

To: Meg Lee, Liberty Renewables
Scott Biggar, Liberty Renewables

From: Daniel Zvirzdin, EDR

Date: May 05, 2023

Reference: Hoffman Falls Wind Project
Noise-Sensitive Receptor Analysis

EDR Project No: 21028

Comments:

On behalf of Liberty Renewables Inc. (the Applicant), Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR) conducted a sensitive receptor analysis for the proposed Hoffman Falls Wind Facility (the Facility). Specifically, this sensitive receptor survey identified and classified structures or places that may meet the sensitive receptor definition outlined in 19 NYCRR § 900-2.8(h)(1) that are located within a 2-mile radius of any proposed wind turbine or substation (the Study Area). The Study Area is approximately 41,258 acres and includes portions of the Towns of Eaton, Fenner, Nelson, and Smithfield, in Madison County, New York. This memorandum summarizes the results of EDR's methodology and findings.

Desktop Survey and Initial Data Collection and Processing

As detailed in the steps below, EDR used several publicly available databases to identify and classify potential receptors within the Study Area. The initial desktop survey consisted of the following:

1. EDR GIS analysts identified potential sensitive receptors within the Study Area utilizing publicly available data and recent aerial imagery.¹
2. Cadastral data and NYS Property Classification Codes were spatially joined to each sensitive receptor and were utilized together with contextual information evident in the aerial imagery to support an initial classification. Each point was placed into one of the following categories.
 - **Year-round Residence** – A structure displaying an obvious capacity for occupation throughout the year (e.g., house, apartment building).
 - **Seasonal Residence** – Structures with strong evidence indicating only seasonal occupation (e.g., hunting cabins, seasonal homes [inferred based on evidence such as no public utility connections], campers or groups of campers with electric hook ups and/or structures built around them (i.e., decks, porches, or patios).
 - **Uninhabitable Residence** – A structure lacking basic functions of habitation (e.g., door or windows missing, burned down, collapsed or non-functional roof or walls, etc.).
 - **Institutional Structure** – A school, hospital, emergency response building (e.g., fire or ambulance station), municipal building, or other government building.

¹ NYSDOP 2017 orthoimagery map service. Google Earth Pro 2020 map service.

- **Commercial Structure** – An office, warehouse, retail shop, restaurant, or building/structure associated with agricultural production operations.
- **Public Structure** – A structure/space allocated for public use (e.g., place of worship, park, library, public [federal, state, and local] land, camps, or cemetery).
- **Other Structure** – An obvious non-residential structure (e.g., non-commercial barn, garage, or shed).
- **Unknown Structure** – A structure that could not be definitively classified during field review due to lack of access (e.g., private road, seasonal use road impassible during field review, etc.) or visibility during field review.

3. Receptor IDs were applied to each unique point; and a geo-referenced list of potential sensitive receptors was generated.

Field Survey

In April 2023, EDR staff conducted a field survey of the Study Area to confirm the status of potential sensitive receptors identified in the initial desktop survey and identify any new sensitive receptors (i.e., new construction, structures not visible from aerial imagery, etc.). The survey was performed using publicly accessible roadways and other publicly accessible vantage points to confirm the location and apparent primary use of each sensitive receptor.

Visual confirmation of most sensitive receptors was achieved during the field survey. However, due to limitations in the data and conditions on site, such as screening from trees and private roads preventing access to specific sensitive receptors, the potential that some sensitive receptors were misclassified does exist.

Results

A total of 2,334 potential sensitive receptors were identified within the Study Area. Most structures were identified as either Year-Round Residences (1,498) or Other Structures (443). The following list provides all identified receptor types and the number of features identified in each category:

- Year-round Residence – 1,498
- Other Structures – 443
- Commercial Structures – 229
- Institutional Structures – 63
- Seasonal Residence – 51
- Public Structures – 24
- Uninhabitable Residence – 21
- Unknown Structures – 5

According to 19 NYCRR § 900-2.8(h)(1), sensitive receptors include permanent residences, outdoor public facilities and public areas, hospitals, schools, libraries, parks, camps, summer camps, places of worship, cemeteries, any historic resources listed or eligible for listing on the State or National Register of Historic

Places, any public (federal, state and local) lands, cabins and hunting camps identified by property tax codes, and any other seasonal residences with septic systems/running water.

In reviewing the overall potential sensitive receptor dataset, it was determined that only 1,634 of the total 2,334 receptors have the potential to meet the Section 94-c definition of sensitive receptor. These sensitive receptors are clearly identified in the attributes of the attached geospatial dataset (Attachment 1). The remaining 700 receptors have been retained in the dataset to provide reference, but do not need to be included in the attendant impact analyses.

Other Structures, Commercial Structures, and Uninhabitable Residences do not meet the Section 94-c definition of potentially sensitive receptors. As all other receptor types identified above have the potential meet the definition as a conservative measure, EDR has identified 1,634 receptors within the Study Area that meet this definition:

- Year-Round Residence – 1,498
- Institutional Structures – 63
- Seasonal Residence – 51
- Public Structures – 24

A map (and associated shapefile) of the receptors identified above are provided as Attachment 1. While EDR has made every attempt to accurately identify and classify all receptors within the Study Area, the potential for receptors to fall into another classification does exist. EDR was not able to field verify every receptor and cannot guarantee that every receptor has been identified and/or classified accurately.

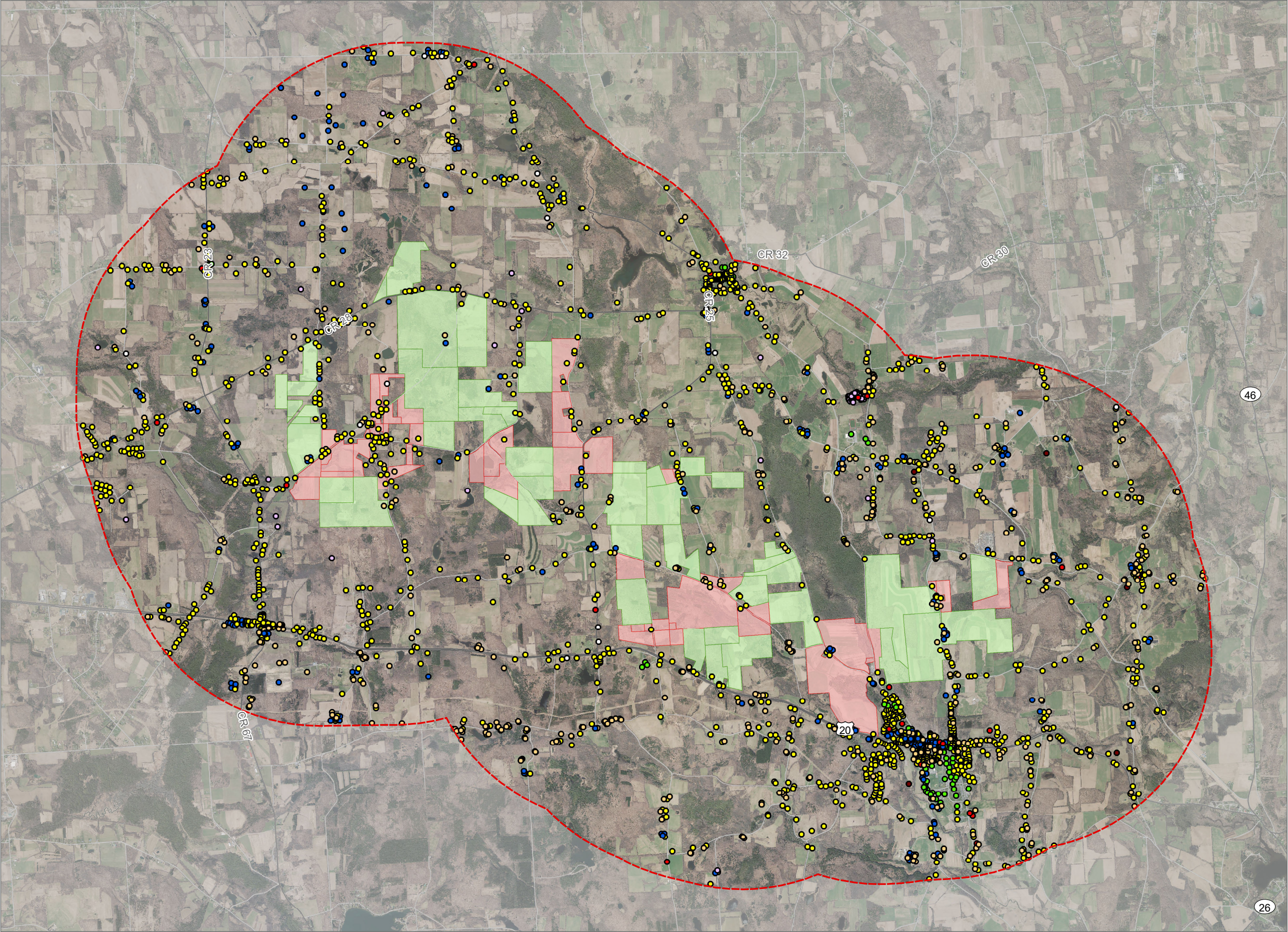
Copies To:

Meg Lee, Liberty Renewables, Inc.
mlee@liberty-renewables.com

Attachments

Attachment 1: Receptor Map and Shapefile

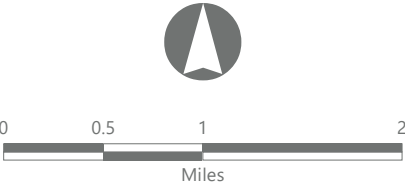
Figure 1. Receptors Within Study Area



Hoffman Falls Wind Project

Towns of Eaton, Fenner, Nelson, and Smithfield, Madison County, New York

- Receptor
- Year-Round Residence
 - Seasonal Residence
 - Public Structure
 - Institutional Structure
 - Commercial Structure
 - Uninhabitable Residence
 - Other Structure
 - Unknown Structure
- Study Area
- Facility Parcel
- Wind Turbine or Substation Parcel
 - Other Facility Component Parcel



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Basemap: NYSDOP "2017" orthoimagery map service.