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851 Chemung Street  
Horseheads, New York 14845

June 21, 2022

Mr. Greg Larnard, Code Enforcement Officer  
Town of Horseheads Code Enforcement Department  
150 Wygant Road  
Horseheads, New York 14845

**Re: Breesport Solar Project  
625 Breesport Road, Horseheads, New York  
Review of Stormwater Management Plan**

Mr. Larnard:

I have completed a review of the following submitted information for the above-referenced project regarding the Stormwater Pollution Prevention Plan (SWPPP) and stormwater management system design for that project.

- Stormwater Pollution Prevention Plan for Breesport Community Solar, LLC, Not stamped by a NYS Licensed Professional Engineer, Prepared by Bergmann Engineers, Dated April 25, 2022, Received on May 24, 2022
- Site Development Plans for Breesport Solar Project, Stamped "Preliminary, Not for Construction", not stamped by a NYS Licensed Professional Engineer, Prepared by Bergmann Engineers, Dated April 25, 2022, Received on June 13, 2022

My review comments and questions regarding the SWPPP and stormwater management system for the above-referenced project, based upon the submitted information, are as follows.

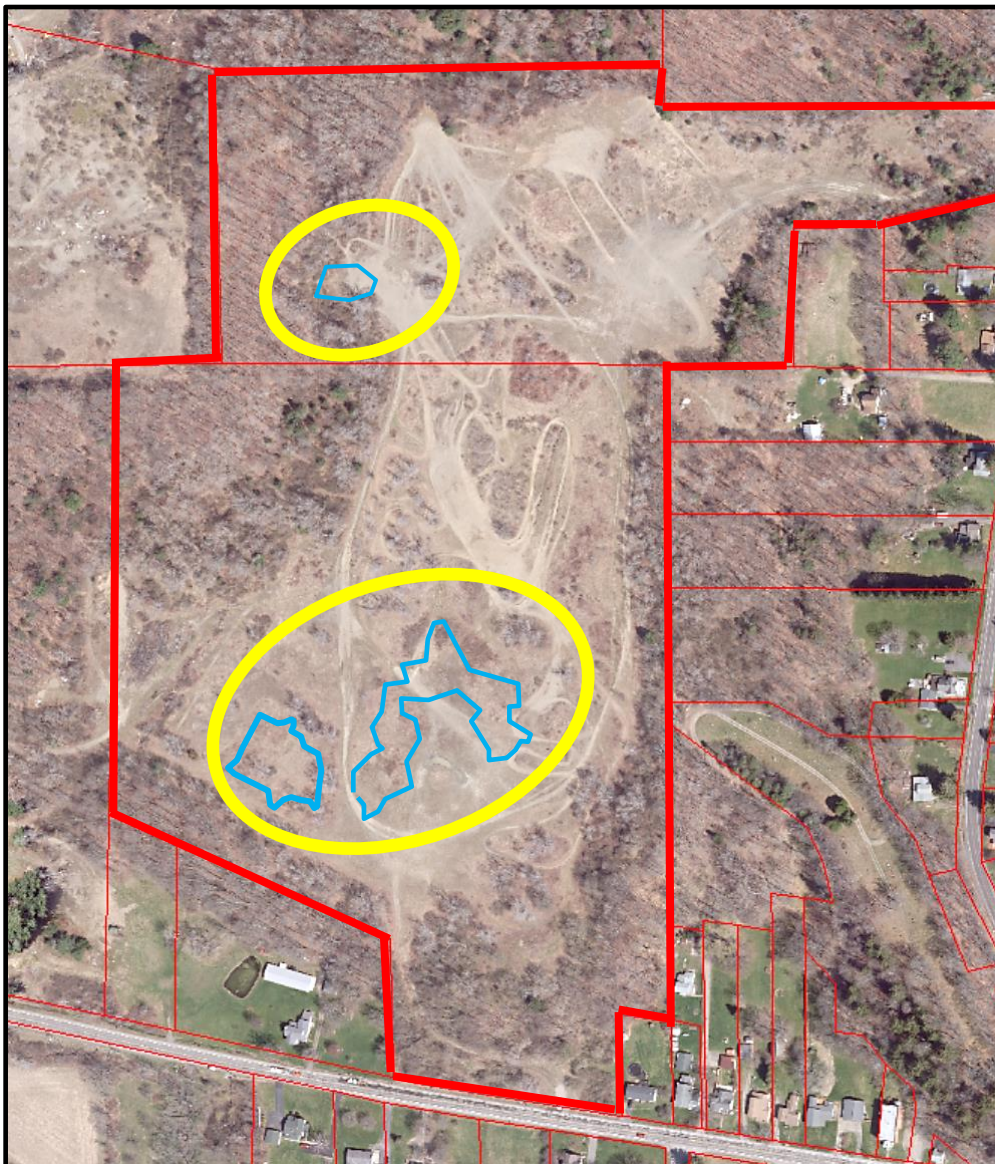
**GENERAL**

1. The proposed site was previously utilized as a gravel pit. Was this site a permitted by NYSDEC as a gravel pit and did it have an approved Reclamation Plan? If so, has the approved Reclamation Plan been fully implemented for this site?
2. As per the submitted Hydrologic Analysis, it is indicated that the majority of disturbed land within DA-1, DA-2, and DA-3 shall be restored as Meadow. The specifics of this restoration should be noted. Will topsoil be imported into the site? Will the existing gravel areas within those sub-areas receive soil decompaction/restoration?
3. All proposed grading should be clearly indicated on the Grading Plan.

**STORMWATER MANAGEMENT**

1. The aerial photo is of the project site and was taken in 2018. The borders of this property are shown approximately with thick red lines. Of note, some significant topographic depressions exist within portions of this property are remnants of the past gravel mining operation. It is expected that these depressions receive runoff from the adjacent hillside areas, temporarily store this runoff, and eventually infiltrate this stored runoff.

These depressions currently provide stormwater management benefits, including reducing peak flow rates reaching adjacent downhill areas. Refer to the areas within the yellow ovals for the approximate location of the topographic depressions and the blue lines for the rough borders of these depressions.



It is requested that the Applicant provide the following information and include this in the plans and SWPPP.

- A description of the proposed changes within this area (including to the existing depressions)
  - A description of how the proposed development (including the installation of the proposed solar panels) will not reduce the current function of this area for stormwater management.
2. In regards to the proposed hammerhead area at the north end of the drive (including the proposed temporary parking area, temporary staging and laydown area, temporary office trailer, and inverter concrete pad), it is requested that the grading plan be refined for this area such to clearly show where stormwater runoff from these areas shall be directed. Can runoff from this area be directed to the north and away from Breesport Road and adjacent homes?
  3. Could the proposed concrete washout present a potential pollution source for the existing groundwater supply wells for the adjacent homes? Is there an alternate location that is further away from these existing wells?
  4. In regards to the proposed temporary parking area, temporary staging and laydown area, and proposed office trailer, how will these areas be restored? Will soil decompaction/restoration be utilized? Appropriate specifications should be included in the plans and SWPPP.
  5. In regards to the pre- and post-development hydrologic calculations for DA-E and DA-5, it is requested that the drives be modeled as a separate drainage sub-area.

#### **ENTRANCE DRIVES**

1. The main entrance drive is proposed to be a "Limited Use Pervious Gravel Access Drive". The following questions and comments pertain to this drive.
  - a) As per the Grading Plan and detail, a drainage swale is not proposed along the uphill side of this drive. Would such a swale reduce particulates from reaching this pervious drive that could accumulate over time? The detail for "Limited Use Pervious Gravel Access Drives" provided by the NYSDEC shows a swale along the drive on the uphill side.
2. The proposed additional entrance drive onto Breesport Road (NYS Route 223) is steep (having a longitudinal slope of over 14 percent). Furthermore, this proposed entrance drive would not have a "landing" area (with a much flatter slope) at the entrance onto Breesport Road. In regards to this proposed drive, the following comments and questions are provided.
  - a) Given the steepness of this proposed drive and the lack of a flatter landing, during certain high intensity rainfalls, stormwater from this drive could potential sheet directly into Breesport Road.
  - b) Has NYSDOT reviewed and approved this proposed additional drive?
  - c) On Sheet C100 of the submitted plans, it is noted that a HDPE culvert is proposed for this additional entrance drive and the sizing of this culvert is to be determined. When is the sizing of this proposed culvert be determined?

## **EROSION & SEDIMENT CONTROL**

1. As per the SWPPP, a maximum of 5 acres of land shall be disturbed at any one time.
  - a) It is recommended that a phasing plan be included in the SWPPP that denotes the boundaries of the specific 5-acre (or less) sections of land to be disturbed, as well as the order that these areas will be disturbed and stabilized. For each of these sections of land, the individual erosion and sediment control measures should be noted in the SWPPP.
  - b) Will perimeter controls (such as silt fence and/or filter sock) or other erosion control measures be installed along the downhill limits of a section of disturbed land?
2. As per the submitted plans and SWPPP, a sizeable wooded area is proposed to be cleared and, in turn, stabilized. The following questions and comments pertain to this.
  - a) How are stumps proposed to be managed? Will removed stumps be buried on site?
  - b) Will cut trees (and limbs) be taken off site?
3. Is an off-site staging or disposal area proposed? If so, provisions for erosion & sediment control and restoration of this area should be included in the SWPPP.

## **OPERATION & MAINTENANCE AGREEMENT**

1. In accordance with the Town's Stormwater Management and Erosion and Sediment Ordinance, a formal, signed enforceable operation and maintenance agreement shall be provided by the Applicant. Furthermore, this agreement must reference and include an approved Operation & Maintenance Plan.

This agreement shall be binding on all subsequent landowners and recorded in the office of the County Clerk as a deed restriction on the property. Also, the Applicant shall convey to the Town easements and/or rights-of-way to assure access for periodic inspections by the Town or their representatives (and for maintenance if required). These agreements, as well as the Operation & Maintenance Plan, shall be subject to the review and approval of the Town of Horseheads, the Town's attorney, and Chemung County Stormwater Coalition.

2. The formal, signed enforceable maintenance agreement for the stormwater management system shall be provided by the Applicant/Owner, accepted by the Town, and executed by the Applicant. Also, the Applicant shall convey to the Town easements and/or rights-of-way to assure access for periodic inspections of the stormwater management system by the Town or their representatives. This agreement shall be binding on all subsequent landowners and recorded in the office of the County Clerk as a deed restriction on the property. That agreement must be fully consistent with the Town's Stormwater Management and Erosion and Sediment Control Ordinance and accepted by the Town and their attorney.

The maintenance agreement shall include a detailed operation & maintenance plan for the proposed "Limited Use Pervious Access Road" and the meadow areas that has specific provisions for the long-term maintenance of these, including (but not limited) to the following items.

- i. Specific operation and maintenance tasks
- ii. Monitoring requirements (including frequency)
- iii. Frequency of and thresholds (triggers) for maintenance activities

**MISCELLANEOUS**

1. This review pertains to stormwater management. The Applicant is responsible to obtaining all necessary approvals, including those from the Town of Horseheads and the New York State Department of Transportation.

If you have any questions regarding these comments, please do not hesitate to contact us. Furthermore, I would be happy to meet to discuss this project.

Sincerely,

A handwritten signature in blue ink that reads "Jimmie Joe Carl". The signature is written in a cursive style with a large initial 'J' and a distinct 'C' at the end.

Jimmie Joe Carl, P.E.

Cc: Bergmann Associates