

**Petition of Earthlight Technologies for a Declaratory  
Ruling that no Certificate of Environmental  
Compatibility and Public Need is Required for the  
Proposed Construction, Operation and Maintenance of a  
±1.9 MW AC Ground-mounted Solar Photovoltaic  
Electric Facility Located at 1 Hamilton Road in Windsor  
Locks, Connecticut**

**Prepared for  
The Connecticut Siting Council**

**December 20, 2022**



## Table of Contents

1.0	Introduction.....	4
2.0	Petitioner.....	5
3.0	Proposed Project.....	6
3.1	Project Site Overview.....	6
3.1.1	Existing Site Land Use.....	6
3.1.2	Surrounding Land Use.....	6
3.1.3	Project Site Alternatives.....	6
3.2	Project Description.....	7
3.2.1	Site Access.....	7
3.2.2	Solar Facility Design and Layout.....	7
3.2.3	Electrical Interconnection.....	8
3.2.4	Fencing and Site Security.....	8
3.3	Stormwater Management.....	8
3.4	Construction Schedule and Phasing of Construction.....	9
3.5	Operation and Maintenance.....	10
3.6	Decommissioning.....	10
4.0	Project Benefits and Needs.....	11
5.0	State and Local Outreach/Input.....	12
6.0	Potential Environmental Effects/Impacts.....	13
6.1	Site/Community Setting and Scenic Character and Values.....	13
6.2	Public Health and Safety.....	13
6.3	Noise.....	14
6.3.1	Noise Level Guidelines and Regulatory Requirements.....	14
6.3.2	Proposed Project-generated Noise.....	15
6.4	Air Quality.....	15
6.5	Visual Impact Assessment.....	16
6.6	Federal Aviation Administration Consultation.....	16
6.7	Environmental Site Assessment/Conditions.....	17
6.8	Site Soils and Geology.....	17
6.8.1	Existing Site Soils and Geology.....	17
6.8.2	Preservation of Prime Agricultural Soils.....	17
6.9	Historic and Archaeological Resources.....	18
6.10	Wetlands and Watercourses.....	18
6.10.1	Wetlands Delineation and Methodology.....	18

6.10.2	Existing Wetlands and Watercourses.....	18
6.10.3	Vernal Pools .....	18
6.10.4	Proposed Project and Mitigation.....	19
6.11	Wildlife and Habitat .....	19
6.11.1	Rare, Threatened and Endangered Plants and Wildlife.....	19
6.11.2	Potential Impacts and Mitigation .....	20
6.11.3	Core Forest .....	20
6.12	Water Supply.....	20
6.13	Stormwater Management .....	20
6.13.1	Existing Conditions.....	20
6.13.2	Proposed Conditions .....	21
7.0	Conclusions .....	21

**LIST OF FIGURES:**

- Figure 1 – Site Location Map
- Figure 2 – Proposed Project Area Aerial
- Figure 3 – Zoning Map
- Figure 4 – Property Cards
- Figure 5 – Site Survey
- Figure 6 – Proposed Project Layout
- Figure 7 – Wetlands Delineation Map
- Figure 8 – Aquifer Protection Area Map
- Figure 9 – Public Water Supply Watershed Map
- Figure 10 – Groundwater Quality Classifications, Windsor Locks, CT (CTDEEP)
- Figure 11 – NRCS Soils Information
- Figure 12 – Investigation Area Overview Map
- Figure 13 – Letter of Support from First Selectman Harrington

**LIST OF APPENDICES:**

- Appendix A – Permit Plan/Drawing Set
- Appendix B – Equipment Specifications
- Appendix C – Operation & Maintenance Documentation
- Appendix D – Decommissioning and Restoration Plan
- Appendix E – Stormwater Report
- Appendix F – Cultural Resource Assessment Documentation
- Appendix G – Wetlands Delineation Report and Vernal Pool Study
- Appendix H – Wildlife and Habitat Review Documentation
- Appendix I – Public Outreach Documentation
- Appendix J – Visual Impact Assessment
- Appendix K – FAA Consultation
- Appendix L – Spill Prevention Control and Countermeasure Plan

## 1.0 Introduction

This is a Petition for a declaratory ruling, pursuant to Connecticut General Statutes §§4-176 and 16-50k, that no Certificate of Environmental Compatibility and Public Need (“Certificate”) is required for the development, construction, operation and maintenance of a proposed solar photovoltaic project proposed by Earthlight Technologies (“Earthlight” or “Petitioner”) in the Town of Windsor Locks (the “Town”), Connecticut (the “Project”). The Project consists of the development of a ±1.9-megawatt (“MW”) alternating current (“AC”) ground-mounted solar photovoltaic (“PV”) system located at 1 Hamilton Road, Windsor Locks, Connecticut (the “Property”). All development is proposed on a parcel owned by Hamilton Sundstrand d/b/a Collins Aerospace (“Owner” or “Collins Aerospace”). See Figure 1 – Site Location Map and Figure 2 – Proposed Project Areas Aerial.

The Connecticut Siting Council’s (the “Council”) approval of this Petition would allow Petitioner to assist the State of Connecticut in achieving its goal of energy conservation and sustainability. If approved, the Project will commence with financing, detailed engineering, procurement, and construction in 2023, with commercial operation planned for the end of 2023.

The Project is located within the Town’s Industrial IND-1 zoning district and is comprised of approximately 8 acres of development. Collins Aerospace recently filed a subdivision map for the parcel, which is not yet reflected on the Town’s online property viewer. See Figure 3 – Zoning Map. The Town’s Assessor’s Office has the full parcel listed as MBL – 016-001-002 and the parcel is privately owned. See Figure 4 – Property Cards and Figure 5 – Site Survey.

## 2.0 Petitioner

The legal name of Petitioner is Earthlight Technologies, LLC. Earthlight Technologies is a Connecticut limited liability company with its principal place of business in Ellington, Connecticut. Earthlight is a professional renewable energy business with decades of experience in the solar industry. The core of its business is the developing, financing, constructing, managing, and operating of solar projects. The management team at Earthlight has constructed over 50 megawatts of solar projects across the United States.

Mailing Address: Earthlight Technologies  
128 West Road  
Ellington, CT 06029

Internet Address(es): <https://www.earthlighttech.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:

Jake Schneider  
Earthlight Technologies  
128 West Road  
Ellington, CT 06029  
[jake@earthlighttech.com](mailto:jake@earthlighttech.com)  
(860) 871-9700 x116

Eric Virkler  
Earthlight Technologies  
128 West Road  
Ellington, CT 06029  
[eric@earthlighttech.com](mailto:eric@earthlighttech.com)  
(860) 871-9700 x126

Brian Murtha  
Earthlight Technologies  
128 West Road  
Ellington, CT 06029  
[bmurtha@earthlighttech.com](mailto:bmurtha@earthlighttech.com)  
(860) 871-9700 x135

Lee D. Hoffman  
Pullman & Comley, LLC  
90 State House Square  
Hartford, CT 06103-3702  
[lhoffman@pullcom.com](mailto:lhoffman@pullcom.com)  
(860) 424-4315

## 3.0 Proposed Project

### 3.1 Project Site Overview

The Property is a ±257-acre parcel located at 1 Hamilton Road, Windsor Locks, Connecticut in the southwestern portion of Windsor Locks. The Town’s Assessor’s Office has the parcel listed as MBL – 016-001-002. See Figure 4 – Property Cards. A paved parking lot currently sits upon the northern project areas, while the southern project areas are undeveloped woodland (collectively, the “Project Area”).

The proposed Project location falls on the southwestern portion of the Property, located to the north and east of Bradley International Airport Connector (Route 20), to the west of Hamilton Road, and south of Collins Aerospace facility and Bradley Airport. (the “Project Site” or “Site”)

#### 3.1.1 Existing Site Land Use

The overall land use of the parcel consists of Collins Aerospace’s industrial manufacturing facility and associated utilities and outbuildings. The site is accessible from Hamilton Road and Schoephoester Road. According to Windsor Locks’ Zoning Map, the parcel is located in an industrial zoning district. See Figure 5 – Site Survey.

#### 3.1.2 Surrounding Land Use

The area surrounding the Project consists primarily of single-family residences to the south, across Route 20, and Bradley Airport to the north.

#### 3.1.3 Project Site Alternatives

Electric power generated by the Project will primarily serve Collins Aerospace’s utility needs for its manufacturing processes, and accordingly, no other sites were investigated for this Project. Within the Project Site itself, Earthlight selected the proposed development areas because they are suitable for a solar PV project and have minimal natural resource and environmental impacts. The Project as designed will not have an adverse effect on the existing environment and ecology of the Project Site or the

surrounding area. The Project will not diminish the quality of life of those who live in the vicinity. Further, the Project is neither defined as an “affecting facility” nor located within an “environmental justice community” under Connecticut General Statutes § 22a-20a.

## 3.2 Project Description

### 3.2.1 Site Access

The primary access point to the northern Project area will be via an existing paved access road within Collins Aerospace facility. It is anticipated that access to the southern Project areas will be served by existing dirt or gravel access paths emanating from the Collins Aerospace building facility (the “Facility”). No new access roads are proposed as part of this Project. See Figure 7 – Proposed Project Layout and Appendix A – Sheet 2.0 Layout and Materials Plan.

### 3.2.2 Solar Facility Design and Layout

It is currently anticipated that the Project will consist of photovoltaic (PV) arrays to be comprised of 460-watt panels (depending on the state of module technology at the time of construction) arranged two-high in portrait set at a 15-degree angle within vegetated areas and at a 10-degree angle within paved areas to maximize annual energy production within the available buildable area on the Site. The panels within vegetated areas will be mounted on steel racking with driven posts or ground screws, to a depth to attain sufficient structural capacity to resist the loads from the weight of the panels, as well as environmental loads including snow, wind, and seismic forces. Panels within paved areas will be mounted atop concrete ballasted foundations above-grade which will also be engineered to resist structural and environmental forces.

The proposed PV array has a nameplate capacity of ±1.9 MW AC with approximately 4,700 modules. Approximately ±30-62.5 KW inverters would be distributed throughout the array and mounted to or placed adjacent to the racking structure. The DC capacity is ±2.2 MW and the AC capacity is ±1.9 MW. Power from the inverters would be directed



to a transformer, switchgear, meter, and disconnects prior to interconnecting with the utility distribution feeder.

### 3.2.3 Electrical Interconnection

Earthlight submitted an interconnection application for the Project to Eversource on June 22, 2022. Eversource is currently in the process of completing a Distribution System Impact and Facility Study for the Project.

### 3.2.4 Fencing and Site Security

The Project will meet applicable local, state, national, and industry health and safety standards and requirements related to electrical power generation. The Project will not consume any raw materials, will not produce any by-products and will be unstaffed during normal operating conditions. Petitioner proposes a 7-foot high chain link fence to be installed around the perimeter of the solar array field to provide site security, and to satisfy National Electric Code requirements. In addition, the entrance to the Facility will be gated—limiting access to authorized personnel only—by inclusion to the mutual aid agreement between Collins Aerospace and the Town of Windsor Locks. The Facility will be monitored continuously and will have the ability to de-energize in the event of an emergency. See Appendix A – Sheet 2.0 - Layout and Materials Plan.

## 3.3 Stormwater Management

Petitioner prepared a Stormwater Management Report in accordance with the 2004 State of Connecticut Stormwater Quality Manual and with the Connecticut General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (“Stormwater General Permit”) effective December 31, 2020. A copy of this Report is attached as Appendix E.

Petitioner also reviewed online soil mapping and has performed a field geotechnical investigation to investigate the native soil conditions and infiltration rates at the proposed locations of the stormwater basins. The findings of this study are included in the Stormwater Report (Appendix E). As indicated in the attached Stormwater Management

Report, predevelopment drainage patterns have been maintained to the greatest extent feasible in an effort to maintain pre-development flows to off-site areas.

Two permanent basins have been designed and are strategically located on the Project Site to maintain existing drainage patterns and to mitigate any increase in peak rates of runoff from the areas that will be cleared of trees. These basins will discharge stormwater towards on-site wetlands, where the existing runoff flows today. The proposed basins do not exceed the 3 acre-ft volume limit; thus, it is anticipated that a Connecticut Department of Energy and Environmental Protection (“CTDEEP”) Dam Safety permit is not required.

Petitioner developed a HydroCAD model, using TR-55 methodology, to evaluate the existing and proposed drainage conditions of the Property. The results of the analysis demonstrate that there would not be an increase in peak stormwater runoff rates for the 2-, 25-, 50-, and 100-year storm events to any design point. Water quality treatment would be handled in these permanent stormwater management basins as well as within the vegetated buffer areas between the Project and adjacent wetlands.

### 3.4 Construction Schedule and Phasing of Construction

Petitioner anticipates that construction of the Project will begin in the Spring or Summer of 2023 and will take approximately six (6) months. Construction activities within the Project Area will include: tree clearing, grading to incorporate the Project’s proposed stormwater management features, erosion and sedimentation (“E&S”) control measures, and racking and module(s) electrical trenching; the installation of interconnection infrastructure; and new fences and gates. Existing grades throughout the Project Area will remain, except in areas where the Project’s stormwater management features are proposed. For those areas, some manipulation (i.e., cuts/fills) and regrading will be required.

Initial work would involve the installation of erosion and sediment control measures, including installation of sediment traps. Upon completion of the installation of the erosion control measures, the project will commence the required clearing and begin the

racking installation. Upon completion of the racking installation, the modules and other electrical equipment will be installed. Final site stabilization, testing, and commissioning is expected to complete in the Summer or Fall of 2023. Construction activities would be expected to occur between 7:00AM to 6:00PM Monday through Friday and possibly Saturday between 8:00 a.m. and 5:00 p.m.

A Storm Water Pollution Control Plan (“SWPCP”) will be developed and implemented by the project civil engineer. The SWPCP will include regular inspection of erosion control measures to prevent sedimentation or water quality impact. Petitioner will also apply for a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities from the CTDEEP. The Stormwater Management Report (Appendix E) provides Erosion and Sedimentation Control Best Management Practices – Maintenance/Evaluation Checklists for Construction Practices and Long-Term Practices. Construction sequencing is described in detail on sheet C-4.0 in Appendix A.

### 3.5 Operation and Maintenance

Required maintenance of the Project will be minimal. Petitioner anticipates that the Site will require mowing and routine maintenance of the electrical equipment one (1) time per year, which will typically involve two (2) technicians. The Facility would be monitored remotely 24 hours a day, 7 days a week. The Petitioner does not expect that any snow removal operations will be necessary for the Project, given that the selective positioning of the panels allows for any accumulating snow to “sheet” off. Repairs to the Facility will be made on an as-needed basis. See Appendix C – Operation & Maintenance Documentation.

### 3.6 Decommissioning

At the end of its useful life, the Project will be decommissioned in accordance with the requirements of the Project’s Decommissioning and Restoration Plan. See Appendix D – Decommissioning and Restoration Plan.

## 4.0 Project Benefits and Needs

The State of Connecticut has committed to develop its renewable energy market and mitigate the negative environmental impacts associated with traditional electric power generation. In so doing, it has set aggressive targets to reduce greenhouse gas (“GHG”) emissions and to increase the deployment of Class I renewable energy.

The recommendation from the Governor’s Council on Climate Change (“GC3”) is that Connecticut’s Renewable Portfolio Standard (“RPS”) reach a target of 40 percent Class I renewable energy sources by 2030, with an aim to reduce the carbon intensity of the RPS to achieve the State’s decarbonization goals. Additionally, Governor Lamont has set a 100 percent zero carbon target for the energy sector by 2040. Owners of renewable-electricity generation projects receive one renewable energy certificate (REC) for every megawatt-hour of renewable electricity they produce. Those RECs are traded in a regional market for state RPS compliance. Connecticut establishes required annual REC percentages from three classes of renewable energy resources.

If approved, the Project will provide the following wide range of environmental and economic benefits to the State of Connecticut and the Town, respectively:

- Once operational, the Project will generate approximately 2,722 MWh per year. This is enough renewable energy to power 379 homes for an entire year and would effectively offset 1,950 metric tons of carbon dioxide annually—the same amount as 32,248 tree seedlings grown for ten (10) years, or 4,841,031 miles driven by an average passenger vehicle;
- Reduction in energy demand during peak usage will decrease energy costs for ratepayers Statewide;
- The creation of construction jobs in the region;
- The Project will provide Infrastructure upgrades that will improve the reliability of Windsor Locks’ electrical grid; and
- The Project will only occupy an estimated 8 acres out of a total 257 acres—thereby leaving approximately 97% of the Property available for other uses.

## 5.0 State and Local Outreach & Input

Earthlight has been in communication with and has engaged state and local regulators regarding the design and development of the project.

On September 8, 2022, Earthlight's project team, including VHB, met with the the CTDEEP's Concierge team. The CTDEEP staff present at that meeting represented Wildlife, Dam Safety, Fisheries, Land and Water Resources, and Stormwater Divisions. CTDEEP staff stated that the Project seemed straight-forward and agreed with VHB's assessment that the placement of panels above existing pavement would not require any specific stormwater management features.

On October 13, 2022, Petitioner met with Windsor Locks' First Selectman, Paul Harrington, and Town Planner, Jen Valentino, to discuss the Project. Petitioner introduced key members of its development team to local officials and provided a comprehensive introduction to the Project. Mr. Harrington affirmed that he is in support of renewable energy and of this Project. See Figure 13 – Letter of Support from First Selectman Harrington.

On October 25, 2022, VHB spoke with Eric Barz, Windsor's Town Planner, regarding the Project. Mr. Barz requested a copy of the site plans and suggested that the Town would likely take no exception to the Project. Emails sent to Eric Barz by VHB on October 25, 2022 and November 1, 2022, which included the requested site plan, were not returned as of the filing of this Petition. This correspondence is included in Appendix I.

On November 1, 2022, VHB spoke with Robin Newton, East Granby's Town Planner, regarding the Project. Ms. Newton requested a copy of the site plans and responded on November 8, 2022 to an email sent by VHB, that no impacts are anticipated to the Town of East Granby. This correspondence is included in Appendix I.

In addition, pursuant to the requirements of the Regulations of the Connecticut State Agencies ("R.C.S.A.") § 16-50j-40(a), Earthlight has sent out formal notifications

concerning this Petition to all abutters and applicable governmental officials. The 61 “green cards” indicate successful delivery of these letters. A table summarizing this outreach is included in Appendix I.

## 6.0 Potential Environmental Effects/Impacts

### 6.1 Scenic Areas

The Project is located in the southwestern portion of the Property and will occupy approximately 8 acres of the 257 acres. The use of the property consists of Collins Aerospace’s manufacturing facility, forested areas, wetlands, and paved parking areas. The surrounding land use is single-family residential across Route 20 to the south and Bradley Airport to the north. No state or local designated scenic roads or scenic areas are located near or within one (1) mile of the Site and therefore, none will be physically or visually impacted by development of the Project.

### 6.2 Public Health and Safety

The proposed Project is not expected to create any adverse impact on public health or safety issues. The proposed Project will meet or exceed all local, state, national and industry health and safety standards and requirements. During construction and post-construction operations and maintenance, workers and personnel will follow all health and safety standards applicable to solar energy generating facilities.

A site-specific construction health and safety plan is typically developed prior to initiation of any on-site Project-related tasks. During the construction phase of development, all contractors, sub-contractors and personnel will be appropriately trained and briefed on any potential site health and safety issues. There will be a designated construction manager and/or site safety officer or representative present at all times during construction, and that individual will be responsible for overseeing and implementing the site construction health and safety plan.

Construction traffic will include standard construction trucks, small earth moving equipment, and all-terrain forklift equipment. Vehicle trips will consist of scheduled

deliveries of the major materials such as solar racking, solar panels, electrical equipment to serve the solar site, and fencing materials to be installed around the perimeter of the solar field. Construction activity and associated traffic will generally take place from 7:00 AM to 6:00 PM daily on Monday through Friday and possibly 8:00 AM to 5:00PM on Saturday.

Some hazardous substances may be used or stored on the Property during construction or operation of the Project. Namely, gasoline or diesel-powered equipment will be in regular use during construction activities, which shall require on-site fuel storage. Further, the inverter step-up transformers located at each equipment pad will use biodegradable oil for cooling. Accordingly, a Spill Prevention, Control, and Countermeasure (“SPCC”) Plan and an Operations and Maintenance (“O&M”) Plan have been developed for the Project. See Appendix L – Spill Prevention Control and Countermeasure Plan.

## 6.3 Noise

### 6.3.1 Noise Level Guidelines and Regulatory Requirements

Potential Project-related noise is regulated by the Connecticut General Statutes section 22a-69 and the Town of Windsor Locks’ Noise Ordinance.

The Town’s Noise Ordinance provides: “It shall be unlawful for any person to emit or cause to be emitted any noise beyond the boundaries of his/her premises in excess of the noise levels established in these regulations as amended from time to time.” For the Industrial District which the Property and receptors to the north, are located in, the Town ordinance prescribes a maximum level of 70 dBA. From the Industrial District to receptors to the south (the residential parcels in Windsor, CT), the Town ordinance prescribes a maximum level of 61 dBA for daytime hours (defined as 7:00 AM to 9:00 PM) or 51 dBA for nighttime hours (defined as 9:00 PM to 7:00 AM).

Noise generated by the operation of any tools or equipment used in construction, drilling, or demolition work between the hours of 7:00 a.m. and 6:00 p.m. on weekdays and

between the hours of 8:00 a.m. and 5:00 p.m. on Saturdays and Sundays is exempt provided that the noise discharge is reasonably muffled.

The Connecticut General Statutes section 22a-69 requires the Project to meet the following sound levels: 61 dBA at the nearest residential property during the day (when the Project would be generating electricity); 51 dBA at the nearest residential property at night (when some accessory equipment might still be in operation); 66 dBA at the nearest commercial/educational property; and 70 dBA at the nearest agricultural/industrial property. The statute also accounts for impulse and other types of noise. Construction noise is exempt from the statute.

### 6.3.2 Proposed Project-generated Noise

Due to the nature of the use, facility design, required equipment and distance from potential noise receptors, the proposed Project is expected to have no adverse noise-related impact on the surrounding area. Existing uses around the perimeter of the Project site include Bradley International Airport and single-family residential development across Route 20.

The selected inverter has an acoustic noise rating of 69 dBA at 1 meter distance, as noted on the inverter specification sheet provided in Appendix B. All other selected system equipment will typically generate the same or lower levels of noise.

The nearest residential property line is located at 362 Rainbow Road in Windsor, CT, approximately 400 feet from the closest proposed equipment pad. Petitioner applied the Inverse Square Law to evaluate the relative sound level of the inverters to the nearest residential property line, and the calculations show that the 69 dBA at 1 meter would reduce to approximately 27 dBA at the residential property line, which is below the lowest maximum allowable level of 51 dBA.

## 6.4 Air Quality

Because the Project is a solar energy generating facility, no air emissions will be generated during operations and, therefore, an air permit is not required. Temporary, potential



construction-related mobile source emissions would include those associated with construction vehicles and equipment. Any potential air quality impacts related to construction activities can be considered *de minimis*. Such emissions would be mitigated using available measures including, limiting idling times of equipment; proper maintenance of all vehicles and equipment and watering and spraying to minimize dust and particulate releases. In addition, all on-site and off-road equipment would meet the latest standards for diesel emissions, as prescribed by the United States Environmental Protection Agency (“EPA”) and, along with the above mitigation measures, this should reduce the exhaust emissions.

## 6.5 Visual Impact Assessment

Petitioner anticipates that the location of the proposed Project, coupled with the design of the proposed solar energy facility, would significantly limit, if not eliminate, any potential views from any public viewsheds or private properties. The Project has been sited on land which is generally low visibility from surrounding roads, residences, and any designated public recreation area (i.e. playing fields, walking trails, or parks). Visual impacts of the Project are naturally mitigated from multiple directions due to distance, topography, and existing vegetation. A cross section, displaying the proposed Project elements in relation to the closest abutting residential parcel, has been prepared in support of this Petition and is included in Appendix J. No visual screening mitigation is proposed currently, however, Petitioner intends to provide the Council with any updates to visual impact studies or proposed mitigation screening plans if they arise.

## 6.6 Federal Aviation Administration Consultation

Petitioner used the Federal Aviation Administration (“FAA”) Notice Criteria Tool to screen the Project site to assess if the Project triggers the FAA Notice Criteria. The result of the initial screening on June 2, 2022 is that the Project exceeds the Notice Criteria for Bradley International Airport. A Notice of Proposed Construction or Alteration – Off Airport was filed with the FAA on August 7, 2022, and a Determination of No Hazard to Air Navigation was received on August 18, 2022.

Due to the Project's proximity to Bradley International Airport, Petitioner voluntarily performed a glare study of the Project which concluded there would be no adverse impacts to the usage of the Airport. See Appendix K - FAA Consultation.

## 6.7 Environmental Site Assessment and Conditions

Collins Aerospace's proposed solar project does not require a Phase I Environmental Site Assessment that is typically performed prior to purchasing or leasing land because no interest in this land will be transferred. The site is, however, under a CTDEEP-issued Resource Conservation and Recovery Act ("RCRA") Corrective Action and Property Transfer Program. The Project has been sited to avoid any listed contamination or remediation areas and it is anticipated that the Project will have no effect on these areas. See Figure 12 – Investigation Area Overview Map.

## 6.8 Site Soils and Geology

### 6.8.1 Existing Site Soils and Geology

A review of available Natural Resources Conservation Service ("NRCS") online soils mapping indicated the presence of multiple soils throughout the Project Area, with Hydrologic Soil Groups ranging from "A" to "B" and slopes ranging from 0 to 18%. Petitioner has performed geotechnical subsurface testing at the Site. Soils information is included in Figure 11 – NRCS Soils Information.

### 6.8.2 Preservation of Prime Agricultural Soils

The vegetated portion of the proposed development area is currently undeveloped woodlands. A review of the United States Department of Agriculture's ("USDA") soil mapping for the area indicates that only a small portion of the development area (less than 1/2 acre) is prime farmland, and a review of historic aerials indicates that the site has not been farmed within the last 50 years. Accordingly, it is Petitioner's belief that no existing agricultural usage of any prime farmland soil will be affected by the Project.

## 6.9 Historic and Archaeological Resources

Heritage Consultants prepared a 1A Cultural Resources Assessment Survey in May 2022. Heritage stated that no areas of the Project contained moderate/high archaeological sensitivity for resources, and State Historic Preservation Office (“SHPO”) agreed with the assessment via a letter dated June 15, 2022. A copy of the Phase 1A report and SHPO concurrence letter are included in Appendix F.

## 6.10 Wetlands and Watercourses

### 6.10.1 Wetlands Delineation and Methodology

In the Spring of 2022, soil scientists from VHB investigated the site to determine if regulated Inland Wetlands or Watercourses were present. In Connecticut, Inland Wetlands are defined by areas of poorly drained or very poorly drained soils or alluvial soils of any drainage class. The investigation was facilitated by the use of a tile spade and soil augers that were used to examine soil profiles and evaluate drainage classes. A Wetlands Delineation Report dated June 14, 2022, was prepared outlining the survey process and findings. A copy of this report is included in Appendix G.

### 6.10.2 Existing Wetlands and Watercourses

Two wetland systems were delineated as a result of this effort and are depicted in the report. Wetland systems exist to the southwest and to the east of the Project Area. Both delineated wetlands discharge south under Route 20 via a culvert and ultimately flow into a tributary to the Farmington River. A more comprehensive analysis of the various wetland systems can be found in the Wetland Delineation Report included in Appendix G.

### 6.10.3 Vernal Pools

During the Spring 2022 wetland delineation effort, VHB environmental scientists simultaneously investigated for the presence or likely habitat of any vernal pools. No

evidence of potential vernal pool habitat was located on the site or in close proximity to the site which would necessitate further investigation.

#### 6.10.4 Proposed Project and Mitigation

The Project has been designed to provide a vegetated buffer between the development itself and these wetland systems to maintain an ecological edge zone that separates the solar development and stormwater features from the wetland communities. The wetlands will be further protected by incorporation of the stormwater management features that have been designed to mitigate peak runoff rates and treat water quality that is generated from the development area.

In concurrence with the CTDEEP Stormwater General Permit, the minimum buffer proposed for any grading activities or infrastructure development is over 50-feet from any wetland resource, and the minimum buffer proposed for any solar panels is over 100-feet from any wetland resource.

### 6.11 Wildlife and Habitat

#### 6.11.1 Rare, Threatened and Endangered Plants and Wildlife

A Request for Natural Diversity Data Base (NDDDB) State Listed Species Review was completed and distributed to the CTDEEP Wildlife Division for review. In return, a Final Determination dated March 17, 2022 was provided by the CTDEEP Wildlife Division which found that extant populations of two State Species of Concern: Eastern pondmussel (*Ligumia nasuta*) and Sand Barren Critical Habitat were in vicinity of the project. Therefore, the CTDEEP recommended protection strategies during construction activities. Conservation measures for the Eastern pondmussel as recommended have been incorporated into the site design, and VHB has engaged the SWCA Environmental Consultants to perform an analysis of the sand barren habitat on site. A copy of the Final Determination letter is included in Appendix H.

### 6.11.2 Potential Impacts and Mitigation

Conservation measures for the Eastern pondmussel as recommended have been incorporated into the site design, and VHB has engaged SWCA Environmental Consultants to perform an analysis of the sand barren habitat on site. Petitioner will provide the Council with the final report from SWCA on the sand barren habitat.

### 6.11.3 Core Forest

Review of the CTDEEP Forestland Habitat Impact Map indicates that no known core forest exists at or in proximity to the site. Accordingly, it is Petitioner's opinion that the Project will not alter areas of core forest.

## 6.12 Water Supply

Potable water is available on site as needed during construction, and minimal long-term water use will be required for operations for the purpose of cleaning modules.

## 6.13 Stormwater Management

### 6.13.1 Existing Conditions

Under existing conditions, untreated stormwater runoff from most of the Site generally flows southwesterly or easterly overland towards one of the two on-site wetland systems. Both wetlands convey stormwater runoff to the south under Route 20 via a culvert.

Approximately 50% of the development area is comprised of woodlands and the remaining 50% is paved. Generally, the site is at its highest elevation within the northwestern portions of the development area, and slopes to the southwest and to the east towards the adjacent forested wetland systems. The majority of the terrain slopes in the Project area range from 0% to 10% with portions ranging up to 18% slope.

Information and computations regarding existing conditions hydrology is contained in the Stormwater Report. A copy is included in Appendix E.

### 6.13.2 Proposed Conditions

The proposed stormwater management system for the Project has been designed to meet State standards found within the 2004 Connecticut Stormwater Quality Manual and the CTDEEP Stormwater General Permit effective December 31, 2020. The system consists of two proposed permanent stormwater management basins which have been strategically located throughout the Project site to maintain existing drainage patterns to the onsite wetlands. A seed mix of permanent turf forming grasses will be used to establish vegetation directly under the modules to help stabilize the topsoil from erosion, sequester nutrients and pollutants, and lower runoff rates. The only impervious surfaces created by the Project will be located on a *de minimis* square footage of equipment pads. No new access roads are proposed.

Post-construction stormwater runoff will be collected and conveyed to the stormwater basin via an overland sheet flow and one permanent diversion swale. The ponds will include an outlet control structure designed to mitigate peak stormwater flows to predevelopment levels. Water quality treatment is provided in the basin and infiltration of stormwater runoff into the ground has been promoted to the maximum extent practicable. Information and computations regarding proposed conditions hydrology is contained in the Stormwater Report. A copy is included in Appendix E.

## 7.0 Conclusions

As demonstrated by this Petition, the Project will comply with the standards set forth in Conn. Gen. Stat. §16-50k(a). Specifically,

- The Project meets CTDEEP's air and water quality standards, with no material emissions associated with construction or operation, and water quality standards associated with construction and operational stormwater management are a primary focus of the Project's design;

- The Project has been configured to avoid any substantial environmental impacts by largely utilizing land adjacent to existing utility corridors and outside of any contamination/remediation areas; and
- The Project will not materially alter areas of core forest or active prime farmland.

Further, the Project would not be visible from any public viewsheds and would be largely screened from surrounding residential properties. There will not be any undue impacts from noise. The Project will not affect scenic or historic resources in the vicinity of the Project.

Given the benefits this Project will provide to the State of Connecticut, Earthlight respectfully requests that the Council approve this Project as currently designed and issue a declaratory ruling that a Certificate is not required.