook silt loam, 8 to 15 percent slopes.
4. Enfield silt loam, 3 to 8 percent slopes.
5. Scitco, Shaker and Maybid soils.
6. Wethersfield loam, 3 to 8 percent slopes.
7. Elmridge fine sandy loam, 0 to 3 percent slopes.

For more information, refer to the map Figure 8, Prime Farmland Map.

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 entire project is made up of prime farmland. For more information refer to the map Figure 8, Prime Farmland Map.

The agricultural field used to grow corn covers the majority of the project area. Because the expected use of the Site will have a finite lifespan, the Petitioner proposes to use minimally intrusive methods during construction when possible. Grading will be limited by the use of solar panel tracker systems and construction of solar panels in existing areas where grades are similar to proposed conditions. There will be some excavation and regrading that takes place on prime farmland to install stormwater management basins and to properly develop the project area as a whole. In areas where Prime Farmland Soils are disturbed, the developer will remove the topsoil, segregate it from underlying horizons, and stockpile and spread it throughout the project area as necessary to re-establish vegetation growth.

When the solar panel facility reaches the end of its finite lifespan, the facility will be decommissioned. Upon this development, all areas disturbed by the facility will be top dressed with native soils and reseeded with the same (or approved equivalent) pollinator blend that exists within the area of the solar panel facility. These proposed design strategies will not materially affect the prime farmland. According to Public Act No. 17-218, “for a solar photovoltaic facility with a capacity of two or more megawatts, to be located on prime farmland or forestland... the Department of Agriculture represents, in writing, to the council that such project will not materially affect the status of such land as prime farmland or the Department of Energy and Environmental Protection represents, in writing, to the council that such project will not materially affect the status of such land as core forest.” The project is a 0.99 MW AC solar photovoltaic facility; therefore, a letter to the Council of the Department of Agriculture is not required.

3.7 HISTORIC & ARCHAEOLOGICAL RESOURCES

Archaeological Consulting Services LLC performed a Phase 1A cultural resources 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. This conclusion was reached by means of a literature search for previously recorded cultural resources in the area, a review of historical maps and aerial imagery depicting the project area, and a pedestrian survey complete with photo documentation of the project area to determine archaeological sensitivity.

A portion of the project area has been identified as having a moderate sensitivity for historical cultural resources due to its historical uses and location along a historic route.

Archaeological Consulting Services LLC recommends a Phase 1B survey be performed on the Site within 300 feet of Spencer Street in advance of construction impacts. This survey would likely consist of standard-size shovel tests. For more information refer to the Phase 1A report in Appendix D, Cultural Resources.

3.8 SCENIC AND RECREATIONAL AREAS

State Route 75 is a scenic route that runs north from the Town of Windsor. Existing tree cover will shield the scenic route from the project area and the project will not visually impact the route. No hiking trails exist in the vicinity of the project area and overall property. The closest open space is approximately 0.8 miles north of the Site at the Suffield Land Conservatory. 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 that have small lights which will only be activated during maintenance.

3.10 FAA DETERMINATION

The closest federally obligated airport is Bradley International Airport located approximately 1 mile south of the 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, therefore a glare analysis is not required. For more information see Appendix E, FAA Determinations.

3.11 VISIBILITY

There will be solar trackers a maximum of 6' off finished grade within the solar panel facility. All disturbed areas will be contained within a 7' 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 only be able to view the solar panel facility on a seasonal basis due to existing tree coverage. 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

The subject property is currently being used as an agricultural field. As such, the Site generates noise through the use of farming machinery.

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 nearest property boundaries would be 35 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.