WGKL-SW-3

Memorandum

To: Williston G Katie Lane Solar

Date: September 23, 2025

Project #: 58972.07

From: Stephanie Wyman, PE, Civil Engineer

Re: Section 248 Primary Agricultural Soils Assessment

Introduction

On behalf of Williston G Katie Lane Solar, LLC ("Petitioner") and at the request of Encore Renewable Energy ("Encore"), VHB has prepared this technical memorandum concerning the proposed solar electric generation facility ("Project") that will occupy approximately 11.1 acres of land within a 440-acre parcel owned by GlobalFoundries. The Project site is located north of Mountain View Road, between Trinity Drive and Katie Lane, in Williston, Vermont. The content of this technical memorandum presents the results of an assessment of the Project as it relates to the following criterion under 30 V.S.A. § 248(b)(5), which are given due consideration by the Vermont Public Utility Commission ("PUC") in its review of Williston G Katie Lane Solar LLC's request for a Certificate of Public Good ("CPG"):

- Primary Agricultural Soils – as defined by 10 V.S.A. § 6001(15)

Project Description

The Project consists of the installation and operation of a solar electric generation facility within the GlobalFoundries campus. GlobalFoundries Power LLC ("GF Power") is an owned subsidiary of GlobalFoundries and operates as a public service company. The Project area was selected and designed after considering several site constraints – including topography, environmental resources, and aesthetic impacts – while maximizing the potential energy generation benefits. The Project will consist of a solar electric generation facility, capable of generating up to 2.9 MW AC. The approximately 11.1-acre fenced in Project will be separated into two subarrays. The northern subarray is located within an existing field while the southern subarray will be partially located within a fenced in area previously used as a renewable energy test location and will extend south into an area currently occupied by saplings and shrubs. (refer to Exhibit WGKL-JC-2). Please see the detailed project description in the prefiled testimony of Jake Clark.

Methods

Under 10 V.S.A. § 6001(15), a Primary Agricultural Soil ("PAS") is defined as:

> *(A) An important farmland soils map unit that the Natural Resources Conservation Service of the U.S. Department of Agriculture ("NRCS") has identified and determined to have a rating of prime, statewide, or local importance, unless the (Act 250) District Commission determines that the soils within the unit have lost their agricultural potential. In determining that soils within an important farmland soils map unit have lost their agricultural potential, the Commission shall consider:*
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> > *(i) impacts to the soils relevant to the agricultural potential of the soil from previously constructed improvements;*
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> > *(ii) the presence on the soils of a Class I or Class II wetland under chapter 37 of this title;*

(iii) the existence of topographic or physical barriers that reduce the accessibility of the rated soils so as to cause their isolation and that cannot reasonably be overcome; and

(iv) other factors relevant to the agricultural potential of the soils, on a site-specific basis, as found by the Commission after considering the recommendation, if any, of the Secretary of Agriculture, Food and Markets.

(B) Soils on the project tract that the District Commission finds to be of agricultural importance, due to their present or recent use for agricultural activities and that have not been identified by the NRCS as important farmland soil map units.

VHB's review is limited to the NRCS soil map unit designations, where PAS soils are defined as those soils with a prime agricultural soil rating of 1 (most desirable) through 7 (least desirable) with some soils with a rating of 8 included. Soils of statewide importance have an agricultural value of 7 or less, and soils of local importance consist of selected soil types with an agricultural value of 8 or less. VHB conducted a review of the NRCS soil map data to determine if PAS were present on the Project site and prepared a site plan (see Sheet C2.00 of Exhibit WGKL-JC-2) that depicts the following:

- Soil unit names, boundaries, and agricultural ratings for Chittenden County from the NRCS;
- Proposed impact activity type;
- Primary agricultural soils, provided from the Vermont Center for Geographic Information ("VCGI") and based on NRCS soil data; and,
- 2023 aerial imagery provided by VCGI depicting the existing site conditions.

The Project area, for purpose of this assessment, includes the following components:

- Arrays (defined by the perimeter fence);
- Pervious access drive;
- Temporary staging area;
- Proposed underground power runs;
- Overhead power runs;
- Equipment pad locations; and
- Stormwater treatment practices.
- Total Project limits of disturbance = 14.3 acres (±)

Results

Approximately 14.1 acres within the Project limits of disturbance are mapped as Prime Agricultural Soils. Of those mapped, approximately 13.5 acres have been determined to be undisturbed mapped PAS. The 0.6 acres of previously disturbed PAS include: existing concrete equipment pads, buildings and access driveways which have removed the agricultural viability of the mapped PAS. Soils present within the Project area defined above include the following, which are classified by the NRCS as Prime or Statewide importance, and would therefore meet the PAS definition:

- Adams and Windsor loamy sands, 0 to 5 percent slopes: Statewide,
- Duane and Deerfield soils, 0 to 5 percent slopes: Statewide.

The site plans provided show areas of PAS within the limits of disturbance. Impacts to PAS fall into two categories:

(i) Indirect impacts include areas within the Project's limits of disturbance which are not intended to be impacted but which may be as a result of construction traffic or other incidental operations. The total potential indirect impacts within the Project limits of disturbance are approximately 11.7 acres (±).
(ii) Direct impacts include known areas of excavation or other work described below. Direct impacts have been further broken down into two categories, temporary and operational phase. Temporary direct impacts are those which will be restored at the end of construction. Operational phase direct impacts are impacts during the life of the Project, which will be restored at Project decommissioning. Temporary and operational phase direct impacts to PAS are described in the bullet points below.

As reflected in Table 1 – PAS Direct Impact Matrix, temporary direct impacts to PAS at the Project site will total approximately 0.3 acres (±) that would be restored following construction, which would include the following elements:

- Staging Area: During construction, approximately one foot of topsoil will be temporarily removed to facilitate a stabilized surface for material staging during construction
- Temporary Access Drive: During construction a portion of the access road will be extended to allow for construction vehicles to safely navigate the site for deliveries.
- Trenching: Temporary impacts during construction include approximately four to six-foot-wide trenches within the site array to install underground power runs.

The following elements would involve direct impacts on undisturbed PAS for the life of the Project (Operational phase direct impacts). These soils will be stockpiled on-site consistent with AAFM guidelines and will be restored upon Project decommissioning, as further described in the Mitigation Measures section below[1].

- Pervious Access Drive: The new drive within undisturbed mapped PAS is proposed to be constructed with a minimum of 18" of gravel material with geotextile fabric. A portion of the existing access drive will also need to improved and widened through the Class II Wetland and associated buffer to facilitate construction.
- Equipment locations: Approximately 0.03 acres will be excavated to a depth of approximately 3-4-feet for installation of the equipment pads required for transformers and oil containment.
- Stormwater Treatment and conveyance: To the extent practicable, the Project will use simple disconnection treatment practices to treat stormwater runoff from the addition of the impervious equipment pads. The new access drives have been designed as pervious and will therefore not require stormwater treatment.
- Grading & Vegetation Removal: The remaining impacts are associated with the necessary grading for access road drainage, grading of the pad mounted transformers and secondary oil containment, and vegetation removal with grubbing.

Table 1. Prime Agricultural Soils Impacts Matrix.

Impact Type	Direct Impact (acres)
Temporary During Construction	0.3
Operational phase for Life of Project	1.5

As the Project would involve direct impacts to PAS for the Project duration, the following mitigation measures will be incorporated to avoid a loss in the potential of on-site soils to support or contribute to an economically viable or commercial agricultural operation:

1. Any topsoil necessarily removed from the staging area during construction as well as soils disturbed from trenching will be placed in designated stockpile locations and restored in accordance with the AAFM Act 250 Procedure: Reclamation of Vermont Agricultural Soils and as necessary per best management practices for erosion prevention and sediment control ("EPSC"), including application of a permanent stabilization seed mix per an approved construction stormwater discharge permit authorization.
2. The Project will adhere to the requirements of a decommissioning plan, to be submitted with the petition filing, which will include requirements to restore PAS impacted by the Project to pre-construction location and condition and restore any soil that may be indirectly compacted as a result of the Project.
3. PAS excavated from the equipment pads and access drive locations will be stockpiled for the life of the Project by soil type with soil horizon segregation in reverse order of excavation in accordance with the AAFM Act 250 Procedure: Reclamation of Vermont Agricultural Soils. Stockpiled PAS soils will be segregated from any non-PAS soil or other stockpiled material.
4. If requested or as part of a CPG conditions, to mitigate against potential PAS compaction due to the Project, upon removal of Project elements at decommissioning, the areas of Project within PAS that are currently used for agriculture can be tilled with a subsoiler to alleviate any potential soil compaction.
5. Also, the Project would agree to pre-construction soil/bulk density sampling as well as reclamation bulk density sampling and mitigation as necessary, if requested by AAFM or as part of a CPG condition.

Conclusion

The Project will result in minimal direct impacts to PAS for the Project duration. These minimal impacts will be mitigated by PAS soil stockpiling and adherence to a PAS restoration plan with the Project's decommissioning plan in accordance with the AAFM Act 250 Procedure: Reclamation of Vermont Agricultural Soils. PAS temporarily impacted during Project construction will be restored according to approved Project plans. Finally, any potential indirect impact from the Project may be mitigated by subsoil tilling, or other method, at decommissioning, if required. Accordingly, it is VHB's conclusion that there is no undue adverse effect to PAS as a result of this Project. At the end of the Project's useful life, it will be decommissioned, and the site will also be restored to its existing condition at the end of the useful life of the system, ensuring the preservation of agricultural soils over the long-term.