



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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January 17, 2020

David W. Bogan, Esq.
Kathryn E. Boucher, Esq.
Locke Lord LLP
20 Church Street
Hartford, CT 06103

RE: **PETITION NO. 1352** – Nutmeg Solar, LLC, declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 19.6-megawatt AC solar photovoltaic electric generating facility on approximately 162 acres comprised of 9 separate parcels located generally south of Bailey Road and east of Route 191 (Broad Brook Road), and associated electrical interconnection to Eversource Energy's Scitico Substation at 20 Bailey Road in Enfield, Connecticut.

Dear Attorneys Bogan and Boucher:

At a public meeting of the Connecticut Siting Council (Council) held on January 16, 2020, the Council considered and approved the Development and Management (D&M) Plan submitted for this project on November 27, 2019 with the condition that a copy of any DEEP-approved, revised Stormwater Pollution Control Plan, if applicable, be provided to the Council prior to construction.

This approval applies only to the D&M Plan submitted on November 27, 2019 and supplemental data dated December 20, 2019. Requests for any changes to the D&M Plan shall be approved by Council staff in accordance with Regulations of Connecticut State Agencies (RCSA) §16-50j-62(b). Furthermore, the project developer is responsible for reporting requirements pursuant to RCSA §16-50j-62.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the Council's decision on the petition dated April 26, 2019 and in the D&M Plan dated November 27, 2019.

Enclosed is a copy of the staff report on this D&M Plan, dated January 16, 2020.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman

MAB/MP/lm

Enclosure: Staff Report dated January 16, 2020

c: Hagen Lee, NextEra Energy Resources, LLC



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Petition No. 1352
Nutmeg Solar, LLC
Development & Management Plan
Enfield
Staff Report
January 16, 2020

On April 26, 2019, the Connecticut Siting Council (Council) issued a Declaratory Ruling to Nutmeg Solar, LLC (Nutmeg), pursuant to Connecticut General Statutes §4-176 and §16-50k, for the construction, maintenance, and operation of an approximately 19.6 megawatt (MW) alternating current (AC) solar photovoltaic electric generating facility located generally south of Bailey Road and east of Route 191 (Broad Brook Road) in Enfield, Connecticut. In its Declaratory Ruling, the Council required Nutmeg to submit a Development and Management Plan (D&M Plan). On November 27, 2019, WS submitted its D&M Plan for this project. Copies of the D&M Plan were provided to the Towns of Enfield¹ and Somers² on or about November 27, 2019. No comments have been received to date.

On December 10, 2019, the Council submitted interrogatories to Nutmeg on the D&M Plan. On December 20, 2019, Nutmeg submitted its responses to the Council's interrogatories.

The project will be developed on nine parcels (collectively, the "subject property") totaling approximately 162 acres and controlled by Nutmeg through a combination of lease and option to purchase agreements. The subject property is zoned One-Family Residential (R-88) and is generally bounded by The Connecticut Light and Power Company d/b/a Eversource Energy's (Eversource) existing Scitico Substation to the north, Broad Brook Road to the west, forested areas to the south, and an existing Eversource transmission line to the east. The eastern portion of the subject property consists of mixed second-growth forest. The western portion of the subject property consists of predominately flat areas currently used as agricultural fields with accompanying outbuildings, most recently for the cultivation of tobacco and gourd crops.

The approved solar project includes the Eastern Array and the Western Array³, separated by a vernal pool with a designated, wooded directional corridor that runs in a roughly north-south direction to allow amphibian passage between the vernal pool and the wetland complex that occurs off-site to the south of the project. The project totals 19.6 MW AC and is located within a 129-acre total development area.

The Declaratory Ruling requires the following information to be included in the D&M Plan:

- a. **A final site plan including, but not limited to, the solar arrays, fence design, and the electrical connection to and including the Collector Substation;**

The final site plan provided illustrates the site design, solar array arrangement, clearing, perimeter fencing, access drive design, and the location of the Collector Substation. Additional drawings provided in the interrogatory responses include the Collector Substation and its electrical connection.

¹ The Town of Enfield is both the host municipality and a Party in Petition No. 1352.

² The Town of Somers is located within 2,500 feet of the approved project.

³ The Western Array consists of two sub-arrays separated by the main access drive.

Nutmeg has made some minor changes to the project since the Council's declaratory ruling. These changes include slight modifications to the project layout and configuration. Such changes include, but are not limited to, the following:

- a) Nutmeg will install one main access off of Broad Brook Road, rather than two. One of the previous main access roads, located to the north, is now removed;
- b) The road connecting the northern main access to the main interior road is removed and replaced with a turnaround;
- c) The total length of the interior access roads decreased from approximately 7,690 feet to 6,015 feet;
- d) The secondary emergency access along Bailey Road is adjusted to align with the existing driveway as identified in the survey;
- e) Grading is adjusted based on an updated internal site road configuration;
- f) Construction phase and post-construction stormwater management has been updated accordingly based on the updated layout and internal access road configuration;
- g) The limits of work (LOW) area decreased from 130.5 acres to 129.3 acres;
- h) The amount of tree clearing area decreased from 91 acres to 90 acres;
- i) Based on an updated survey, less clearing is required than originally planned, and the selective vegetation management area around the vernal pool decreased from 5.0 acres to 4.8 acres;
- j) An easement located east of Broad Brook Road has been released by Eversource and is now included as part of the development footprint;
- k) Two existing tobacco barns that were proposed to be relocated and one barn that was proposed to be removed will all remain in their current locations. The two southernmost tobacco barns will be removed as previously proposed; and
- l) Nutmeg continued to evaluate the use of more efficient solar panels and identified commercially viable panels and plans to use the more efficient panels for the project.

Specifically, the approved project consists of approximately 72,520 solar panels at 400 Watts DC each for a total of about 29.0 MW DC. In the D&M plan, the quantity and wattage (and thus the efficiency) of the panels were increased. Approximately 78,192 solar panels at 405 Watts DC each will be installed for a total of about 31.7 MW DC. The AC capacity of the project will remain unchanged at 19.6 MW AC at the point of interconnection.

The solar panels will be fixed and oriented to the south at an angle of 25 degrees above the horizontal. The tops of the panels will reach a height of about 7 feet above grade. The Eastern Array will be surrounded by a 7-foot chain link fence with a six-inch wildlife gap at the bottom. The Western Array will have the same fence design on its eastern side. On the western side of the Western Array (i.e. along Broad Brook Road and near Charnley Road), Nutmeg will utilize a 7-foot tall agricultural fence (with a larger mesh size) for aesthetics and will also include a 6-inch wildlife gap at the bottom.

An approximately 6,015-foot long by 16-foot wide gravel access drive with four turnarounds will be installed to serve the Western Array, the Eastern Array and the Collector Substation.

With regard to the electrical interconnection, on September 13, 2019, the Council issued a declaratory ruling to The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) in Petition No. 1376 pursuant to Connecticut General Statutes 4-176 and 16-50k for the construction, maintenance and operation of a new approximately 330-foot long 115-kV underground transmission line from the existing Scitico Substation to Nutmeg's Collector Substation. The Council's declaratory ruling in Petition No. 1376 included the approval of the required modifications to Scitico Substation and associated modifications to the existing electric transmission line and structures.

Nutmeg's Collector Substation will be approximately 150 feet long (in the north-south direction) by 100 feet wide (in the east-west direction) and surrounded by an 8-foot chain link fence with three strands of barbed wire on top. The Collector Substation will contain the 34.5-kV/115-kV generator step-up transformer and associated equipment to connect the solar facility to Eversource's approved underground 115-kV transmission line. The maximum structure height within the Collector Substation will be about 45 feet above ground level.

b. Final construction hours and days of the week;

Work hours will typically be 7:00 a.m. to 7:00 p.m., Monday through Friday. Work on Saturdays would occur on an as-needed basis between 8:00 a.m. and 5:00 p.m. In the event of unforeseen circumstances, some night or Sunday construction hours may be required to meet project milestones. Notwithstanding, out of consideration for the nearby residents, Nutmeg will limit pile driving construction activities (for the rack post installations) to occur between the hours of 9:00 a.m. and 5:00 p.m.

Tree clearing is expected to commence in February 2020. Construction of the project will follow beginning in April 2020. Construction is expected to be complete in December 2020, but punch list items and final establishment of vegetation cover may be completed in spring 2021.

c. Construction traffic control plan;

Nutmeg has included its Traffic Control Plan under Attachment C of the D&M Plan. Specifically, vehicular traffic will utilize Broad Brook Road and enter through the main access off of Broad Brook Road. Three signs⁴ that indicate "Trucks Entering Highway" will be placed at least 350 feet from the main access entrance to warn motorists and allow an opportunity to reduce their speed.

Approximately 30 to 40 truck deliveries per day are expected during Phase 1, the site access roads and staging portion of construction. Approximately 20 to 30 truck deliveries per day are expected during Phase 2, the Eastern Array grubbing and stormwater controls portion of construction and Phase 3, the Western Array stormwater controls and solar equipment portion of construction. Approximately 10 to 20 truck deliveries per day are expected during Phase 4, the Eastern Array stormwater controls and solar equipment installation portion of construction.

No work is proposed within public roadways.

d. Copy of DEEP General Permit;

Under Attachment D of the D&M Plan, Nutmeg has included a copy of the Department of Energy and Environmental Protection (DEEP) General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (General Permit) for the project dated January 9, 2019.

e. Copy of DEEP-approved Stormwater Management Plan consistent (with the) 2004 Connecticut Stormwater Quality Manual and the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control;

Under Attachment E of the D&M Plan, Nutmeg has included a copy of the Stormwater Pollution Control Plan (SWPCP) that was approved by DEEP and is consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control and the 2004 Connecticut Stormwater Quality Manual.

⁴ Two signs will be placed on Broad Brook Road, and one sign will be placed on Charnley Road.

Nutmeg continues to discuss minor, non-material modifications to the SWPCP with DEEP and will provide an update to the Council upon approval of a revised SWPCP.

f. Final Vegetation Management Plan including, but not limited to, provisions for frequency of mowing and vegetation maintenance that incorporate any DEEP-required seasonal restrictions, post-construction site inspections on a quarterly basis, and removal of any accumulated sediment and debris that could affect stormwater patterns; and

Approximately 90 acres of the project site will be cleared and grubbed to allow for the construction and operation of the project and to minimize shading impacts. Tree clearing will be limited to October 1 through March 31⁵ to minimize impacts to nesting birds and tree-roosting bat species that are known to occur at the site during the summer season, as well as to avoid potential disturbance during periods of high bird and herpetofauna activity.

Under Attachment F of the D&M Plan, Nutmeg has included its Selective Vegetation Management Plan (SVMP) for the directional corridor⁶ area in the vicinity of the vernal pool. See attached figure titled "Selective Vegetation Management." Specifically, the SVMP includes, but is not limited to, the following:

- a) No trees will be removed within the 100-foot Vernal Pool Envelope or within the directional buffer that extends south of the pool to the southern boundary of the project;
- b) Trees within the selective trimming area that are within 30 feet of the arrays will be selectively trimmed and maintained to have a canopy height of 20 feet;
- c) Trees within the selective trimming area that are outside of the 30-foot setback will be selectively trimmed and maintained to have a canopy height of 40 feet;
- d) Trees that are cut within the selective trimming area will be cut at the base; and
- e) Following project construction, the selective trimming areas will be reviewed on a five-year cycle, and tree species observed to be capable of exceeding the canopy height within five years will be removed.

Under Nutmeg's Post Construction Operational Vegetation Maintenance Plan, Nutmeg and/or its subcontractors will maintain vegetation during the operational phase of the project. The purpose is to maintain or remove incompatible vegetation to ensure safe operation of the project components and to protect sensitive natural resources. Operation and maintenance (O&M) personnel will inspect the vegetation established at the site following construction. During the first year, O&M personnel will replace or reseed any dead vegetation or reseed any bare areas that have the potential to wash out. Inspections will occur at least twice per year and additional inspections will occur as needed. Vegetation will be mowed at least twice per year within the array fence line, including the filtration basins.

The designated on-site environmental monitor or inspector will be employed throughout the project construction period. The individual will be responsible for conducting inspections of exclusion fencing and other avoidance and mitigation measures that will be implemented during the construction process. The monitor will be responsible for regular reporting of site conditions and contacting the appropriate state agencies (e.g. DEEP) if listed species are observed within the work areas.

⁵ Nutmeg plans to conduct tree clearing during the February through March 2020 time period.

⁶ The directional corridor will comply with the U.S. Army Corps of Engineers VP Directional Buffer Guidance document dated 2010.

Nutmeg will comply with all applicable best management practices and the requirements of the DEEP Construction General Permit. In addition, under Attachment E of the D&M Plan, Nutmeg's SWPCP notes that upon completion of construction, Nutmeg will conduct monthly inspections of the best management practices (BMPs) and stormwater control features which include all areas covered by the SWPCP and all stormwater structures and outfalls on the site for surface or floating debris, oil and sediment for the first 90 days. Following the initial 90-day inspection period, stormwater BMPs and stormwater control features will be inspected in accordance with the recommended schedule in the Connecticut Stormwater Quality Manual. The site will also be inspected bi-annually for trash accumulation and surface debris.

g. Results of consultations with the State Historic Preservation Office (SHPO) regarding the plans for Tobacco Barn Nos. 2 and 3 and any associated changes to the solar layout and vegetative plantings, as applicable.

Tobacco Barn Nos. 1, 2 and 3 are currently located in the northwestern portion of the site off of Broad Brook Road. In the originally approved configuration, Nutmeg planned to demolish/remove Tobacco Barn No. 3 and relocate Tobacco Barn Nos. 1 and 2 to the northwestern limits of the project area to serve as a visual barrier. Tobacco Barn Nos. 4 and 5, located in the western-central portion of the site, were slated to be removed. See attached figure titled "Originally Approved Configuration."

By letter dated January 2, 2019, The State Historic Preservation Office had recommended that a protection plan be formulated for the tobacco sheds identified as Building 12 (a/k/a Tobacco Barn No. 3) and Building 13 (a/k/a Tobacco Barn No. 2). Nutmeg had agreed to ongoing consultations with SHPO regarding the future of the tobacco sheds.

Upon further consultation with the landowner, and as a result of consultations with SHPO, in the D&M Plan, Tobacco Barn Nos. 1, 2 and 3 will remain in place in their current locations. Nutmeg has professionally documented the historic and architectural aspects of Tobacco Barn Nos. 2 and 3 and submitted the information to SHPO as requested. By letter dated April 22, 2019, SHPO confirmed receipt of the documentation. Also in the D&M Plan, Tobacco Barn Nos. 4 and 5 will still be removed as originally proposed.

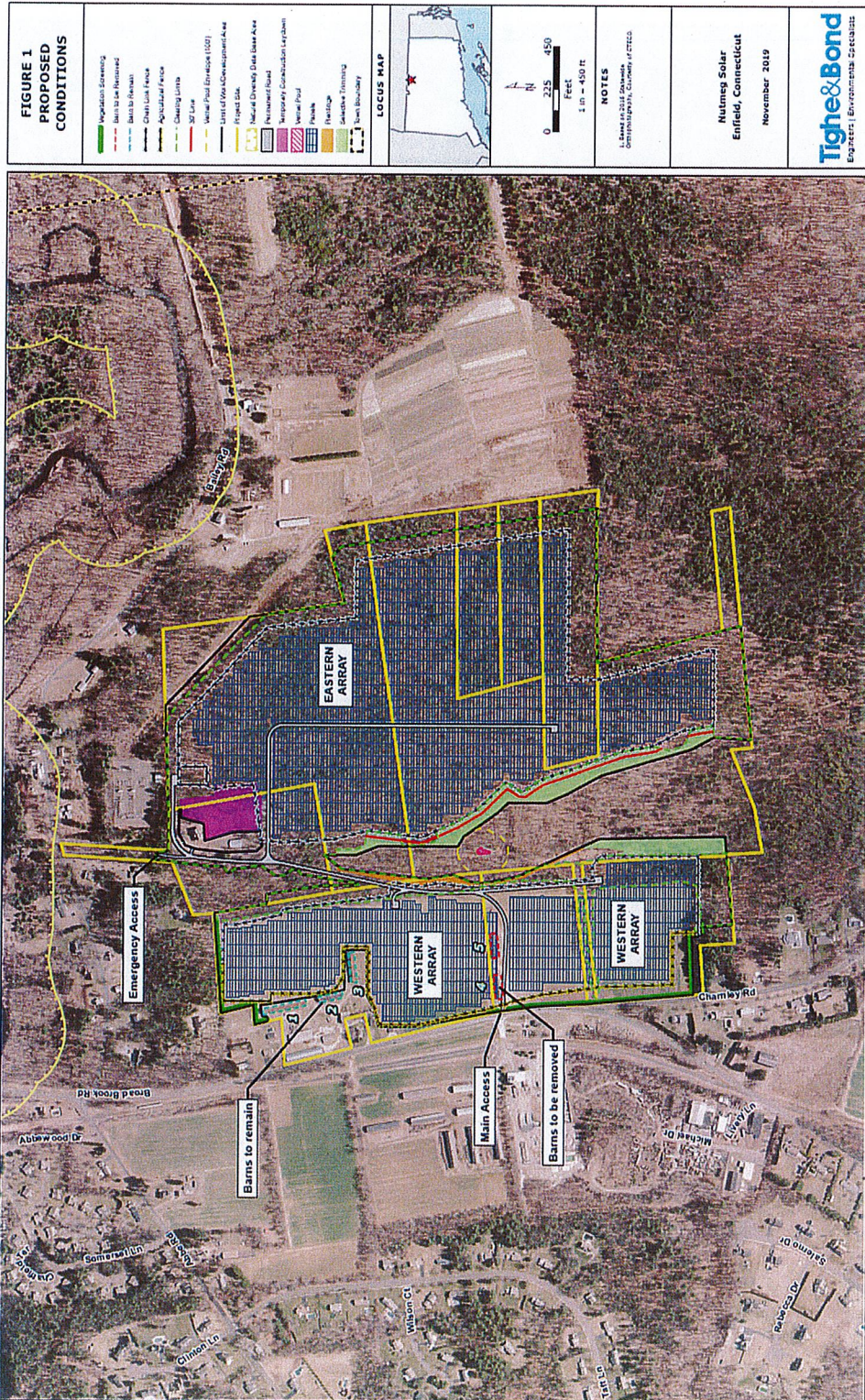
The solar panel layouts have been adjusted to accommodate all of the changes. Furthermore, the landscape plantings in the northwestern limits of the site have been extended to the east to compensate for loss of visual screening that would have been provided by a relocated Tobacco Barn No. 2. Landscape plantings will remain in the vicinity of where Tobacco Barn No. 1 would have been relocated. See attached figure titled "Revised Configuration."

Recommendations

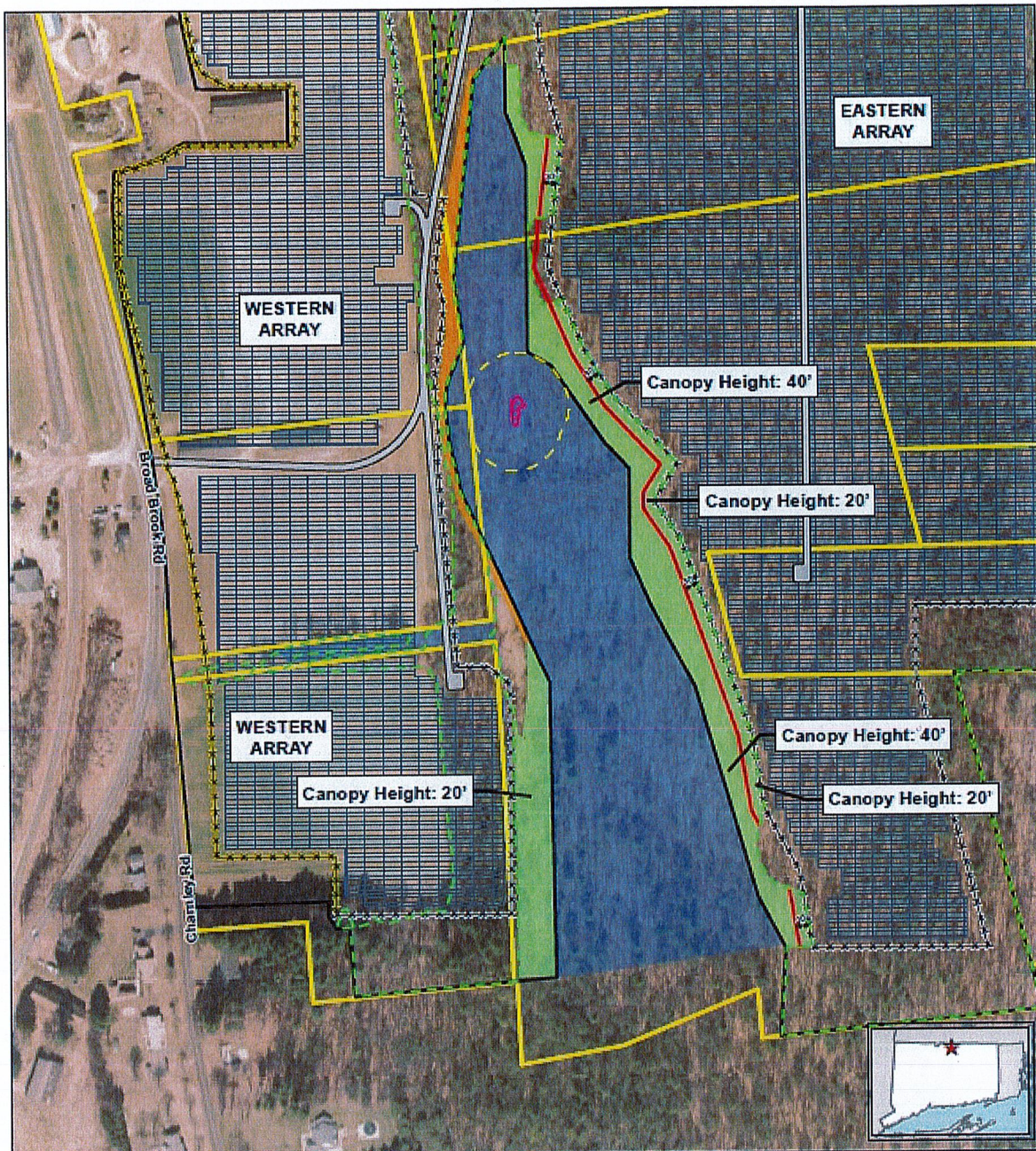
If approved, staff recommends following condition:

1. Submission of a copy of any DEEP-approved revised SWPCP, if applicable, prior to construction.

Revised Configuration



Selective Vegetation Management



<ul style="list-style-type: none"> — Dimensions — Chain Link Fence — Agricultural Fence — Clearing Limits — Limit of Work/Development Area — 30' Line — Vernal Pool Envelope (100') — Project Site 	<ul style="list-style-type: none"> Permanent Road Vernal Pool Panels Plantings Selective Trimming No Disturbance 	<p>FIGURE 3 SELECTIVE VEGETATION MANAGEMENT</p> <p>Nutmeg Solar Enfield, Connecticut</p> <p>November 2019</p>
<p>Tighe & Bond Engineers Environmental Specialists</p> <p>1. Based on 2018 Statewide Lidar Orthophotography, Quality of CTGIS.</p> <p>Scale: 1:3,600 0 150 300 Feet</p>		