

EXHIBIT 2

ENVIRONMENTAL ASSESSMENT



ENVIRONMENTAL ASSESSMENT

SOLAR FACILITY INSTALLATION

80 BRUSH HILL ROAD

BOZRAH, CONNECTICUT

NEW LONDON COUNTY

Prepared for:

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(bound separately)

Project Introduction

Brightfields Development, LLC (“Brightfields”) retained All-Points Technology Corporation, P.C. (“APT”) to prepare this Environmental Assessment (“EA”) for the proposed installation of a 3.1 megawatt (“MW”) solar-based electric generating facility in Town of Bozrah, Connecticut (the “Project”). Figure 1, *Site Location Map*, depicts the location of the Site and surrounding area.

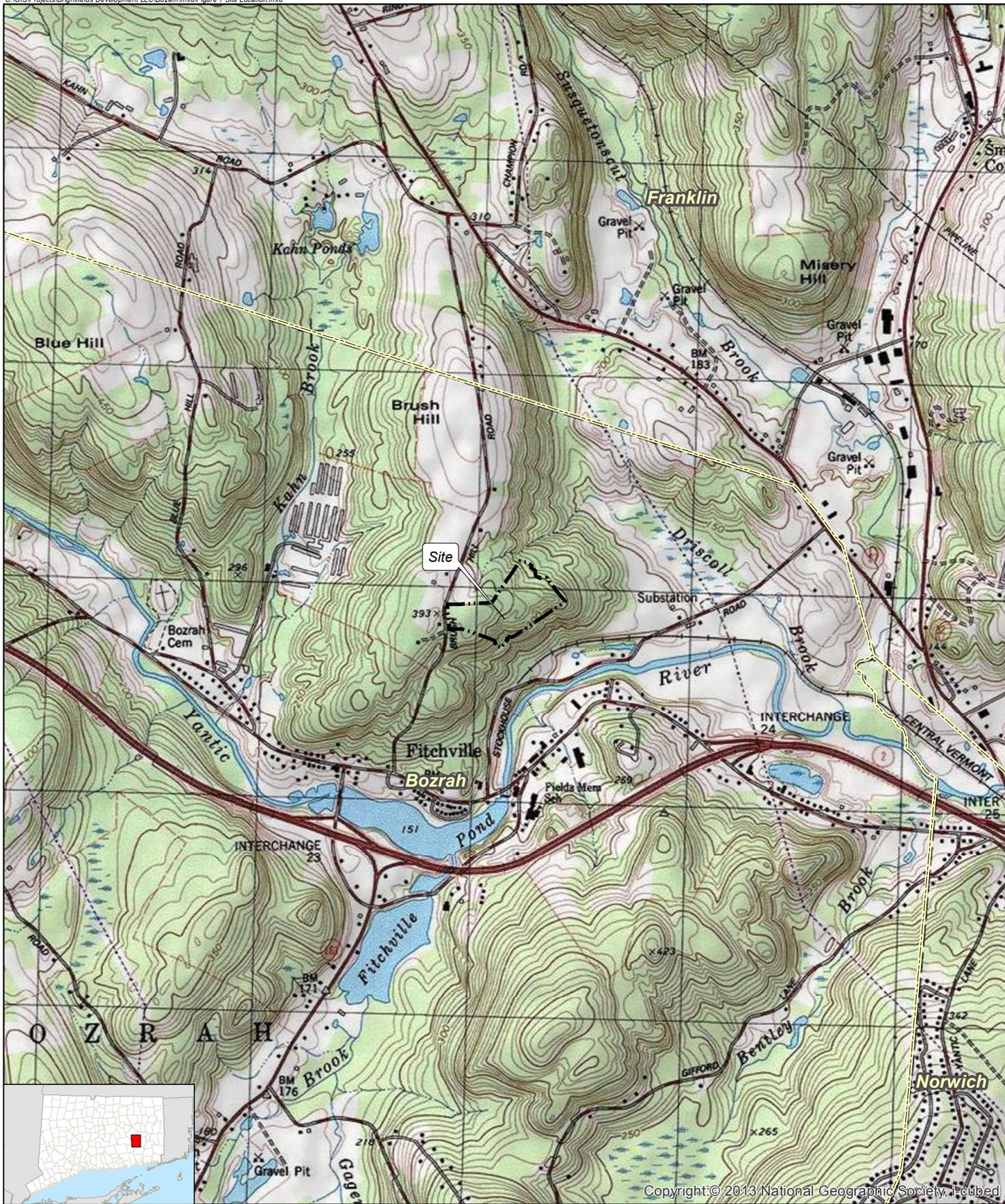
This EA has been completed to support Brightfields’ submission of a petition for declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of the Project.

The Project is proposed to be located at 80 Brush Hill Road, on a 25.2± acre parcel identified in Bozrah Assessor records as Map 4, Lot 006A1 (“Site”). The Site is zoned industrial and has never been developed. The Site is bound by a cleared agricultural field and woods to the north; Brush Hill Road, agricultural land and a residence to the west; undeveloped wooded land to the east; and, a residence and undeveloped woods to the south.

The proposed solar facility will include the following:

- Approximately 10,206 310 watt Hanwha solar modules, each measuring approximately 6.4 feet by 3.25 feet
- Up to four (4) utility scale inverters.
- Cast-in-place concrete ballasts and racking system with individual panels placed at a 25° tilt to the south.

The Project in its entirety would encompass approximately 15.8 acres of the Site. Areas to be occupied by solar arrays, associated equipment and access total 11.5 acres. To accommodate the Project, approximately 9 acres would require clearing and grading of upland mature forest. Cleared portions of the site would be overlain primarily by a native grass mixture.

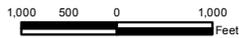


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Legend

-  Site (+/- 25.20 Acres)
-  Municipal Boundary

Map Notes:
 Base Map Source: USGS 7.5 Minute Topographic
 Quadrangle Map, Fitchville (1983), CT
 Map Scale: 1:24,000
 Map Date: February 2015



**Figure 1
 Site Location Map**

Proposed Solar Facility
 80 Brush Hill Road
 Bozrah, Connecticut 06334

BRIGHTFIELDS
 DEVELOPMENT LLC



Existing Conditions

An *Existing Conditions Map*, depicting current conditions on the Site, its access, abutting properties, and several key features discussed herein, is provided as Figure 2. The purpose of this section is to describe current conditions on the Site. A detailed discussion of the proposed Project's effects on the environment is provided in the following section of this document.

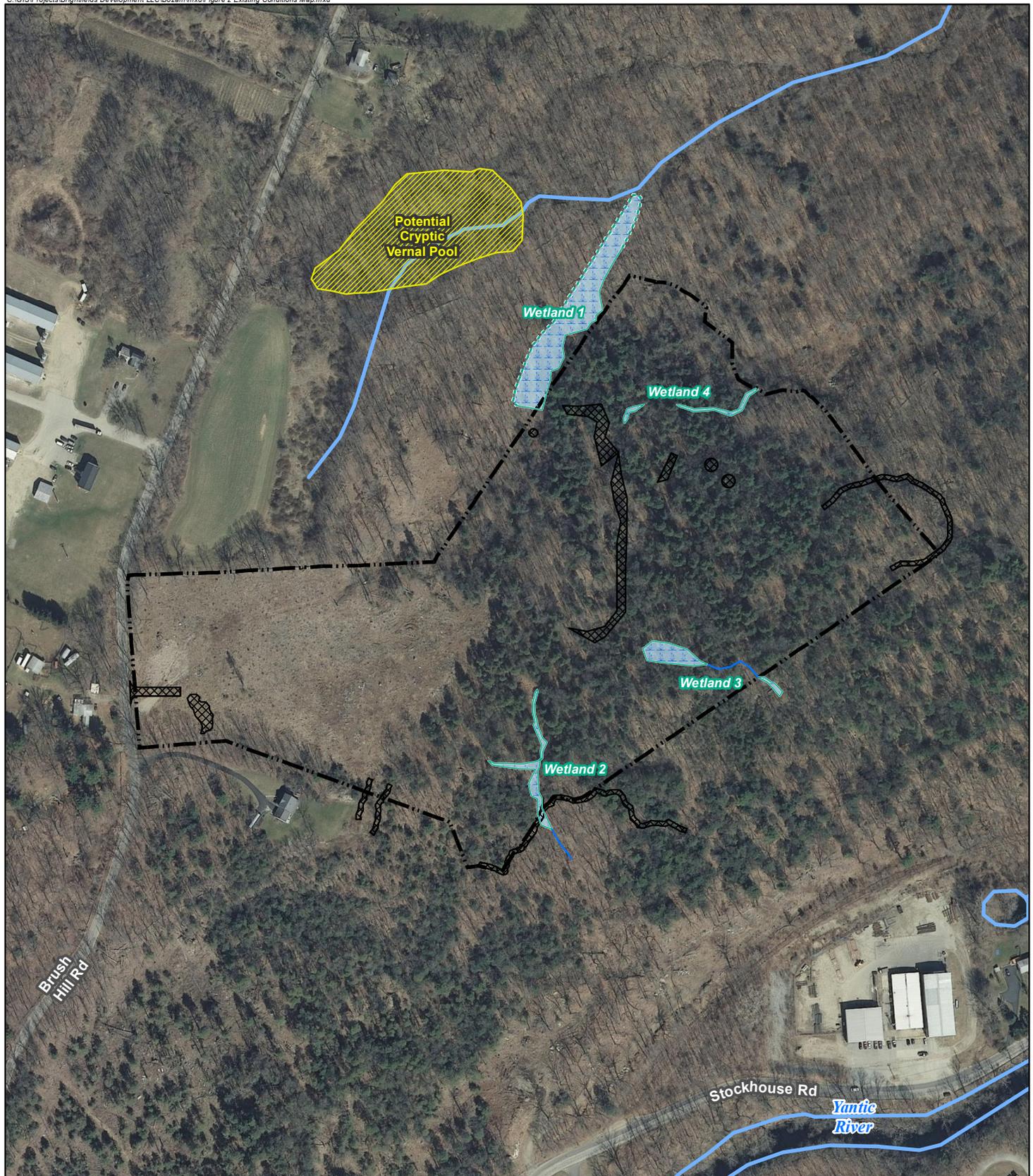
Project Location

The ±25.2-acre Site is located at 80 Brush Hill Road in Bozrah, New London County, Connecticut. The Site is identified by the Bozrah Tax Assessor as Map 04, Lot 006A1 and consists of undeveloped land. The parcel is zoned "I-80 – Industrial" but has never been developed. The eastern portion of the Site is wooded while the western portion was cleared within the past six years and is overgrown with low shrubs. The Site is located along the eastern side of Brush Hill Road in a sparsely developed portion of Bozrah and surrounding primarily by woodlands and agricultural fields. A single-family residence abuts the Site to the south.

Site topography in the area proposed for development varies, with slopes ranging from 1% to 8%, generally trending down to the south. The remainder of the property slopes down to the northeast, north and southeast, often at steep grade (up to 50%). Site elevations change significantly from the westerly portion at the frontage on Brush Hill Road (elevation 374±) to the eastern property boundary (elevation 290±).

Site Access

Access can be gained via an existing entrance from Brush Hill Road at the western extent of the Site.



Legend

- | | | |
|-------------------------------|------------------------------|--------------|
| Site (+/- 25.20 Acres) | Field Delineated Watercourse | Wetland Area |
| Exposed Ledge | Wetland Line | |
| Potential Cryptic Vernal Pool | Approximate Wetland Line | |
| CTDEEP Watercourse | | |

**Figure 2
Existing Conditions Map**

Proposed Solar Facility
80 Brush Hill Road
Bozrah, Connecticut 06334



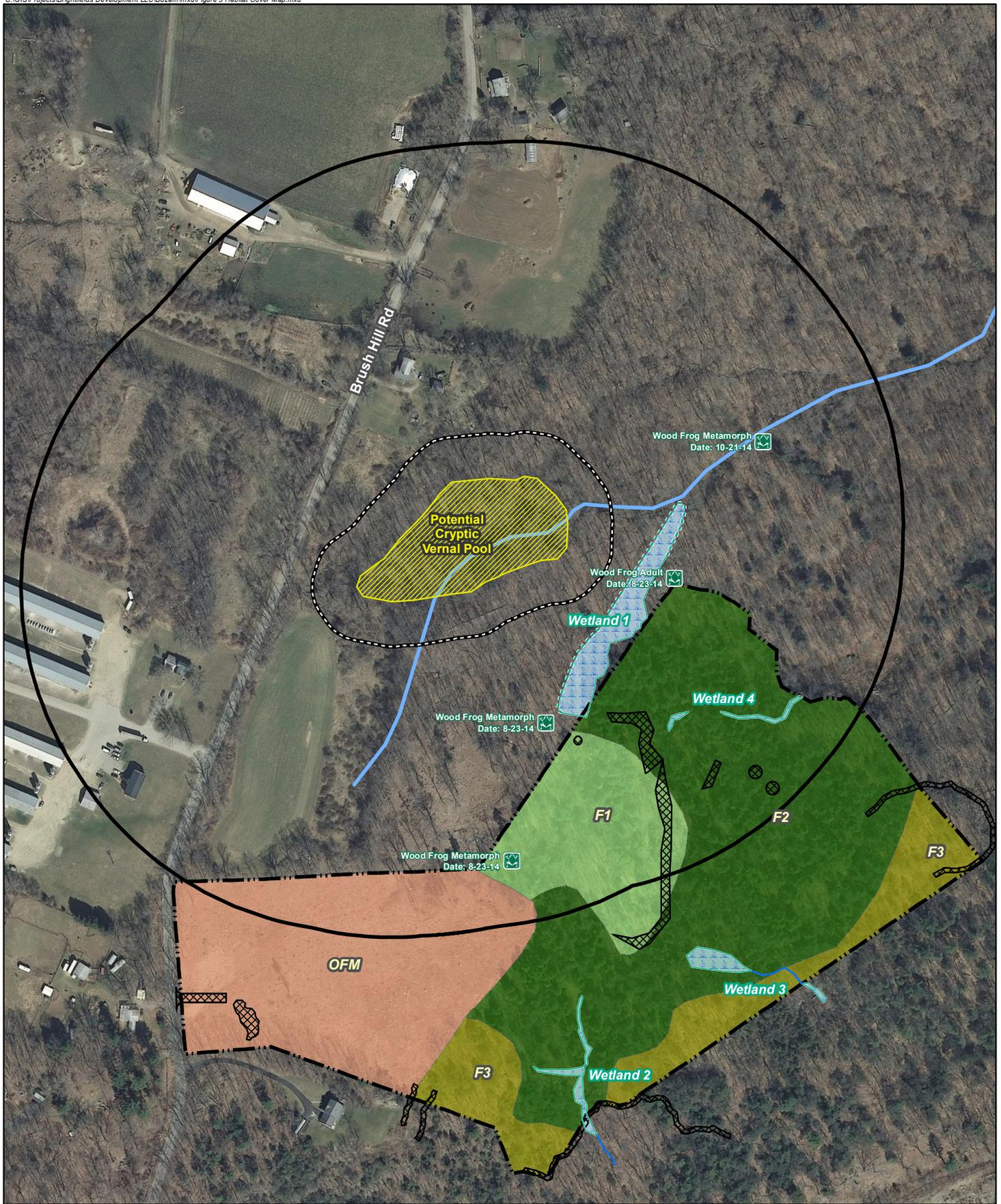
Wetlands and Watercourses

Dean Gustafson, a Connecticut registered Professional Soil Scientist with APT, conducted an inspection of the Subject Property on August 23, 2014 to review and confirm wetland boundaries identified during a previous inland wetlands investigation/delineation performed in 2011 by Demina A. Sorrentino of Boundaries LLC. Mr. Sorrentino identified four (4) wetland areas, consisting primarily of seasonal intermittent stream channels formed in moderately to steeply sloping, dense glacial till, and hillside seep wetland systems. No flows or standing water were observed in any of the identified intermittent watercourse/wetland features during the August 23, 2014 investigation. A review of Mr. Sorrentino's delineation was found to be substantially correct. A copy of the 2011 Inland Wetland & Watercourse Report prepared by Mr. Sorrentino is included as Appendix A. The wetland resources are summarized below and depicted on the *Habitat Cover Map* provided as Figure 3.

Wetland 1 is primarily classified as a seasonal intermittent watercourse with short-duration hydroperiod with flows anticipated to occur primarily during the spring freshet and peak hydroperiod in combination with precipitation events. This forested headwater intermittent watercourse is primarily located off-Site to the north, generally flowing northeast until reaching a large off-site wetland system.

Wetland 2 is a set of two well confined, highly seasonal intermittent watercourses that primarily drain north to south. The hydrology of this system shares similar qualities to Wetland 1. These intermittent streams continue to drain north merging with other watercourse features forming a larger complex wetland system off-site. This wetland system is entirely forested and occurs on general steep, south facing slopes.

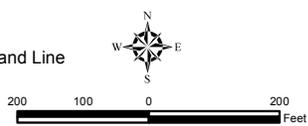
Wetland 3 originates as a shallow depressional wetland area formed in dense thin glacial till. The hydrology of this wetland is anticipated to consist primarily of seasonally saturated soils with minimal inundation (i.e., less than 6 inches) and a short hydroperiod based on soil profile observations which revealed inconsistent poorly drained profiles intermixed with moderately well drained profiles. The previous wetland investigation revealed that no standing water was observed in this wetland on April 5, 2011; this was confirmed during the 2014 inspection. Therefore, this wetland is not considered to support possible vernal pool breeding habitat. This system outlets to the east via a narrow intermittent stream channel. This wetland system is



Legend

- Site (+/- 25.20 Acres)
- OFM - Open Field - Meadow
- F1 - Forested (Beech/Birch/Maple)
- F2 - Forested (Hemlock)
- F3 - Forested (Mesic Oak/Hickory)
- Exposed Ledge
- CTDEEP Watercourse
- Watercourse
- Wetland Line
- Approximate Wetland Line
- Wetland Area
- Field Observed Wood Frogs (*Rana sylvatica*)

Map Notes:
 Base Map Source: 2012 Aerial Photograph (CTECO)
 Map Scale: 1:3,500 Map Date: February 2015



**Figure 3
 Habitat Cover Map**

Proposed Solar Facility
 80 Brush Hill Road
 Bozrah, Connecticut 06334

dominated by mature forest cover primarily composed of red maple and eastern hemlock. Wetland 3 generally forms headwaters to larger and more complex wetland system farther downslope to the east.

Wetland 4 is a forested headwater seasonal intermittent watercourse system formed in dense glacial till. This feature is located in the northern most corner of the property, generally flowing east until reaching a large off-site wetland system noted as converging with hydrology originating from Wetland 1. Wetland 4 is primarily classified as an intermittent watercourse with highly variable hydrology and seasonal flows with similar hydrology as Wetland 1. Generally, overland flow paths were observed within Wetland 4, terminating for segments and reemerging as slopes become gentler.

Soils encompassing the Site and surrounding area were field classified predominantly as upland soil units consisting of the following: Udorthents-urban land complex, Hollis-Chatfield complex, Narragansett silt loam, Canton and Charlton soils, Sutton fine sandy loam, Hinckley gravelly sandy loam, and Haven and Enfield soils and are generally consistent with digitally available soil survey information obtained from the Natural Resources Conservation Service (“NRCS”)¹.

Vernal Pool

During the wetland investigation, two (2) wood frog (*Rana sylvatica*) metamorphs and one (1) adult were observed near the northwest corner of the Site. The identification of the wood frog metamorphs indicates that vernal pool breeding habitat may be located in close proximity to the Site (as no vernal pool breeding habitat was found on-site). A second Site inspection was performed on October 21, 2014 to try and identify the potential vernal pool breeding habitat with the general study area encompassing areas within 750 feet of the Site (see Figure 3, *Habitat Cover Map*).

Closer inspection of areas surrounding the Site resulted in identification of an off-Site area potentially supporting vernal pool breeding habitat approximately 600 feet north of the Site. The potential vernal pool breeding habitat documented off-Site is associated with a broad, diffuse intermittent stream system that generally flows west to east originating from a culvert under Brush Hill Road. At the time of the October inspection no areas of inundation were noted

¹ NRCS Web Soil Survey, <http://websoilsurvey.nrcs.usda.gov/app/>, accessed on September 9, 2013.

within the approximate vernal pool boundary limits. As such, delineation of the vernal pool boundary limits was complicated and resulted in a conservative demarcation that captured all potential vernal pool breeding habitat, including some areas that may not actually support such habitat. The potential vernal pool habitat consists of hummock/hollow type topography intermixed with numerous sinuous diffuse intermittent stream channels which may support 'cryptic' style vernal pool habitat. One metamorph wood frog was observed a few hundred feet northeast of the potential vernal pool habitat during the October 21, 2014 investigation.

Vegetation and Wildlife

The variety of land use, historical disturbances, and topography/geology has led to greatly varied vegetative communities and habitats on the Site. These upland vegetative communities can be separated into two distinct types and three subtypes with transitional ecotones separating the areas, as depicted on Figure 3, *Habitat Cover Map*. These vegetative communities and the wildlife likely to utilize them are described below.

Forest: This habitat type comprises the largest area on the Site, located in the central and eastern portions of the property and extending off-site. The forest habitats are generally separated into three distinct cover types which include Hemlock, Beech/Birch/Maple and Mesic Oak/Hickory. The forest block associated with this site encompasses approximately 150 acres before being fragmented by agricultural lands that lie along Stockhouse Road, Brush Hill Road and Lebanon Road.

Hemlock and Beech/Birch/Maple Forest Cover Types

Generally, the Hemlock and Beech/Birch/Maple forested cover types have experienced similar historical uses and disturbance associated with logging activities, which has resulted in a primarily even aged forest consisting of mature trees ranging in DBH (diameter at breast height) from 16 to 24 inches. Most of the Hemlock and Beech/Birch/Maple cover types are in a stem exclusionary successional phase while some areas left unmanaged have begun the understory re-initiation phase with advanced regeneration dominated by American beech and eastern hemlock. The dominant canopy species within these two cover types are indicated in the titles (Hemlock cover type – eastern hemlock [*Tsuga Canadensis*]; Beech/Birch/Maple cover type – American beech [*Fagus grandifolia*], black birch [*Betula lenta*], and sugar maple [*Acer saccharum*]) with some red oak (*Quercus rubra*) and white pine (*Pinus strobus*) inclusions. The

forest understory is relatively open with a moderate groundcover dominated by princess pine (*Lycopodium obscurum*), woodferns (*Dryopteris spp.*) and Canada mayflower (*Maianthemum canadense*). A substantial duff layer of approximately 2 to 3 inches exists within most gently sloping to flat topographic areas within the Hemlock and Beech/Birch/Maple cover types.

Mesic Oak/Hickory Forest Cover Type

The canopy of the third cover type, identified as Mesic Oak/Hickory, is dominated by red oak (*Quercus rubra*), black oak (*Quercus velutina*), and pignut hickory (*Carya glabra*). Inclusions in this cover type consist primarily of hornbeam (*Carpinus caroliniana*) and white pine (*Pinus strobus*). Ground cover species consist of various forested, warm season grasses and sedges and lowbush blueberry (*Vaccinium angustifolium*).

The absence of substantial anthropogenic influences, outside the cleared Open Field area (discussed below) has maintained a small core forested habitat block² associated with the three forested cover types. Similar adjacent cover types exist to the north, west, and east of the Site with minimal habitat fragmenting features. The nearest substantial feature potentially fragmenting habitat is Brush Hill Road, a two lane public road to the west with other small commercial and residential developments to the south and west that may impact habitat permeability. The small core block of forested habitat likely does not offer habitat for interior forest songbirds, which prefer large blocks of un-fragmented forest. Some of the songbirds encountered within the small core forested block supported by the site will be those favoring edge habitats areas. Avian species observed or likely to be present include species including blue jay (*Cyanocitta cristata*), American crow (*Corvus brachyrhynchos*), robin (*Turdus migratorius*), black capped chickadee (*Poecile atricapillus*), hairy woodpecker (*Picoides villosus*), vireo (*Vireo spp.*), northern cardinal (*Cardinalis cardinalis*), catbird (*Dumetella carolinensis*), pileated woodpecker (*Drycopus pileatus*), tree swallow (*Tachycineta bicolor*), American goldfinch (*Spinus tristis*), and tufted titmouse (*Baeolophus bicolor*).

Since the small core forest has been fragmented, larger species wildlife habitat is not ideal. Generalist wildlife species that are tolerant of human disturbance would be expected such as raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), grey squirrel (*Sciurus carolinensis*),

² Forest Fragmentation Assessment Model. UCONN Center for Land Use Education and Research. 2007

Virginia opossum (*Didelphus virginiana*), and eastern chipmunk (*Tamias striatus*). Larger species such as coyote (*Canis latrans*), grey fox (*Urocyon cinereoargenteus*), white tailed deer (*Odocoileus virginianus*) and fisher (*Martes pennant*) also potentially take advantage of open field to forested habitat at the Site.

During on-Site inspections, four wood frog (*Rhana sylvatica*) metamorphs were found located along the north-northwest property boundary in proximity to an off-site wetland and a garter snake (*Thamnophis sirtalis*) was observed along the eastern extents of the southern property boundary.

Old Field: This small patch community is primarily located along Brush Hill Road extending east to the forest habitat. This area was cleared approximately three years ago with final stump removal occurring spring of 2014. A historic dirt cart path is still evident bisecting the open field area running from Brush Hill Road east until reaching the forested habitat area. The old field cover type area is characterized as xerix conditions resulting from shallow to bedrock geology indicated by several surficial geologic formations (exposed bedrock features). A variety of native and invasive grasses, forbs, shrubs and saplings inhabit this cover type. Dominant identifiable species include autumn olive (*Elaeagnus umbellate*), common ragweed (*Ambrosia artemisiifolia*), bull thistle (*Cirsium vulgare*), mugwort (*Artemisia vulgaris*), little bluestem (*Schizachyrium scoparium*), slender fragrant goldenrod (*Euthamia tenuifolia*), nodding smartweed (*Polygonum lapathifolium*), Canada goldenrod (*Solidago Canadensis*), bristly blackberry (*Rubus hispidus*), oriental bittersweet (*Celastrus orbiculatus*), pilewort (*Erechtites hieracifolia*), and deer-tounge grass (*Dichanthelium clandestinum*).

Due to the size and composition of this Old Field area, its connectivity to other large field habitats to the north, and the proximity of matrix habitats such as early successional habitat areas to the north, and the existence of edge forested habitats to the north, east, and south, this habitat possibly supports species such as New England cottontail (*Sylvilagus transitionalis*), field sparrows (*Spizella pusilla*), etc. that would be typical of habitat blocks of this type. Species with small home ranges including various butterflies, dragonflies, small mammals, and some songbirds that are tolerant of variable habitat conditions may utilize this habitat patch for foraging and cover as they move to other suitable habitat. However, the lack of sapling and small tree stem density in this cover type provides little protection to wildlife from predation.

Rare Species

CTDEEP's 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. State agencies are required to ensure that any activity authorized, funded or performed by a state agency does not threaten the continued existence of endangered or threatened species. Maps have been developed to serve as a pre-screening tool to help applicants determine if there is a potential impact to state listed species.

The NDDB maps represent approximate locations of endangered, threatened and special concern species and 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 CTDEEP 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) areas 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.

APT reviewed the most recent CTDEEP NDDB mapping (July 2014) to determine if any such species or habitats occur within the vicinity of the Site. Based on the NDDB mapping, no Threatened, Endangered, or Special Concern species or critical habitats are known to occur at or in the vicinity of the Site.

Water Supply Areas

There are no public water supply wells proximate to the Site. The subject parcel is not located within an Aquifer Protection Area. No private water supply wells exist on the Site.

Water Quality

Groundwater beneath the Site and within the majority of the subject parcel is classified by CTDEEP as "GA". A "GA" classification indicates groundwater within the area is presumed to be suitable for human consumption without treatment. 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.

The Site is located within the Yantic Regional Drainage Basin and in the Yantic River Subregional Basin. The Yantic River is located approximately 750 feet south of the Site. The Yantic River flows west to east past the vicinity of the Site and discharges to the Thames River.

The Site consists of four (4) separate drainage areas including:

- An approximate 9-acre area in the western portion of the Site bordering Brush Hill Road. This drainage area currently consists of approximately 4.2 acres of field and 4.8 acres of woods. This area drains generally to the east via overland flow, eventually flowing off-Site to the south via an intermittent watercourse and by overland sheet flow.
- An approximate 4.0-acre area encompassing the central northern portion of the Site, bordering the north property line, and including some of the existing field. This drainage area is comprised of about 2.0 acres of the field and 2.0 acres of woods. This area drains generally to the north via overland flow, eventually flowing off-Site to the northeast via an intermittent watercourse and by overland sheet flow.
- An approximate 4.2-acre area in the southeastern portion of the Site bordering the southern property line. This drainage area is almost entirely wooded and drains generally to the south via overland flow, eventually flowing off-Site to the south via an inland wetland/intermittent watercourse and by overland sheet flow.
- An approximate 6-acre area in the northwestern portion of the Site and extending out to an existing intermittent watercourse in the northeast portion of the Site. This drainage area is entirely wooded and consists of steep slopes to the northeast and bedrock outcrops throughout. This area drains generally to the northeast via overland flow, eventually flowing off-Site to the northeast via an intermittent watercourse and by overland sheet flow to the north and east.

Scenic Areas

APT reviewed the Southeast Connecticut Council of Government's 2007 Regional Plan of Conservation and Development, which outlines the need for the preservation of scenic areas and scenic views. This review revealed that no State or locally-designated scenic roads are located within the Town of Bozrah or proximate to the Site.

Historic and Archaeological Resources

APT, in conjunction with Heritage Consultants LLC, reviewed information at the State Historic Preservation Office ("SHPO") to determine whether the Site holds potential historic and/or architectural significance. No reported historical resources or archaeological sites exist at the Site. The nearest historic resource to the Site is the Fitchville Historic District, located to the south along Fitchville Road. The Fitchville Historic District is listed on the National Register of Historic Places. Three documented archaeological sites exist in the vicinity, the nearest being approximately 500 feet east of the Site.

Geology and Soils

Bedrock in the vicinity of the subject parcel and Site is identified as Hebron and Canterbury Gneiss of the Iapetus (Oceanic) Terrance/Merrimack Synclinorium. Hebron Gneiss is described as an interlayered dark/gray schist and greenish gray, fine to medium grained calc-silicate gneiss. Canterbury Gneiss is described as kught-gray medium grained, locally strongly lineated gneiss. Exposed bedrock was observed at the Site located throughout the subject property, especially within the open field area and steeply sloping areas to the far east, northeast, and southeast.

Surficial materials in the vicinity are identified as till. Soils in the vicinity of the Site are identified as Udorthents-urban land complex, Rippowam fine sandy loam, Hollis-Chatfield complex, Narragansett silt loam, Canton and Charlton soils, Sutton fine sandy loam, Hinckley gravelly sandy loam, and Haven and Enfield soils.

Floodplain Areas

APT reviewed the United States Federal Emergency Management Agency (“FEMA”) Flood Insurance Rate Map (“FIRM”) for the area. A FIRM is the official map of a community on which FEMA has delineated both the special hazard areas and risk premium zones applicable to the community. The Site straddles two (2) FIRM maps. The extreme western portion of the Site is depicted on FIRM PANEL #09011C 0183 G, dated July 18, 2011. The eastern portion of the Site is depicted on FIRM PANEL #09011C 0184 G, dated July 18, 2011. Based on review of these FIRM panels, the Site is located in an area designated as Zone X. Zone X is defined as an area of minimal flood hazard.

Recreational Areas

There are no recreational areas directly abutting the Site or within one mile of the Site.

Seismic Areas

The USGS-National Earthquake Reduction Program has developed a series of maps that depict the estimated probability that certain levels of ground shaking from an earthquake will occur within a given period of time. USGS takes into account the seismic history of an area and the expected decrease in intensity with distance from the epicenter. Based on a review of USGS National Earthquake Reduction Program maps and information obtained by the Weston (MA) Observatory (a geophysical research laboratory), there are no significant seismic areas located at the Site or the general vicinity.

Noise

Existing background noise levels at the Site and in adjacent areas are below criteria established by the State of Connecticut Noise Control regulations (*CGS 22a/22a-69-1 through 7*). Based on sound measurements obtained at the Site and adjacent locations, the average levels are between 20 and 25 dBA³.

Lighting

Because the subject parcel is vacant, no lighting facilities are currently located at the Site.

³ Sound measurements obtained on September 20, 2014 by HMB Acoustics LLC, of Avon, Connecticut.

Coastal Zone Management Areas

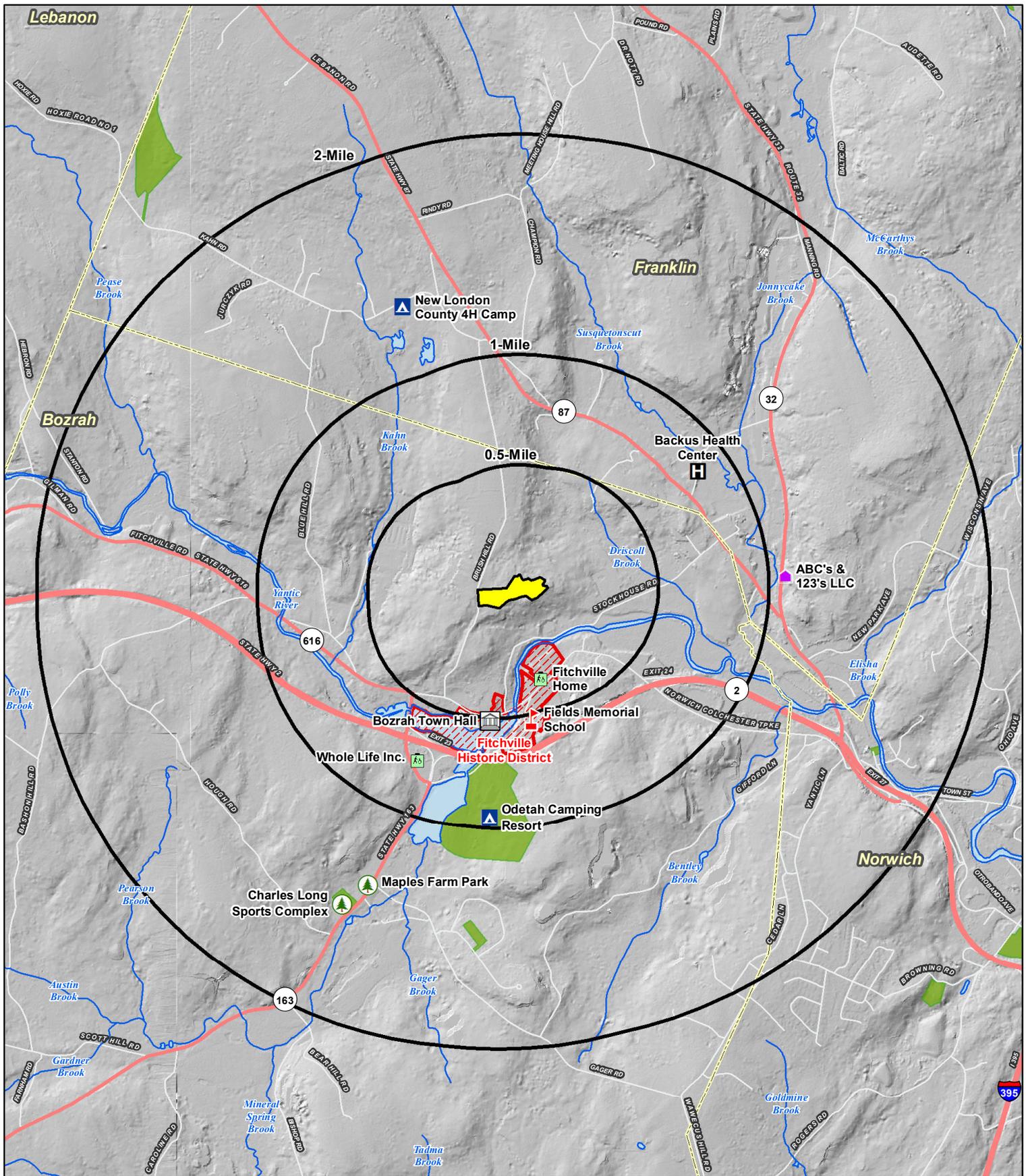
The Town of Bozrah is not located within the Coastal Area or Coastal Boundary, as defined by the Coastal Management Act, CGS § 22a-94(a).

Other Surrounding Features

The locations of non-residential development and other resources within two miles of the Project Area are listed in the table below. Figure 4, *Surrounding Features Map* depicts these locations relative to the Site.

Non-Residential Features within Two Miles of Project Area

Type	Name	Address	Town	Distance to Project in miles
Youth Camp	New London County 4-H Camp	37 Kahn Road	N. Franklin	1.44
Medical	Backus Health Center	11 Murphy Road	N. Franklin	1.01
Child Day Care	ABC's & 123's LLC	79 CT Rte 32	N. Franklin	1.23
Retirement	Fitchville Home	187 Fitchville Road	Bozrah	0.42
Non-Profit	Whole Life Inc.	30 Haughton Road	Bozrah	0.87
Municipality	Bozrah Town Hall	1 River Road	Bozrah	0.59
Public School	Fields Memorial School	8 Bozrah Street Ext.	Bozrah	0.59
Private Recreational	Odetah Camping Resort	38 Bozrah Street Ext.	Bozrah	1.02
Park	Maples Farm Park	45 Bozrah Street	Bozrah	1.52
Playground	Charles Long Sports Complex	59 Bozrah Street	Bozrah	1.63
Historic	Fitchville Historic District	Fitchville Road	Bozrah	0.19



- Legend**
- Proposed Development Area
 - 0.5-2-Mile Radii
 - Municipal and Private Open Space
 - National Register of Historic Places
 - Open Water
 - Surrounding Features**
 - Licensed Child Day Care
 - Hospital
 - Public School
 - Recreation / Park
 - Senior Center / Retirement Home
 - Town Hall
 - Youth Camp

Figure 4
Surrounding Features Map

Proposed Solar Facility
 80 Brush Hill Road
 Bozrah, Connecticut 06334

Base Map Source: ESRI & CTECO Shaded Relief
 Map Date: February 2015



Effects on the Environment

The Project would not have any significant adverse effects on the existing environment and ecology, nor would it affect the scenic, historic and recreational values of the vicinity. A *Proposed Conditions Map* is included as Figure 5.

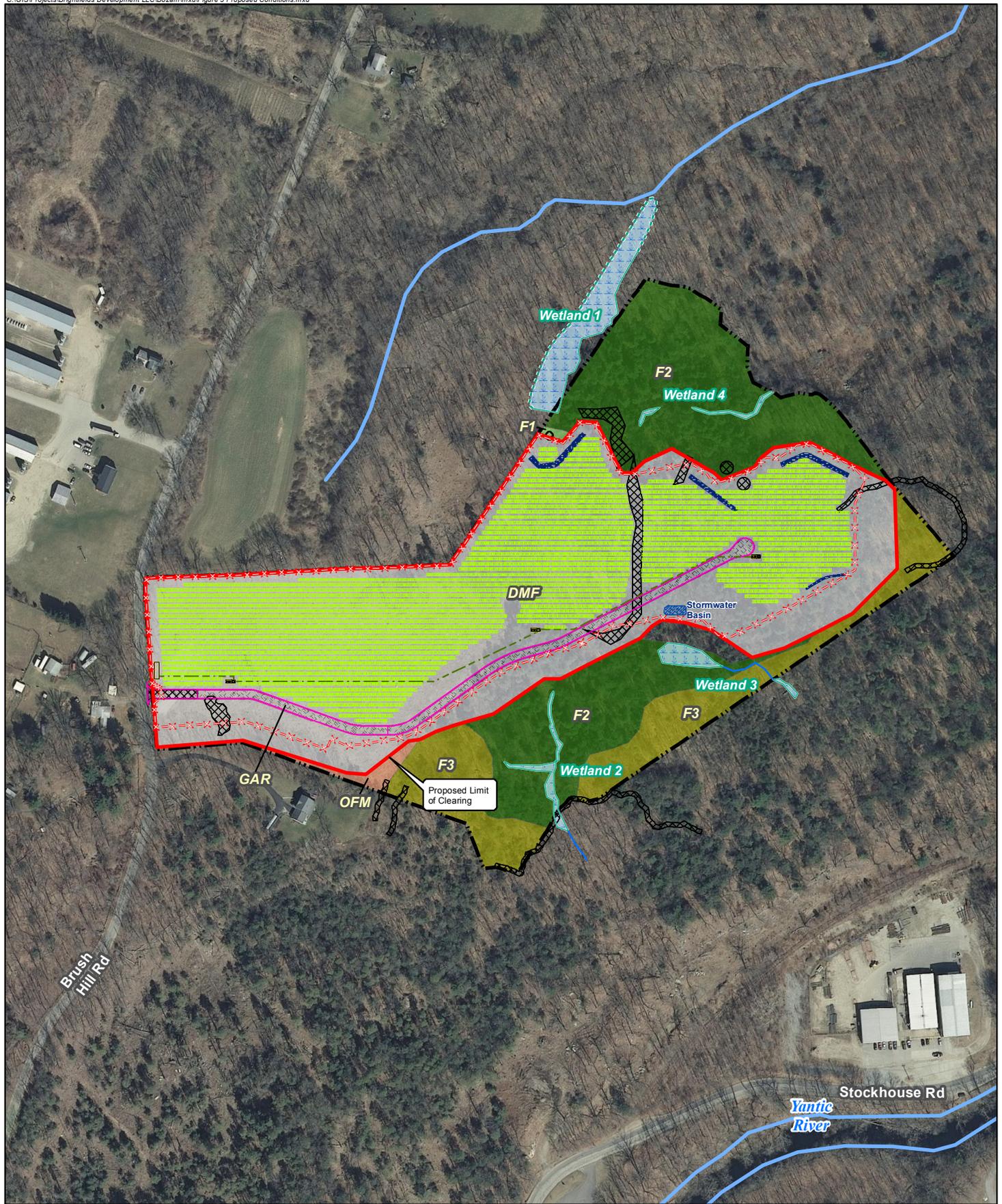
Proposed Project Development

The Project in its entirety would encompass approximately 15.8 acres of the Site. To facilitate the installation of the solar arrays and associated equipment, approximately 9 acres of upland mature forest requires clearing and grading. The proposed Project area includes only areas where moderate slopes exist (1-8%) and where regrading can be generally accomplished without significant cuts and fills.

The proposed solar array would be comprised of approximately 10,206 310 watt Hanwha solar modules, each measuring approximately 6.4 feet by 3.25 feet, and four (4) utility scale inverters. The facility would utilize cast-in-place concrete ballasts and GameChange racking system with individual panels placed at a 25° tilt to the south. Functional portions of the Project (solar arrays and equipment) would occupy approximately 11.5 acres). The solar array areas will be regraded with existing or imported soil/topsoil and vegetated using native grasses. Developed areas beyond the arrays and underlying grass would also be sown with a grass mixture and maintained (occasional mowing) to suppress tree growth. A gravel access drive will extend from Brush Hill Road eastward along the southern side of the development. The Project would be surrounded by a 6-foot tall chain link fence.

Public Health and Safety

The Project would be designed to applicable industry, State, and local codes and standards and would not pose a safety concern or create undue hazard to the general public. The solar facility would not consume any raw materials, would not produce any by-products and would be unmanned during normal operating conditions. The facility would be enclosed by a six-foot tall chain link fence. There are no plans to store fuels or hazardous materials at the facility.



Legend			
	Site (+/- 25.20 Acres)		CTDEEP Watercourse
	Proposed Limit of Clearing		Watercourse
	Proposed Chain Link Security Fence		Wetland Line
	Proposed Solar Modules		Approximate Wetland Line
	Proposed Solar Module Conduit		Wetland Area
	Proposed Equipment		Proposed Infiltration Trench
	Proposed 20' Gravel Access Drive		Proposed Stormwater Basin
	Exposed Ledge		
Habitat Cover Type			
	DMF - Developed Maintained Field		
	GAR - Gravel Access Road		
	OFM - Open Field - Meadow		
	F1 - Forested (Beech/Birch/Maple)		
	F2 - Forested (Hemlock)		
	F3 - Forested (Mesic Oak/Hickory)		

Map Notes:
 Base Map Source: 2012 Aerial Photograph (CTECO)
 Map Scale: 1:3,500 Map Date: February 2015



Figure 5
Proposed Conditions Map

Proposed Solar Facility
 80 Brush Hill Road
 Bozrah, Connecticut 06334

BRIGHTFIELDS
 DEVELOPMENT LLC



Local, State and Federal Land Use Plans

The Project is consistent with local, State, and Federal land use plans. The Project is not located within an Aquifer Protection Zone and it supports the State's energy policy by developing a renewable energy resource while not having a substantial adverse environmental effect. Although local land use application processes do not specifically apply to this Project, it has been designed to meet the intent of local land use regulations. The Site lies within an Industrial zone.

Existing and Future Development

The Project would benefit the community by improving electrical service for existing and future development in the Town through enhanced capacity. The project will be considered a Community Shared Solar (CSS) facility that is being developed by the Connecticut Municipal Electric Energy Cooperative (CMEEC). The project will afford all Bozrah Light and Power (BL&P) customers' access to renewable energy at market rate pricing without the need for special equipment or complex contracts with third part renewable providers.

Roads

Access to the Site will utilize the existing entrance. A 20-foot wide gravel travel road will extend approximately 1,475 feet eastward through the Site and end in a round-about.

Wetlands

No wetlands or watercourses will be directly impacted by the proposed Project. The Project's clearing limits come in close proximity to wetland resources, but NOT within these wetlands. The closest construction activity to a wetland or watercourse resource is to the intermittent watercourse feature referred to as Wetland 3. The clearing limits will be approximately 15 feet north of this resource with a stormwater outfall located approximately 70 feet to the north of this wetland's northernmost point. Similarly, clearing limits would also extend within approximately 20 feet of an intermittent watercourse feature associated with Wetland 2; a stormwater outfall along the access road would be located approximately 70 feet to the north of this wetland.

Short term temporary impacts will be associated with the Project's construction activities due to the close proximity to wetland and intermittent watercourse resources. Provided sedimentation and erosion controls are designed, installed and maintained during construction activities in accordance with the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control*, temporary impacts will be minimized. However, due to the close proximity of the proposed development to nearby wetlands, Brightfields is committed to implementing a wetland protection plan during construction to provide additional measures to avoid temporary wetland impacts. A Project-specific wetland protection plan will be developed during the Development and Management (D&M) Plan phase of the Project, should the facility be approved by the Council. A proposed wetland protection plan is included in Appendix B. Long term secondary impacts to wetland resources possibly associated with the operation of this facility are minimized by the fact the development is unmanned, it minimizes the creation of impervious surfaces with the use of a gravel access drive with the majority of the surface treatment around the solar installation consisting of native grass/vegetation and it generates minimal traffic. Based on a review of the referenced plans and engineering documents, the stormwater generated by the proposed development will be properly handled and treated in accordance with the 2004 *Connecticut Stormwater Quality Manual*. APT understands that details of the erosion control and stormwater management plans would be included in the Development and Management Plan D&M Plan. Provided the protective measures discussed herein are implemented, the proposed Project development will not result in an adverse impact to wetland or intermittent watercourse resources.

Vernal Pool

This section details a recognized scientific method for analyzing the potential impact the Project may have on the potential vernal pool and its surrounding upland habitat.

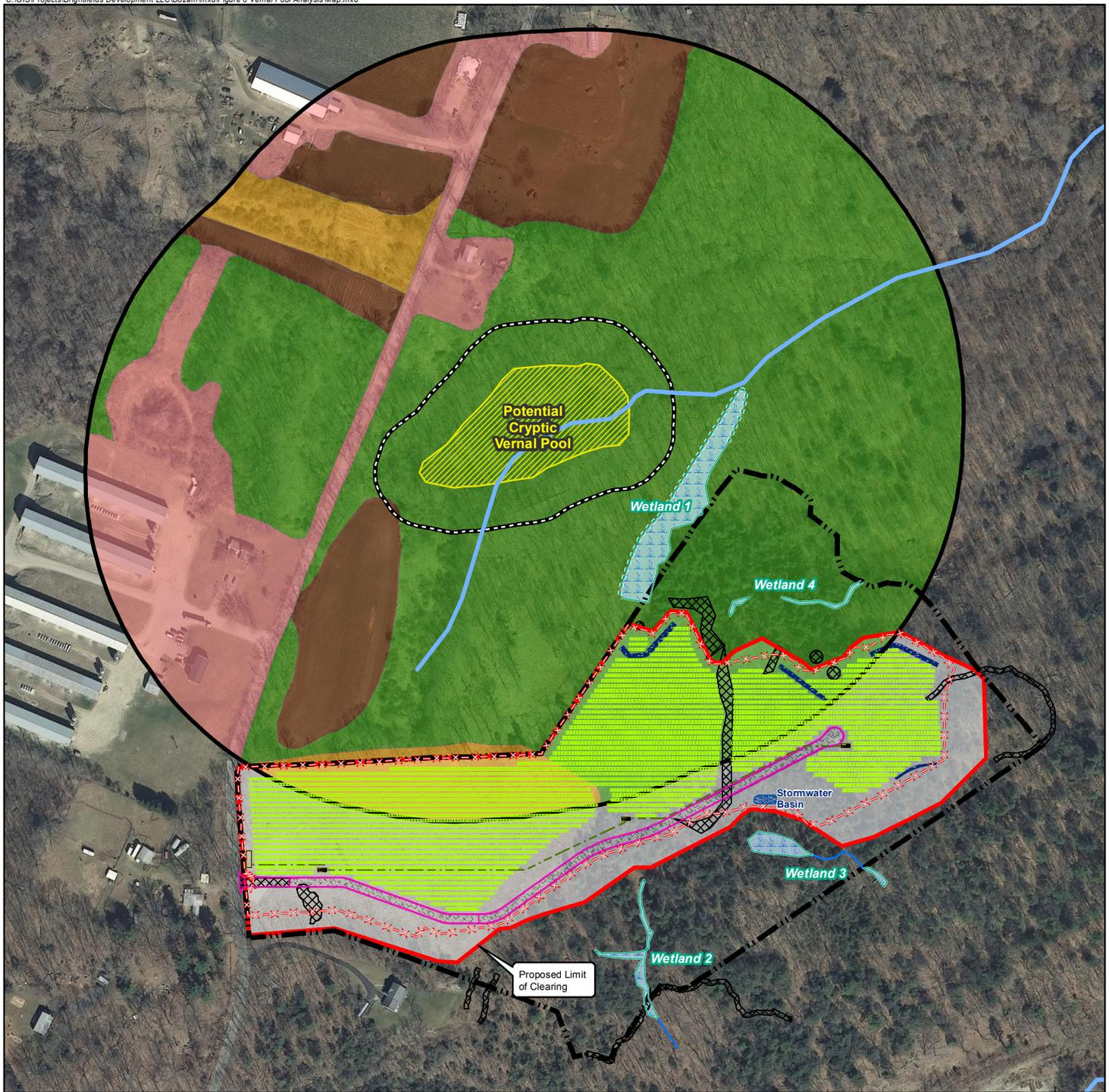
Construction and operation of the Facility will not result in direct physical impact to the potential vernal pool resource. It is widely documented that vernal pool dependent amphibians are not only solely dependent upon the actual vernal pool habitat for breeding and egg and juvenile development, but require surrounding upland habitat for most of their adult lives. Recent studies recommend protection of adjacent habitat up to 750 feet from the vernal pool edge for obligate pool-breeding amphibians. Since the potential vernal pool represents the nearest

resource to the proposed Project, an evaluation of potential impacts the proposed solar development may have on this vernal pool habitat was performed.

In order to evaluate potential impacts to the potential vernal pool and its surrounding upland habitat, the resource was assessed using methodology developed by Calhoun and Klemens (2002). This methodology assesses vernal pool ecological significance based on two parameters: 1) biological value of the vernal pool, and 2) conditions of the critical terrestrial habitat. The biological rating is based on the presence of federal or state-listed species and abundance and diversity of vernal pool indicator species. (Note: based on the limited observations collected to date of this vernal pool, the highest biological value is assumed to be supported.) The terrestrial habitat is assessed based on the integrity of the vernal pool envelope ("VPE"; within 100 feet of the pool's edge) and the critical terrestrial habitat ("CTH"; within 100 to 750 feet of the pool's edge). A priority rating of Tier I was assigned to the potential vernal pool, with Tier I considered to have relatively high breeding activity and relatively intact terrestrial habitat (Tier II and III pools represent lower amphibian productivity and fragmented terrestrial habitat). Pools with 25% or less developed areas in the critical terrestrial habitat are identified as having high priority for maintaining less than 25% development within this terrestrial habitat, including site clearing, grading and construction.

The potential vernal pool evaluated in this assessment was rated based on these criteria for both the existing condition and the proposed development to determine if the Project would result in a reduction in the Tier rating system or reduce the terrestrial habitat integrity below the critical 75% non-development criterion. As previously discussed, it was conservatively assumed that the potential vernal pool currently has the highest conservation priority rating of Tier I.

The vernal pool envelope will not be impacted as the proposed clearing limits associated with the Project are located approximately 390 feet south of the closest vernal pool edge. The results of this analysis show that the proposed development could potentially result in further degradation of the existing Tier rating or terrestrial habitat integrity of the potential vernal pool due to a very slight exceedance of the 25% developed management recommendation outlined in the CTH. Based on limited information and conservative assumptions, the Project would result in a 26.92% developed condition in the CTH. Please refer to Figure 6, *Vernal Pool Analysis Map*



Cryptic Vernal Pool - Total 100'-750' Critical Terrestrial Habitat Area: ±57.76 acres

Existing Critical Terrestrial Habitat Areas:		
Developed	±9.85 acres	17.05%
Undeveloped	±47.91 acres	82.95%

Proposed Critical Terrestrial Habitat Areas:		
Developed	±15.55 acres	26.92%
Undeveloped	±42.21 acres	73.08%

Proposed Solar Installation within Critical Terrestrial Habitat Area: ±5.70 acres

Critical Terrestrial Habitat Impact Areas:		
Undeveloped	±5.70 acres	100%

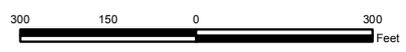
No Impact to 100' Cryptic Vernal Pool Envelope

- Legend**
- Site (+/- 25.20 Acres)
 - Proposed Limit of Clearing
 - Proposed Chain Link Security Fence
 - Proposed Solar Module Conduit
 - Proposed Solar Modules
 - Proposed Equipment
 - Proposed 20' Gravel Access Drive
 - Proposed Stormwater Basin
 - Proposed Infiltration Trench
 - Exposed Ledge
 - Potential Cryptic Vernal Pool
 - 100' Vernal Pool Envelope
 - 100'-750' Critical Terrestrial Habitat Area
 - CTDEEP Watercourse
 - Watercourse
 - Wetland Line
 - Approximate Wetland Line
 - Wetland Area
 - Critical Terrestrial Habitat Type**
 - Developed
 - Undeveloped**
 - Forested
 - Open Field - Meadow
 - Undeveloped - Agricultural
 - Proposed Cover Type**
 - Developed Maintained Field
 - Gravel Access Road

Figure 6 Vernal Pool Analysis Map

Proposed Solar Facility
80 Brush Hill Road
Bozrah, Connecticut 06334

Map Notes:
Base Map Source: 2012 Aerial Photograph (CTECO)
Map Scale: 1 in = 325 ft. Map Date: February 2015



The lack of biological data (in particular vernal pool indicator species egg mass counts and identification of those positions and limits of actual breeding locations) does not allow for a conclusive determination as to whether the Project will, or will not, result in long-term adverse impact to the vernal pool terrestrial habitat. Therefore, APT recommends that a thorough vernal pool survey be completed during the early spring of 2015 to collect the necessary biological data so that the Project's potential impacts to vernal pool terrestrial habitat can be more accurately assessed and quantified.

Vegetation and Wildlife

The proposed Project will consist of approximately 15.8 acres of total ground disturbance with 9 acres of mature forest clearing. Substantial blocks of similar habitat occur immediately off-site to the east, north, and west. The resulting gravel surfaces associated with the construction of the proposed Project will not support a diversity of wildlife species. While this development will displace any individuals or populations utilizing these forested areas, it will not result in substantial increased forest fragmentation of the surrounding small core forest block. It is likely that the similar surrounding forested habitat will be able to support any displaced wildlife.

The proposed construction activities will result in the clearing of trees and mature vegetation that has the potential to support breeding birds. Once a construction schedule is determined, Brightfields will evaluate whether the potential exists for nest disturbance and plan accordingly. To avoid potential disturbance during periods of high bird activity, Brightfields will use the following schedule as a general guideline. If construction activities should occur during the peak nesting period of April 15 through July 15¹, efforts would be taken to complete tree clearing work prior to April 15th; or, if tree clearing has not been completed by April 15th, an avian survey may be conducted to determine if breeding birds would be disturbed. If the avian survey concludes that breeding birds would be disturbed, tree clearing activities may be restricted from the April 15 through July 15 peak nesting period (or a modified time frame based on the specific findings of the survey).

¹ USFWS identifies the peak avian nesting season as April 15 through July 15 and recommends clearing activities be performed before this period in order to comply with the Migratory Bird Treaty Act, personal communication with Maria Tur, USFWS New England Field Office, February 27, 2014.

Rare Species

APT submitted a review request to the CTDEEP NDDB in September 2014 with respect to this Project to confirm no Threatened, Endangered, or Special Concern species or critical habitats exist at the Site. The CTDEEP responded in writing to this request on February 23, 2015. The CTDEEP's letter states "After review of the proposed plans for this solar development, it is unlikely that it will negatively impact State-listed species in the area."

Although no State-listed species would be impacted, the CTDEEP letter includes suggestions for consideration of other sensitive wildlife species of conservation concern. APT is currently in consultation with CTDEEP personnel to determine the appropriateness of these suggestions relative to the Project.

A copy of the CTDEEP letter is provided in Appendix C.

Water Supply Areas

There are no public water supply wells located in the vicinity of the Site. No liquid fuels are associated with the operations of the Project. Therefore, the Project would have no adverse environmental effect on water resources.

Water Quality

The facility will be unmanned and no potable water uses are planned.

Stormwater runoff from the Site generally contributes to a large wetland area to the south and east of the Project area before it flows to the Yantic River.

The solar array areas will be regraded with existing or imported soil covered with native grasses and vegetation. Impervious areas are limited to the cast-in-place concrete ballasts for the proposed GameChange racking system. Each concrete ballast would cover approximately 8.6 square feet and would be spaced approximately every 13 feet along each row of solar arrays.

A Stormwater Management System has been designed for the Project, as documented in a Stormwater Management Report prepared by Boundaries LLC of Griswold, Connecticut (and

provided under separate cover). The Stormwater Management Report documents the planned measures for controlling/capturing potential erosion and sedimentation during construction and regulating peak post-development stormwater flows for maintaining consistency with pre-development peak stormwater flows to downgradient properties. Increases in impervious areas of the Site are anticipated due to the incorporation of concrete ballasts to accommodate the racking system. As a result, the peak rate of Site stormwater runoff will increase slightly.

The proposed stormwater management system has been designed in conformance with the guidelines set forth in the 2004 Connecticut Stormwater Quality Manual. This system includes stormwater basins and infiltration trenches with outlet control structures that will provide detention as well as water quality enhancement for the stormwater runoff. The systems are proposed in locations downgradient of the solar arrays, in areas where slopes or ledge outcrops do not prevent their installation or impact their effectiveness. Analytical results of the proposed stormwater management design system indicate that post-development off-site flow rates would not be increased by development of the Project. Similarly, with the installation of the proposed stormwater management design system, the peak runoff rates to off-site locations do not increase as a result of the Project.

Air Quality

No emission sources are associated with the operations of the Project. Therefore, no impacts to air quality are anticipated as part of the proposed Project.

Scenic Areas

No scenic areas would be physically or visually impacted by development of the solar Project. Due to its low profile and substantial vegetative screening, no views of the Project would be achievable beyond the immediate boundaries of the Site. Therefore, no impacts to scenic areas are anticipated as part of the proposed Project.

Historic and Archaeological Resources

Historical research, previous investigations literature review, and a pedestrian survey revealed that the Site has no known important historical associations and it consists of large rock outcroppings, boulder fields, and extensive previous disturbance by heavy equipment as a result

of clear-cutting, stumping, and bulldozing. As a result, the Site retains little, if any, potential to yield intact cultural deposits.

No known archaeological sites exist at the Site. The nearest historic resource proximate to the Site, the Fitchville Historic District, will not have views of the Project. As a result, no impacts to historic/cultural resources are anticipated. APT consulted with the State Historic Preservation Office (SHPO) in September 2014, providing the agency with Site and Project information for concurrence that no historic or archaeological resources would be affected by the Project. The SHPO responded in a letter (dated December 9, 2014) that the Project would have “no adverse effect” to historic resources on or eligible for listing on the National Register of Historic Places, including those resources located within the Fitchville Historic District.

The SHPO letter is included in Appendix D.

Geology and Soils

No adverse effects are anticipated on natural resources occurring at and/or nearby the subject parcel. Vegetative clearing and earthwork is required for construction of the Project. However, no impacts to wetlands, water courses or significant habitat would occur.

Floodplain Areas

The Site is entirely located outside of the 100-year and 500-year floodplains. Therefore, no special design elements are necessary with respect to flooding concerns. In addition, no impacts to floodplains are associated with the proposed Project.

Recreational Areas

No recreational areas would be impacted by the Project

Seismic Areas

The Project would meet or exceed the State Building Code, which includes seismic loading, wind loading, and snow and ice loadings, among others.

Noise

A Noise Evaluation Study was prepared for the Project by HMB Acoustics LLC of Avon, Connecticut. The equipment proposed for the Project that would generate noise consists of four Solectria inverters. After the Project is constructed and in service the combined noise levels will comply with CTDEEP criteria for Residential Emitter and Receiver Zones. Sound levels at the closest property line will be 38 dBA which is well below the most conservative noise level of 45 dBA for nighttime and 55 dBA for daytime. During those times the inverters are operative, noise levels at nearby residences would range from 31 to 38 dBA.

A copy of the Noise Evaluation Study is contained in Appendix E.

Lighting

No lighting is planned for the facility.

Coastal Zone Management Areas

No Coastal Zone Management Areas would be affected by the Project.

Other Surrounding Features

No adverse effects are anticipated to the facilities identified in Figure 4, primarily because of their sufficient distance from the Project.

Visibility

Once completed, the Project would not be highly visible from any public locations. The general area of the Site is heavily wooded and combined with the topography, the only unobstructed direct line of sight occurs at the existing entrance off Brush Hill Road. Areas abutting the property boundary could have limited views of portions of the array however these views would be heavily screened by intervening trees and vegetation, substantially reducing any views.

Five photo simulations of the Project are presented in Appendix F.

Conclusion

As demonstrated from in this EA, the Project will comply with CTDEEP air and water quality standards and will not have a substantial adverse effect on the environment. Therefore, it is our opinion that no Certificate of Environmental Compatibility and Public Need is required.

APPENDIX A

Inland Wetland & Watercourse Report

Boundaries

— I.L.C. —

179 Pachaug River Drive
P.O. Box 184
Griswold, Connecticut 06351
Tel. 860-376-2006 Fax. 860-376-5899

May 3, 2011

Gene Henson, Chairman
Bozrah Conservation Commission
1 River Road
PO Box 158
Bozrah, CT 06334

RE: Revised Inland Wetland & Watercourse Report
Property Location: Stockhouse Road & Brush Hill Road, Bozrah, Connecticut
Applicant: Rawson Materials
Property Owner: Richard L. Gilman

Dear Chairman Henson;

As required by Section 7.4.4 of the *Inland Wetlands and Watercourses Regulations for the Town of Bozrah, Connecticut*, the following is an detailed description of an inland wetlands investigation/delineation and a limited analysis of functions and values of delineated inland wetlands for 85± acres of currently vacant industrial land located on the northwesterly side of Stockhouse Road and the easterly side of Brush Hill Road in the Town of Bozrah, Connecticut. The properties that are the subject of this report is identified as “Lot #1” (containing 25.20± acres), “Lot #2” (containing 18.65± acres) and the industrially zoned portion of “Property of Richard L. Gilman, Trustee, Lawrence M. Gilman 1989 Trust” (containing 41.40± acres), upon plans entitled “Site Plan, Property Survey, Prepared for Rawson Materials, Stockhouse Road, & Brush Hill Road, Bozrah, Connecticut, scale: 1”=100’, February 2011, Job I.D. No. 11-1947, Sheets 3 of 11 and 4 of 11, Last revised 4-13-11” as prepared by Boundaries LLC.

The parcels identified as “Lot #1” and “Lot #2” were investigated by the undersigned on May 8, 2007 and May 9, 2007, and the inland wetland and intermittent watercourses delineated upon this portion of the property are the result of said investigation. The industrially zoned portion of the property identified as Property of Richard L. Gilman, Trustee, Lawrence M. Gilman 1989 Trust was investigated by the undersigned on April 5, 2011 and April 6, 2011, and the intermittent watercourse delineated upon this portion of the property is the result of said investigation.

Inland wetlands and intermittent watercourses on the subject property were delineated in accordance with the State of Connecticut statutory definitions as described in Section 22a-38(15) and 22a-38(16) of the Connecticut General Statutes, a/k/a the Inland Wetlands & Watercourses Act, and are as follows:

(15) "Wetlands" means land, including submerged land, not regulated pursuant to sections 22a-28 to 22a-35, inclusive, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey, as may be amended from time to time, of the Natural Resources Conservation Service of the United States Department of Agriculture;

(16) "Watercourses" means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon this state or any portion thereof, not regulated pursuant to sections 22a-28 to 22a-35, inclusive. Intermittent watercourses shall be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) Evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation.

Where appropriate, a functional assessment of the resource was done in accordance with the United States Army Corps of Engineers, New England District, Highway Methodology Workbook Supplement "Wetland Functions and Values, A Descriptive Approach".

Soil Types Present

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey for the State of Connecticut, the soils located on the industrially zoned portion of the subject property are as follows:

- 32B Haven and Enfield soils, 3 to 8 percent slopes
- 38E Hinckley gravelly sandy loam, 15 to 45 percent slopes
- 52C Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony
- 60C Canton and Charlton soils, 8 to 15 percent slopes
- 60D Canton and Charlton soils, 15 to 25 percent slopes
- 68C Narragansett silt loam, 3 to 15 percent slopes, extremely stony
- 73C Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky
- 75C Hollis-Chatfield-rock outcrop complex, 3 to 15 percent slopes
- 103 Rippowam fine sandy loam
- 306 Udorthents-urban land complex

Description of Wetlands & Watercourses

It is important to identify that there are currently no direct discharges of surface water onto the subject property other than stormwater discharges which originate directly from the paved portion of Brush Hill Road in response to precipitation events. There are no perennial watercourses, intermittent watercourses or inland wetlands that discharge onto the subject property.

As a generality, all delineated areas on the subject property are the direct result of surface water flow and/or groundwater discharge, originating from precipitation events on the subject

property, which are channelized through areas of extreme topography. Due to the dramatic changes in topography and the generally rocky nature of the soil surface (including large areas of ledge outcrop), there are many instances throughout the property where surface water finds a preferential flow path, but not all of these flow paths meet definitive criteria for classification as intermittent watercourses. Only those areas that meet definitive criteria for classification as intermittent watercourses have been included in the delineation.

Only one isolated area (4,697± SF) of regulated inland wetlands containing hydric soil was encountered within the entire 85± acre area of investigation. All of the areas delineated by the undersigned are described in more detail as follows:

Flag Series 1

Easterly limits of an intermittent watercourse primarily on adjacent property of Sarah-Anne M. Brush & Texan Moon, which flows northerly towards property of Hydes Real Estate LLC. Area meets definitive criteria for classification as an intermittent watercourse. Small portions may display hydric soil characteristics, but are off of the subject property. Area has not been altered from its natural condition. Function & Values Assessment is not appropriate for this intermittent watercourse feature.

Flag Series 2, 6, A, B, C & F

Complex system of intermittent watercourses primarily draining in a southeasterly direction and discharging through a series of box culverts under the existing railroad tracks and onto property of Zejack Realty LLC. Area meets definitive criteria for classification as an intermittent watercourse. Channel does not display hydric soil characteristics. Only the lower portion directly adjacent to the railroad tracks (wetland flag series 6) appears to have been altered from its natural condition. Function & Values Assessment is not appropriate for this intermittent watercourse feature.

Flag Series 3 & E

Inland wetland area and intermittent watercourse originating in a topographic depression near the center of the property. This area is an inland wetland (wetland flags E5 through E14), which outflows into an intermittent watercourse (wetlands flags E1 through E5 and wetland flag series 3) and flowing southeasterly toward wetland flag series 7. Channel of the watercourse does not display hydric soil characteristics. Area has not been altered from its natural condition. Function & Values Assessment is not appropriate for the intermittent watercourse portion.

Function/Value Assessment for inland wetland delineated by flags E5 –E14

Area on Property: 0.11± Acres (4,697± SF)

Hydric Soil Present: Yes

Dominant Wetland System: Palustrine Forested Wetland

Principal Functions: Groundwater Recharge/Discharge; Floodflow Alteration; Wildlife Habitat

Applicable Functions/Values: Groundwater Recharge/Discharge; Floodflow Alteration;

Sediment/Toxicant Retention; Nutrient Removal; Wildlife Habitat.

Notes: This area of topographic depression exhibits hydric soil characteristics (reduced, low chroma soil matrix with redoximorphic features within 18" of the soil surface) that is caused by episaturation from precipitation which remains ponded within the depression for extended periods of time, as evidenced by matted and stained organic materials (leaves) on the soil surface. During my site investigation on April 5, 2011, I revisited this area to determine its potential for classification as a vernal pool, but found it to contain no standing water at that time, and therefore can determine that it is not a vernal pool.

Flag Series 4 & 5

Portion of a larger area of overland surface water flow which flows northerly towards property of Hydes Real Estate LLC. Areas meet definitive criteria for classification as an intermittent watercourse due to the presence of a defined permanent channel and banks. Channel does not display hydric soil characteristics. Area has not been altered from its natural condition. Function & Values Assessment is not appropriate for this intermittent watercourse feature.

Flag Series 7 & 6

System of intermittent watercourses primarily draining in a southeasterly direction and discharging through a series of box culverts under the existing railroad tracks and onto property of Zejack Realty LLC. Area meets definitive criteria for classification as an intermittent watercourse. Channel does not display hydric soil characteristics. Only the lower portion directly adjacent to the railroad tracks (wetland flag series 6) appears to have been altered from its natural condition. Function & Values Assessment is not appropriate for this intermittent watercourse feature.

Land Disturbance Related to Recent Logging Activity

Logging activity recently undertaken upon the subject property has resulted in some fairly significant soil disturbance where logging equipment has travelled. Due to the compacted nature of the soil, the shallow depth to bedrock, the lack of ground cover, and generally steep topography, these rutted "skidder trails" have become preferential flow paths in areas of steep topography and ponded areas in areas of mild topography. Further, removal of the soil surface down to bedrock has exposed what has historically been groundwater flow (travelling through the soil on top of the bedrock) to the surface, and has subsequently caused further soil erosion to occur.

In order to properly document these areas and address any personal question(s) as to whether these areas had become de-facto intermittent watercourses, the undersigned conducted a follow-up site investigation with Mr. Joseph Theroux, Certified Forester and Certified Soil Scientist on the morning of April 14, 2011. Based on observed conditions, Mr. Theroux and I are in agreement that these "skidder trails" do not meet definitive criteria for classification as intermittent watercourses. All of these visually questionable areas were subsequently photographed and were investigated for hydric soils by the undersigned. No hydric soils were found to be present.

Proposed Remediation of Impacts

At present, the property owner is considering partnering with Rawson Materials to undertake an aggregate extraction and processing operation that is proposing to eliminate all of the delineated watercourses and the inland wetland area upon the subject property. Estimated total areas for these delineated resources upon the entire $85 \pm$ acres of industrially zoned property is $32,283 \pm$ SF of intermittent watercourse and $4,697 \pm$ SF of inland wetlands, totaling $0.85 \pm$ acres of regulated resource to be eliminated.

The proposal (both the set of construction drawings referenced herein and corresponding written narratives) prepared by Boundaries LLC indicate that four (4) separate and distinct wetlands areas will be created during a later stage of the project, and that it is the intent of the applicant to create highly functional and diverse wetlands at a rate of greater than 3:1 to replace those intermittent watercourses and inland wetland resources eliminated during execution of the proposed aggregate extraction and processing operation.

The specifics for construction, establishment and maintenance of these proposed remediation areas will likely be the result of further study and analysis on behalf of the applicant, involving professional hydrologist(s) and/or professional wetland scientist(s).

If you have any questions regarding this report, please contact the undersigned at your convenience.

Sincerely,



Demian A. Sorrentino, AICP, C.S.S.
Certified Planner & Soil Scientist
Boundaries LLC

C: File

APPENDIX B

Wetland Protection Plan

WETLAND PROTECTION PROGRAM

Portions of the proposed Project are located in close proximity to wetlands. As a result, the following protective measures shall be followed to help avoid degradation of the nearby wetland system.

It is of the utmost importance that the Contractor complies with the requirement for the installation of protective measures and the education of its employees and subcontractors performing work on the project site. These measures will also provide protection to a nearby wetland system. This protection program shall be implemented regardless of time of year the construction activities occur. All-Points Technology Corporation, P.C. ("APT") will serve as the Environmental Monitor for this project to ensure that wetland protection measures are implemented properly. The Contractor shall contact Dean Gustafson, Senior Environmental Scientist at APT, at least 5 business days prior to the pre-construction meeting. Mr. Gustafson can be reached by telephone at (860) 663-1697 ext. 201 or via email at dgustafson@allpointstech.com.

The wetland protection program consists of several components: use of appropriate erosion control measures to control and contain erosion while avoiding/minimizing wildlife entanglement; periodic inspection and maintenance of isolation structures and erosion control measures; education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; and, reporting.

1. Erosion and Sedimentation Controls

- a. Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including reptiles, amphibians, birds and small mammals. No permanent erosion control products or reinforced silt fence will be used on the project. Temporary Erosion control products will use either erosion control blankets and fiber rolls composed of processed fibers mechanically bound together to form a continuous matrix (net less) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.
- b. Installation of erosion control measures shall be performed by the Contractor prior to any earthwork. The Environmental Monitor will inspect the work zone area prior to and following barrier installation to ensure erosion controls are properly installed.
- c. In addition to required daily inspection by the Contractor, the fencing will be inspected for tears or breaches in the fabric following installation periodically by the Environmental Monitor throughout the course of the construction project.
- d. The extent of the erosion controls will be as shown on the site plans. The Contractor shall have additional erosion control materials should field conditions warrant extending the fencing as directed by the Environmental Monitor.
- e. All silt fencing and other erosion control devices shall be removed within 30 days of completion of work and permanent stabilization of site soils. If fiber rolls/wattles, straw bales, or other natural material erosion control products are used, such devices will not be left in place to biodegrade and shall be promptly removed after soils are stable so as not to create a barrier to migrating wildlife. Seed from seeding of soils should not spread over fiber rolls/wattles as it makes them harder to remove once soils are stabilized by vegetation.

2. Contractor Education

- a. Prior to work on site, the Contractor shall attend an educational session at the pre-construction meeting with the Environmental Monitor. This orientation and educational session will consist of an introductory meeting with the Environmental Monitor to understand the environmentally sensitive nature of the development site and the need to follow these protective measures.

3. Petroleum Materials Storage and Spill Prevention

- a. Certain precautions are necessary to store petroleum materials, refuel and contain and properly clean up any inadvertent fuel or petroleum (i.e., oil, hydraulic fluid, etc.) spill due to the project's location in proximity to sensitive wetlands.
- b. A spill containment kit consisting of a sufficient supply of absorbent pads and absorbent material will be maintained by the Contractor at the construction site throughout the duration of the project. In addition, a waste drum will be kept on site to contain any used absorbent pads/material for proper and timely disposal off site in accordance with applicable local, state and federal laws.
- c. The following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.

i. Petroleum and Hazardous Materials Storage and Refueling

1. Refueling of vehicles or machinery shall occur a minimum of 100 feet from wetlands or watercourses and shall take place on an impervious pad with secondary containment designed to contain fuels.
2. Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment a minimum of 100 feet from wetlands or watercourses.

ii. Initial Spill Response Procedures

1. Stop operations and shut off equipment.
2. Remove any sources of spark or flame.
3. Contain the source of the spill.
4. Determine the approximate volume of the spill.
5. Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby waterways or wetlands.
6. Ensure that fellow workers are notified of the spill.

iii. Spill Clean Up & Containment

1. Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
2. Limit the spread of the spill by placing absorbent materials around the perimeter of the spill.
3. Isolate and eliminate the spill source.

4. Contact appropriate local, state and/or federal agencies, as necessary.
5. Contact a disposal company to properly dispose of contaminated materials.

iv. Reporting

1. Complete an incident report.
2. Submit a completed incident report to appropriate local, state and/or federal agencies, as necessary.

4. Herbicide and Pesticide Restrictions

- a. The use of herbicides and pesticides at the proposed wireless telecommunications facility is strictly prohibited.

5. Reporting

- a. Any incidents of sediment release into the nearby wetland will be reported to the Connecticut Siting Council.

APPENDIX C

CTDEEP NDDDB Letter



Connecticut Department of

**ENERGY &
ENVIRONMENTAL
PROTECTION**

February 23, 2015

Dean Gustafson
All-Points Technology Corporation
3 Saddlebrook Drive
Killingworth, CT 06419

Re: Brightfields Solar Development at 80 Brush Hill Road in Bozrah, Connecticut
NDDDB 201409481

Dear Mr. Gustafson:

Materials pertaining to the above project were forwarded to me for review by the DEEP Natural Diversity Database (NDDDB). After review of the proposed plans for this solar development, it is unlikely that it will negatively impact State-listed species in the area.

While no impacts to State-listed species are anticipated, we would urge consideration of other sensitive wildlife species of conservation concern.

- To minimize impacts to bat and some avian species, we recommend that tree cutting and other land-clearing activities be conducted outside of their sensitive breeding season. Tree cutting conducted from November 1 through March 30 would limit disturbance to bats and some birds since they would not be in the area when these activities take place.
- There is scientific evidence that solar arrays reflect highly polarized light which looks like water to aquatic breeding insects. A development that is tens of acres in size could potentially negatively impact local populations of these animals in the surrounding landscape. A way to minimize the effect of this phenomenon would be to include nonpolarizing, white cell borders on the panels to lessen their attractiveness to these animals. Please contact me if you have questions or would like further guidance on this matter.

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Database should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Database as it becomes available.

Please be advised that if state permits are required or should additional state involvement occur in some other fashion, specific restrictions or conditions relating to the species discussed above may apply. This determination is valid for one year. **Please submit an updated NDDDB Request for Review if the scope of the project changes or if work has not been initiated by February 23, 2016.**

If you have any additional questions, please feel free to contact me at Laura.Saucier@ct.gov, please reference the NDDB number in the subject line of this letter when you e-mail or write.

Sincerely,

A handwritten signature in cursive script, appearing to read "Laura Saucier", enclosed in a thin black rectangular border.

Laura Saucier
Wildlife Biologist

APPENDIX D

CT SHPO Letter



Department of Economic and
Community Development

Connecticut
still revolutionary

December 9, 2014

Ms. Nicole Castro
All Points Technology Corporation
3 Saddlebrook Drive
Killingworth, CT 06419

Subject: Proposed Solar-powered Electrical Generation Installation
80 Brush Hill Road
Bozrah, CT

Dear Ms. Castro:

The State Historic Preservation Office is in receipt of the re-submitted proposal for the above-referenced project, submitted for review and comment pursuant to the National Historic Preservation Act and in accordance with Federal Communications Commission regulations.

In the opinion of this office, the site of the solar-powered electrical generation installation at 80 Brush Hill Road, which includes a 12.5 acre installation of solar equipment and photovoltaic panels ranging from a grade of 3" to 24" at a maximum height of 6', will have no adverse effect to historic resources listed or eligible for listing on the National Register of Historic Places, including those resources located within the Fitchville National Register Historic District.

The State Historic Preservation Office appreciates the opportunity to review and comment upon this project. These comments are provided in accordance with the Connecticut Environmental Policy Act and Section 106 of the National Historic Preservation Act. For further information please contact Todd Levine, Environmental Reviewer, at (860) 256-2759 or todd.levine@ct.gov.

Sincerely,

A handwritten signature in blue ink that reads "Mary B. Dunne".

Mary B. Dunne
Deputy State Historic Preservation Officer

State Historic Preservation Office

One Constitution Plaza | Hartford, CT 06103 | P: 860.256.2800 | Cultureandtourism.org

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APPENDIX E

Noise Evaluation Study

HMB

HMB Acoustics LLC

3 Cherry Tree Lane, Avon, CT 06001

860-677-5955

Noise Evaluation Study

Proposed Solar Farm Facility
Brightfields Development LLC
80 Brush Hill Road
Bozrah, CT

February 16, 2015

Prepared For:
All-Points Technology Corporation
3 Saddlebrook Drive
Killingworth, CT 06419

Prepared By:
Allan Smardin
HMB Acoustics LLC
3 Cherry Tree Lane
Avon, CT 06001

Introduction

I have reviewed site plans and specifications for equipment that is being proposed for the Solar Farm. The equipment that is being proposed consists of four (4) Solectria Inverters; (2) 750XTM plus (2) 500XTM Solectria Inverters. The Solar Farm is to be located at 80 Brush Hill Road, Bozrah, CT. The site location is rural in nature. On September 20, 2014, existing background noise measurements were taken at the proposed site and in adjacent areas (average levels were 20-25 dBA).

The purpose of this noise evaluation is to determine whether the proposed equipment will comply with the State of CT Noise Regulations. This report and the noise regulations utilize a dBA scale. This scale is used because it closely approximates the response characteristic of the human ear to loudness, and is the scale most commonly used in the measurement of community noise.

Noise Regulations

The State of CT has enacted regulations which limit the amount of noise which may be transferred from one property to another. In pertinent part, the Regulations provide as follows:

Daytime hours - The hours between 7 a.m. and 10 p.m. local time.

Nighttime hours - The hours between 10 p.m. and 7 a.m. local time.

(Sec. 22a-69-1.1 (h & n)).

The allowable noise level from a Class "A" Residential Zone Emitter to a Class "A" Residential Zone Receptor's property line is 55 dBA (daytime) and 45 dBA (nighttime). (Sec. 22a-69-3.5 (c)).

Noise Evaluation

The noise levels listed in TABLE 1 take into account the effect of acoustical shielding provided by other structures on the property. The noise levels have been projected to the nearest residential and commercial property lines in the directions listed.

TABLE 1

Combined acoustical effect of 4 Inverters projected to the nearest Residential and Commercial property lines.

Direction	Residential	Commercial	dBA Level
	Property Line	Property Line	
	Brush Hill Road	Stockhouse Road	
Northwest	Farmhouse (#58)		31
East	Inaudible		-
Southeast		Commercial Bldg.	27
South	Residence (#41)		38
West	Residence (#46)		37

Noise Evaluation Results

The noise level data shown in TABLE 1 demonstrates that the noise levels meet the conditions for compliance as set forth in the State of CT Noise Regulations at residential and commercial property lines.

APPENDIX F

Photo Simulations

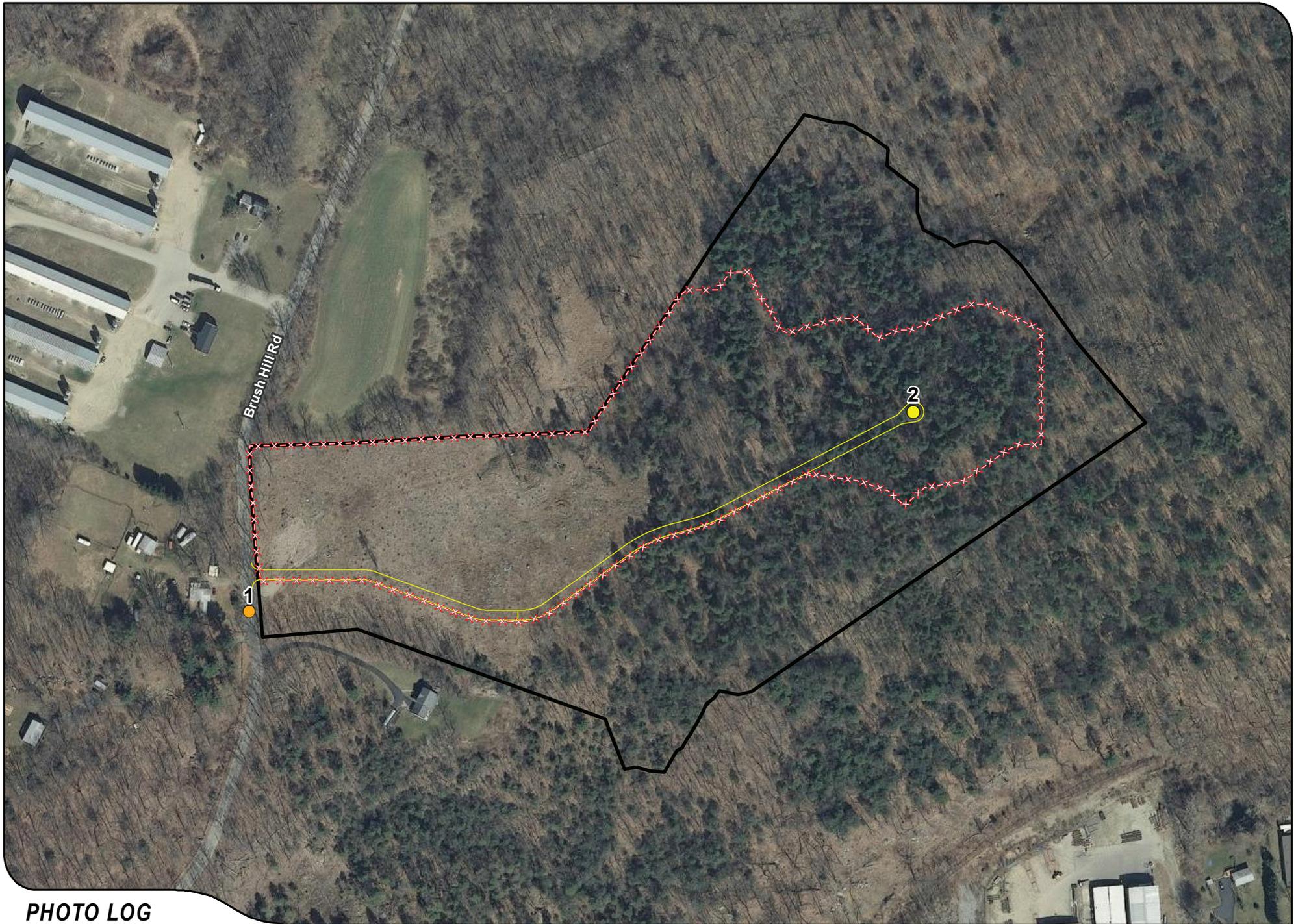


PHOTO LOG

Legend

- Photo Location
- ⊗ Fence
- ▭ Subject Property (+/- 25.20 Acres)
- Simulation Location
- Proposed 20' Gravel Access Drive





EXISTING

PHOTO

1

LOCATION

FROM BRUSH HILL ROAD

ORIENTATION

NORTHEAST



PROPOSED

PHOTO

1

LOCATION

FROM BRUSH HILL ROAD

ORIENTATION

NORTHEAST



SIMULATION

PHOTO

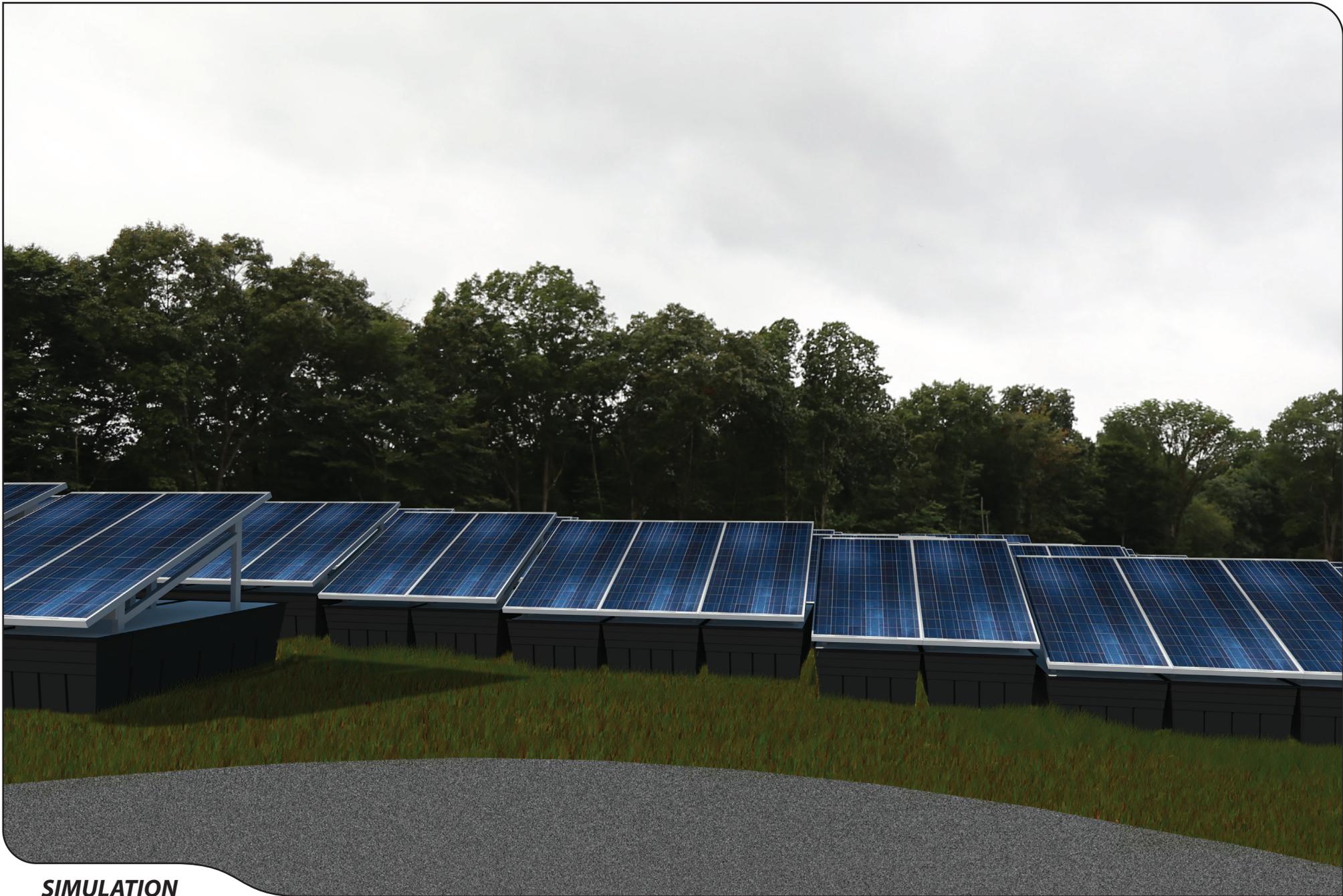
2A

LOCATION

FROM END OF PROPOSED ACCESS ROAD

ORIENTATION

WEST



SIMULATION

PHOTO

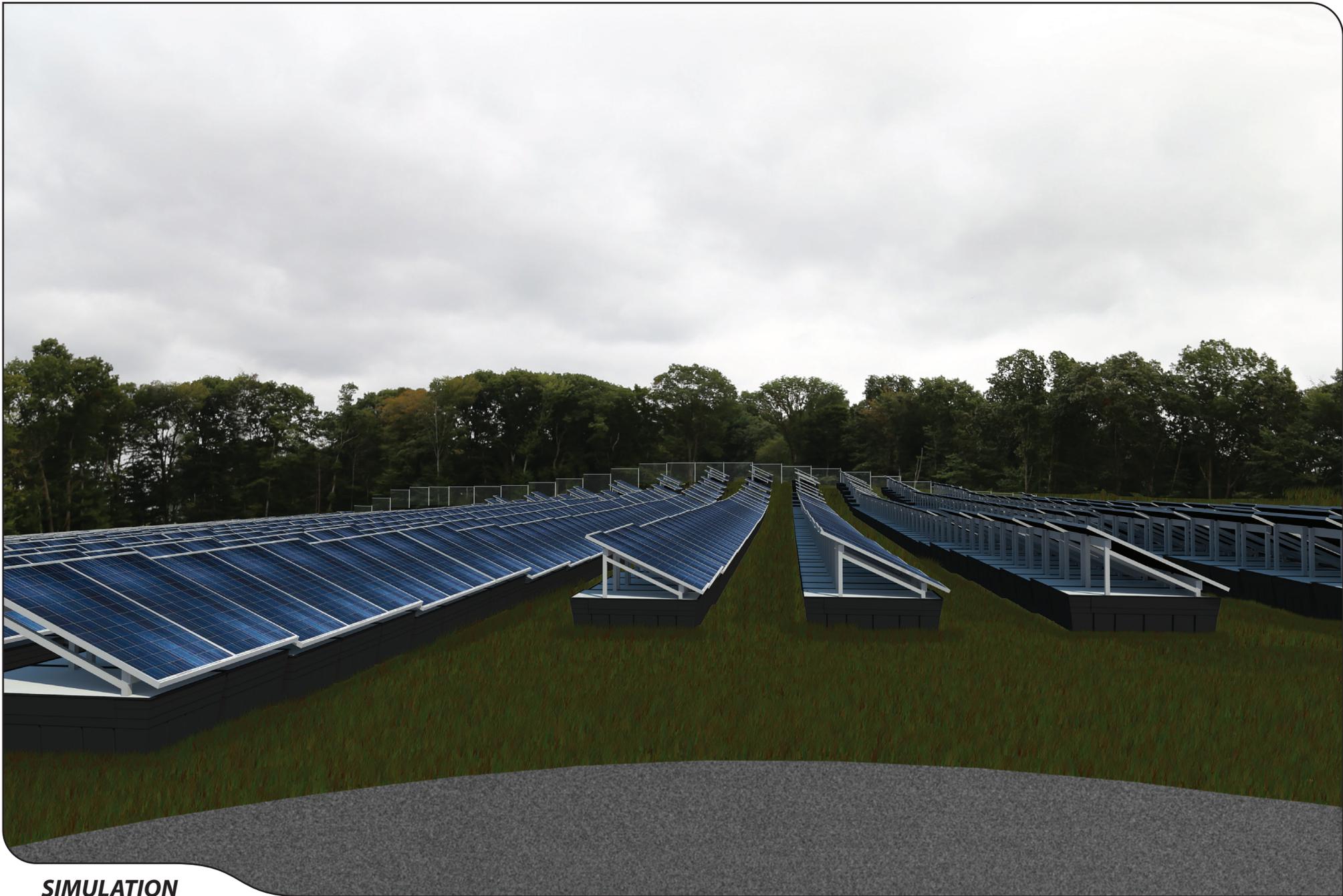
2B

LOCATION

FROM END OF PROPOSED ACCESS ROAD

ORIENTATION

NORTH



SIMULATION

PHOTO

2C

LOCATION

FROM END OF PROPOSED ACCESS ROAD

ORIENTATION

EAST



SIMULATION

PHOTO

2D

LOCATION

FROM END OF PROPOSED ACCESS ROAD

ORIENTATION

EAST