DRAFT

Petition No. 1598
Windsor Solar One, LLC
445 River Street, Windsor, Connecticut

Development & Management (D&M) Plan
Staff Report
February 28, 2025

Notice

On May 9, 2024, the Connecticut Siting Council (Council) issued a Declaratory Ruling to Windsor Solar One, LLC (WSO) for the construction, maintenance, and operation of a 3.0-megawatt (MW) AC solar photovoltaic electric generating facility on approximately 13.5 acres of an approximate 37.1 acre parcel located at 445 River Street, Windsor, and associated electrical interconnection (Project). In its Declaratory Ruling, the Council required WSO to submit a Development and Management (D&M) Plan in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies (RCSA).

On January 17, 2025, in compliance with RCSA §16-50j-61(d), WSO submitted the D&M Plan for the facility to the Council and the service list, inclusive of the Town of Windsor (Town). Keith and Lisa Bress, a party to the Petition proceeding, submitted comments on the D&M Plan to the Council on January 19, and February 25, 2025 regarding, the current Town Fire Marshal, tree clearing, Department of Energy and Environmental Protection (DEEP) Natural Diversity Database (NDDB)-listed species, and fuel and hazardous materials storage.

On February 4, 2025, the Council issued interrogatories to WSO. On February 18, 2025, WSO submitted responses to the interrogatories.

D&M Plan

Condition No. 1 of the Council's Declaratory Ruling requires a copy of the DEEP-issued Stormwater Permit to be submitted prior to the commencement of construction. This item remains outstanding.

Condition No. 2 of the Council's Declaratory Ruling requires the following information to be included in the D&M Plan:

a. **A final site plan including, but not limited to facility layout, access roads, electrical interconnection design, agricultural-style fence design, equipment pads, and final seed mix;**

   The final site plan consists of a single array area layout with a total of 7,280 non-reflective 520-Watt solar photovoltaic panels installed on a single-axis tracking system and oriented in a north-south direction. At maximum tilt, the tops of the panels will be approximately 8 feet above grade at the highest point and 3 feet above grade at the lowest point. The panel rows will be separated by 8- to 11.2-foot-wide vegetated aisles. The fenced solar array would occupy a 13.5-acre area.

   Access to the facility site will utilize a new 16-foot wide, 575-foot long gravel access drive extending east from River Street to the transformer/switchgear pads.

   The electrical interconnection route will extend underground in a westerly direction from two electrical equipment areas to the edge of the solar array and then turns south, parallel to River Street. It would transition to overhead using three new utility poles aligned in an east-west direction

to support meter and switching equipment, then transition back to underground, extending for approximately 360 feet to a new utility pole at the corner of Old River Street and River Street. From the new pole, an overhead line would extend across River Street to an existing distribution circuit.

The facility will be enclosed by a 7-foot tall agricultural style perimeter fence, installed flush with the ground to support agricultural activities at the site. The four-to-six-inch fence mesh will allow for small animal passage.

Two gravel equipment areas (totaling 3,000 square feet) will be installed in the eastern, central portion of the site. The equipment areas include concrete pads supporting two electrical transformers and switchgear, and an area for a frame racking system to support 24 inverters.

The solar array area will be seeded with ERNMIX – 147 Fuzz & Buzz mix which includes mostly grasses to support livestock and a small component of wildflower species.

b. Erosion and sedimentation control plan consistent with the applicable Connecticut Guidelines for Erosion and Sedimentation Control and the DEEP-issued Stormwater Permit including, but not limited to, construction detail/phasing plan; temporary sediment basin detail, site stabilization measures during construction, inspection and reporting protocols, procedures for periodic cleaning of the temporary sediment trap and swales during construction, and removal of the sediment trap / upon site stabilization;

The D&M Plan contains Erosion and Sedimentation (E&S) Control Plans consistent with the *Connecticut Guidelines for Soil Erosion and Sediment Control* (E&S Guidelines).

E&S control measures will be established in accordance with the DEEP Stormwater Permit and include, but are not limited to, siltation barriers around the perimeter of the work area, a temporary sediment trap at the southwest edge of the site, biodegradable erosion control blankets, mulch, and temporary seeding.

The sediment trap is approximately 1.7 feet deep and will be cleaned once sediment reaches half capacity. Disturbed areas will be stabilized after no more than 7 days if no work is occurring in the specific area.

The construction phasing plan includes, but is not limited to, installation of perimeter erosion controls, access drive, and temporary sediment trap, followed by limited tree clearing and grubbing and the installation of solar array infrastructure, fencing and landscaping. The total area of land disturbance is approximately 17.5 acres.

Inspections and reporting will be conducted in accordance with the DEEP Stormwater Permit. All E&S controls will be inspected by the contractor on a daily basis and by an engineer on a weekly basis and within 24 hours of a rain event of greater than 0.5 inches. Repairs to E&S controls by the contractor will occur within 24 hours, when necessary. E&S controls will be inspected by the contractor on a daily basis and an engineer on a weekly basis.

Once disturbed areas have stabilized, the temporary sediment trap will be backfilled and seeded.

c. A final enhanced Landscaping Plan that includes additional evergreen plantings, the estimated offset for the loss of trees in relation to the 0.2 acres of tree clearing in the eastern portion of the site, watering of new plantings for a period of two years, and an annual review and replacement of plantings that die-off after the warranty for the life of the facility;

The Final Landscaping Plan consists of the installation of 206 trees and shrubs along the west and northwest sides of the site, as follows:

a) 9 ea. – red oak (4 to 6 inches diameter);
b) 19 ea. – balsam fir (7 to 8 feet tall);
c) 35 ea. – eastern red cedar (7 to 8 feet tall);
d) 21 ea. – white spruce (7 to 8 feet tall);
e) 9 ea. – Canadian serviceberry (8 to 10 feet tall);
f) 54 ea. – inkberry holly (2 to 3 feet tall);
g) 39 ea. – northern bayberry (3 to 4 feet tall); and
h) 20 ea. – rosebay rhododendron (3 to 4 feet tall).

Exposed soil after planting will be covered with mulch. Plantings will be continually watered for two years. Plantings will be inspected annually. Plantings that die off will be replaced throughout the life of the Project.

The planting area encompasses approximately 0.8 acre, offsetting the loss of the 0.2 acre of tree clearing in the eastern portion of the site.

d. Final plans to comply with DEEP-recommended protection/conservation measures;

Based on DEEP's Preliminary NDDB Determination letter dated January 23, 2024, WSO conducted site surveys for critical habitat for the state-listed sand barren, low frostweed, American rubyspot, and eastern box turtle. WSO concluded the Project will not impact sand barren, low frostweed, or American rubyspot habitat. The report determined eastern box turtle may occur at the site.

DEEP issued a Final NDDB Determination letter on October 21, 2024 identifying the eastern box turtle and American kestrel as potentially occurring at the site.

WSO will implement box turtle protection measures, including but not limited to, contractor education, site inspections, 20-inch high work area isolation barriers, and reporting.

WSO will implement American kestrel protective measures if construction occurs during nesting season, including but not limited to, site surveys prior to construction and nest protection measures, if applicable. Additionally, WSO will install kestrel nest boxes in locations to be determined upon consultation with the host parcel owner.

e. Final Spill Prevention Control and Countermeasure Plan with contractor information and appropriate reporting forms;

A revised Spill Prevention Control Plan dated February 2025 includes updated contact information for WSO, the spill response contractor, Town Fire Marshal, and the DEEP Spill Emergency Response and Spill Prevention Unit.

The plan includes spill response, cleanup, and reporting procedures including spill response forms.

Refueling of vehicles and machinery will occur in established, off-site areas with an impervious pad with secondary containment designed to contain petroleum fuels. Fuels will be stored in an area with an impervious surface utilizing secondary containment and a minimum 100 feet from wetland/watercourse areas.

The designated refueling area is north of the access drive entrance, on the west side of the construction area. Two laydown areas will be established, one on the south side of the access drive, at the west edge of the construction area and one on the east side of the site, north and south of the equipment pads.

f. A post-construction operational noise study that documents compliance with state standards and the identification of any noise mitigation measures that are employed to adhere to the standards;

WSO will submit a post construction operational noise study after the solar facility reaches commercial operation.

g. Notification to abutting property owners of the commencement and type of construction activities;

D&M Plan Site Plan C-1.0 specifies the necessary construction notifications.

Project construction is expected to begin in Spring/Summer 2025 with completion by the end of 2025. Work hours will be Monday through Friday 7:00 a.m. to 6:00 p.m. and Saturday from 8:00 a.m. to 5:00 p.m.

h. Final structural design for the racking system stamped by a Professional Engineer duly licensed in the State of Connecticut; and

WSO will submit the final structural design for the racking system stamped by a Professional Engineer duly licensed in the state of Connecticut prior to commencement of construction.

i. An agricultural co-use plan for the site, if a co-use is implemented, with a document that shall indemnify and hold harmless the Council, its agents, representatives and employees from any and all losses, claims, actions, costs and expenses, judgments, subrogations, or other damages resulting from any injury to a person or to property arising out of the presence of third-parties within the fenced solar facility site and that maximizes the distance of the sheep-grazing paddocks from the property lines of adjacent residential properties.

WSO will conduct sheep grazing as an agricultural activity at the site. A Sheep Grazing Plan was developed in conjunction with (Hillview Farm). Four temporary paddocks will be established within the solar array area, each approximately 3.4 acres in size and isolated by temporary electric fencing. Approximately 33 sheep will be on-site, rotated among the four temporary paddocks for about 15 days per paddock, as established by the sheep farmer.

Sheep will be visually inspected on every rotation day by the sheep farmer. Water and mineral feed to support grazing activities will be delivered to the site by the sheep farmer. Sheep will not overwinter at the site.

Signage will be displayed at the main gate with emergency contact information for the sheep manager. In the event of an emergency, animals would remain inside the site until the sheep manager can safely remove them.

During the Council's proceedings, the site was redesigned to increase the distance of the facility to the adjacent residential property line to the north, thereby increasing the distance of the northern sheep paddock from the property line. The outer perimeter fence composing part of the northern paddock enclosure will be 100 to 185 feet to the property line. Relocating the paddock further south will reduce the number of sheep that can graze in the area by 10 to 20 percent and require additional mechanical vegetation control outside of the paddock.

WSO included a draft Hold Harmless Agreement in the D&M Plan.

j. Post-Construction Operations and Maintenance Plan that includes an inspection/maintenance schedule of facility components, vegetation, landscaping, and panel washing;

The final post-construction Operations and Maintenance Plan includes provisions for remote monitoring, equipment and site maintenance, and site safety and security. Inspection and maintenance of facility components will be performed at least once annually or per equipment manufacturer requirements.

Sheep grazing is intended to be the primary method of vegetation maintenance within the fenced array. Mowing and trimming at the facility site will be performed on an as-needed basis.

Landscape plantings will be inspected at least once annually or more often if necessary due to extreme weather conditions.

Snow will be removed from the access road and turnaround areas, as necessary. Snow will not be removed from the panels.

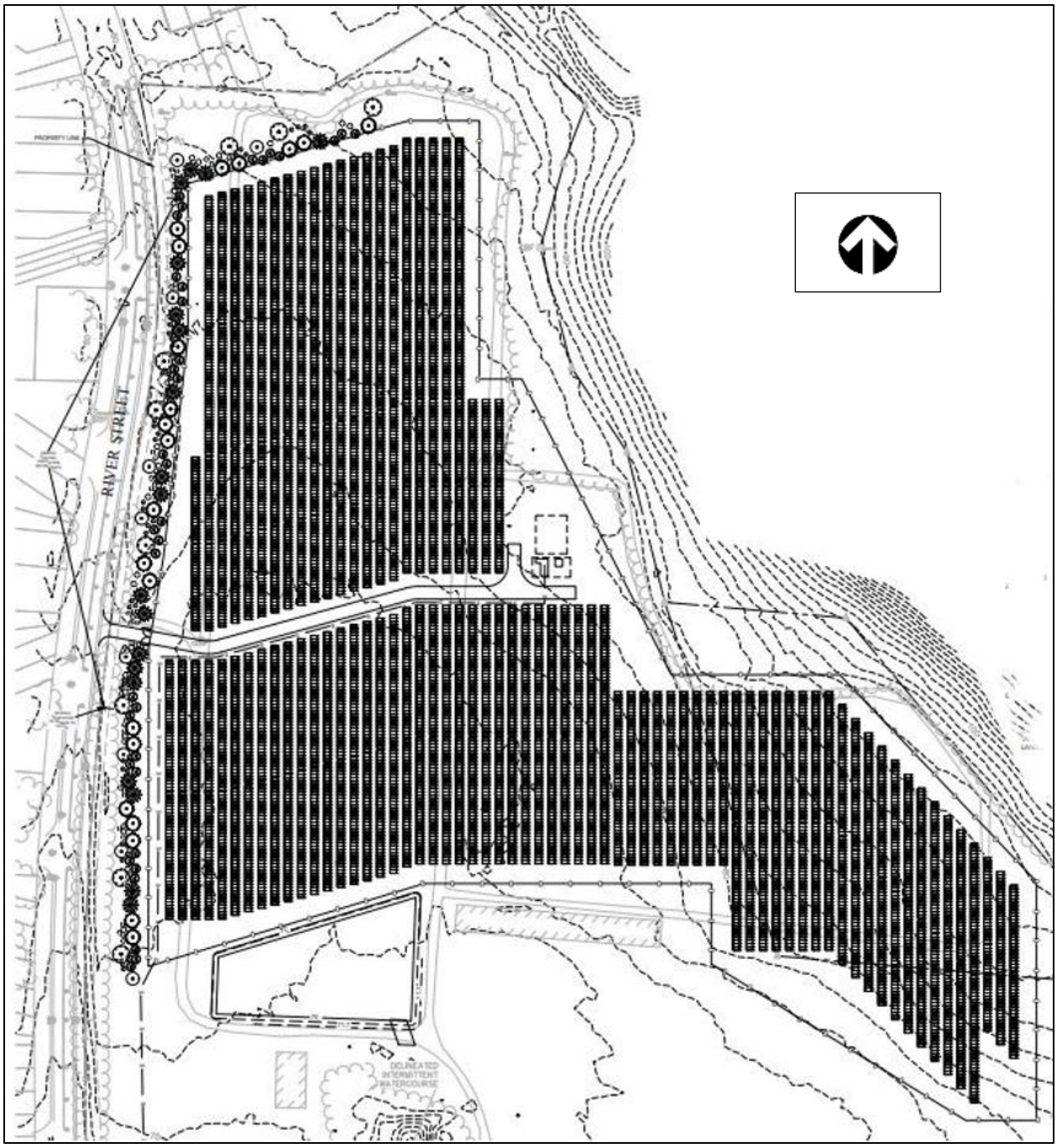
Conclusion

The D&M Plan is consistent with the Council's Declaratory Ruling for Petition 1598.

If approved, staff recommends the following conditions:

1. Submit the final structural design drawings for the racking system based on the final solar panel design and stamped by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction;
2. Submit a copy of the notifications to abutting property owners of the commencement and type of construction activities when notifications are issued; and
3. Submit a fully-executed and signed Hold Harmless Agreement.

Site Layout



The temporary sediment basin in the southwest portion of the site will be removed upon final site stabilization.