



## Alfred Oaks Solar

### *Town of Alfred Public Information Meeting*

October 28, 2021





# Presentation Agenda



1. Introductions: Northland Team, Support Team
2. Overview of Northland Power
3. Project Overview
4. NY State ORES 94-c process and timeline
5. Alfred Oaks Timeline and details
  - A. Application timeline
  - B. Layout
  - C. Website
6. What will be in the Section 94-c Application?
7. Questions and Contact Information



# Question and Answer Session



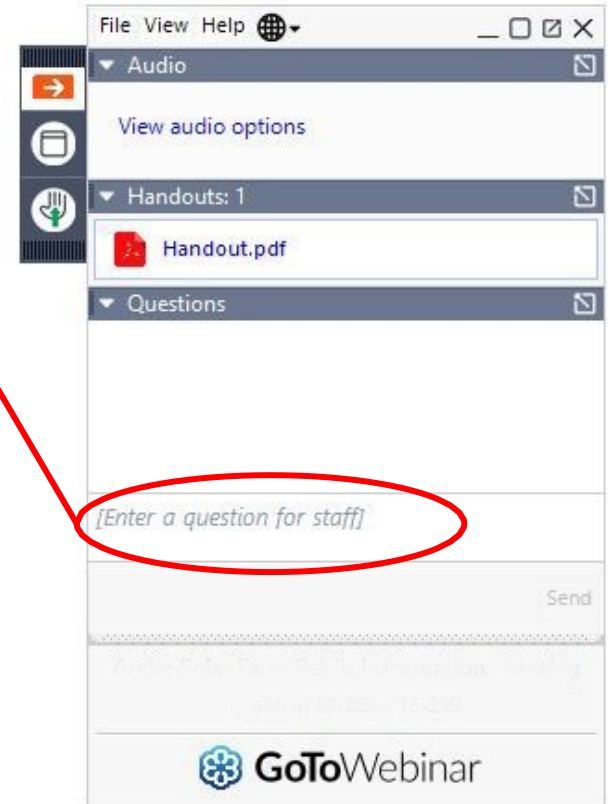
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## How to Contact Us After the Session:

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**Project Email:** [alfredoaks@northlandpower.com](mailto:alfredoaks@northlandpower.com)

**Project Phone Number:** (518) 593-0335



# Introductions



## Presenters



**Anne Waling**  
*Project Developer*  
**Northland Power**



**Jeffrey Nemeth**  
*Director, Development*  
**Northland Power**



**Jim Muscato**  
*Attorney*  
**Young Sommer**



**Dan Zvirzdin**  
*Project Manager,*  
**EDR**

## Other Team Members and Experts Available:

Erin Szalkowski, *Principal, Innovant PR*

Gregory Liberman, *Associate Principal, EDR*

Jason Ritzert, *Project Manager, WEST*

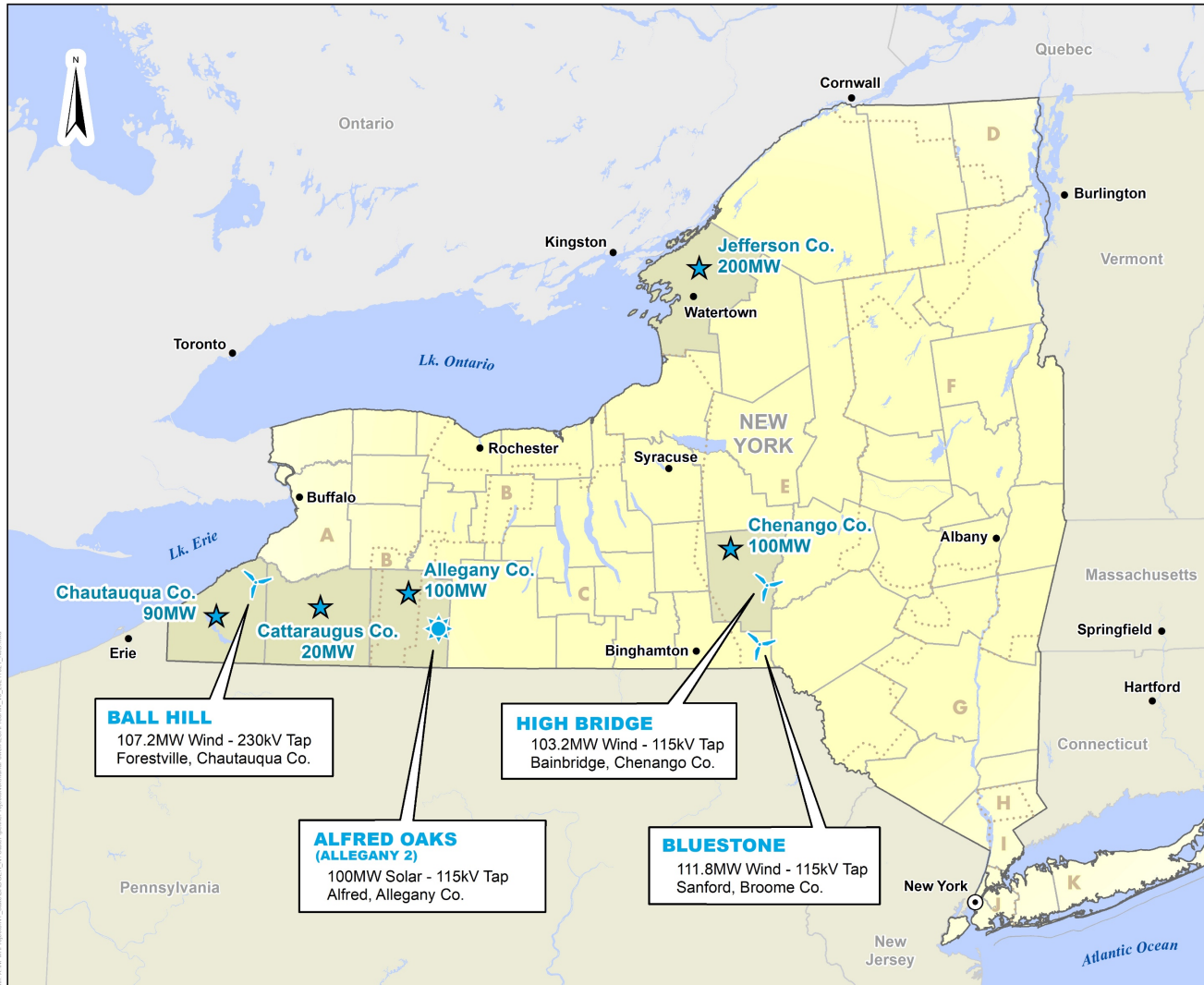


# NORTHLAND TODAY

The evolution of Northland Power

- **Global** developer, owner and operator of **sustainable infrastructure assets**
- **Over 30 years of successfully** developing, constructing and operating power projects over full lifecycle
- Well-diversified, **modern fleet** of high-quality assets
- **Power Generating Assets:** 2.6+ GW global operating fleet
- **2,700+ MW** of visible renewable power projects pipeline (development + construction)
- **Utility:** Regulated utility servicing 480,000 customers in Latin America
- **Significant development opportunities** across multiple jurisdictions and technologies

# Northland in New York



**NORTHLAND POWER**

**Legend:**

- ★ Additional Projects in Development
- ☀ Solar Project
- 🌀 Wind Project
- ▭ County Boundary
- ▭ New York State
- ▭ US - State
- ▭ Canada - Province
- ▭ Waterbody
- ⋯ New York ISO Zone

**NYISO Zones:**

- A) West
- B) Genessee
- C) Central
- D) North
- E) Mohawk Valley
- F) Capital
- G) Hudson Valley
- H) Millwood
- I) Dunwoodie
- J) New York City
- K) Long Island

**CONFIDENTIAL**

**Notes:**  
Data Sources: © USGS, 2021; © ESRI, 2021  
 Produced for Northland Power Inc. by BADGER Solutions. This map is proprietary and confidential and must not be duplicated or distributed by any means without express permission of Northland Power Inc.

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Meters

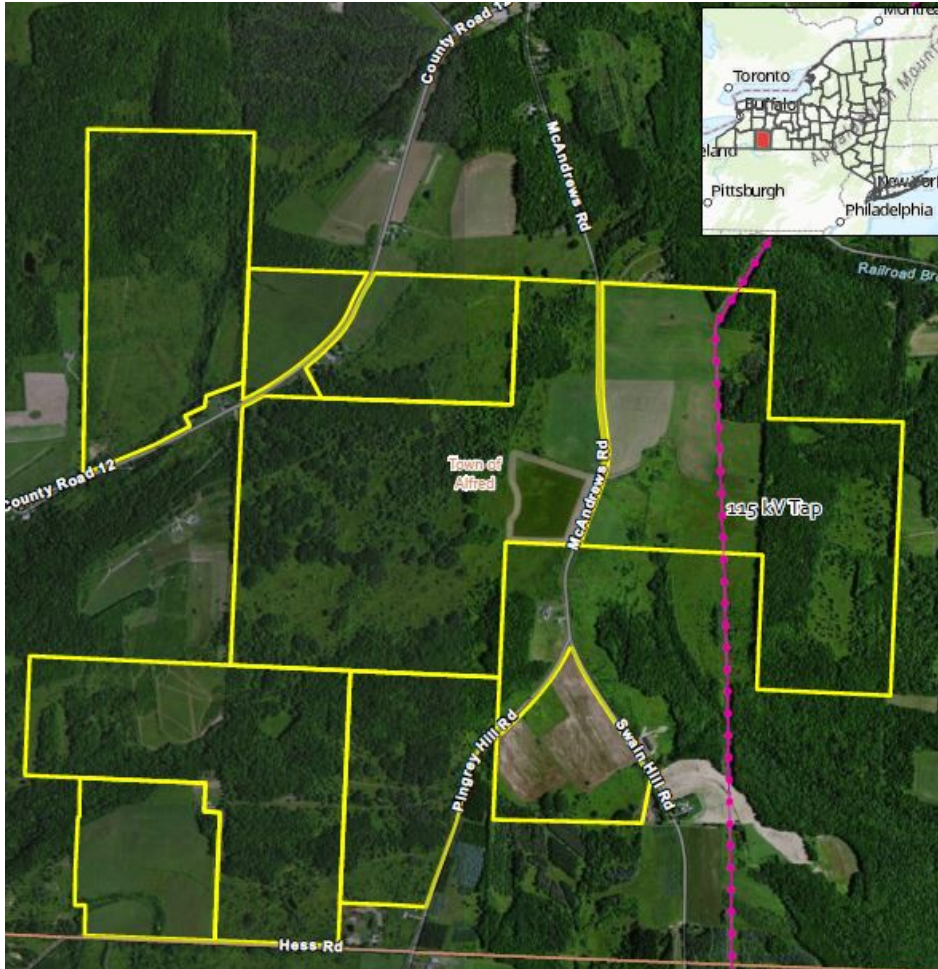
NAD 1983 (2011) - State Plane NY Central Feet - FIPS 3102  
 Size: 11"x17" - Scale: 1:2,300,000

<b>REVISION 3</b>	Project: New York State Date: October 21, 2021
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**New York Pipeline Projects**  
Project Counties with NY ISO Zones



# Alfred Oaks Project Overview



- 100 MW AC Photovoltaic solar/20 MW AC BESS
- Project is generally located 4-5 miles southwest of the Village of Alfred, centered around Route 12 and McAndrews/ Pingrey Hill Rd.
- Acres under lease: 1029
- Interconnection: 115 kV transmission line, located on the eastern stern side of the Facility Site
- Photovoltaic (PV) panels on single-axis tracker racking

## Land:

- 1029 Acres acquired via agreement. Site control is complete.

## Interconnect:

- Queue Position - #1096-115 kV NYSEG -Andover to Palmiter
- System Impact Reliability Study underway.

## Permitting:

- ORES (Office of Renewable Energy Siting) kickoff meeting complete.
- Tentative date for application: Q2 2022.

## Environment:

- Wetland Delineations: Complete
- Bird Studies: Winter Raptor Survey – November 2021 start, partially completed winter 2020-2021; Breeding Bird Survey - Complete.
- Wildlife Site Characterization - Complete.
- SHPO: Phase 1A Survey - Complete; Phase 1B - In progress.
- Sound Study – November 2021 start
- Boundary Survey – November 2021 start



## Short Term:

- Intervenor funding during Siting Review Process: \$1,000/MW
- Utility Bill Pay Benefit following Siting Permit issuance: \$500/MW (50K)-one time
- Short term jobs and opportunity for local contractors and vendors-fencing, landscaping, gravel/quarry/concrete
- Ancillary spend in the community during construction- ~\$1,000,000- estimated based on size of construction crew, average costs for hotels, gas, meals

## Long Term:

- PILOT (Payment in Lieu of Taxes), negotiated agreement with County, Town and School District, or County IDA: Paid annually
- Special District Taxes: Paid Annually
- Host Community Agreement – Negotiated agreement with the Town of Alfred in addition to the PILOT: Paid annually
- Payments to Landowners

# Alfred Oaks Permitting-Construction Timeline



2022

## 94-c Application Process

- Q2 - Section 94-c Application Submitted by Northland
- Q2 - Determination of Application Completeness
- Q2 - Application supplement submitted
- Q3 - Determination of Application Completeness
- Q3 - Draft Permit issued by ORES

2023

## Permit and Compliance Process

- Q3 - Final Permit and Conditions issued by ORES
- Q3 - Compliance Filings Submitted by Northland
- Q4 - Compliance Filings approved by ORES
- Q4 - NTP (Notice to Proceed) issued for construction; possible clearing or other site work

2024

## Construction

- Q1-Q4 - Construction
- Q4 - Commercial Operation

### What is Intervenor Funding?:

Intervenor funding is money that Applicants, such as Northland Power, make available to qualified, locally affected parties and municipalities to offset certain expenses they incur in participating in the State permitting process. These funds were created to encourage early and effective public involvement in project development and permitting.

### 94-c Application Intervenor Fund:

- Upon the filing of a 94-c Application, Northland Power will post an intervenor fund (\$1,000/MW) which can be sought by local community intervenors and host towns. 75% of funds are reserved for municipalities.
- Must apply for funds within 30 days of application filing (Q2, 2022):

### [Applications for Intervenor Funds to:](#)

Office of Renewable Energy Siting  
Empire State Plaza  
240 State Street  
P-1 South, J Dock  
Albany, NY 12242



# Section 94-c Siting Permit Application



## All Section 94-c Application Exhibits

- |                                                    |                                                 |                                                 |
|----------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| 1. General Requirements                            | 9. <u>Cultural Resources</u>                    | Planning Objectives                             |
| 2. Overview and Public Involvement                 | 10. Geology, Seismology and Soils               | 18. Socioeconomic Effects                       |
| 3. Location of Facilities and Surrounding Land Use | 11. Terrestrial Ecology                         | 19. Environmental Justice                       |
| 4. Real Property                                   | 12. <u>NYS Threatened or Endangered Species</u> | 20. Effect on Communications                    |
| 5. <u>Design Drawings</u>                          | 13. <u>Water Resources and Aquatic Ecology</u>  | 21. Electric System Effects and Interconnection |
| 6. <u>Public Health, Safety and Security</u>       | 14. <u>Wetlands</u>                             | 22. Electric and Magnetic Fields                |
| 7. <u>Noise and Vibration</u>                      | 15. <u>Agricultural Resources</u>               | 23. <u>Site Restoration and Decommissioning</u> |
| 8. <u>Visual Impacts</u>                           | 16. Effect on Transportation                    | 24. Local Laws and Ordinances                   |
|                                                    | 17. Consistency with Energy                     | 25. Other Permits and Approvals                 |

\*Underlined exhibits are discussed in further detail in the following slides.

- The Project will include solar photovoltaic (PV) panels mounted on a single-axis tracking racking system. Supporting infrastructure will include an electrical collection and interconnection system, access roads, a collection substation and a point of interconnection (POI), and an energy storage system.
- All Project components will be carefully designed and sited to avoid and minimize impacts. The Project's ultimate layout and design will balance wide range of environmental, social, and technical considerations.

**Table 2: Setback Requirements for Solar Facility Components**

<b>Setback Type</b>	<b>Solar Facility Setback</b>
Non-participating residential property lines	100 feet
Centerline of Public Roads	50 feet
Non-participating property lines (non-residential)	50 feet
Non-participating occupied residences	250 feet

- Other considerations:
  - Wetland and stream impact avoidance
  - Tree clearing and panel shading
  - Slope-pitch and direction
  - Landowner requirements

## Solar Panels and Electrical Equipment

- Solar panels must meet strict electrical safety standards.
- Solar panels are designed to ensure no release or leakage of panel material into the surrounding environment.
- Solar projects result in no water discharges.

## Battery Energy Storage

- Battery storage systems meet strict local, state, and federal electrical and fire safety standards.
- Battery systems are designed to contain numerous redundant safety measures including 24/7 remote monitoring, internal heat sensors and electrical monitoring, built in exhaust and ventilation, and internal fire suppression systems.

### A 94-c Application will include:

- A Site Security Plan that includes site plans and descriptions of fencing, gates, electronic security, lighting, and cyber security for the facility.
- A Safety Response Plan that outlines emergency response measures, descriptions of on-site protection equipment and compliance with New York Fire Code, a requirement to conduct training drills with local EMS once a year.



## Noise Impact Assessment

A Noise Impact Assessment is currently being carried out for the Alfred Oaks Solar project that will adhere to the requirements of 94-c. The components will include:

- Pre-construction Ambient noise monitoring in the vicinity of the proposed project area
- Noise impact modelling of the inverters / transformers / battery storage equipment
- Design of the facility to comply with the noise limits outlined in 900-2.8 Exhibit 7: Noise and Vibration

## Noise limits

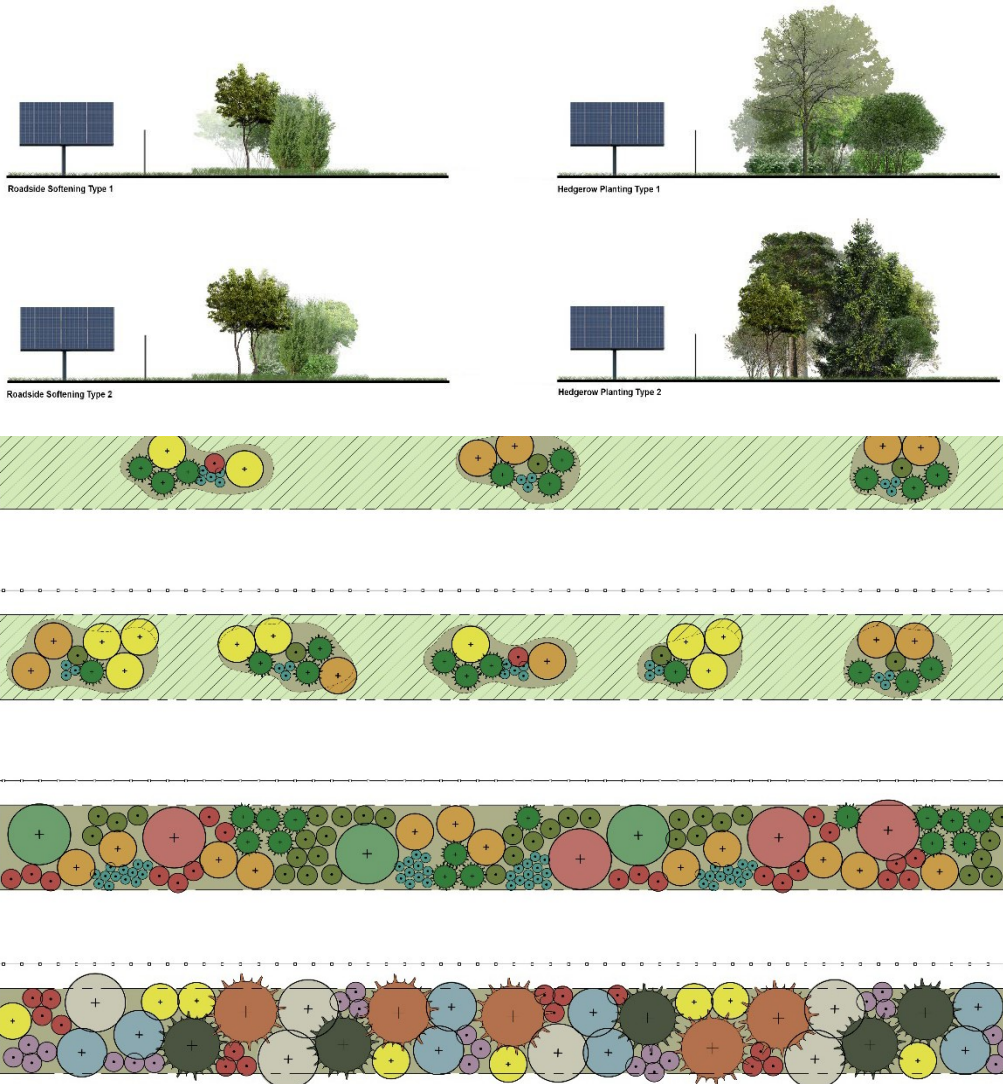
Limit	Participating	Non-participating
Sound Level Limit (from whole facility) at residence	55 dBA	45 dBA
Sound Level Limit for Transformer	-	40 dBA (including 5 dB tonal penalty)
Sound level limit (whole facility) at property line	-	55 dBA

## Methodology

Noise modelling in accordance with ISO 9613-2 to ensure layout will be compliant with sound limits

A Noise Impact Assessment Report will be issued with the findings, and the requirements set out in 900-2.8 Exhibit 7

# Visual Impacts



## Appearance of the Facility:

- Proposed Equipment
  - PV Panels and Racking
  - Inverters
  - Fencing
  - Substation
  - Above ground collection
  - Energy Storage System
- 3-Dimensional Model

## Results and Conclusions:

- Visual Impact Analysis
  - Visual Simulations
  - Rating Panel Analysis
  - Visual Mitigation

# Cultural Resources



## Archaeological Resources:

- Phase 1A Archaeological Survey was completed and submitted to SHPO and ORES in June 2021
- Areas with of proposed ground disturbance within areas of elevated sensitivity for archaeological resources will be subject to a Phase 1B survey.
- Phase 1B Archaeological Survey will be completed in the fall of 2021.

## Historic Resources

- Phase 1A Historic Resources Survey was completed and submitted to SHPO and ORES in June 2021
- Potential historic resources with visibility of the Facility will be surveyed to determine eligibility to be listed on the National Register of Historic Places (NRHP).
- Historic Resources Survey will be completed in the winter of 2021/2022.

## Consultation with Tribal Nations:

- Northland is initiating the process of consulting with all Tribal Nations located in proximity to the Facility and will coordinate with these Nations on an ongoing basis during development and construction of the Facility.



# Avian Resources: Consultations and Surveys

- Based on the potential for rare grassland bird species to be present, a Winter Raptor Survey (WRS) workplan was prepared and provided to NYSDEC in the fall of 2020 and surveys were completed from January – March 2021 and a report was provided to ORES.
- A Wildlife Site Characterization for the project was submitted to ORES in April 2021 and an initial consultation meeting with ORES was held in May 2021.
- A Breeding Bird Surveys (BBS) workplan was prepared for NYSDEC review in May 2021, surveys were completed from May – July 2020, and a report was provided to ORES.
- Due to having acquired more property, an additional WRS will be conducted in winter of 2021-2022.



## Results and Conclusions

- The initial results of the first WRS and BBS indicate that no occupied habitat for state-listed or federally listed threatened or endangered (T&E) species is present within the Project Site.
- Final determination will be issued by ORES prior to Application Submittal based on the full WRS and BBS documentation.

# Stormwater and Groundwater



Section 94-c ensures that renewable energy projects study potential stormwater and groundwater impacts from project development and design management plans to ensure that projects do not change the water runoff characteristics of a site through construction and operation. PV panels are designed to ensure no release or leakage of panel material into the surrounding environment.

The 94-c Application will include:

- A Stormwater Pollution Prevention Plan (**SWPPP**) for the collection and management of stormwater discharges from the facility site during construction.
- A preliminary plan for post-construction stormwater management practices that will be used to manage stormwater runoff from the developed facility site. This plan will be finalized before construction as part of Compliance.
- Plans must be prepared in accordance with the applicable NYS Pollution Discharge Elimination System (**SPDES**) General Permit for Stormwater Discharges from Construction Activity, the NYS Standards and Specifications for Erosion and Sediment Control, and NYS Stormwater Design Manual.
- Northland will complete a local water well survey for properties within 1,000 feet of project boundaries to effectively site project equipment to avoid potential impacts during construction.
- The 94-c Application will also identify other groundwater resources, such as aquifers.

# Wetlands and Stream Resources

## Resource Identification and Field Survey:

- On-site Wetland and Stream delineations were completed in 2020 and 2021.
- Boundaries of wetland and stream resources were identified within the study area.
- Results are being used to inform Project design through impact avoidance and minimization.
- A final wetland and stream delineation report will be included in the Section 94-c Application.



## ORES Consultation and Jurisdictional Determination:

- The draft wetland and stream delineation report will be provided to ORES, and representatives will be requested for a site visit to review conditions with EDR.
- ORES must issue final jurisdictional determination regarding state-regulated wetlands and streams within 60 days of receipt of the draft wetland delineation report.



# Agricultural Impacts

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## Mineral Soil Groups (1-4):

- No Mineral Soils Groups 1-4 are located within the Limits of Construction Activity.
- Estimated Agricultural Mitigation Payment = \$0

## Farmland Classification (within the Limits of Construction Activity):

- Farmland of Statewide Importance = 73%
- Not Prime Farmland = 24%
- Prime Farmland = 3%

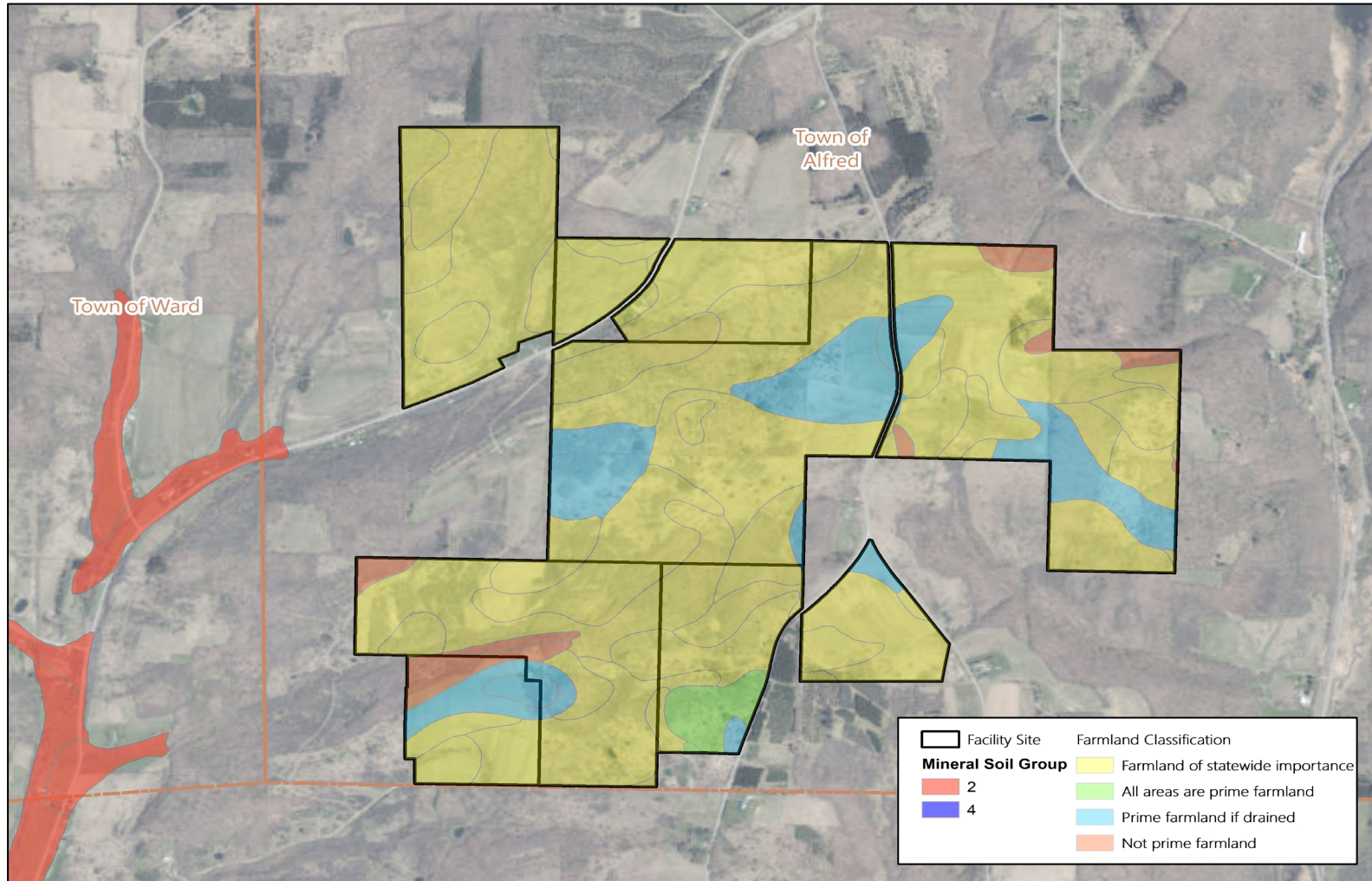
## Monitoring During Construction:

- Temporary ag impacts will be minimized and remediated through adherence to the NYSDAM 2019 Guidelines for Solar Energy Projects – Construction Mitigation for Agricultural Lands.
- Northland will hire an independent third-party Environmental Monitor (EM) to oversee the construction, restoration, and follow-up monitoring in agricultural areas.

## Post Construction:

- Most areas will be seeded with perennial species in accordance with NYSDEC guidelines.
- Where agricultural activities will resume, on-site monitoring will be conducted seasonally for two complete growing seasons following the date of planting.

# Agricultural Soils Map



Section 94-c Application will include a Decommissioning and Site Restoration Plan that addresses:

- Commitments for equipment removal
- Safety
- Environmental impacts
- Aesthetics
- Recycling
- Potential future uses for the Site
- Financial aid commitments
- Schedule
- Estimated cost for decommission and allocation of funding to local municipalities

# Question and Answer Session



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