VCP MANSFIELD LF, LLC

PETITION FOR A DECLARATORY RULING THAT A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS NOT REQUIRED FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF A 1.8 MW AC GROUND-MOUNTED SOLAR PHOTOVOLTAIC PROJECT AT MANSFIELD LANDFILL, 221 WARRENVILLE ROAD, MANSFIELD, CONNECTICUT

OCTOBER 15, 2024

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STATE OF CONNECTICUT
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	:	October 15, 2024

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

I. INTRODUCTION

Pursuant to the Connecticut General Statues ("CGS") Section 4-176(a) and 16-50k(a) and Section 16-50j-38 *et seq.* of the Regulations of Connecticut State Agencies ("RCSA"), VCP Mansfield LF, LLC (the "Petitioner" or "VCP Mansfield LF") hereby petitions the Connecticut Siting Council (the "Council") for a declaratory ruling, that a Certificate of Environmental Compatibility and Public Need ("Certificate") is not required for the development of a 1.8 megawatt ("MW") alternating current ("AC") solar-based electric generating facility (the "Facility" or "Project") located on property at the Town of Mansfield landfill, 221 Warrenville Road, Mansfield, Connecticut (the "Site").

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

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

As described below, the Project will generate 1.8 megawatts ("MW") AC of clean renewable energy, result in no air emissions, and no significant adverse environmental effects, and will comply with the applicable air and water quality standards of the Connecticut Department of Energy and Environmental Protection ("CT DEEP").

II. PETITIONER AND CONTACT INFORMATION

VCP Mansfield LF, LLC is a Connecticut limited liability company with its principal place of business at 124 LaSalle Road, 2nd Floor, in West Hartford, Connecticut. VCP Mansfield LF is a subsidiary of Verogy Holdings, LLC ("Verogy"). Verogy is a professional renewable energy business with decades of experience in the solar industry; the core of its business is developing, financing, constructing, managing, and operating solar generating facilities.

Mailing Address:	VCP Mansfield LF, LLC 124 LaSalle Road, 2nd Floor West Hartford, CT 06107
Internet Address(es):	https://www.verogy.com/

Correspondence and other communications concerning the Project are to be addressed to, and notices, orders and other papers may be served upon the following:

Bryan Fitzgerald
VCP Mansfield LF, LLC
124 LaSalle Road, 2nd Floor
West Hartford, CT 06107
bfitzgerald@verogy.com
(203) 257-3375

Bradley J. Parsons
VCP Mansfield LF, LLC
124 LaSalle Road, 2nd Floor
West Hartford, CT 06107
bparsons@verogy.com
(860) 288-7215 x715

James Cerkanowicz
VCP Mansfield LF, LLC
124 LaSalle Road, 2nd Floor
West Hartford, CT 06107
jcerkanowicz@verogy.com

John M. Daly, Esq.
VCP Mansfield LF, LLC
124 LaSalle Road, 2nd Floor
West Hartford, CT 06107
jmdaly@verogy.com

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

III. THE PROJECT

A. Project Overview

The Project was selected and awarded a 20-year contract for a total of 1.8 MW AC, to participate in the Non-Residential Renewable Energy Solutions ("NRES") program. The Project will help Connecticut meet its emission reduction targets via the State of Connecticut's Renewable Portfolio Standard and meet the Governor's goal of becoming carbon neutral by 2040. Pending approvals, the Project will commence financing, detailed engineering, procurement, and construction efforts in spring 2024, with commercial operation planned for the Project by the end of 2025.

B. Site Description

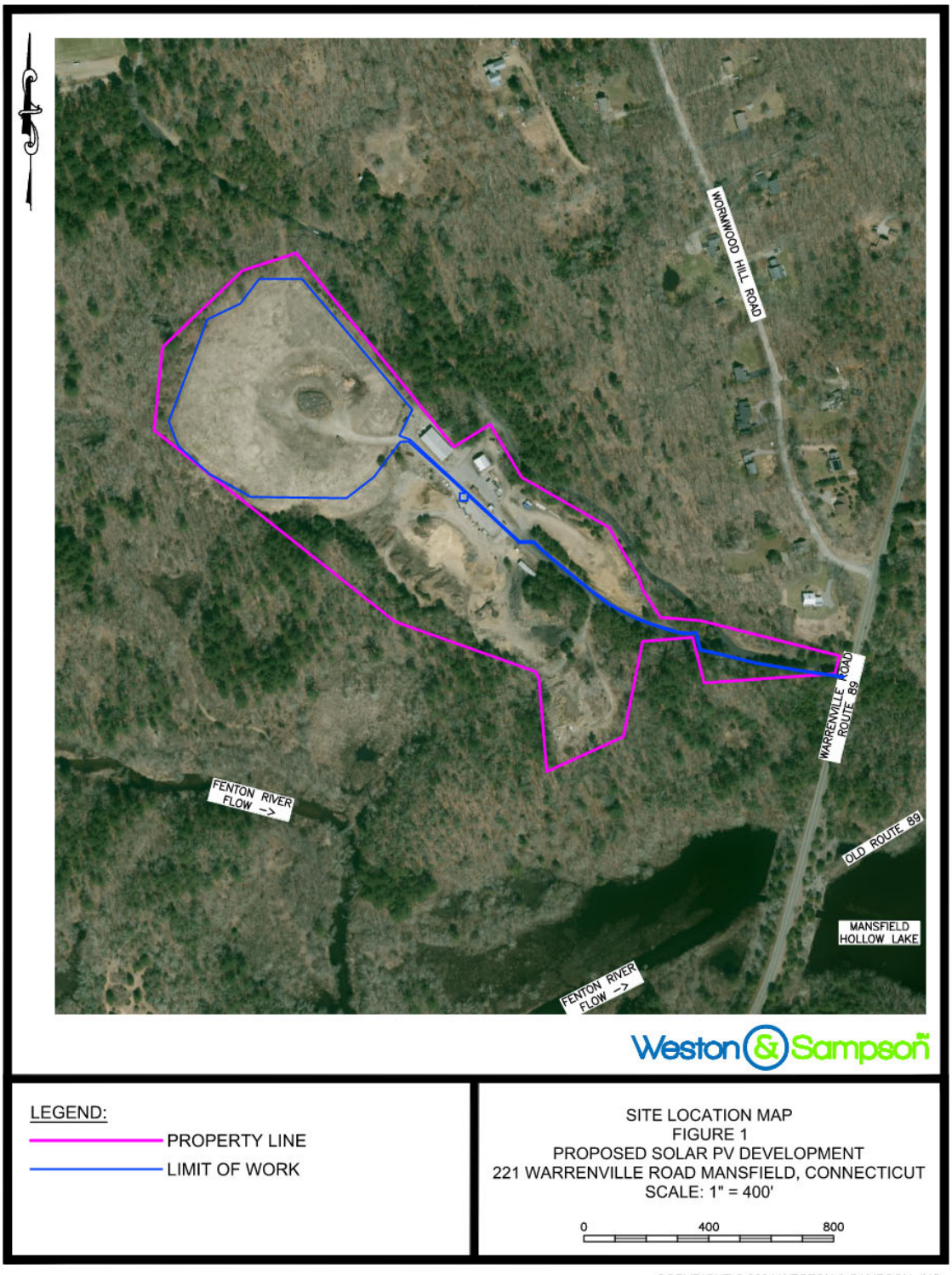
The Facility will be located on an approximately 8.87-acre portion (the "Project Site") of a 26.74-acre parcel, at 221 Warrenville Road, Mansfield, Connecticut (the "Property"). The Property is in Mansfield's RAR-90 (Rural Agricultural Residence 90) zone and is owned by the Town of Mansfield. The Property is a mix of open areas, forested areas, existing industrial buildings, associated paved parking areas and access roads, and material stockpiles associated with the operation of a waste transfer facility by the Town of Mansfield. The portion of the property where the solar array will be constructed was formerly an active landfill that was capped and closed in accordance with CT DEEP requirements. The Property is bordered to the west, south, and southeast by forested land that comprises part of Mansfield Hollow State Park and is owned by the United States government. To the north is forested property, owned by the Town of Mansfield, that includes a separate paved road leading to town operated grass surfaced athletic fields. To the east, there are residential parcels. The Fenton River runs northwest to southeast through the adjacent United States government owned parcel and discharges to the Mansfield Hollow Lake on the east side of Route 89.

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

C. Site Selection

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

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



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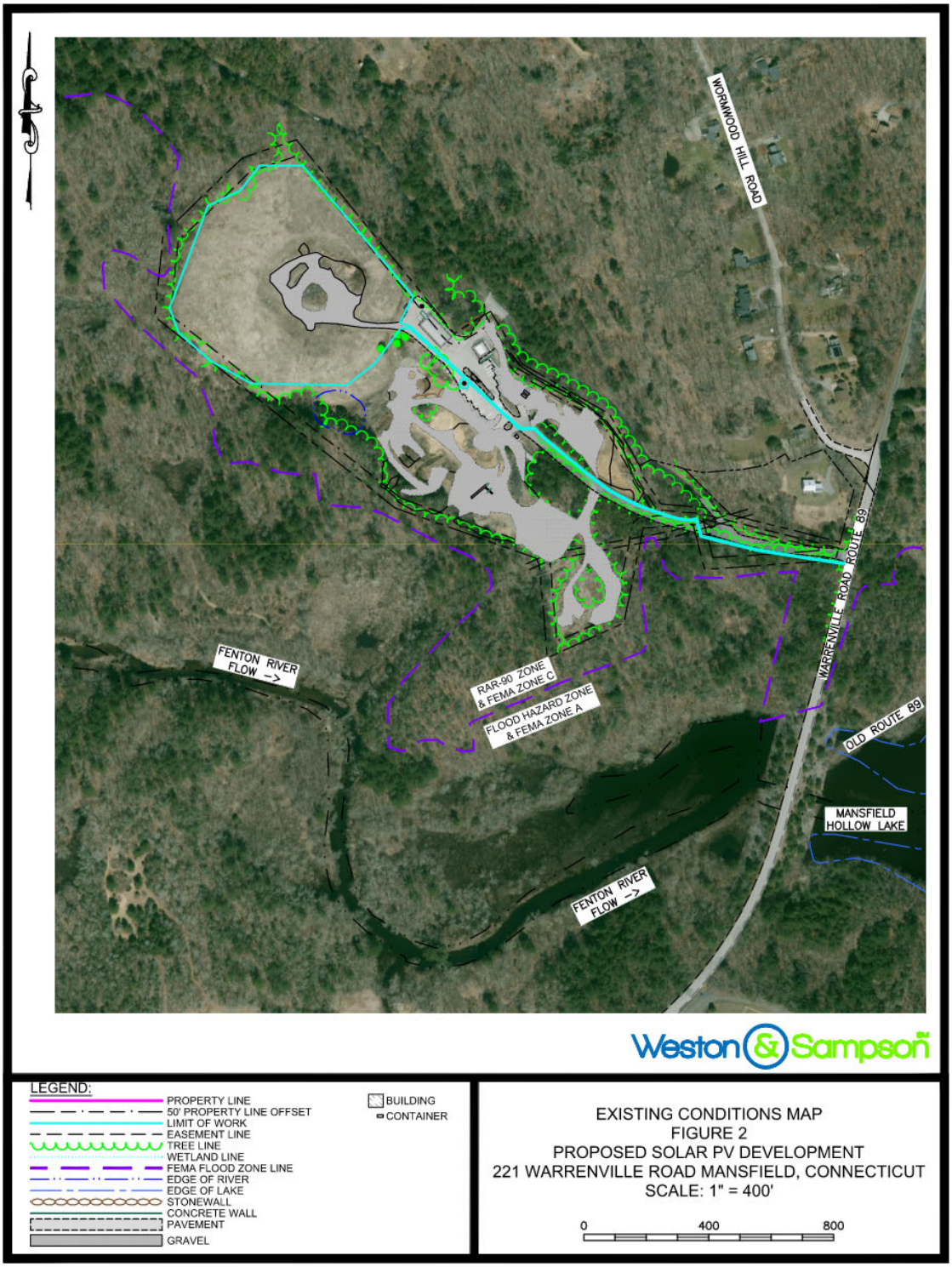

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D. Project Description

The proposed Facility will be installed on top of a closed and capped landfill. The Facility will consist of a solar generating system with a capacity of 1.8 MW AC. The Facility will be connected to the existing electric distribution system via an overhead service extension constructed by Eversource.

i. Facility Design

As currently designed, the proposed Project will consist of 4,938 First Solar Model FS-6465A-P-B, 465-Watt solar modules, 8 CPS 600V 125kW (SCH125KTL-DO/US-600) and 8 CPS 600V 100kW (SCH100KTL-DO/US-600) inverters, AC panel boards and/or switchgear, and one 2000 kVa transformer. The panels will be secured to a ballast mounted fixed tilt steel racking structure. The steel racking structure will be anchored into concrete ballast blocks that will be installed on the surface of the capped landfill. The array of panels and the equipment will be surrounded by a seven-foot-high chain link security fence with an access gate, and the fence structure will also be anchored into ballast blocks that will be placed on the ground surface. An existing paved access road that runs generally in a northwest to southeast direction will be used to access the Facility from Rt. 89. The Project's transformers, panel boards/switchgears, and inverters will be in the southeast portion of the Project Site. The proposed service connection to the Eversource grid will be a combination of underground conduit both under and adjacent to the existing paved access road, by the Petitioner, and new poles installed by both the Petitioner and Eversource, adjacent to where the access road connects to Rt. 89. To bring service to this point, Eversource will construct a three-phase line extension that will start near the existing Mansfield Elementary School and extend approximately 2,000 feet in length along Rt. 89. First Solar has performed a Toxicity Characteristic Leaching Procedure ("TCLP") test on their Series 6 solar modules and have determined that the panels are not characterized as hazardous waste. See Appendix A for major system component specifications and the TCLP testing report.

The Facility's panels and inverters have an anticipated service life of thirty-five (35) years. The total 1.8 MW AC system will have an expected net AC capacity factor of approximately 20.1%. The Project is expected to produce more than 3,173,287 Kilowatt-Hours (kWh) of energy in the first year of operation, enough energy to power approximately 438 average homes annually. Energy produced by the Project will be sold to Eversource as part of the Connecticut NRES Program. The Petitioner was a successful bidder in year one of the NRES Program. The NRES Program replaced the predecessor LREC/ZREC (Low and Zero Emission Renewable Energy) program.

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

ii. Interconnection

The Facility submitted for interconnection approval with Eversource in August of 2022. A Feasibility Study was first conducted and then the project was required to undergo a distribution and transmission impact study. The study results indicated that the Project may safely be interconnected to the Eversource distribution grid, after the installation of a 2,000 foot long three-phase line extension, upgrading of multiple off-site protective devices, and installation of a new overhead service consisting of a utility recloser pole, a utility primary meter pole, a customer disconnect switch pole, customer recloser pole, and a customer meter/riser pole for a total of five (5) new utility poles, installed on Site. The Petitioner successfully executed an Interconnection Agreement with Eversource in August of 2024.

iii. Stormwater Management

The Petitioner's Engineer, Weston & Sampson Engineers, Inc. ("Weston & Sampson") has designed the Project in accordance with the Connecticut Stormwater Quality Manual, the Connecticut General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities ("General Permit") effective March 30, 2024; and the Connecticut Department of Energy & Environmental Protection ("CT DEEP") Appendix I to the General Permit, Stormwater Management at Solar Array Construction Projects ("Appendix I"). The design addresses two primary concerns: the management of peak stormwater flows and soil erosion and sedimentation controls ("SESC") throughout the construction period. Weston & Sampson's Preliminary Pre & Post Stormwater Calculations are attached as Appendix C.

Stormwater runoff patterns for the Town of Mansfield Landfill will not be altered as part of the proposed project. Existing and proposed peak design flows were assessed using the National Resources Conservation Service (NRCS) Technical Release 20 (TR-20) methodology. HydroCAD® version 10.20-2d stormwater modeling software was used to analyze stormwater conditions. HydroCAD® is a comprehensive hydrodynamic modeling program which analyzes and designs site hydrology, surface drainage systems, and storm drains. It can manage a variety of flow situations such as overland flow, drainage swales, ponds, and piping systems.

The National Resources Conservation Service (NRCS) Web Soil Survey database was used to determine the hydrologic soil group (HSG) for the onsite soils. The landfill cap extents are modelled using an

HSG-D soil class and the NRCS data shows HSG-A soils surrounding the site to the southwest, north, and east, and HSG-C soils associated with the Transfer Station area to the southeast of the site. Stormwater rainfall event data is derived from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Precipitation Frequency data for the site. The 1-, 2-, 10-, 25-, and 100- year, 24-hour, Type-III storm events were used to compare post-development conditions to pre-development conditions. The NRCS report and NOAA data are included in Appendix C.

As mentioned in Section D.i, the Facility design proposes constructing a concrete ballast supported solar PV array on the MWS Mansfield Landfill which involves the installation of concrete ballast blocks, levelling fill, and solar racking and panels, concrete pad(s) to support equipment, utility poles for interconnection, and underground utilities. The stormwater analysis has been performed to show maintenance or reduction of the peak runoff rates and volume attenuation for the 2-, 10-, 25-, and 100-year 24-hour storm events for post-development conditions compared to pre-development conditions.

The Town of Mansfield Landfill does not have an existing stormwater management system and stormwater runoff currently flows off the landfill cap via overland flow. The limits of the stormwater analysis for this project include the western, northern, and eastern property lines, and the area south of the landfill cap that drains to the existing onsite wetland. The top of the landfill cap has an approximate slope ranging between 1-7%. The side slopes of the landfill have slopes ranging from approximately 25-45% drain to all sides. On the macro-scale, all runoff eventually leads to the Fenton River which flows in an easterly direction and is located approximately 1,200 feet southwest of the site.

Adjacent topography outside the project parcel shows a natural drainage path east of the landfill cap that flows in a counter-clockwise direction around the landfill cap and discharges into the Fenton River northwest of the site. As stated above, there is also existing topography within the site that drains directly to the onsite wetland. Based on the site topography, two points of analysis (POA) were analyzed which include the Fenton River and associated floodplains located west/southwest of the site (POA-1) and the existing limited wetland located south of the site (POA-2). Figure 1 included in Appendix C displays the limits of each drainage area, time of concentration flow paths, and ground coverages for the pre-development conditions.

The post-development stormwater flow patterns do not change based on the proposed solar PV layout as there are no proposed grading changes. The post-development drainage areas, points of analyses, and overall watershed remains consistent with pre-development drainage areas.

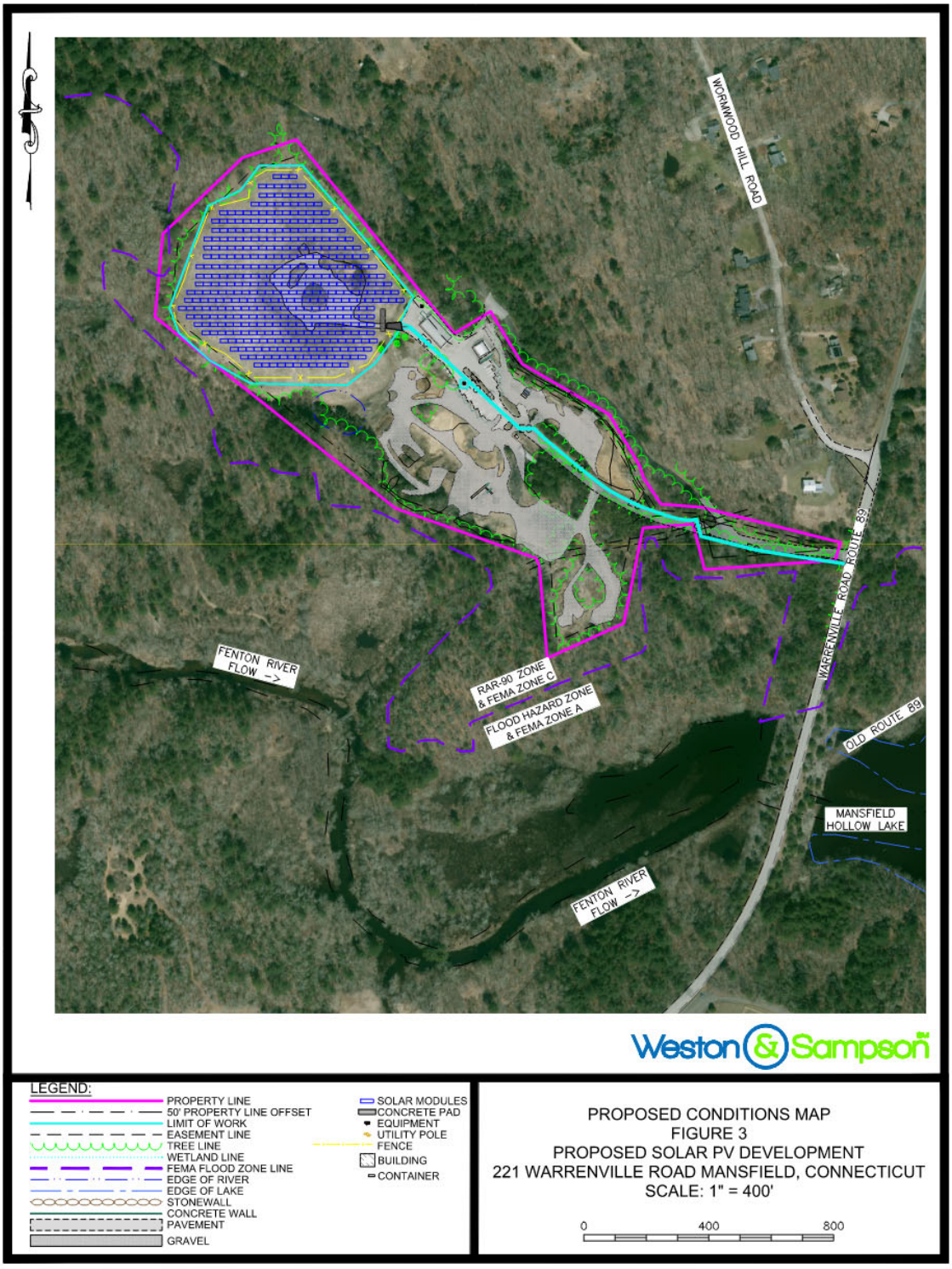
The stormwater analysis assumes the concrete ballast blocks and equipment pad will be considered disconnected impervious area in the post-development stormwater model. The dimensions of the ballast blocks are assumed to be 2 feet wide by 7.25 feet long. Two ballast blocks will be used for each table with each table consisting of approximately 14 solar PV modules. Figure 2 of Appendix C displays the limits of each drainage area, time of concentration flow paths, and ground covers for the post-development conditions.

Peak flows and discharge volumes are reduced from pre- to post-development conditions for both Points of Analysis during the 1-, 2-, 10, 25-, and 100-year 24-hour storm events. Because the peak flows and discharge volumes are decreased from pre- to post-development conditions, and because infiltration practices are not recommended on landfills, as the cap should not be disturbed, no structural Best Management Practices ("BMP's") are proposed to treat Water Quality Volume ("WQV").

To safeguard water resources from potential impacts during construction, the Applicant is committed to implementing protective measures in the form of a Stormwater Pollution Control Plan ("SWPCP"), subject to review and approval by DEEP Stormwater Management team. The SWPCP will include monitoring of established SESC measures that are to be installed and maintained in accordance with the 2024 Connecticut Guidelines for Soil Erosion and Sediment Control.

As indicated above, temporary erosion and sedimentation controls are included in the design per the Connecticut Guidelines for Soil Erosion & Sediment Control and involves the use of perimeter compost filter sock, temporary material stockpiles, and a stabilized construction entrance / exit. The initial erosion control plans and details are provided in Appendix B. Perimeter SESC measures will encircle the Project to trap sediment mobilized during construction activity. The sediment trapped by the compost filter sock encircling the site will be removed and dispersed within the project boundaries as needed during construction to maintain the effectiveness of these features. Upon final site stabilization, the erosion control measures will be removed.

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.



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iv. Construction

The Petitioner anticipates that construction of the Project will begin in the Spring of 2025 and will take approximately seven (7) months to complete. Construction activities within the Project Site will include: SESC measures, racking and modules, electrical equipment installation, the installation of interconnection infrastructure, and perimeter fencing. Existing grades throughout the Project Site will remain as little or no grading is expected.

Initial work would involve the installation of SESC measures. Upon completion of the installation of the SESC measures, the Petitioner will begin the ballast block and racking installation, followed by the installation of perimeter fencing, the solar modules and other electrical equipment. Final site stabilization, Facility testing, and Project commissioning would be expected to be completed just prior to the end of 2025. Construction activities would occur between the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and Saturday between the hours of 8:00 a.m. and 5:00 p.m.

As noted in Section D.iii, a SWPCP would also be developed and implemented for the Project. The SWPCP will include obligations for the regular inspection of SESC measures to prevent sedimentation or water quality impacts. The Petitioner will also apply for a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities from CT DEEP.

v. Operation & Maintenance

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

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

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

2. Module Cleaning: Although module cleaning is rarely necessary in Connecticut, if the solar modules were to experience enough soiling to adversely affect production, the modules will be cleaned using water brought in by tanker truck and soft bristle brooms. No chemicals will be used in connection with any module cleaning.

3. Snow Maintenance/Removal: The Petitioner does not intend to remove snow from the solar modules.

4. Ground Maintenance: The Petitioner will maintain the grass that will be established within the fenced area of the Project Site through routine mowing. The exterior of the Project Site will be mowed and maintained periodically.

See Appendix D for the Operation and Maintenance Plan.

vi. Decommissioning

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

See Appendix E for the Decommissioning and Restoration Plan.

IV. PROJECT BENEFITS

Generally, the Project will support the State's energy policies as set forth in CGS § 16a-35k, including the goal to "develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent." The Project will provide clean, renewable, solar-powered electricity and assist the State in meeting its legislatively mandated obligations under the Renewable Portfolio Standard.

The Project will also assist the State of Connecticut in reducing greenhouse gas emissions and reducing criteria air emissions pollutants associated with the displacement of older, less efficient, fossil fuel generation.

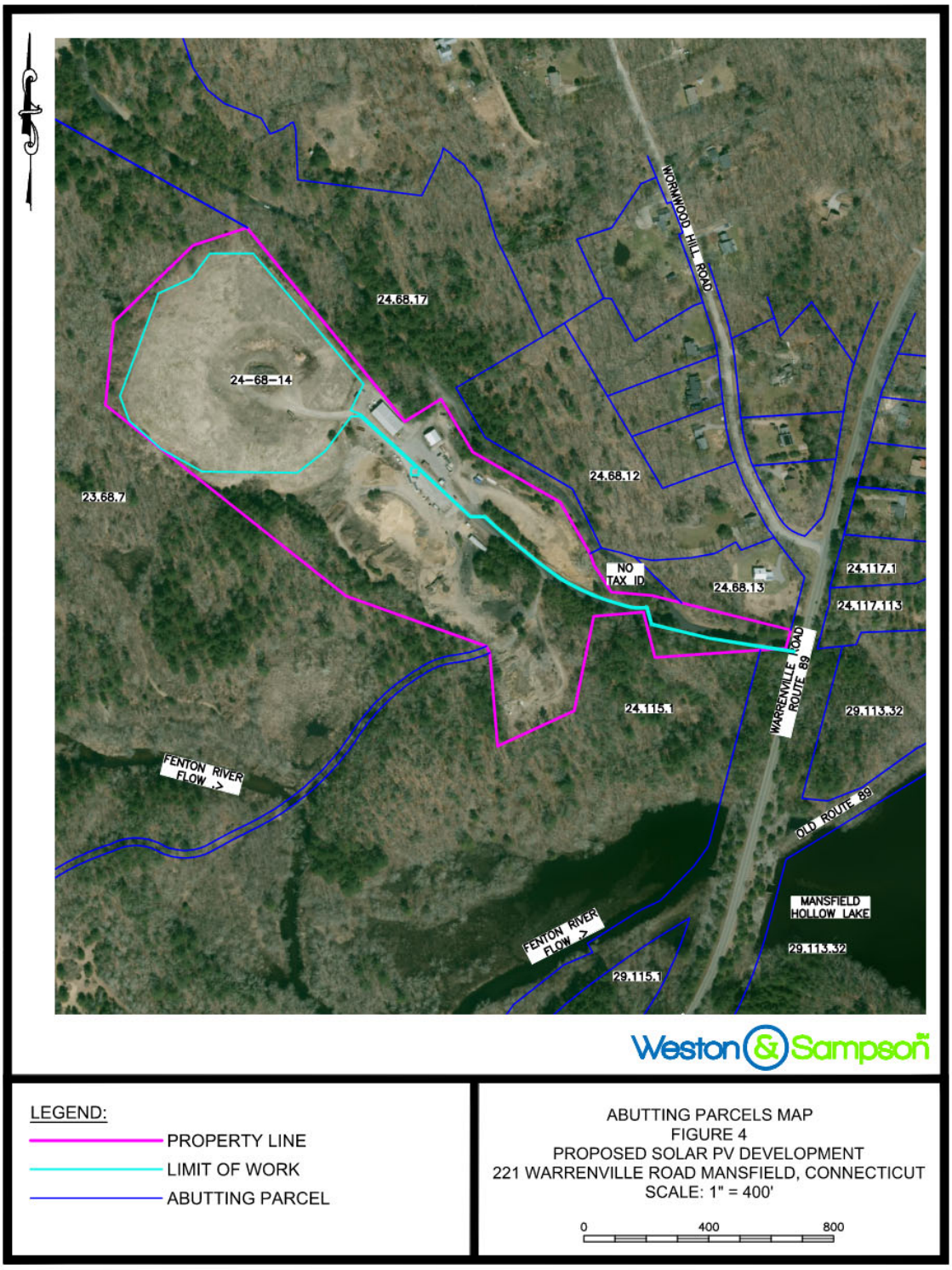
The Petitioner also intends to use, where appropriate, local, and regional labor for the construction and subsequent operation of the Project and expects that new construction and operation and maintenance

jobs will be created. Moreover, there will be no additional burdens placed on municipal infrastructure or demands on Town of Mansfield services due to the development of the Project.

V. LOCAL OUTREACH AND PUBLIC NOTICE

The Petitioner negotiated a lease agreement with the Town of Mansfield to construct the Project on the closed landfill, after the Town selection of Verogy through a competitive RFP (Request for Proposal) process. The Petitioner has subsequently informed town officials of their progress in development of the design plans for this Petition process and other relevant permitting approvals required from DEEP and the utility. Other relevant permitting approvals include, but may not be limited to, DEEP Stormwater General Permit, and DEEP Post-Closure Use and Authorization for Disruption of a Solid Waste Disposal Area. The Applicant completed a pre-application meeting with CT DEEP on October 7, 2024 and will be submitting these permit applications to DEEP in the near future. Outreach to any nearby residential abutters was not viewed as necessary, due to the location of the Project on a capped landfill that is a significant distance and therefore not visible from any nearby residential abutters.

On October 3, 2024, the Petitioner mailed notice to the abutting property owners and government officials informing them of its intent to file the Petition with the Council. Due to an error regarding the site address number that was indicated in this letter, a corrected letter was then issued to all the same parties on October 9, 2024. See Figure 4 (Abutting Parcels Map) for a map of the Site and the identified abutting property parcel IDs. See Appendix F for both Sample Notice Letters, a List of Municipal Officials and Government Agencies, Abutting Property Owner List and Certificate of Mailing.



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VI. POTENTIAL ENVIRONMENTAL EFFECTS

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

A. Public Health and Safety

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

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

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

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

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

B. Land Use and Development

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

The Project conforms to the Town of Mansfield's Plan of Conservation and Development ("POCD"), effective October 8, 2015, which highlights the Town's commitment to renewable energy to offset 20% of the town's electrical usage and encourages the installation of renewable energy systems such as solar.

C. Wildlife and Cover Type

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

i. Cover Types

The Site is comprised of the MSW Mansfield Landfill with a clay liner and vegetative cover over the majority of the landfill cap. The peak of the landfill also has some gravel cover, as well as tree debris (brush) and wood chip piles. The rest of the site includes meadow coverage, small pockets/swaths of wooded area, and the Town transfer station which includes gravel, grass/brush piles, and some impervious buildings/containers. The Site also has one limited wetland on the property. The Site cover types were confirmed by the field survey completed by Northeast Survey Consultants in July of 2024. The covers located on the Site are as follows:

- Meadow;
- Wooded Forest;
- Wetland;
- Gravel;
- Tree Debris / Wood Chips/ Grass/Brush piles;
- Impervious buildings/containers

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

The proposed PV array is located entirely within the landfill limits, with the electrical appurtenances located off the landfill cap. The project will not require clearing and does not propose any disturbance to the wetland resource area onsite. See Figure 2 (Existing Conditions Map).

a. Project Site Cover Types

Meadow – Landfill Cap

The MSW Mansfield Landfill cap has a vegetative support layer on the top of the landfill cover materials that is classified as meadow. The landfill is located in the northwestern corner of the project parcel.

The Project will encompass the majority of the landfill cap. The Project's impact is not expected to be significant due to the previous high level of human activity at the site, disturbed nature of this area from waste disposal practices, and its limited wildlife habitat value, and minimal species utilization.

Wooded Forest

There are pockets/swaths of wooded forest around the landfill cap limits and near the boundaries of the Project parcel. No tree clearing is proposed for the Project, thus no direct impacts are expected. Any potential indirect impacts will be minimized through the proper stabilization of soils during construction through strict adherence to the 2024 *Connecticut Guidelines for Soil Erosion and Sediment Control*.

Wetland

One wetland is located on site to the south of the landfill cap. Please refer to Section VI.D. for more information regarding the wetland resource areas on site. No direct impacts to the wetlands on site are proposed. As per Appendix I of the CT General Permit for the Discharge of Stormwater and Dewatering of Wastewaters from Construction Activities (CGP-Appendix I) a minimum wetland buffer of 100-feet is being provided for the proposed. Any potential secondary impacts to the Wetland will be avoided by implementation and maintenance of erosion and sediment control measures in compliance with the 2024 *Connecticut Guidelines for Soil Erosion and Sediment Control*.

Gravel

Portions of gravel are scattered around the Project site. There are gravel "access" areas scattered around the transfer station and a gravel road exists on the landfill to provide access to the peak of the landfill which also includes a 6 inch layer of gravel cover.

Brush

There are some piles of tree debris, wood chips, and grass/brush piles scattered around the site and on the landfill cap; these materials were grouped together as they are all generally composed of dead/dying vegetative materials. These materials were grouped together and generally categorized as "brush" in the stormwater analysis.

Impervious

The existing access road, Park Road, which extends from Warrenville Road to provide access to the Transfer Station on the same parcel as the Project, is composed of impervious pavement. The transfer station also has some buildings and storage containers that make up impervious cover on the site.

Table 1, *Cover Types* provides the total acreages of each habitat type located on the Site and within the Project area modeled in the pre-development stormwater conditions.

Table 1: Cover Types, Pre-Development

Habitat Areas		
Habitat Type	Total Area in Watershed (+/- ac.)	Area of Watershed Occupied by Project (+/- ac.)
Meadow	9.59	6.66
Wooded Forest	1.78	0.00
Wetland	0.03	0.00
Gravel	1.10	0.86
Brush	0.46	0.46
Impervious	0.57	0.02

b. Potential Habitat Impact(s) and Mitigation

Development of the Project will occur within the landfill cap limits and some of the impervious paved areas associated with the transfer station, with a majority of the proposed Facility occupying the landfill cap. The landfill cap provides very little to no value from a wildlife utilization standpoint as the landfill cap is not to be disturbed; so animal burrowing is heavily discouraged on the landfill cap. Furthermore, the site, including the landfill cap and the transfer station, provides limited value from a wildlife utilization standpoint as a result of routine management of these areas and the high level of human activity associated with the transfer station. Project related impacts within these habitats are limited and are not anticipated to adversely affect wildlife.

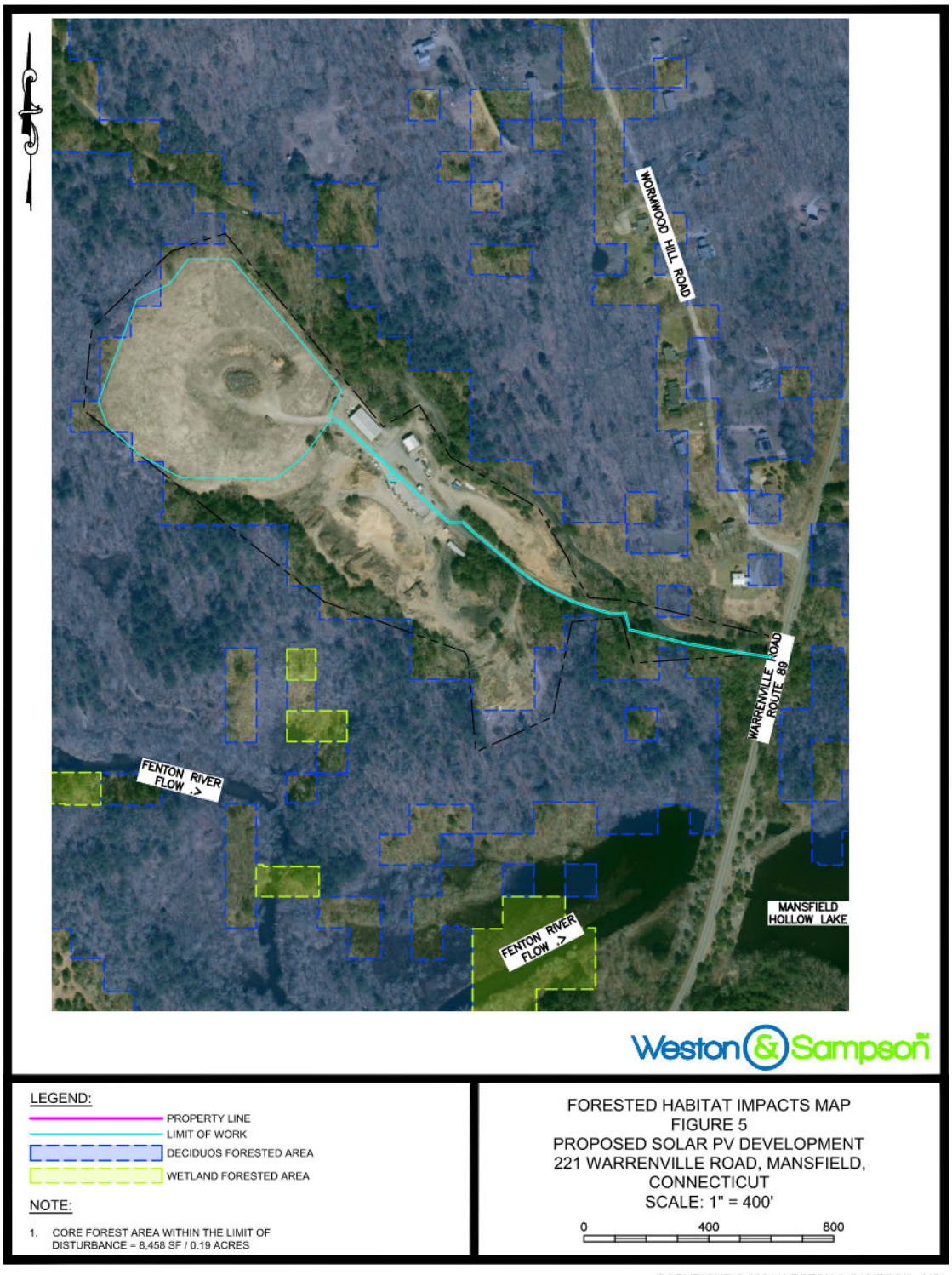
Based on the surrounding land uses, the adjacent wooded forest swaths located in proximity to the Project area are likely utilized by species that prefer edge forest habitat and are more tolerant of human disturbance and habitat fragmentation. Generalist wildlife species common to the region, including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

The Project will not encroach into the wetland areas on the project site. Project development activities will occur in areas of existing disturbances associated with human use of the transfer station and maintenance of the vegetative cover on the landfill cap. Noise and associated human activities during construction of the Facility may result in limited, temporary disruption to wildlife using wooded forest areas. However, no clearing of wooded areas is proposed, so no displacement of wildlife located in the adjacent wooded forest areas is expected. Post construction operation of the Facility will not result in a likely adverse effect to wildlife using these habitats because it will be unoccupied and does not generate any significant noise, traffic, or high level of human activity.

ii. Core Forest

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

In consulting with the CT DEEP Forestland Habitat Impact Map, approximately 2.18 acres of the Property fall within the area of forestland habitat impact. However, while the Forestland Habitat Impact Map shows forested area inside the Project Parcel, the Project is located within a capped landfill area that does not contain any trees. Therefore, there is no tree clearing required for the installation of the solar array. Minimal tree cutting will be required for the electrical interconnection at the entrance to the Facility.



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iii. Threatened and Endangered Species

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

Natural Diversity Data Base

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

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

Weston & Sampson reviewed the most recent DEEP NDDB mapping (September 2024), which revealed that the western boundary of the project parcel does intersect with a "State and Federal Listed Species" Polygon indicated on the NDDB area map. The automated site assessment generated by eNDDB listed species involved with the buffer including the Wood Turtle, Eastern Hognose Snake, Eastern Pearlshell which are State Special Concern Species. The automated site assessment also listed the Frosted Elfin which is a State Threatened species.

A request for NDDB State-listed species review for the project was submitted on September 12, 2024. Initial correspondence from DEEP is that a Reptile Protection Plan will need to be submitted for review. Preparation of a Reptile Protection Plan is underway and will be submitted to NDDB for their review and approval in the near future.

The applicable NDDB Best Management Practice recommendations will be considered and implemented during construction.

USFWS Consultation

Federal consultation was completed by Weston & Sampson in accordance with Section 7 of the Endangered Species Act ("ESA") through the U.S. Fish and Wildlife Service's ("USFWS") Information, Planning, and Conservation System ("IPaC"). The IPaC system allows project planners the ability to perform a regulatory review for protected species under the ESA that inhabit or potentially may inhabit a particular area. This resource is designed to provide a list of potential ESA-protected and/or candidate species, migratory bird species protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, critical habitats, as well as the ability to consult whether a proposed project has the potential to result in "take[3]" of listed species.

Based on the results of the IPaC review, two threatened, endangered, or candidate species are known to occur in the vicinity of the Site. The two listed species area the Tricolored Bat (*Perimyotis subflavus,* Proposed Endangered status) and the Monarch Butterfly (*Danaus plexippus*, Candidate Status). The Tricolored Bat's range encompasses the entire state of Connecticut and during the spring, summer and fall, tricolored bats can be found in forested habitats where they roost in the trees. Currently, there is not a Determination Key available for the Tri-colored Bat as it has not been listed as endangered yet, thus a determination key has not been completed. The proposed Project should have "no effect" on the Tri-Colored Bat species as the project does not propose tree-clearing.

The Official Species List generated by the United States Department of Interior Fish and Wildlife Service as well as the USFWS and initial feedback from NDDB is included in Appendix G. As summarized above, final NDDB Determination results are still pending at this time.

D. Wetlands

Wetlands

Wetlands and watercourses onsite were identified, field delineated and assessed by Davison Environmental on June 27 and July 9, 2024. The locations of these resources are depicted on Figure 2, Existing Conditions Map. The area of the Property that was investigated, included the Project Site, the

[3] "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."

proposed path of the electrical interconnection, and adjacent areas within close proximity to these two aforementioned areas that encompass the potential limits of project disturbance. Within this investigation area, one wetland was identified and delineated. The system, which is contained within the Property, is adjacent to the southwestern portion of the Project Site and is a small area approximately 1,325 square feet in area at the toe of the slope of the landfill. The location of these resources is depicted in the *Wetland and Watercourse Delineation* report.

The Facility will occupy the northern portion of the Project Site that was part of the now closed and capped landfill. There are no direct wetland impacts or tree clearing, except for minimal tree cutting for the electrical interconnection, associated with the Project. The closest disturbance to the wetland limits is a portion of the perimeter fence located approximately 90 feet to the north and the nearest solar panel is located approximately 115 feet to the north of the wetland limits. Therefore, Project activities would not be expected to result in an adverse impact to these wetland resources based on the proposed protection measures outlined herein.

E. Water Resources and Stormwater Management

The Project will not have an adverse impact on the State's water resources, as the Facility will be unstaffed, no potable water uses or sanitary discharges are planned, and no liquid fuels are proposed or necessary for the operation of the Facility. The Project will result in a de minimis increase in impervious cover at the Project Site. An SESC plan is proposed to provide protective measures during construction for stormwater runoff at the Project Site. Therefore, the Project satisfies the water quality standards of CT DEEP.

i. Floodplain Areas

Petitioner reviewed the United States Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Maps ("FIRM") for the Site. The area inclusive of the Site is mapped on FIRM PANEL #09128 0010 C, dated January 2, 1981. Based upon the reviewed FIRM Map, the Property is in an area designated as Zone C. All of the Project Site falls within Zone C, which are designated as areas of minimal flooding.

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

ii. Groundwater

The *CT DEEP Water Quality Classifications Mansfield, CT* map, dated October 2018 classifies the groundwater underlying the Project Site as "GA,GAA".[4] This classification indicates groundwater within the area is presumed to be suitable for human consumption without treatment. The *CT DEEP Public Water Supply Map* indicates the Project Site is not located within a mapped (preliminary or final) DEEP Aquifer Protection Area.

iii. Surface Water

The Project will have no adverse environmental effect on surface water quality. Based upon CT DEEP mapping, the Site is located in Major Drainage Basin 3 (Thames Basin), Regional Drainage Basin 32 (Natchaug), Subregional Drainage Basin 3207 (Fenton River).

The nearest waterbodies are listed below:

- Fenton River, located approximately 1,300 feet southwest of the Project area;
- Mansfield Hollow Lake, approximately 2,400 feet east of the Project area;

Fenton River and Mansfield Hollow Lake are classified as Class AA surface waterbody by DEEP. The Project will have no effect on either surface waterbody.

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

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

[4] Designated uses in GA classified areas include existing private and potential public or private supplies of drinking water and base flow for hydraulically connected surface water bodies.

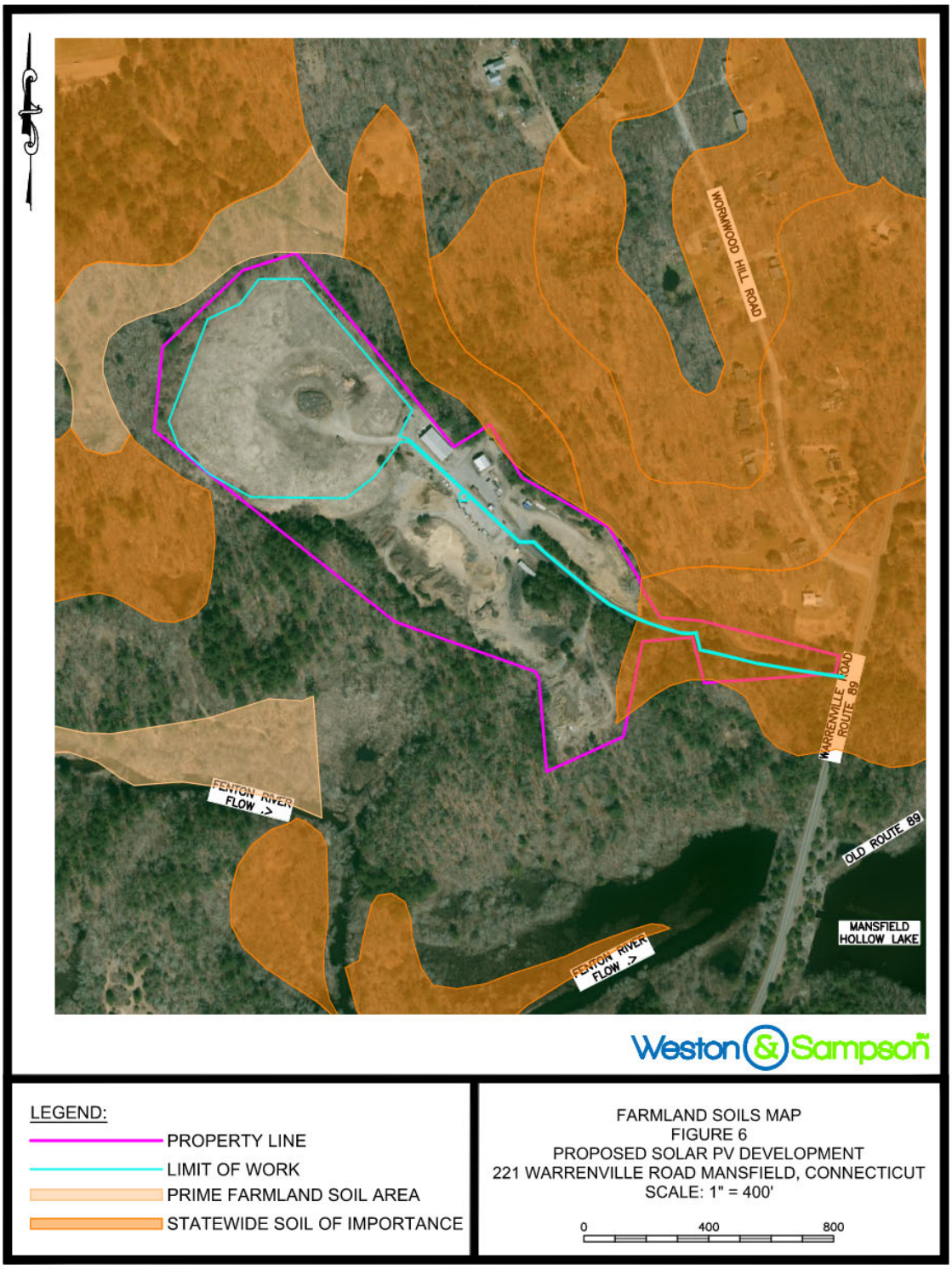
F. Soils and Geology

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

Based upon CT DEEP mapping, surficial materials within the Project Site are classified as deposits of sand and deposits of sand and gravel. Bedrock beneath the Property is identified as Portland Arkose. Portland Arkose is described as a reddish-brown to maroon micaceous arkose and siltstone and red to black fissile silty shale.[5] The Petitioner does not anticipate encountering bedrock during Project development.

Prime Farmland Soils are not found on the Site or within the Project area. See Figure 6 (Farmland Soils Map). Regrading is not required for development of the Project, and no topsoil is to be removed from the Project area, and none will leave the Site.

[5] Connecticut Natural Resources Atlas Series: Bedrock Geological map, cteco.uconn.edu/maps/state/Bedrock_Geologic_Map_of_Connecticut.pdf



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G. Historic and Archaeological Resources

A request for a letter of concurrence was submitted to the Connecticut State Historic Preservation Office ("SHPO") on September 25, 2024, and a response was received on September 30, 2024, stating that "no historic properties will be affected by the proposed undertaking". The SHPO response letter is included in Appendix H.

H. Air Quality

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

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

I. Noise

As mentioned above, the Project is in the Town of Mansfield's RAR-90 (Rural Agricultural Residence 90 Zone), as are all properties adjacent to the Project Site. Potential Project-related noise is regulated by Connecticut General Statutes section 22a-69 and Regulations of Connecticut State Agencies (RCSA) Section 22a-69 et. seq.

The State Noise Regulations prohibit the emission of continuous excessive noise beyond the boundary of their Noise Zone. The Project is considered a Class C Land use with the closest receptor being recreational use, Class B, to the northeast of the Project Site, thus requiring a maximum level of 66 dBA all day. Construction noise is exempt from the noise regulations.

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

The Project's equipment area, where the inverters and transformer will be installed, will be located in the southeast corner of the Project site. The distance from the nearest equipment pad to the nearest property line is approximately 120 feet to the east, is a parcel that is owned by the Town of Mansfield, and is one of their recreational facilities, a Class B receptor. The nearest residence is located approximately 1,100 feet from the equipment pad, with heavily forested land in between the Project Site and the residence.

Per a previously completed sound analysis, a combined inverter bank has a calculated sound power level of under 85 dBA at a distance of one meter. The Petitioner applied the Inverse Square Law to evaluate the relative sound level of the inverters to the nearest property line, a Class B receptor to the northeast, and the calculations show that an 85 dBA at one meter would drop to approximately 53.7 dBA at a distance of 120 feet (36.6 meters), which is below the maximum allowable level of 66 dBA for a Class B receptor. The inverters only operate during daytime hours and therefore no noise generation is anticipated at night.

During the construction period, the Applicant expects that some typical construction equipment noise will occur, however the construction activities are only to occur between the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and Saturday between the hours of 8:00 a.m. and 5:00 p.m.

J. Lighting

No exterior lighting is planned for the Facility.

K. FAA Determination

The closest federally obligated airport is Windham Airport, located approximately 2.4 miles south of the Project Site. The Project was reviewed using the Federal Aviation Administration (the "FAA") Notice Criteria Tool to determine if the Project needed to file with the FAA under the provisions of 49 U.S.C., Section 44718 and Title 14 of the Code of Federal Regulations, part 77. The Project was not required to file with the FAA because it did not exceed the notice criteria. See Appendix I for the FAA's determination on the Project.

L. Scenic and Recreational Areas

There are two public scenic or recreational areas within the immediate vicinity of the Project. Lions Memorial Park is located on the parcel immediately to the north that is owned by the Town of Mansfield. Mansfield Hollow State Park is located on the parcel immediately to the south. However, due to the combination of distance, topography, and existing vegetation, it is anticipated that the Project would have minimal visibility from either of these recreation areas.

The nearest scenic road, designated as SP144, is located approximately 0.4 miles south of the Project in the Town of Mansfield and it appears to be an old right of way that may be utilized for recreation. Due to the combination of distance, topography, and existing vegetation, it is not anticipated that the Project would be visible from this scenic road.

See Figure 7, Surrounding Features Map.

M. Visibility Evaluation

The Facility will be located on a closed, capped landfill that is located more than 1,700 feet from the nearest public road. Off-Site visibility to the site will be obscured year-round by the combination of this distance, the natural topography, and the significant established vegetation.

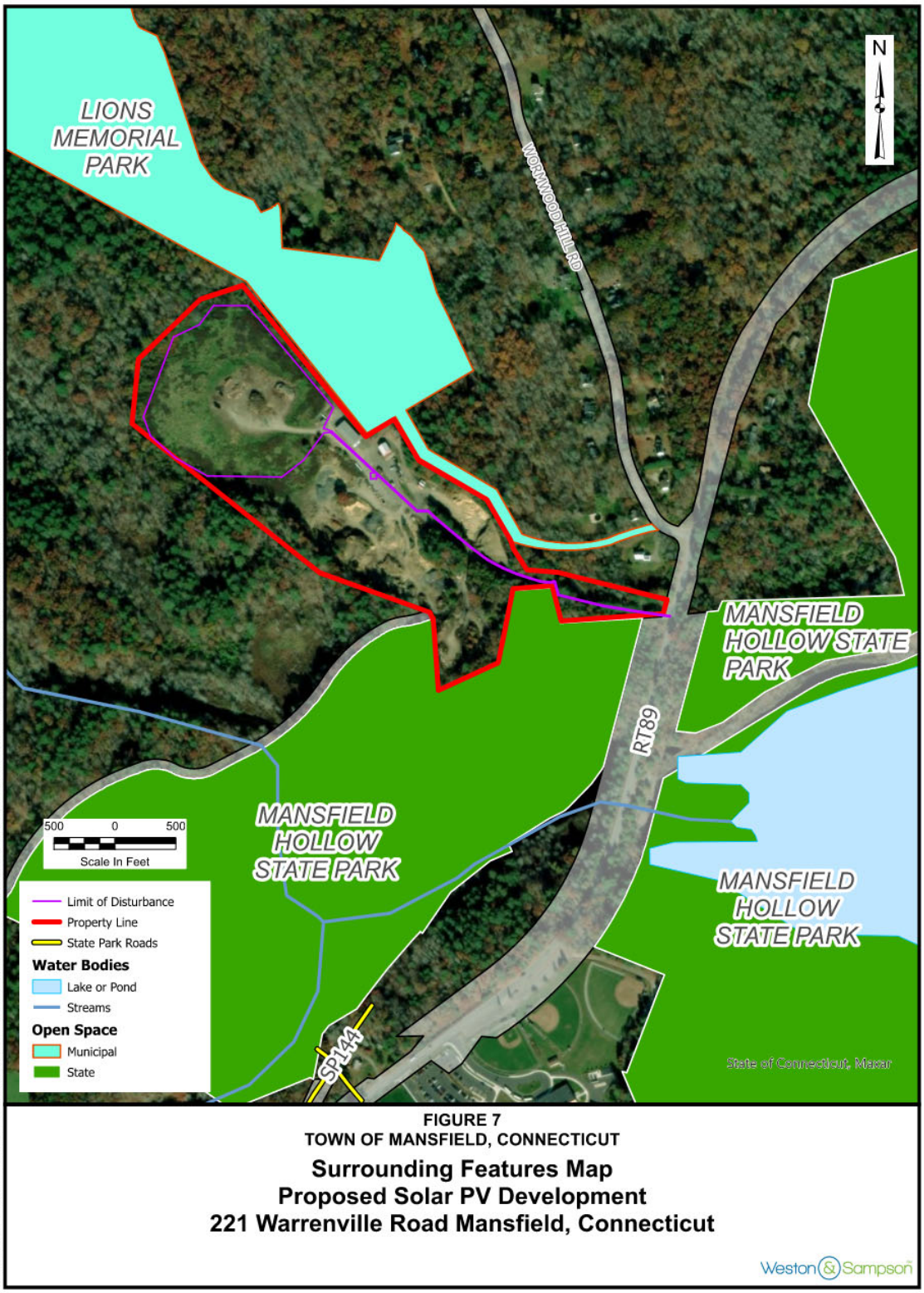

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FIGURE 7
TOWN OF MANSFIELD, CONNECTICUT

Surrounding Features Map
Proposed Solar PV Development
221 Warrenville Road Mansfield, Connecticut

Weston & Sampson

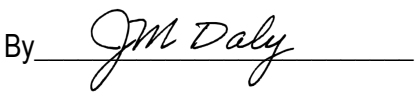
VII. CONCLUSION

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

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

Respectfully Submitted,

VCP MANSFIELD LF, LLC

By 

Name: John M. Daly, Esq.
Title: Counsel
124 LaSalle Road, 2nd Floor
West Hartford, CT 06107
jmdaly@verogy.com