

**PREPARED FOR:**  
BALL HILL WIND ENERGY, LLC  
11101 WEST 120<sup>TH</sup> AVENUE, SUITE 400  
BROOMFIELD, CO 80021

# **BALL HILL WIND PROJECT**

## **WETLAND DELINEATION REPORT**

**JULY 2016**  
**REVISED MAY 2017**



**PREPARED BY:**



325 DELAWARE AVENUE, SUITE 200  
BUFFALO, NEW YORK 14202  
FISHER ASSOCIATES PROJECT No. 150001

## EXECUTIVE SUMMARY

On behalf of Ball Hill Wind Energy LLC, Fisher Associates conducted a field delineation between October 26 to November 20, 2015, May 19 to July 15, 2016, and April 4 & 5, 2017 to identify jurisdictional Waters of the U.S. (WUS) including wetlands and streams within the Project Study Limits defined to support of the Ball Hill Wind Project (“Project”). The Project Study Limits consist of a 707.19-acre area, which encompasses potential construction and limits of disturbance required for the Project. The Project Study Limits are depicted on the attached Wetland Delineation mapping.

The Project Study Limits are located in Chautauqua County and consist of proposed turbine locations in addition to associated infrastructure including access roads, collection lines, transmission line, switch yard, construction staging areas, operations and maintenance support areas, and an utility-scale substation. The northern portion of the Project is located within the Chautauqua-Conneaut Watershed (HUC 04120101) and the southern portion of the Project is located within the Conewango Watershed (HUC 05010002). The Project is drained by Tupper Creek and unnamed contributing tributaries to the North Branch of Conewango Creek, Silver Creek, Tupper Creek, Walnut Creek, and the West Branch of Conewango Creek.

The Project Study Limits were delineated based upon the methodology outlined in the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0). Using these methodologies, preliminary delineation mapping was produced and is included along with the attached investigation description and discussion. During our delineation, approximately 71.32 acres of combined palustrine emergent (PEM), palustrine scrub-shrub (PSS), and palustrine forested (PFO) wetlands were identified. In addition, 11,678 linear feet of stream channel and 9,273 linear feet of jurisdictional ditches were identified.

Based on conditions observed, the USACE will likely invoke jurisdiction of all identified wetlands, stream reaches, and jurisdictional ditches due to their apparent hydrologic connection to other waters. It is also anticipated that the NYSDEC will invoke jurisdiction over the delineated wetlands under Article 24 of the Environmental Conservation Law (ECL) that are associated with NYSDEC Wetlands SC-12 (delineated wetlands A593 and A594) and SC-13 (delineated wetlands A643 and A644). It is not anticipated that the NYSDEC will invoke jurisdiction over the additional wetland systems identified as they are not within close proximity (i.e., less than 50 meters) of Wetlands SC-12, SC-13, or other mapped NYSDEC wetlands and their regulated 100-foot adjacent areas. NYSDEC will likely invoke jurisdiction over 17 of the 64 stream reaches delineated within the Project Study Limits under Article 15 of the ECL, as they are recognized as Class A streams. NYSDEC is not anticipated to invoke jurisdiction over the remaining 47 stream reaches or jurisdictional ditches identified under Article 15 of the ECL, as they are recognized as either Class C or D streams.

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Appendix B Stream Data Forms  
Appendix C Ditch Data Forms  
Appendix D Representative Site Photographs

## PROJECT INFORMATION SHEET

### General

Project Name: Ball Hill Wind Project  
State: New York  
County: Chautauqua County  
Towns: Villenova and Hanover

Latitude: 42.440000 North  
Longitude: -79.128000 West

Project Study Area Size: 707.19 acres

HUC Code: 04120101 (Chautauqua-Conneaut Watershed) and  
05010002 (Conewango Watershed)

Waterbodies (TNW): Tupper Creek; unnamed contributing tributaries to the North Branch of Conewango Creek, Silver Creek, Tupper Creek, Walnut Creek, and the West Branch of Conewango Creek; and associated palustrine emergent, scrub-shrub, and forested wetlands

### Corresponding Information

USGS Quad Map: Silver Creek, Forestville, and Perrysburg

USDA Soils Map: Chautauqua County

### Owner/Applicant

Name: Ball Hill Wind Energy, LLC

Address: 11101 West 120<sup>th</sup> Avenue, Suite 400  
Broomfield, CO 80021

Contact: Sean Flannery

### Consultant

Name: Fisher Associates

Address: 325 Delaware Ave, Suite 200  
Buffalo, NY 14202

Contact: Pat McCarthy: (716) 858-1234 ext. 307  
Ben Virts: (585) 334-1310 ext. 286

## **1.0 INTRODUCTION**

On behalf of Ball Hill Wind Energy LLC, Fisher Associates conducted a field delineation between October 26 to November 20, 2015, May 19 to July 15, 2016, and April 4 & 5, 2017 to identify jurisdictional Waters of the U.S. (WUS) including wetlands and streams within the Project Study Limits defined to support of the Ball Hill Wind Project (“Project”). The Project Study Limits consist of a 707.19-acre area, which encompasses potential construction and limits of disturbance required for the Project. The Project Study Limits are depicted on the attached Wetland Delineation mapping.

## **2.0 SITE INFORMATION**

### **2.1 Site Location**

The Project Study Limits are located in the Towns of Villenova and Hanover in Chautauqua County in southwestern New York. The northern portion of the Project is located within the Chautauqua-Conneaut Watershed (HUC 04120101) and the southern portion of the Project is located within the Conewango Watershed (HUC 05010002). The Project is drained by Tupper Creek and unnamed contributing tributaries to the North Branch of Conewango Creek, Silver Creek, Tupper Creek, Walnut Creek, and the West Branch of Conewango Creek. The Project is located in the Eastern Lake Section of the Central Lowland Physiographic Province and the Southern New York Section of the Appalachian Plateaus Physiographic Province.

### **2.2 Site Description**

The Project Study Limits consist of proposed turbine locations in addition to associated infrastructure including access roads, collection lines, transmission line, switch yard, construction staging areas, operations and maintenance support areas, and an utility-scale substation. The areas within the Project Study Limits consist of mix of active agricultural lands and mixed deciduous forest within a rural setting (see Wetland Delineation Map Index and Wetland Delineation Map, Sheets 1 through 108).

## **3.0 METHODS OF DELINEATION**

### **3.1 Preliminary Offsite Investigation/Data Review**

A review of publicly available resources was performed prior to the onsite field investigation in order to determine if there is the potential for jurisdictional areas, and if present, the extent of these areas located within the Project Study Limits. These mapping resources generally include but are not limited to:

- New York State Freshwater Wetlands Mapping (NYSFW);
- New York State Protection of Waters Regulatory Program Streams Mapping (NYSS);
- U.S. Fish & Wildlife Service National Wetlands Inventory (NWI) Database;
- U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) Soils Database; and
- United States Geographical Survey (USGS) Mapping.

### 3.2 Field Investigation

Wetland boundaries were field delineated according to the routine onsite methodology described in the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0).

Wetlands were identified based on the presence of hydric soils; a vegetative community dominated by hydrophytes, and inundated or saturated conditions, and/or indicators of hydrologic patterns. Fisher Associates delineated and flagged the wetland boundary with consecutively numbered delineation flagging where vegetation and conditions were conducive to the establishment of field flagging. In areas of the Project Study Limits that are maintained through mowing or previously harvested agricultural row crops, field flagging was not established due to a lack of vegetation to hold field marking flags. Similarly, in areas which were actively accessible to livestock, field flagging was not established to protect the wellbeing of the livestock which could potentially consume the field flagging. A project-specific identification number was given to each delineated wetland. Wetland delineation data relative to vegetation, hydrology, soils and general observations was documented on routine wetland data forms consistent with the guidance of the 2012 Regional Supplement.

Wetland field data points were established within close proximity to the flagged wetland boundary in order to document upland and wetland conditions existing along the wetland boundary. The aquatic resource boundaries were flagged in the field and the flagged locations were surveyed to further clarify their locations.

Stream channels, tributaries, and linear conveyance features were identified based on the recognition of field indicators of bed, banks, and an ordinary high water mark coupled with an evaluation of downstream flow. Wetland Delineation Maps depicting the location of the delineated wetlands and any additional jurisdictional features, including streams, identified within the Project Study Limits are provided as an attachment. Supporting wetland determination data forms are provided in Appendix A and supporting stream data forms are provided in Appendix B.

## 4.0 DELINEATION FINDINGS

### 4.1 Preliminary Offsite Investigation/Data Review Findings

#### 4.1.1 NYS Freshwater Wetland Mapping

The NYSFW maps were developed by the New York State Department of Environmental Conservation (NYSDEC) pursuant to Article 24 of the Environmental Conservation Law. These maps depict the approximate boundaries of freshwater wetlands regulated by the NYSDEC. In most instances, the State-mapped boundaries are based on aerial photographs and soil survey interpretation and, therefore, require site-specific field verification. Freshwater wetland mapping information identified for the Project Study Limits was obtained from online Geographic Information System (GIS) mapping resources made available by the NYSDEC (NYSDEC 2015). Based on reviewed mapping information, NYSDEC Wetland SC-12 (Class II) and SC-13 (Class III) are mapped within the Project Study Limits.

#### 4.1.2 NYS Streams Mapping

The NYSS maps were developed by the NYSDEC pursuant to Article 15 of the Environmental Conservation Law. These maps depict the approximate locations of streams mapped by NYSDEC and identify their respective state water quality classification and standard designations based on existing or expected best usage of each water segment. In most instances, the mapped stream locations are based on aerial photographs and topographic map interpretation and, therefore, require site-specific field verification. Stream mapping information identified for the Project Study Limits was obtained from online Geographic Information System (GIS) mapping resources made available by the NYSDEC (NYSDEC 2015). Based on reviewed mapping information, NYSS mapped streams are present within the Project Study Limits. There are twenty-nine (29) occurrences of NYSS mapped streams including eleven (11) Class A streams and eighteen (18) Class C streams.

#### 4.1.3 National Wetlands Inventory Mapping

NWI mapping information for the Project Study Limits was obtained from online GIS mapping resources made available by the USFWS (USFWS 2015). A review of this information was completed which indicated that eight (8) mapped NWI wetlands, including Cowardin Classifications of PFO1E (palustrine forested broad-leaved seasonally flooded/saturated), PFO1/SS1E (palustrine forested/scrub-shrub broad-leaved seasonally flooded/saturated), PEM5E (palustrine emergent seasonally flooded/saturated), and PUBHx (palustrine unconsolidated bottom permanently flooded excavated), are mapped within the Project Study Limits. However, it is understood that this mapping is provided as a reference and is not necessarily indicative of the presence or absence of wetlands in an area.

#### 4.1.4 Soils Mapping

Soil types identified for the Project Study Limits were obtained from online GIS mapping resources made available by the NRCS (USDA-NRCS 2015). A review of this information was completed to evaluate the soil types within the Project Study Limits to determine the possible presence of hydric soils.

The mapped soils at each wetland location, including instances where there may be more than one soil component identified at a given wetland location, are described in Table 1: Wetland Delineation Summary. Areas of predominantly hydric soils were identified within the Project Study Limits. The mapped soils present within the Project Study Limits are depicted in the attached Wetland Delineation Mapping.

### 4.2 Onsite Determination/Findings

#### 4.2.1 Wetland Area Summary

The onsite delineation did verify the presence of wetlands and confirmed the presence of hydric soils depicted on the NRCS soils mapping. 71.32 acres of combined palustrine emergent (PEM), palustrine scrub-shrub (PSS), and palustrine forested (PFO) wetlands were identified. A summary of the wetlands identified within the Project Study Limits is provided in Table 1:

Wetland Delineation Summary. The location and size of wetlands delineated onsite are shown on the attached Wetland Delineation Mapping.

#### 4.2.1.1 Wetland Vegetation

The criterion for wetland vegetation is a dominance of hydrophytic species. A species is considered hydrophytic per USACE (1987 and 2012) if it is classified either as obligate (OBL), facultative wet (FACW), or facultative (FAC) in *The National Wetland Plant List: 2014 Update of Wetland Ratings* (Lichvar, et.al, 2016). A dominance of hydrophytes requires that more than 50% of the vegetative species in an area are classified as hydrophytic.

Generally, the delineated wetlands consisted of palustrine emergent wetlands within active agriculture fields which are either cultivated or pastured by livestock. Lesser areas of forested and scrub-shrub wetlands were identified in areas that were generally not subject to active agriculture or livestock pasturing. The wetland determination data forms which provide expanded detail of the wetlands identified within the Project Study Limits can be found in Appendix A. Wetland vegetation community cover types observed at each wetland are summarized in Table 1: Wetland Delineation Summary.

#### 4.2.1.2 Wetland Hydrology

The Project Study Limits were examined for field indicators of wetland hydrology. According to USACE (1987 and 2012), wetland hydrology consists of permanent or periodic inundation, or soil saturation to the surface during the growing season. If these indicators were present within the sample plots, the hydrology criterion was met.

Generally, wetlands identified within the Project Study Limits receive hydrologic input from precipitation and retained surface water perched upon poorly drained soils containing fine sediments and shallow restrictive layers. In addition, wetlands within lower elevations of the project watersheds exhibited a direct groundwater connection and often additional shared surface hydrology in association with adjacent and contiguous streams. Hydrologic indicators observed at each delineated wetland were recorded on the wetland determination data forms presented in Appendix A. Table 1: Wetland Delineation Summary provides the location (latitude/longitude) and total wetland area delineated within the Project Study Limits.

#### 4.2.1.3 Wetland Soils

Soil physical characteristics were evaluated during the field delineations by excavating to a depth appropriate to evaluate potential hydric soil indicators below ground surface. Soil color was evaluated using *Munsell Soil Color Charts* (Munsell 2000). Soils that exhibited hydric soil indicators, such as low chroma colors and/or evidence of reducing conditions met the hydric soil criterion per USACE (1987 and 2012).

Wetland soils observed during the excavations within the Project Study Limits generally consisted of primarily silt loam texture mineral soils exhibiting reduced, low chroma matrices and documented redox concentrations and/or redox depletions within the matrices. Soil samples within wetland areas most commonly possessed Redox Dark Surface (F6) and/or Depleted Matrix (F3) hydric soil indicator conditions within their profiles. Characteristics observed at each data point are summarized in the wetland determination data forms included in Appendix A.

#### 4.2.2 Streams Summary

Stream channel reaches delineated within the Project Study Limits included 64 combined perennial, intermittent, and ephemeral channel reaches totaling 11,678 linear feet. Observed stream characteristics are summarized in the stream data forms included in Appendix B. A summary of the streams identified within the Project Study Limits is provided in Table 2: Stream Delineation Summary. The locations of streams delineated onsite are shown on the attached Wetland Delineation Mapping.

#### 4.2.3 Ditches Summary

Jurisdictional ditches delineated within the Project Study Limits included 24 ditch reaches totaling 9,273 linear feet. Classification as a jurisdictional ditch herein is based on the presence of a defined bed and bank, an ordinary high water mark, a direct or indirect connection to a traditional navigable water (TNW), and at least one of the following supplementing attributes:

- Ditches that have relatively permanent flowing or standing water;
- Natural streams that have been altered (e.g. channelized, straightened, or relocated);
- Ditches that have been excavated in jurisdictional waters of the US (WOTUS);
- Ditches that connect two or more jurisdictional WOTUS; and
- Ditches that drain natural water bodies (including wetlands) into the tributary system of a TNW.

Observed ditch characteristics are summarized in the ditch data forms included in Appendix B. A summary of the jurisdictional ditches identified within the Project Study Limits is provided in Table 3: Ditch Delineation Summary. The locations of jurisdictional ditches delineated onsite are shown on Wetland Delineation Map, Sheets 1 through 108.

#### 4.2.4 Upland Area Summary

During the field investigation of the Project Study Limits, significant areas of upland or non-jurisdictional areas were identified. The majority of the identified upland areas are characterized by mixed deciduous forest and active agricultural lands, including row crops, forage hay production, and active pasture. Upland soils observed were primarily silt loam texture exhibiting medium to high chroma 2.5Y and 10YR matrices throughout the soil profile to a depth of twenty inches below ground surface. Typically, no indicators of wetland hydrology were observed within the upland areas. The location and size of upland areas in addition to the mapped soils present at these locations are depicted on the attached Wetland Delineation Mapping.

### 5.0 SUMMARY AND CONCLUSIONS

Fisher Associates conducted a wetland delineation associated with the Project between October 26 to November 20, 2015, May 19 to July 15, 2016, and April 4 & 5, 2017. 71.32 acres of combined PEM, PSS, and PFO wetlands were identified. In addition, 11,678 linear feet of combined perennial, intermittent, and ephemeral stream channel reaches and 9,273 linear feet of jurisdictional ditches were identified within the Project Study Limits.

Based on conditions observed, the USACE will likely invoke jurisdiction over all identified wetlands, stream reaches, and jurisdictional ditches due to their apparent hydrologic connection to other waters. It is also anticipated that the NYSDEC will invoke jurisdiction over the delineated wetlands under Article 24 of the Environmental Conservation Law (ECL) that are associated with NYSDEC Wetlands SC-12 (delineated wetlands A593 and A594) and SC-13 (delineated wetlands A643 and A644). It is not anticipated that the NYSDEC will invoke jurisdiction over the additional wetland systems identified as they are not within close proximity (i.e., less than 50 meters) of Wetlands SC-12, SC-13, or other mapped NYSDEC wetlands and their regulated 100-foot adjacent areas. NYSDEC will likely invoke jurisdiction over 17 of the 64 stream reaches delineated within the Project Study Limits under Article 15 of the ECL, as they are recognized as Class A streams. NYSDEC is not anticipated to invoke jurisdiction over the remaining 47 stream reaches or jurisdictional ditches identified under Article 15 of the ECL, as they are recognized as either Class C or D streams.

## 6.0 REFERENCES

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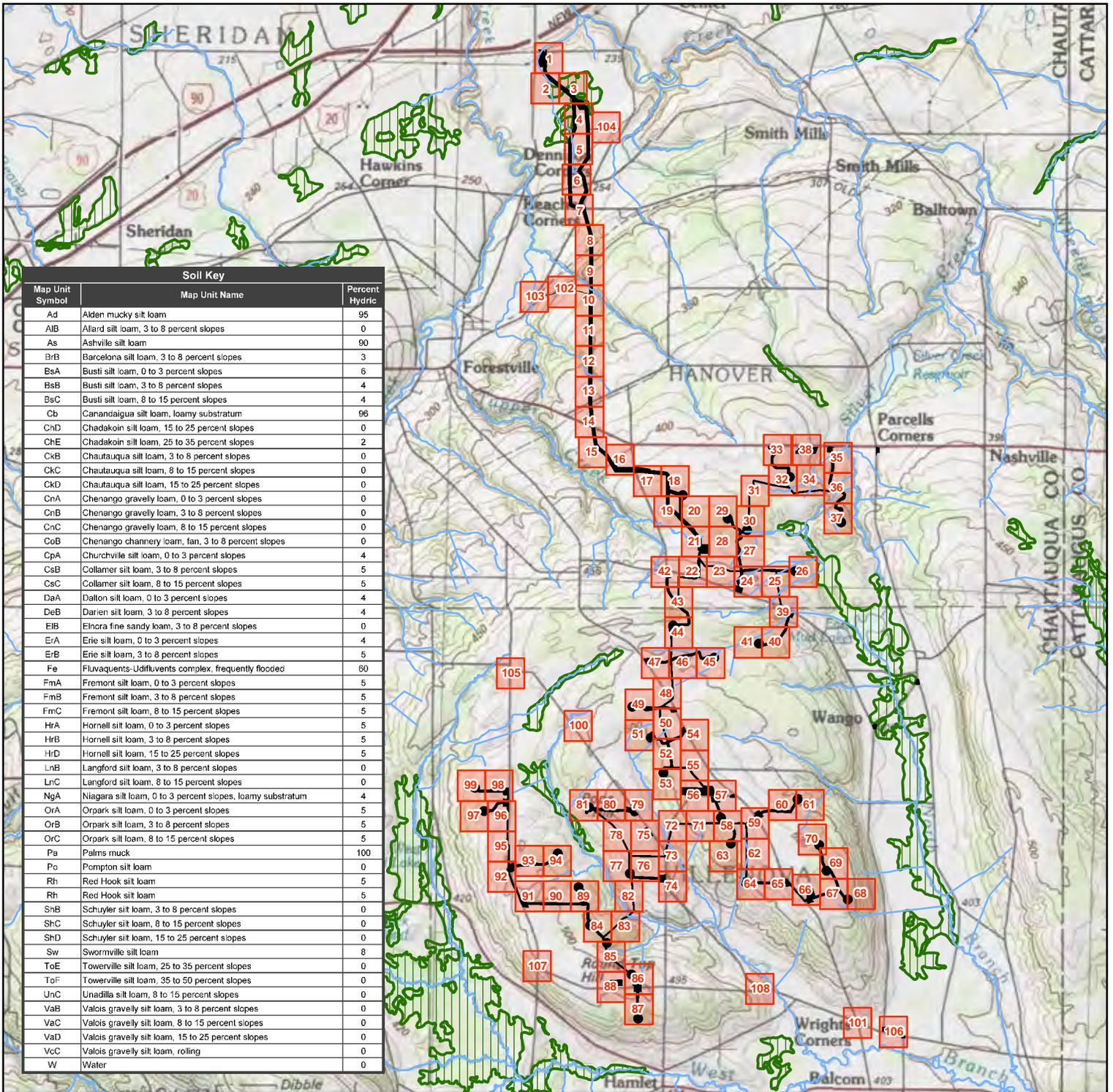
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<http://www.fws.gov/wetlands>

**MAPS**



Soil Key		
Map Unit Symbol	Map Unit Name	Percent Hydric
Ad	Alden mucky silt loam	95
AIB	Allard silt loam, 3 to 8 percent slopes	0
As	Ashville silt loam	90
BrB	Barcelona silt loam, 3 to 8 percent slopes	3
BsA	Busti silt loam, 0 to 3 percent slopes	6
BsB	Busti silt loam, 3 to 8 percent slopes	4
BsC	Busti silt loam, 8 to 15 percent slopes	4
Cb	Canandaigua silt loam, loamy substratum	96
ChD	Chadakoin silt loam, 15 to 25 percent slopes	0
CHE	Chadakoin silt loam, 25 to 35 percent slopes	2
CKB	Chautauqua silt loam, 3 to 8 percent slopes	0
CKC	Chautauqua silt loam, 8 to 15 percent slopes	0
CKD	Chautauqua silt loam, 15 to 25 percent slopes	0
CnA	Chenango gravelly loam, 0 to 3 percent slopes	0
CnB	Chenango gravelly loam, 3 to 8 percent slopes	0
CnC	Chenango gravelly loam, 8 to 15 percent slopes	0
CoB	Chenango channery loam, fan, 3 to 8 percent slopes	0
CpA	Churchville silt loam, 0 to 3 percent slopes	4
CsB	Collamer silt loam, 3 to 8 percent slopes	5
CsC	Collamer silt loam, 8 to 15 percent slopes	5
DaA	Dalton silt loam, 0 to 3 percent slopes	4
DeB	Darien silt loam, 3 to 8 percent slopes	4
EIB	Ehora fine sandy loam, 3 to 8 percent slopes	0
ErA	Erie silt loam, 0 to 3 percent slopes	4
ErB	Erie silt loam, 3 to 8 percent slopes	5
Fe	Fluvaquents-Udifulvents complex, frequently flooded	60
FmA	Fremont silt loam, 0 to 3 percent slopes	5
FmB	Fremont silt loam, 3 to 8 percent slopes	5
FmC	Fremont silt loam, 8 to 15 percent slopes	5
HrA	Hornell silt loam, 0 to 3 percent slopes	5
HrB	Hornell silt loam, 3 to 8 percent slopes	5
HrD	Hornell silt loam, 15 to 25 percent slopes	5
LnB	Langford silt loam, 3 to 8 percent slopes	0
LnC	Langford silt loam, 8 to 15 percent slopes	0
NgA	Niagara silt loam, 0 to 3 percent slopes, loamy substratum	4
OrA	Orpark silt loam, 0 to 3 percent slopes	5
OrB	Orpark silt loam, 3 to 8 percent slopes	5
OrC	Orpark silt loam, 8 to 15 percent slopes	5
Pa	Palms muck	100
Po	Pompton silt loam	0
Rh	Red Hook silt loam	5
Rh	Red Hook silt loam	5
ShB	Schuyler silt loam, 3 to 8 percent slopes	0
ShC	Schuyler silt loam, 8 to 15 percent slopes	0
ShD	Schuyler silt loam, 15 to 25 percent slopes	0
Sw	Swornville silt loam	8
ToE	Toverville silt loam, 25 to 35 percent slopes	0
ToF	Toverville silt loam, 35 to 50 percent slopes	0
UnC	Unadilla silt loam, 8 to 15 percent slopes	0
VaB	Valois gravelly silt loam, 3 to 8 percent slopes	0
VaC	Valois gravelly silt loam, 8 to 15 percent slopes	0
VaD	Valois gravelly silt loam, 15 to 25 percent slopes	0
VcC	Valois gravelly silt loam, rolling	0
W	Water	0

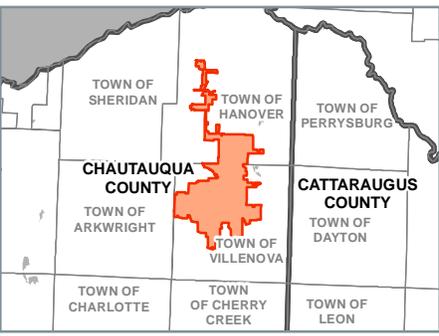
Project USGS Quad(s):  
Silver Creek, Forestville, Perrysburg

Project Watershed(s):  
Chautauqua-Conneaut (HUC 04120101)  
Conewangot (HUC 05010002)

Project Study Limits:  
707.19 Acres  
Center of Project Study Limits:  
42.440 N, -79.128 W  
North American Datum 1983



NYSDEC Stream (Class, Standard)  
 Project Study Limits  
 NYSDEC Freshwater Wetland  
 Mapsheet



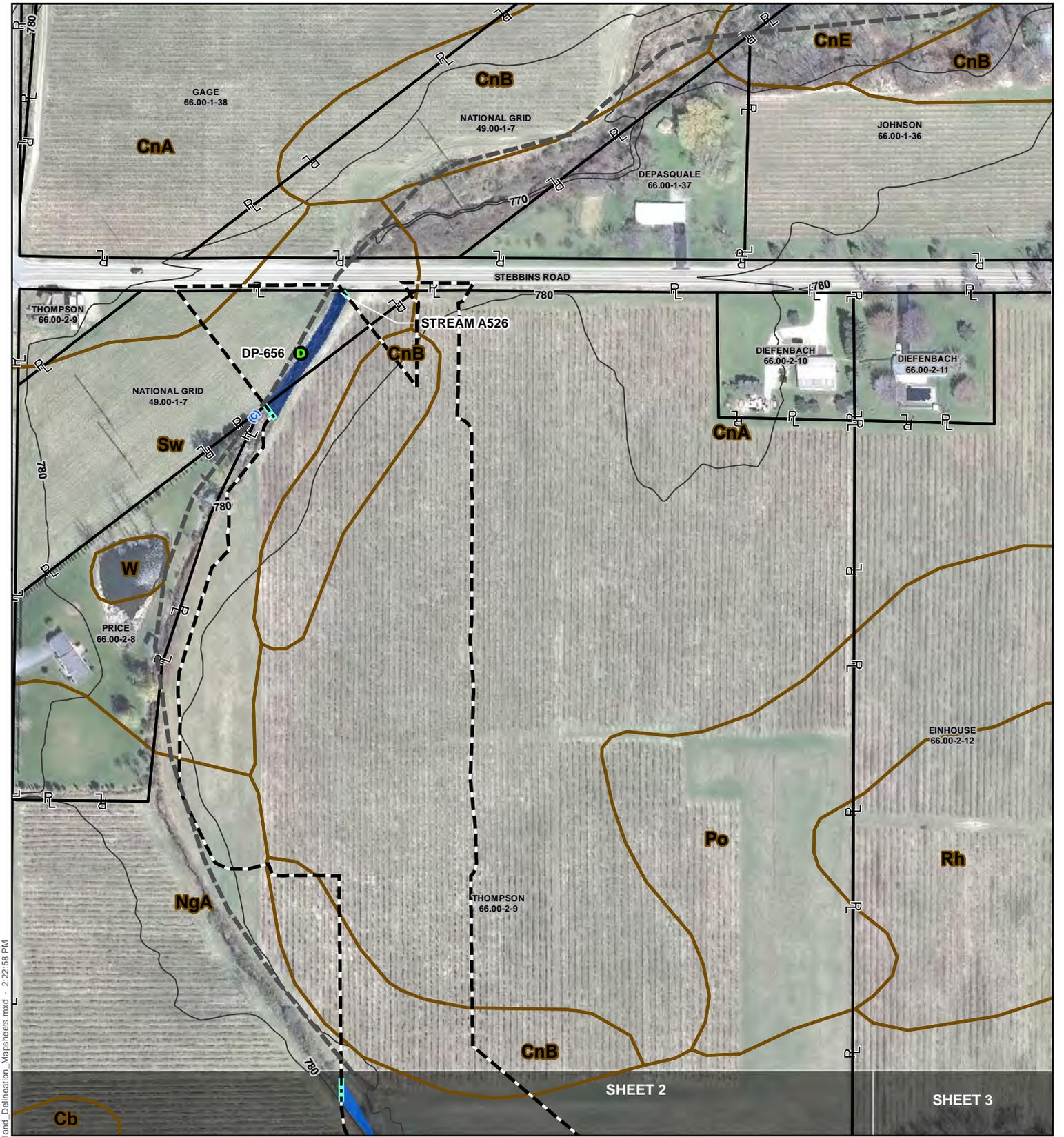
**FISHER ASSOCIATES**

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INDEX SHEET**

Data Sources:  
United States Geological Survey 24k Topo Quad Map - usgs.gov  
Aerial Photography: NYS GIS Clearinghouse (2012): nysgis.state.ny.us  
Roads: NYS GIS Clearinghouse (9/30/2015): nysgis.state.ny.us  
Streams: NYSDEC (10/19/2015) - dec.ny.gov  
Wetlands: NYSDEC (8/19/2014) - dec.ny.gov  
Wetlands: National Wetland Inventory (5/1/2014) - fws.gov/wetlands/  
Soils: NRCS Soil Survey (10/7/2015) - gdg.sc.gov.usda.gov

Author: AK      Revision Date: 5/2/2017

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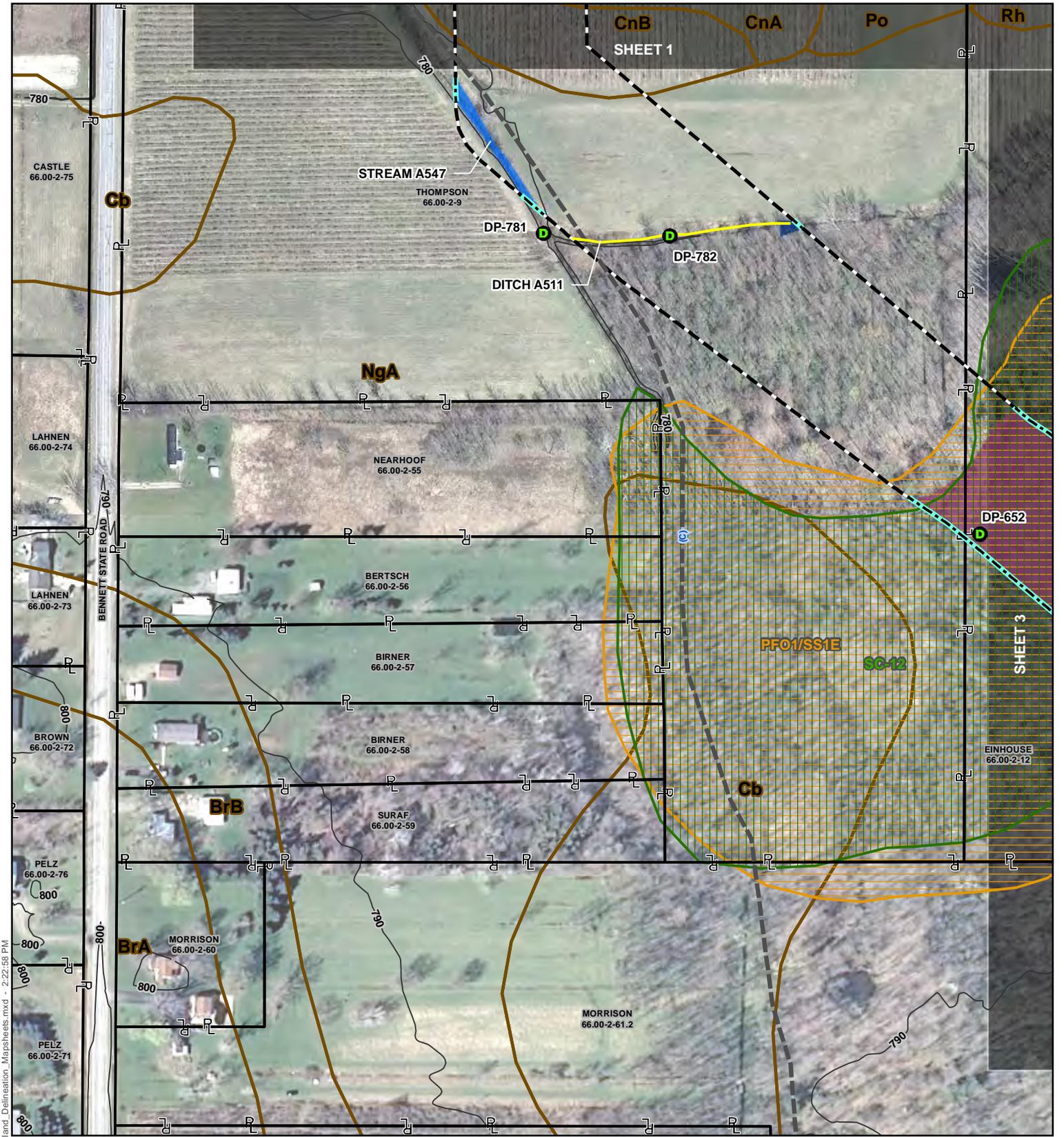


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	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

Author: AK      Aerial Date: 3/21/2012      Revision Date: 5/4/2017

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**SHEET 1 OF 108**

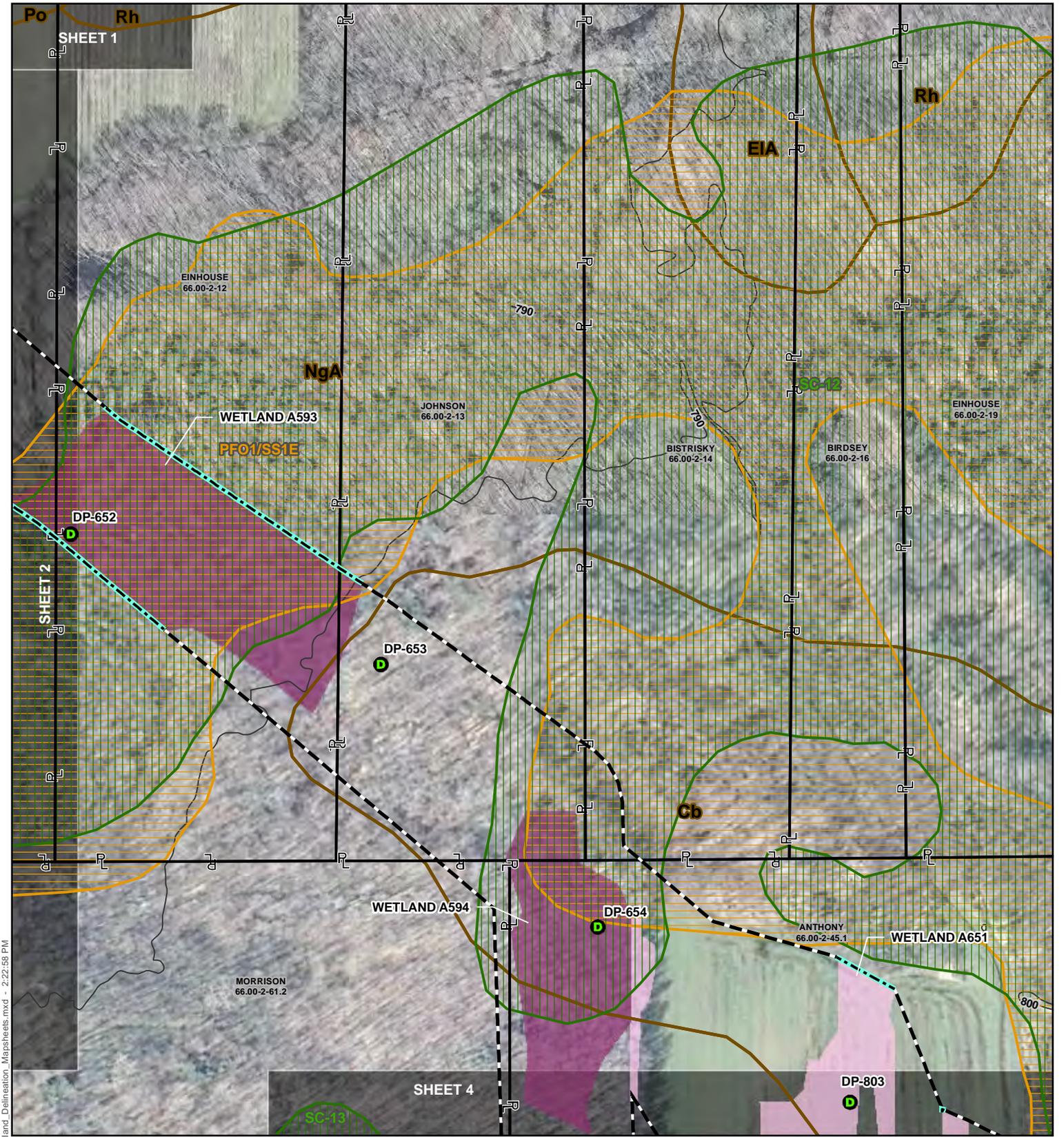


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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

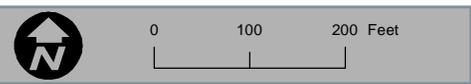
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**BALL HILL WIND PROJECT**  
**WETLAND DELINEATION REPORT**  
**SHEET 2 OF 108**

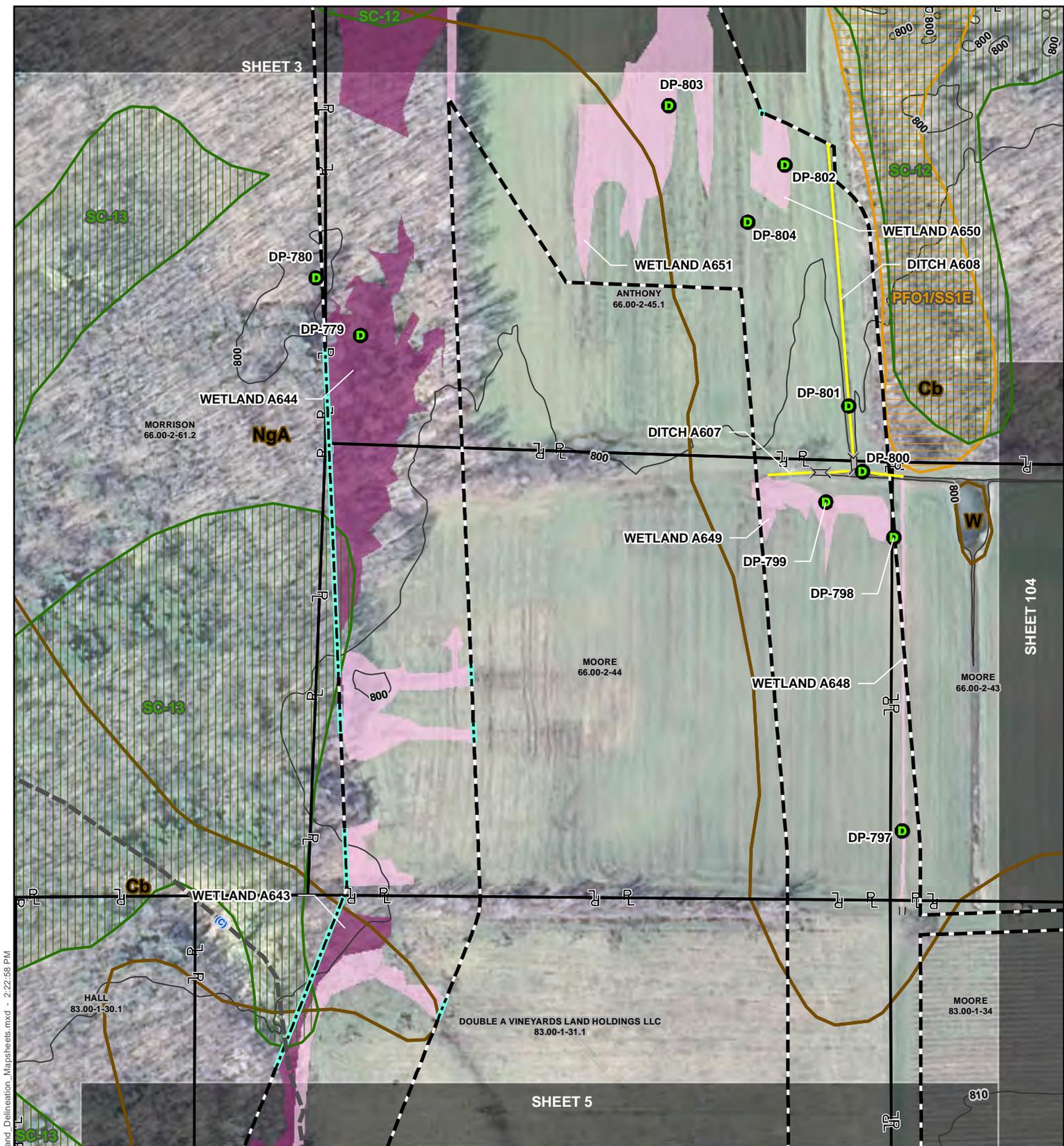


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|--|---------------------------------|--|--------------------------------|--|---------------------------|
|  | Data Point                      |  | NYSDEC Stream (Standard)       |  | NWI Wetland               |
|  | Proposed Turbine                |  | Contours (10ft)                |  | NYSDEC Freshwater Wetland |
|  | Culvert                         |  | Delineated Intermittent Stream |  | Soil Complex Boundary     |
|  | Delineation Continuation Line   |  | Delineated Perennial Stream    |  | Parcel                    |
|  | Delineated Jurisdictional Ditch |  | Delineated Pond                |  | Project Study Limits      |
|  | Delineated Ephemeral Stream     |  | Delineated PEM Wetland         |  | Matchline                 |
|  | Delineated Intermittent Stream  |  | Delineated PFO Wetland         |  |                           |
|  | Delineated Perennial Stream     |  | Delineated PSS Wetland         |  |                           |



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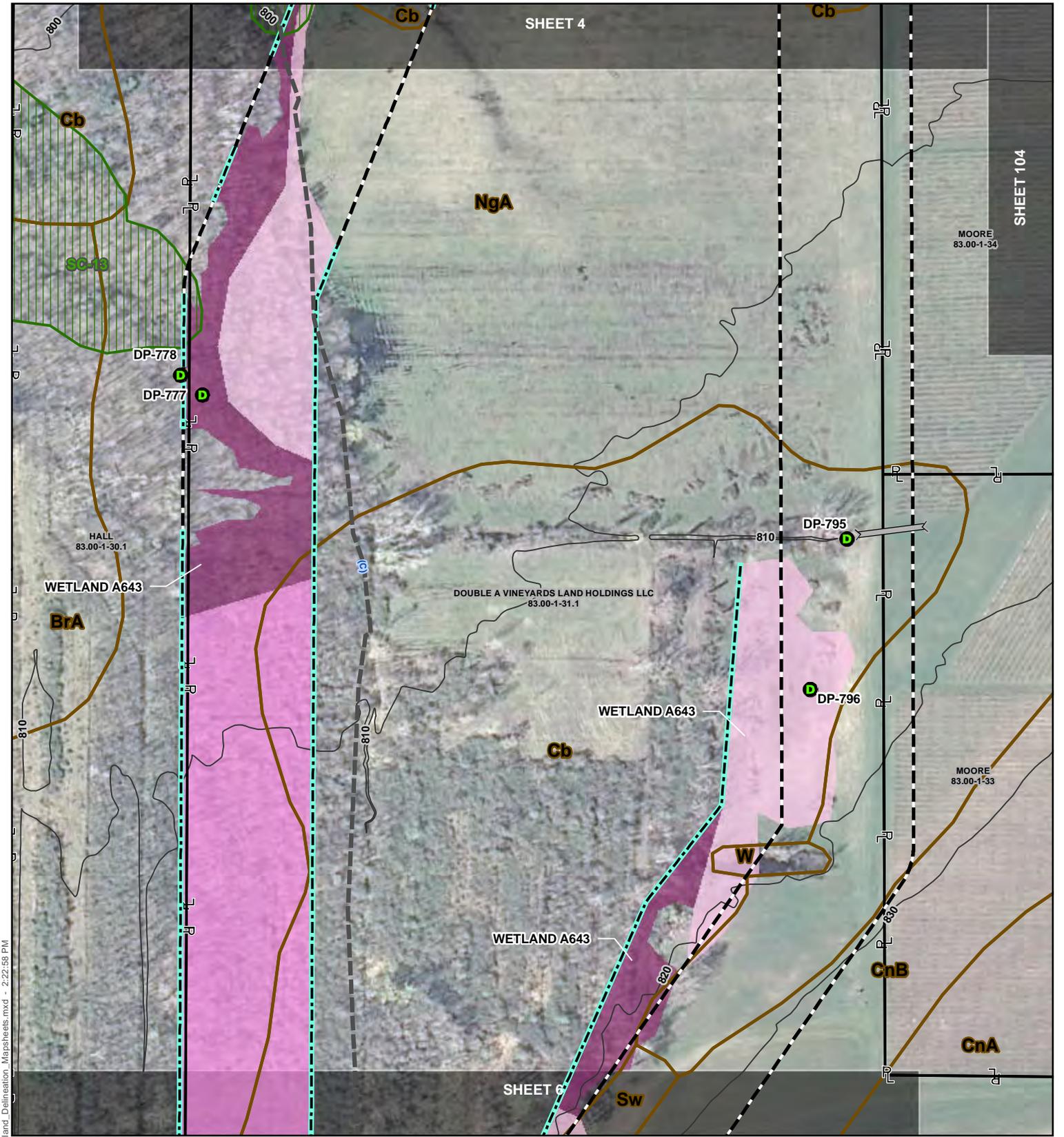
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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	

0 100 200 Feet

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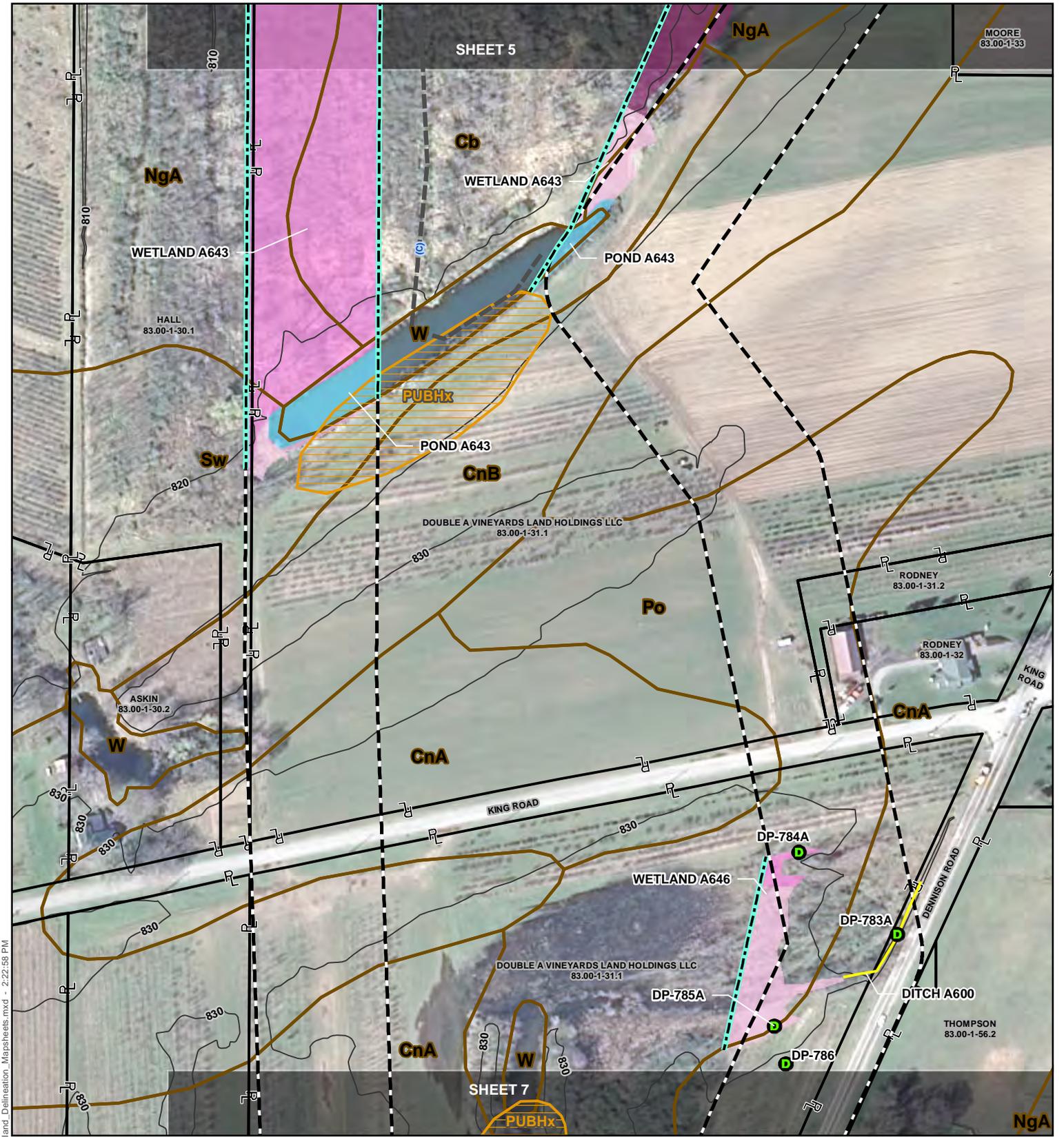


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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**BALL HILL WIND PROJECT**  
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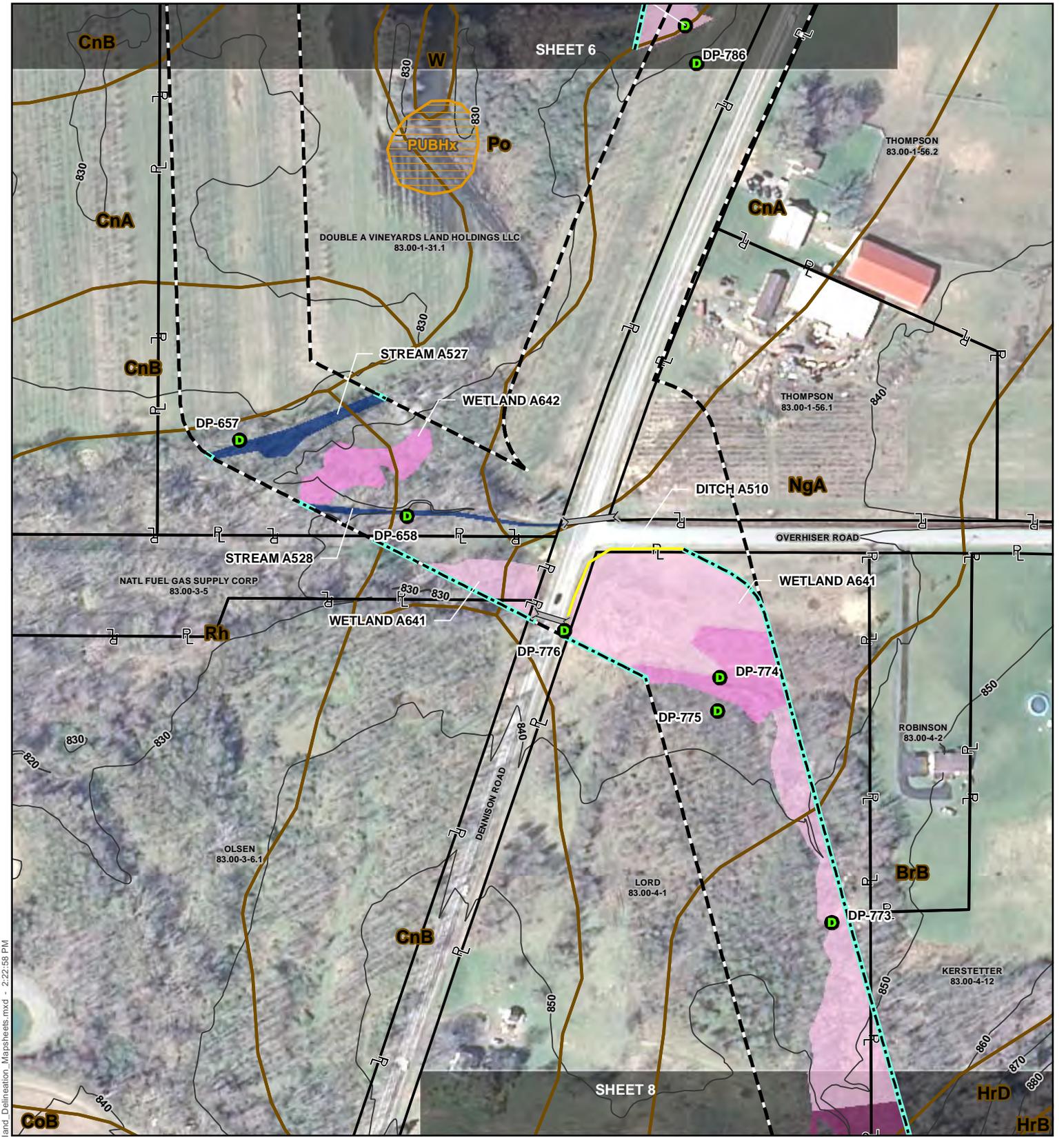
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
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| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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Author: AK      Aerial Date: 3/21/2012      Revision Date: 5/4/2017



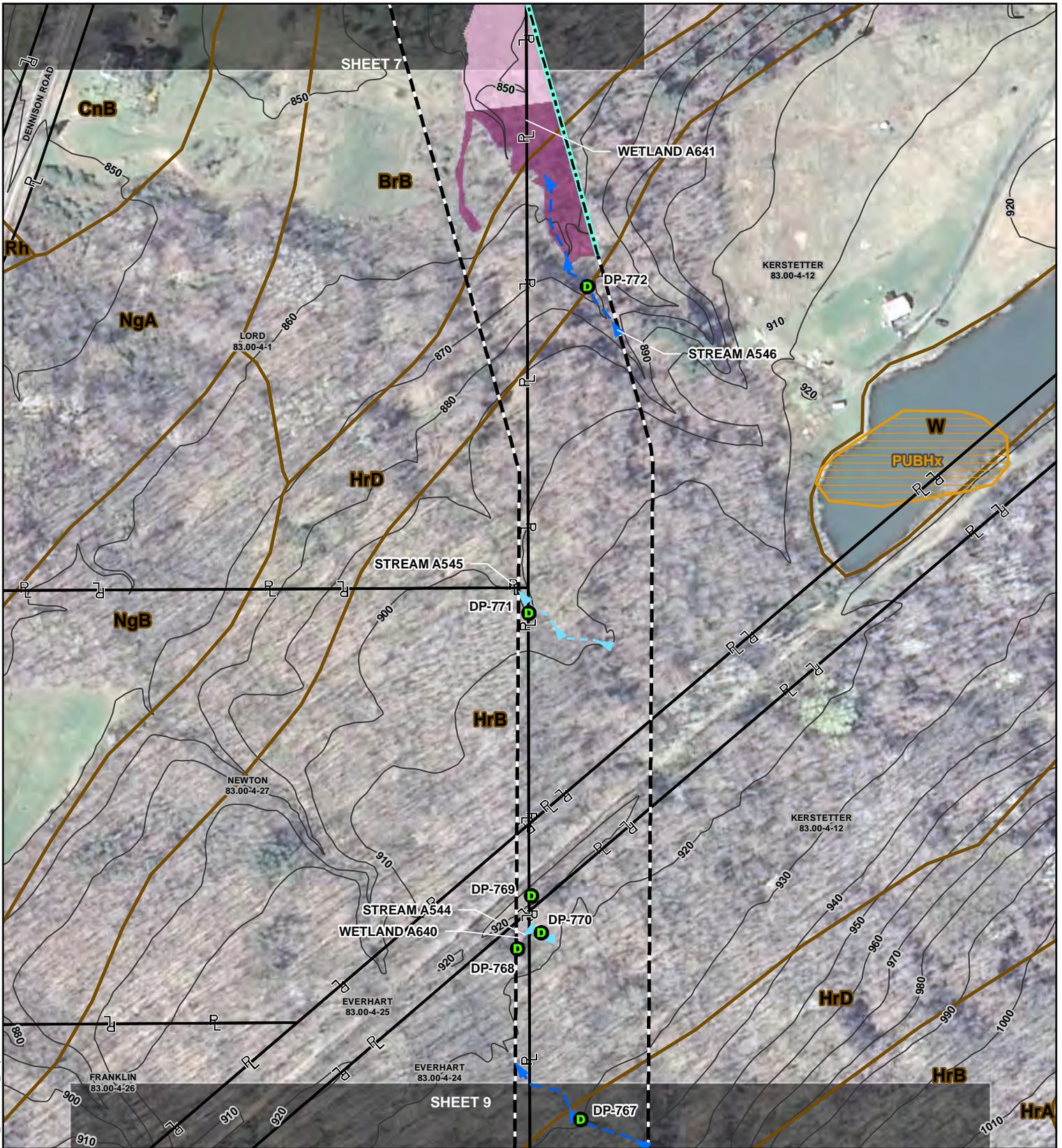
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



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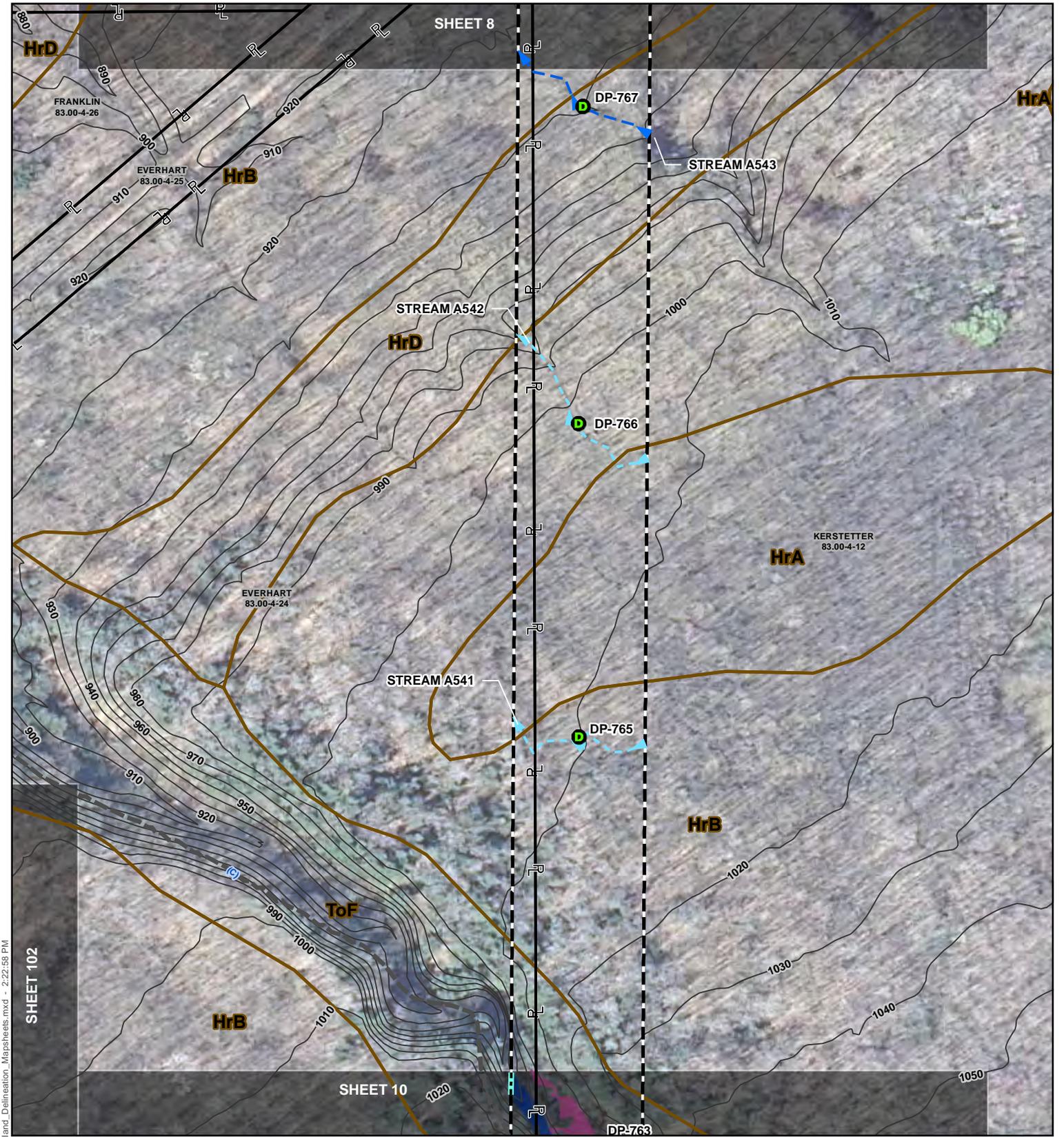
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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	



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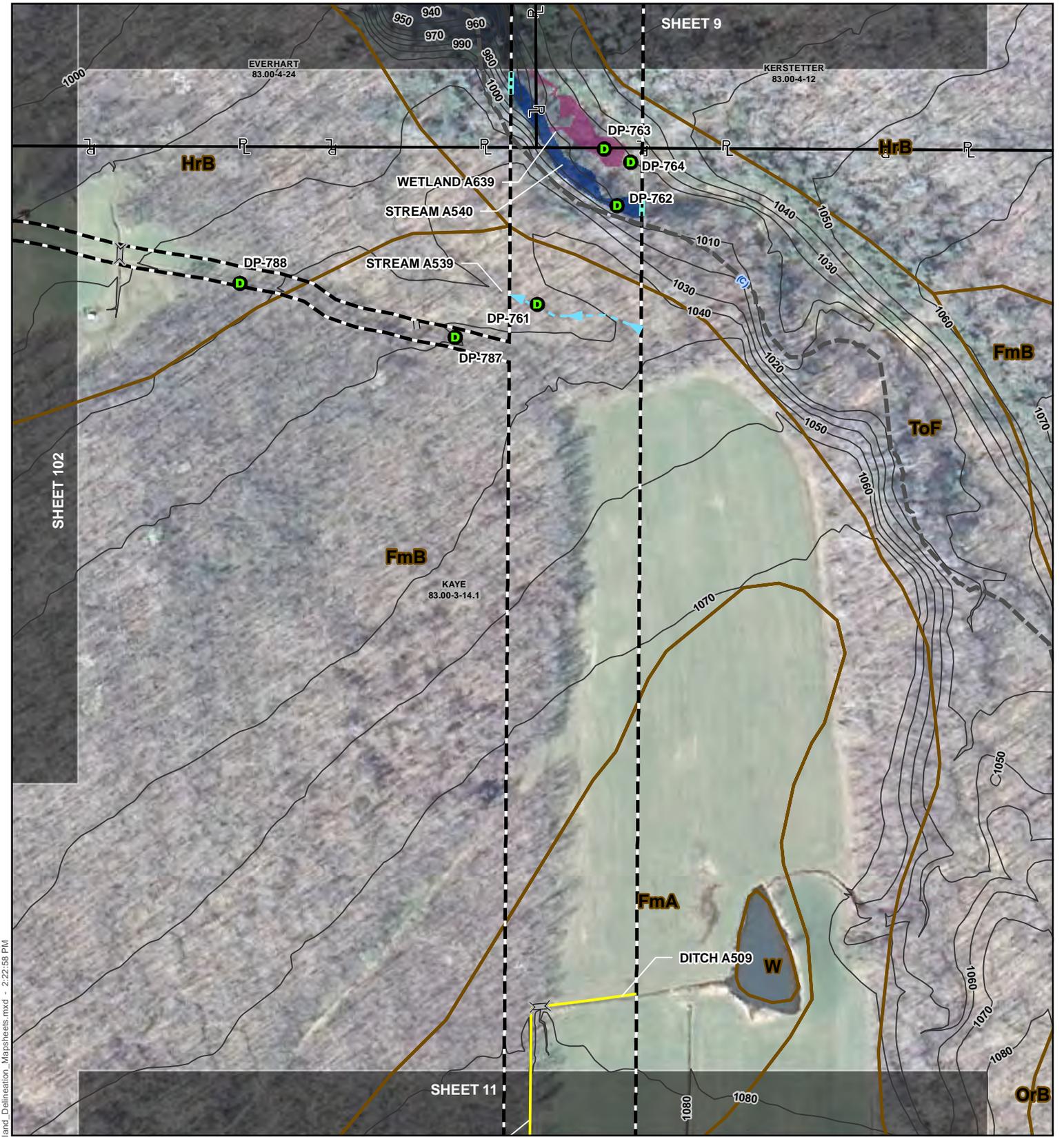


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |

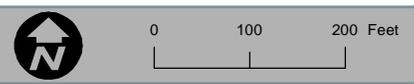


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 WETLAND DELINEATION REPORT  
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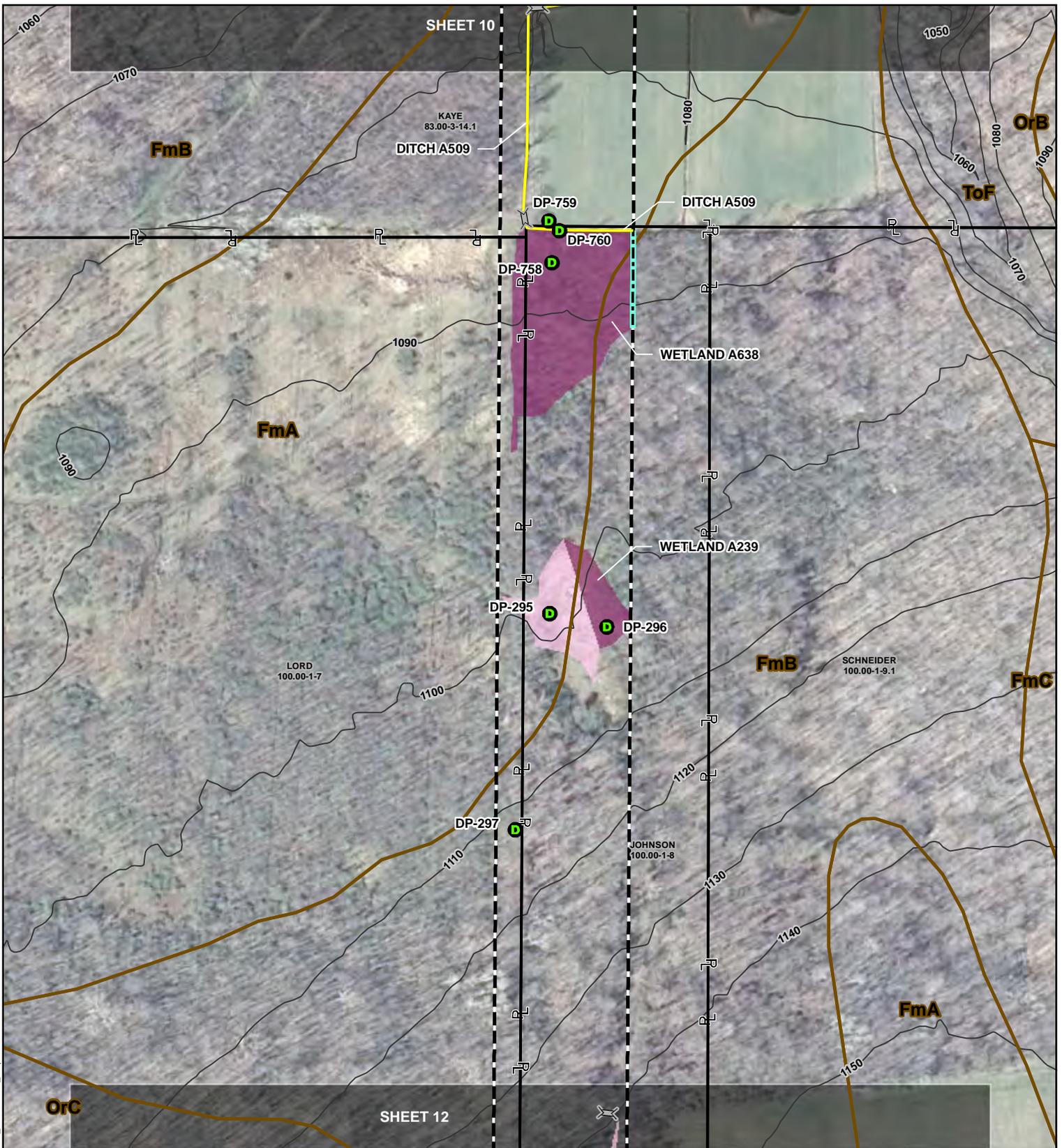


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|--|---------------------------------|--|--------------------------------|--|---------------------------|
|  | Data Point                      |  | NYSDEC Stream (Standard)       |  | NW1 Wetland               |
|  | Proposed Turbine                |  | Contours (10ft)                |  | NYSDEC Freshwater Wetland |
|  | Culvert                         |  | Delineated Intermittent Stream |  | Soil Complex Boundary     |
|  | Delineation Continuation Line   |  | Delineated Perennial Stream    |  | Parcel                    |
|  | Delineated Jurisdictional Ditch |  | Delineated Pond                |  | Project Study Limits      |
|  | Delineated Ephemeral Stream     |  | Delineated PEM Wetland         |  | Matchline                 |
|  | Delineated Intermittent Stream  |  | Delineated PFO Wetland         |  |                           |
|  | Delineated Perennial Stream     |  | Delineated PSS Wetland         |  |                           |



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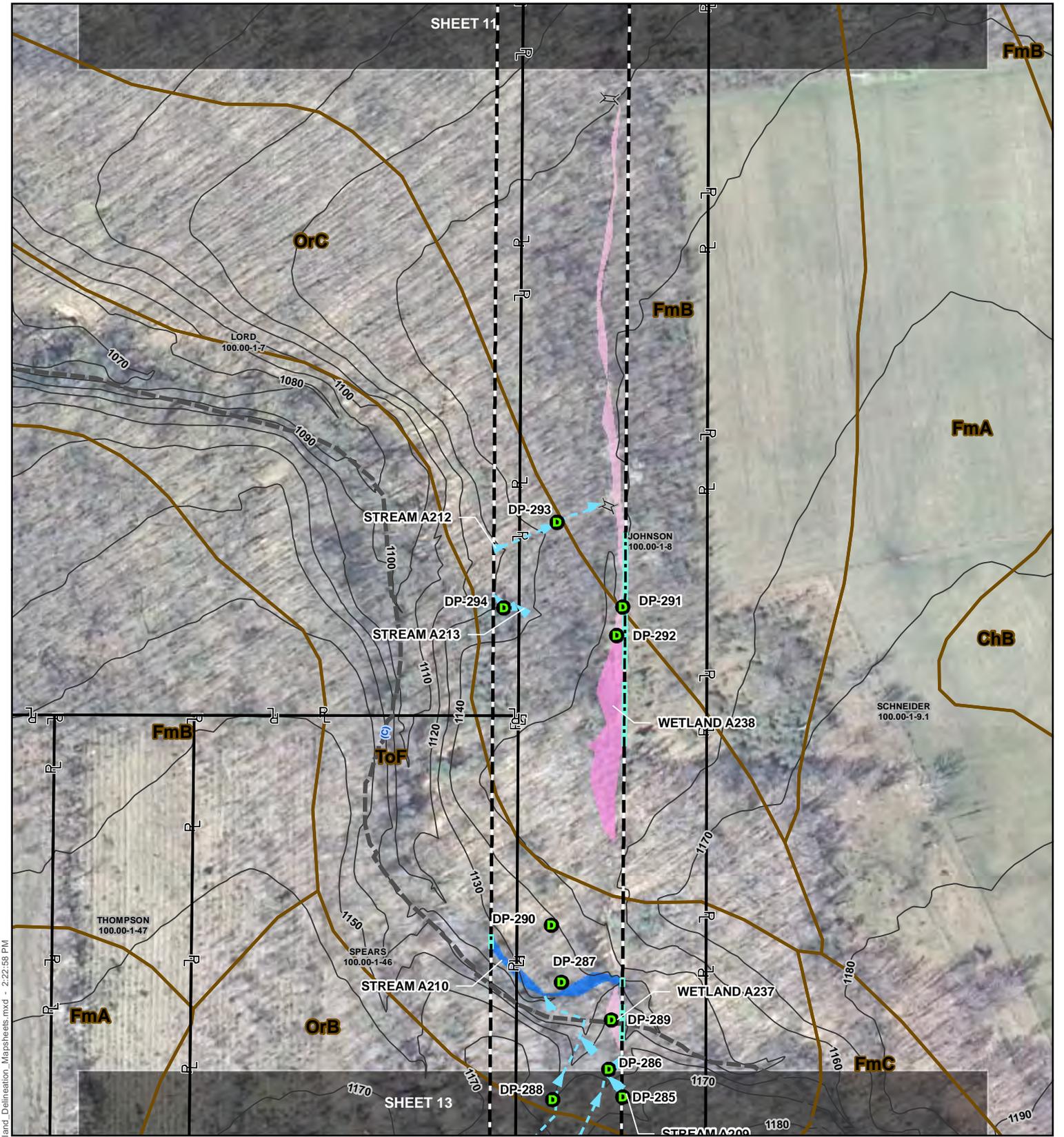


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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

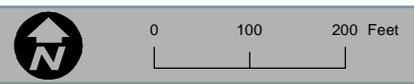


  
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**BALL HILL WIND PROJECT**  
**WETLAND DELINEATION REPORT**  
**SHEET 11 OF 108**



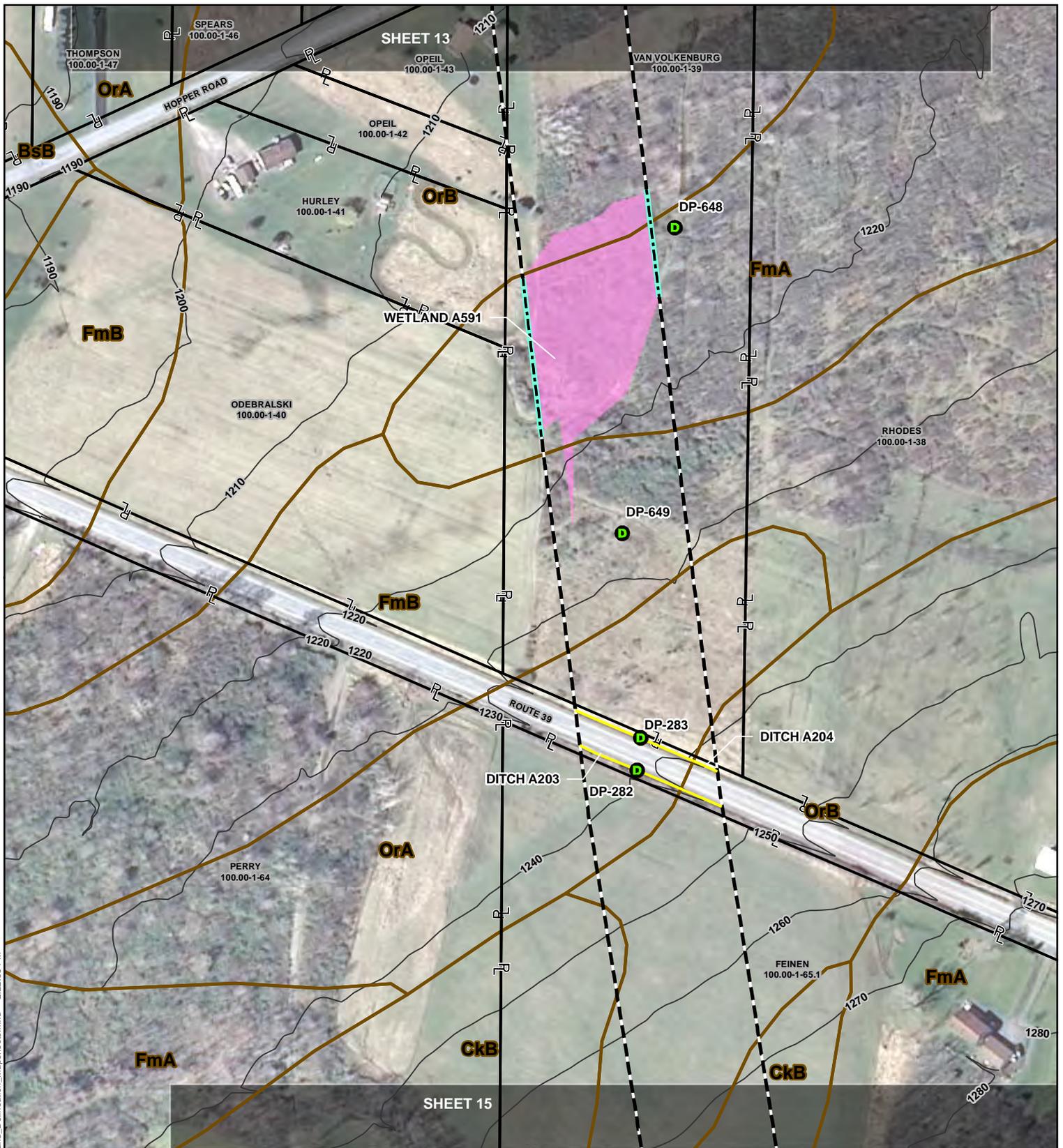
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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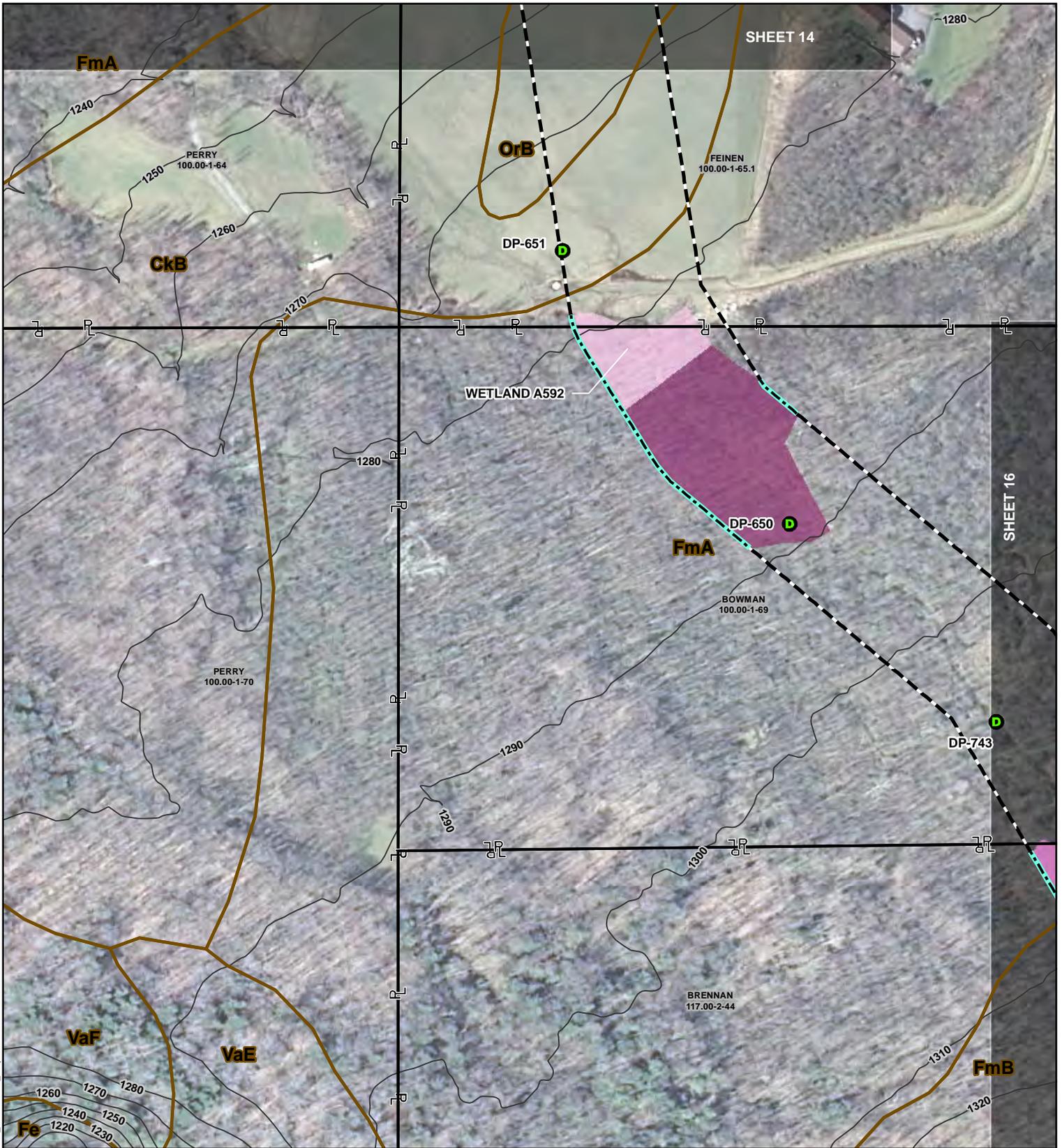
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Data Point	NYSDEC Stream (Standard)	NYSDEC Freshwater Wetland
Proposed Turbine	Contours (10ft)	Soil Complex Boundary
Culvert	Delineated Intermittent Stream	Parcel
Delineation Continuation Line	Delineated Perennial Stream	Project Study Limits
Delineated Jurisdictional Ditch	Delineated Pond	Matchline
Delineated Ephemeral Stream	Delineated PEM Wetland	
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	



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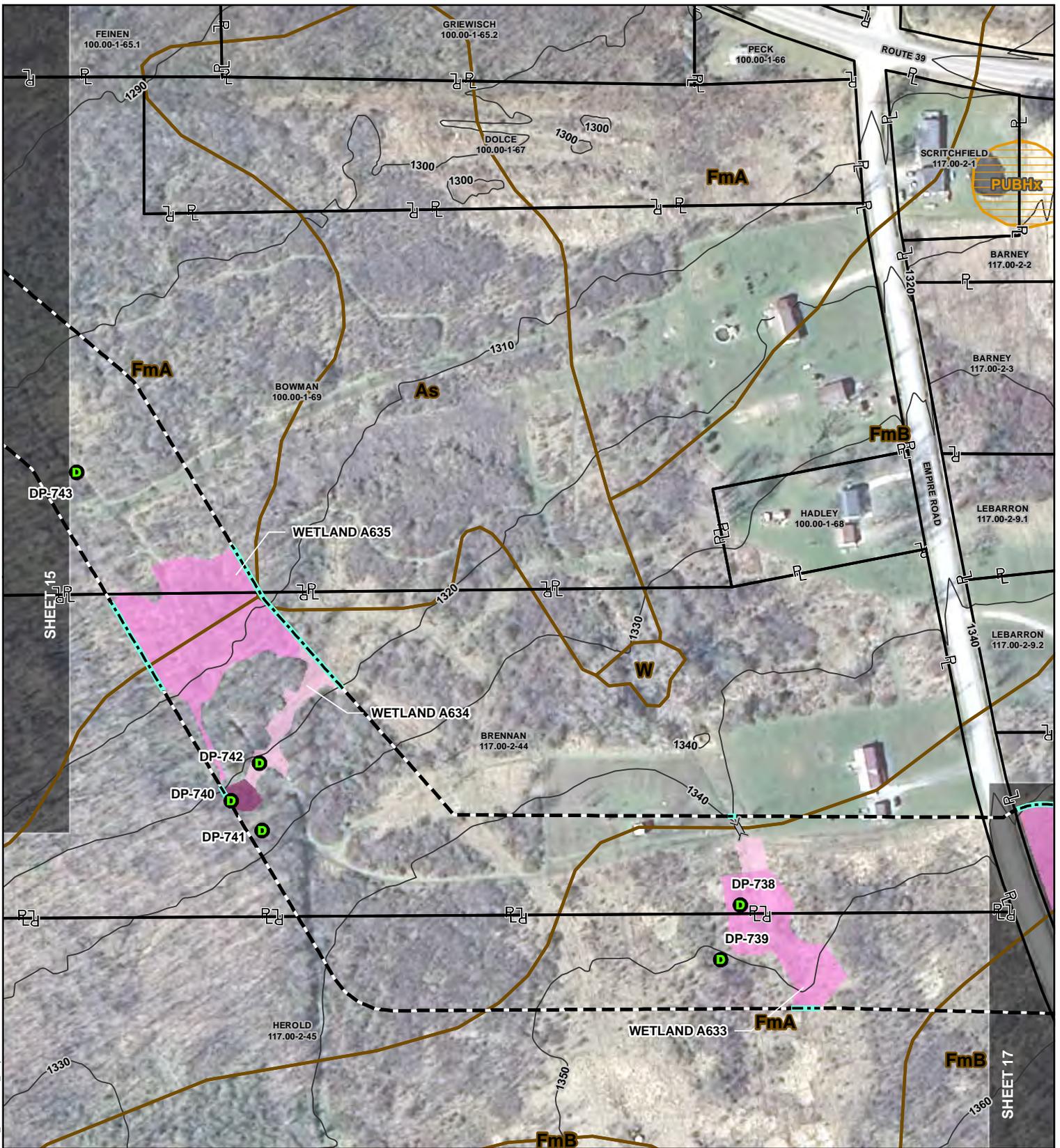
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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	



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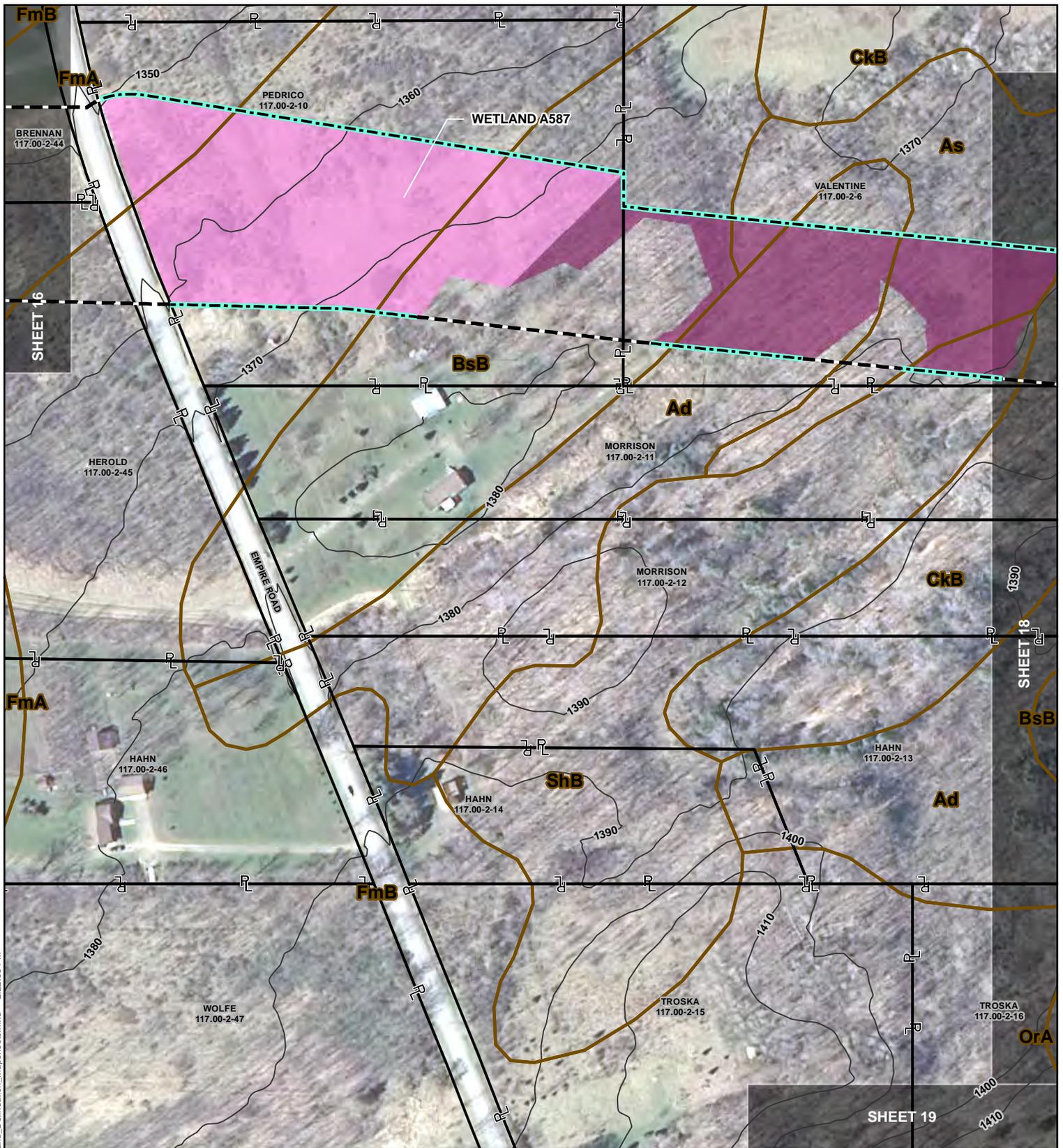


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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
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Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	



  
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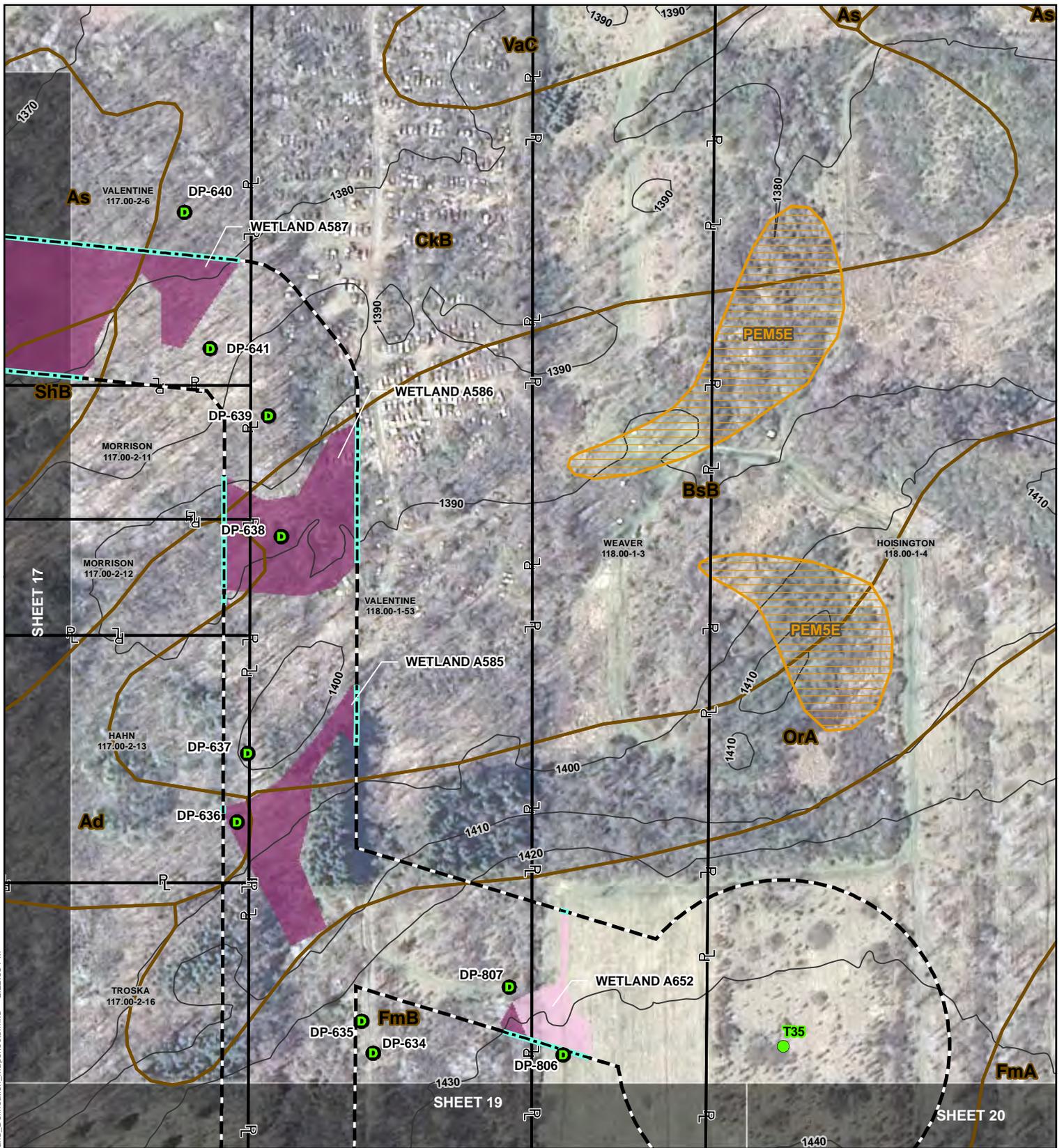


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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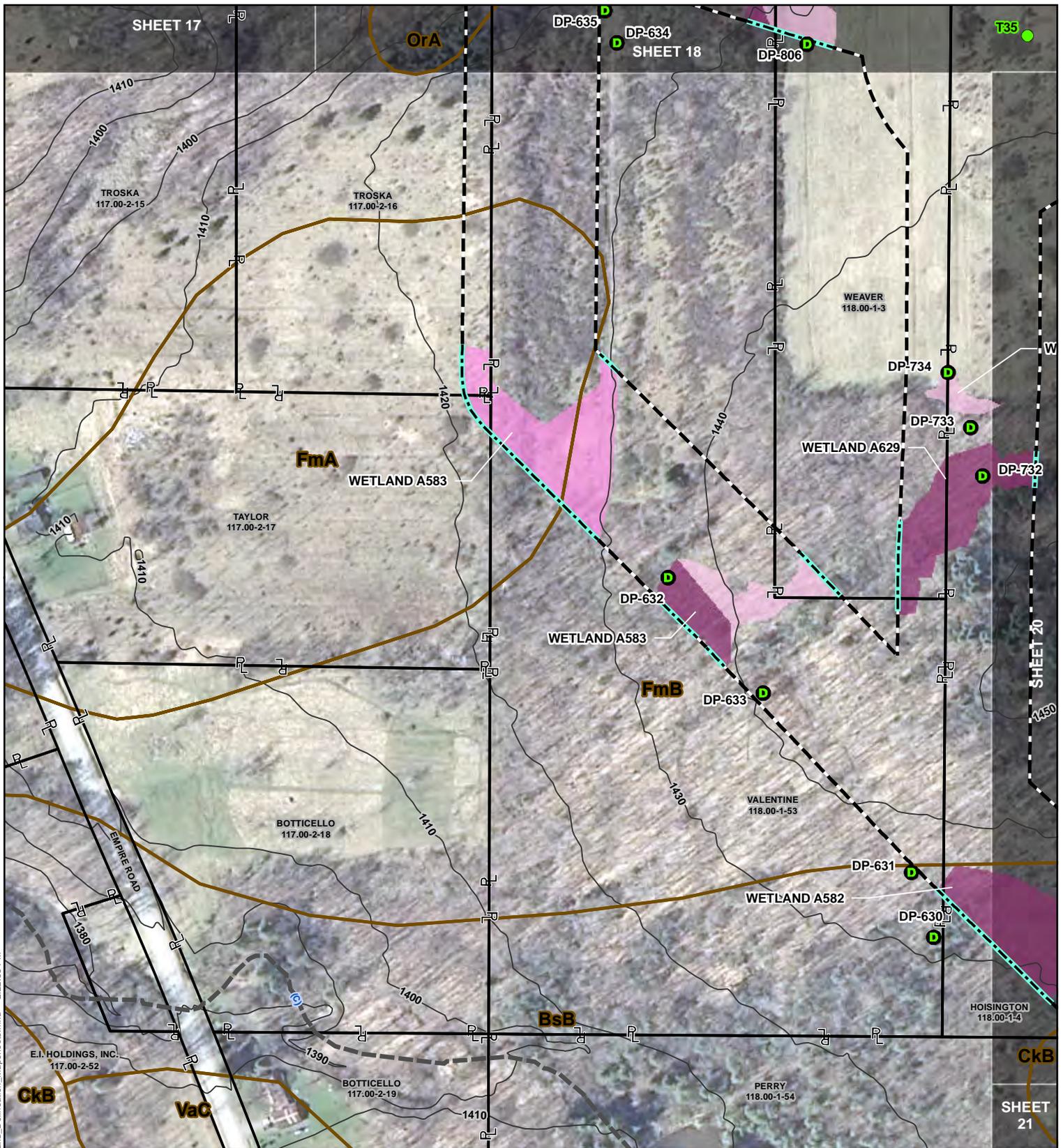


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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
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	Delineated Perennial Stream		Delineated PSS Wetland		



  
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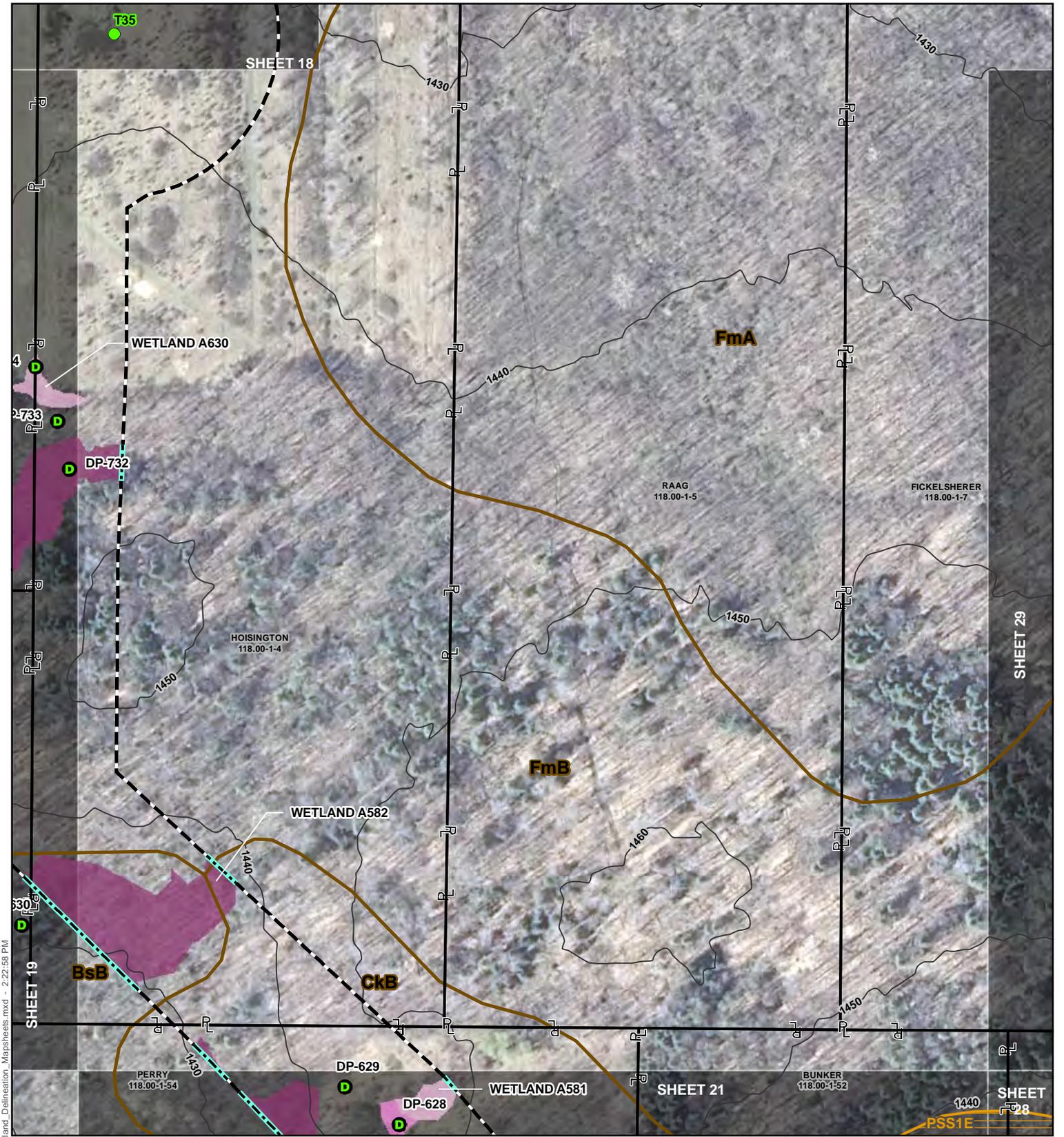
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	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
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	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

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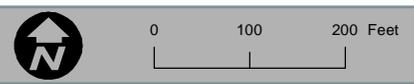
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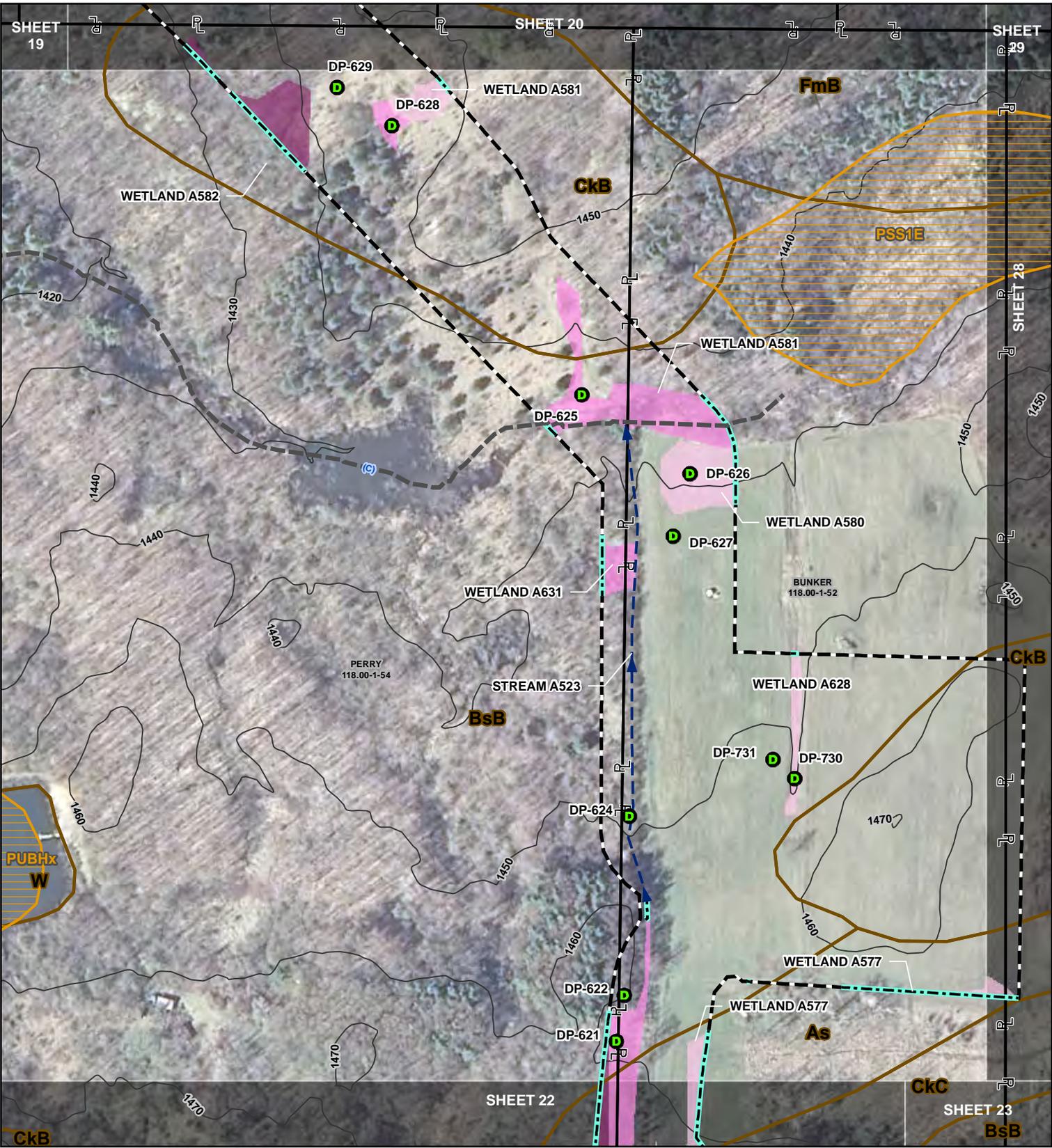


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| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
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| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
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| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |

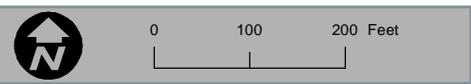


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**BALL HILL WIND PROJECT**  
**WETLAND DELINEATION REPORT**  
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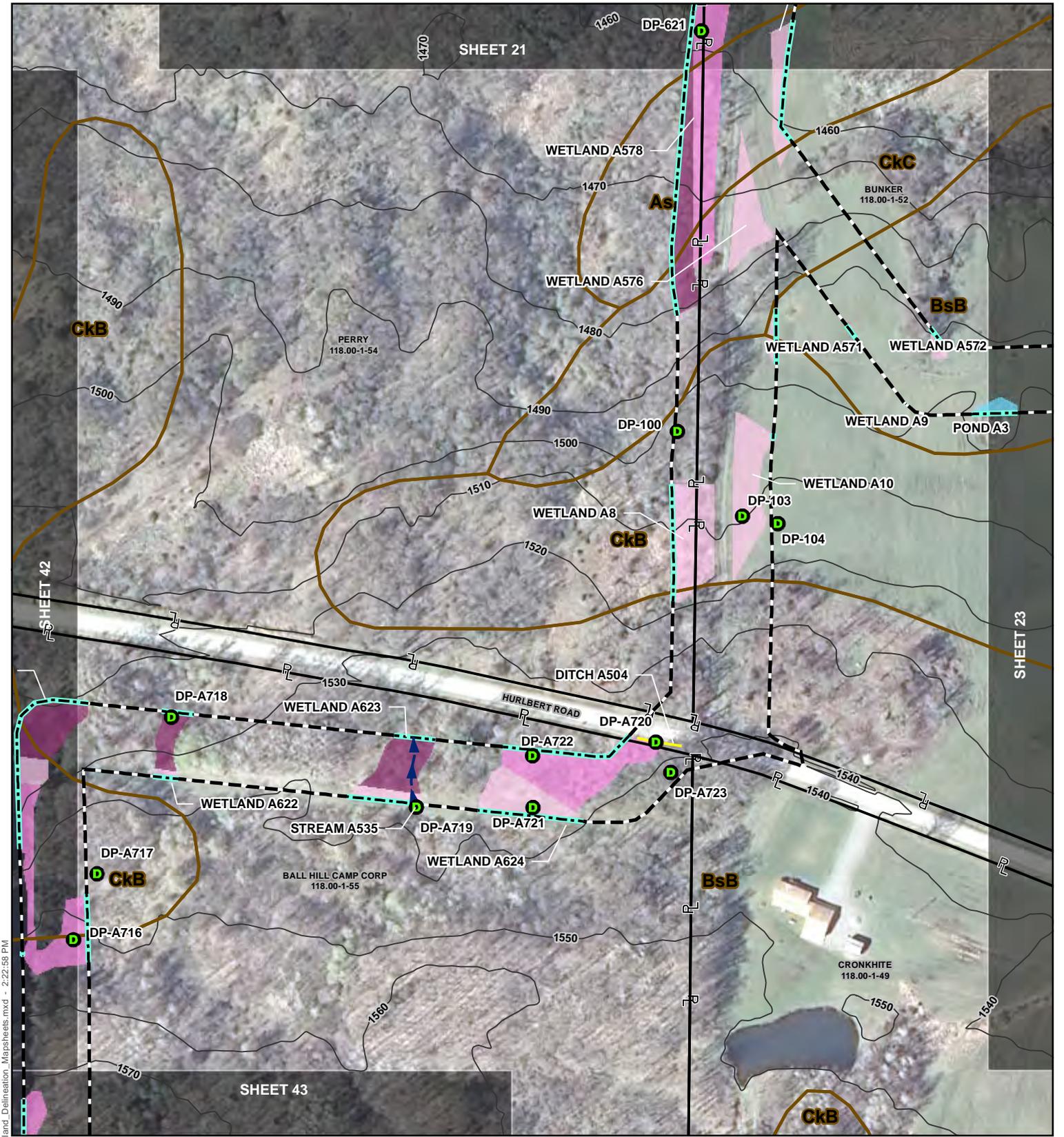
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
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| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



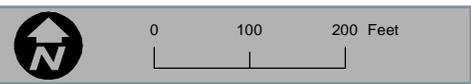
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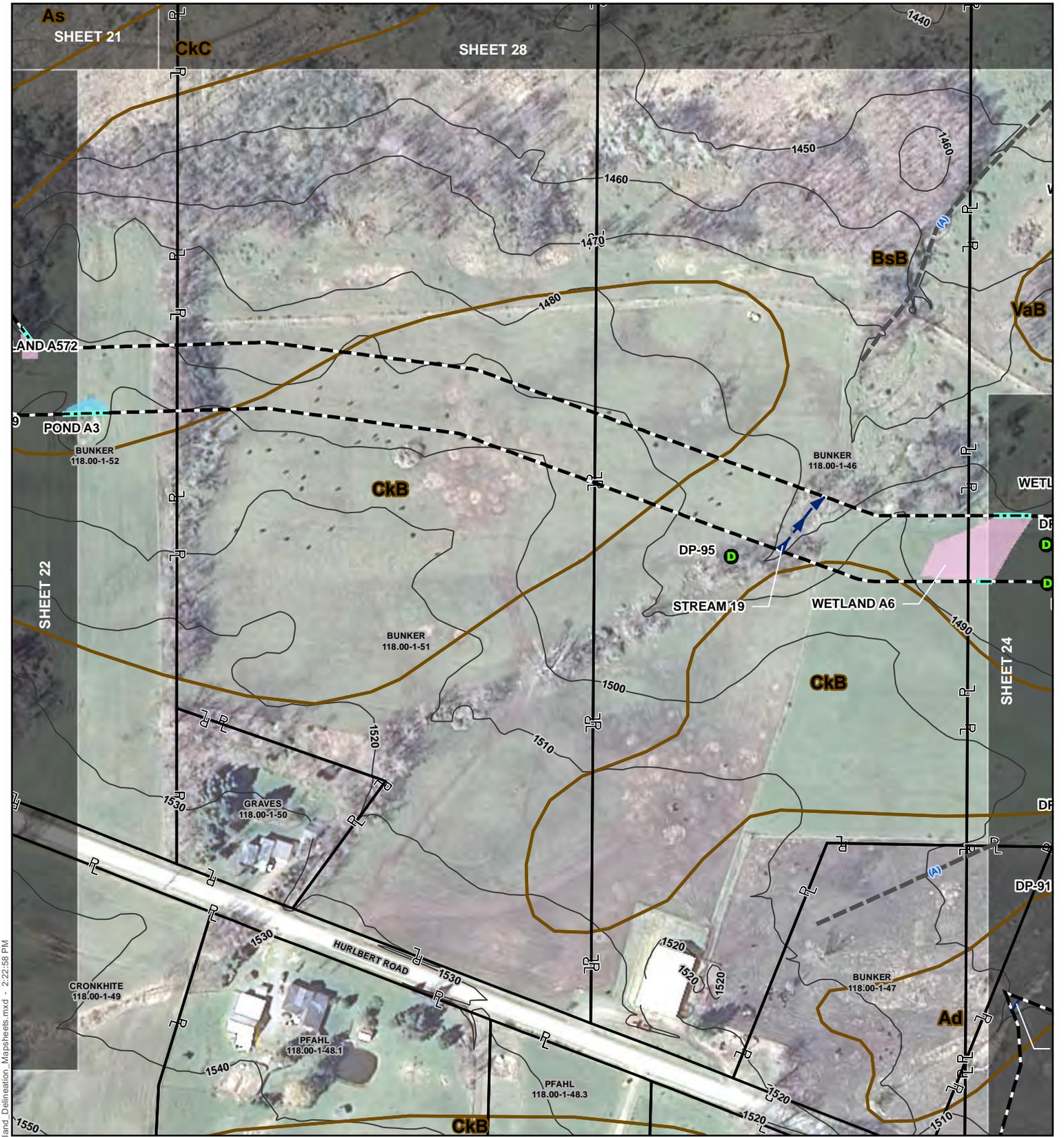
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



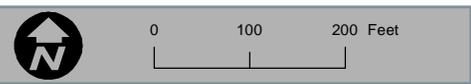
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WETLAND DELINEATION REPORT  
SHEET 22 OF 108**



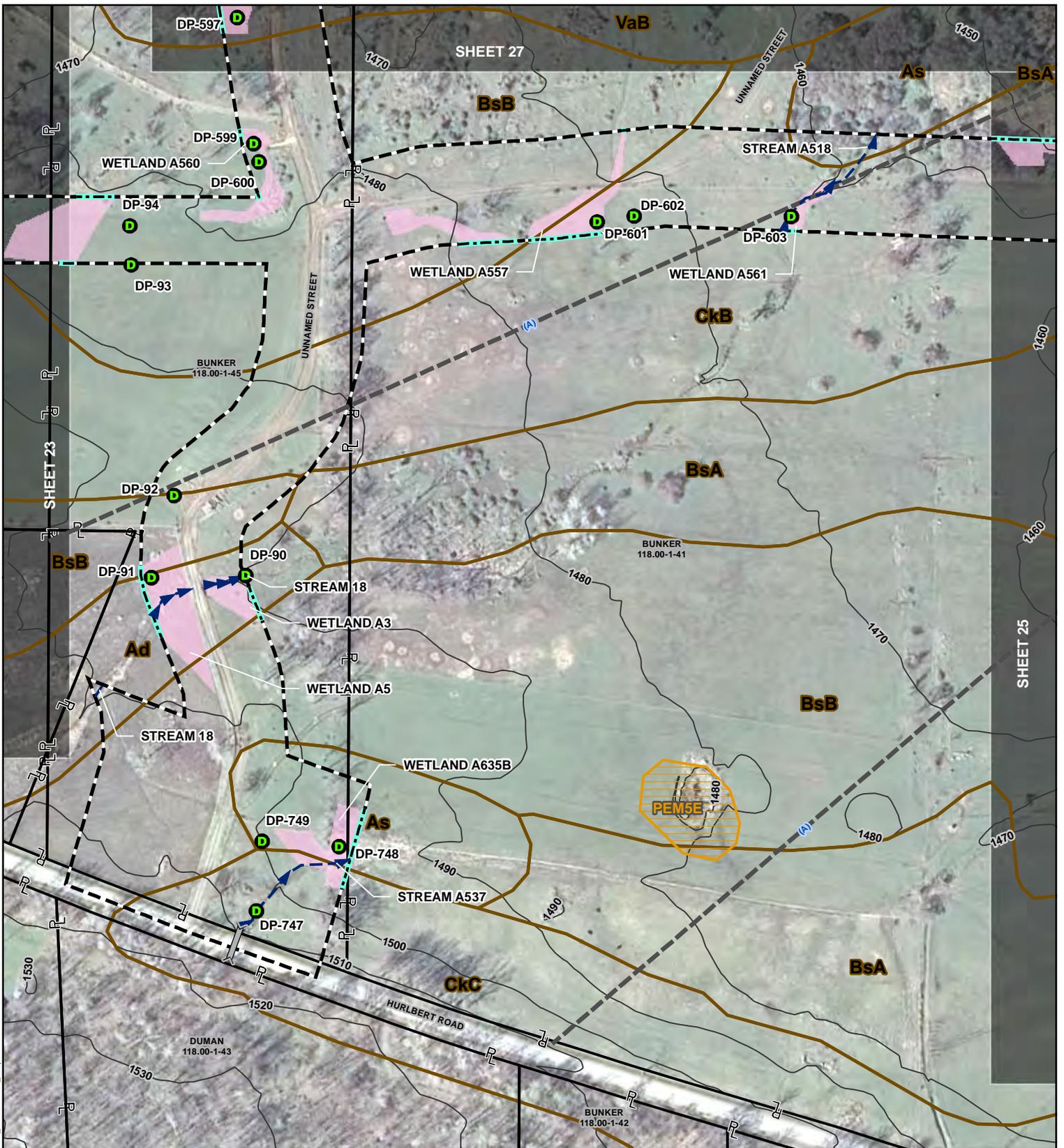
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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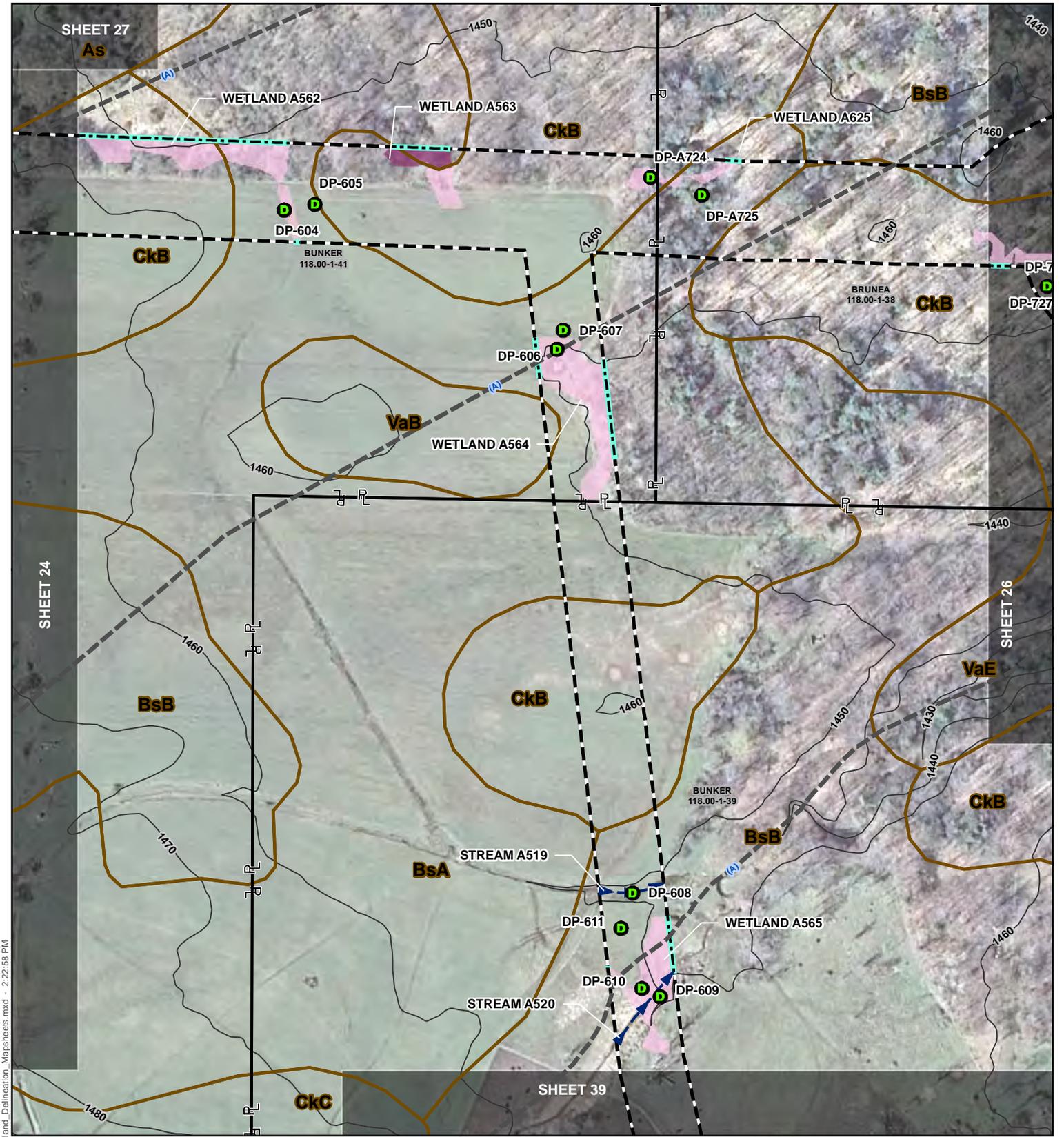


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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	

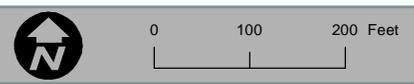


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**SHEET 24 OF 108**

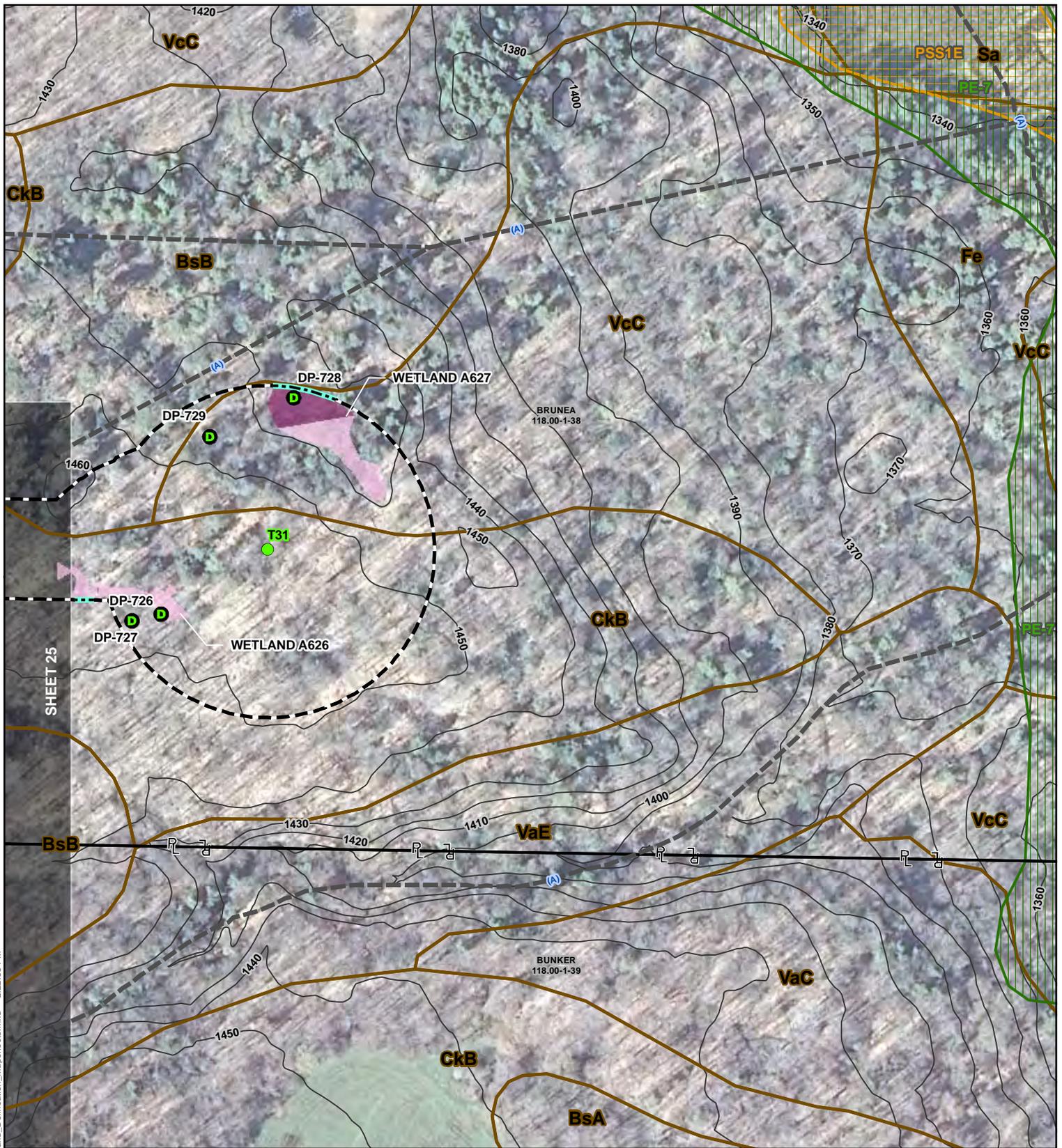


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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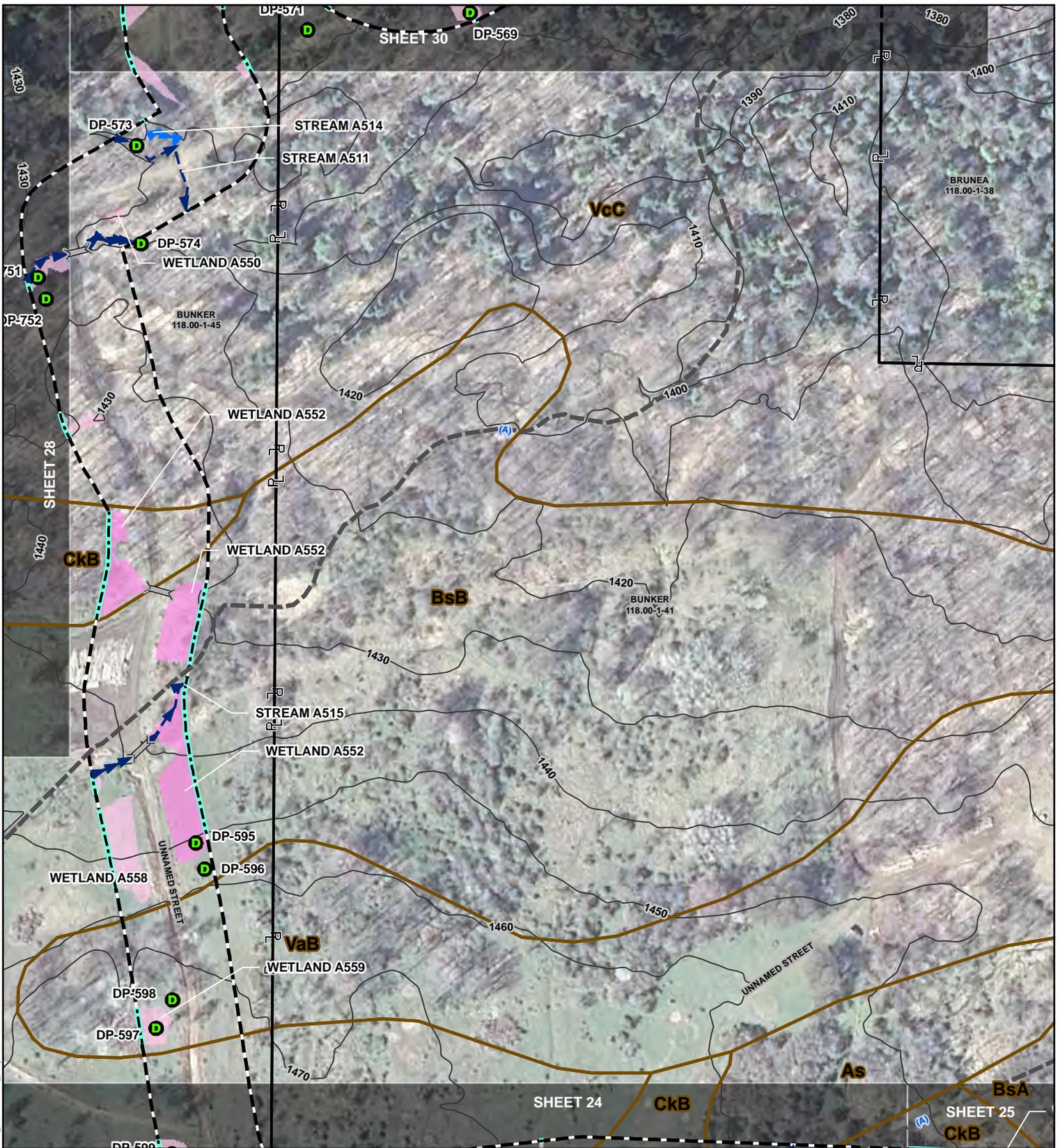
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	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



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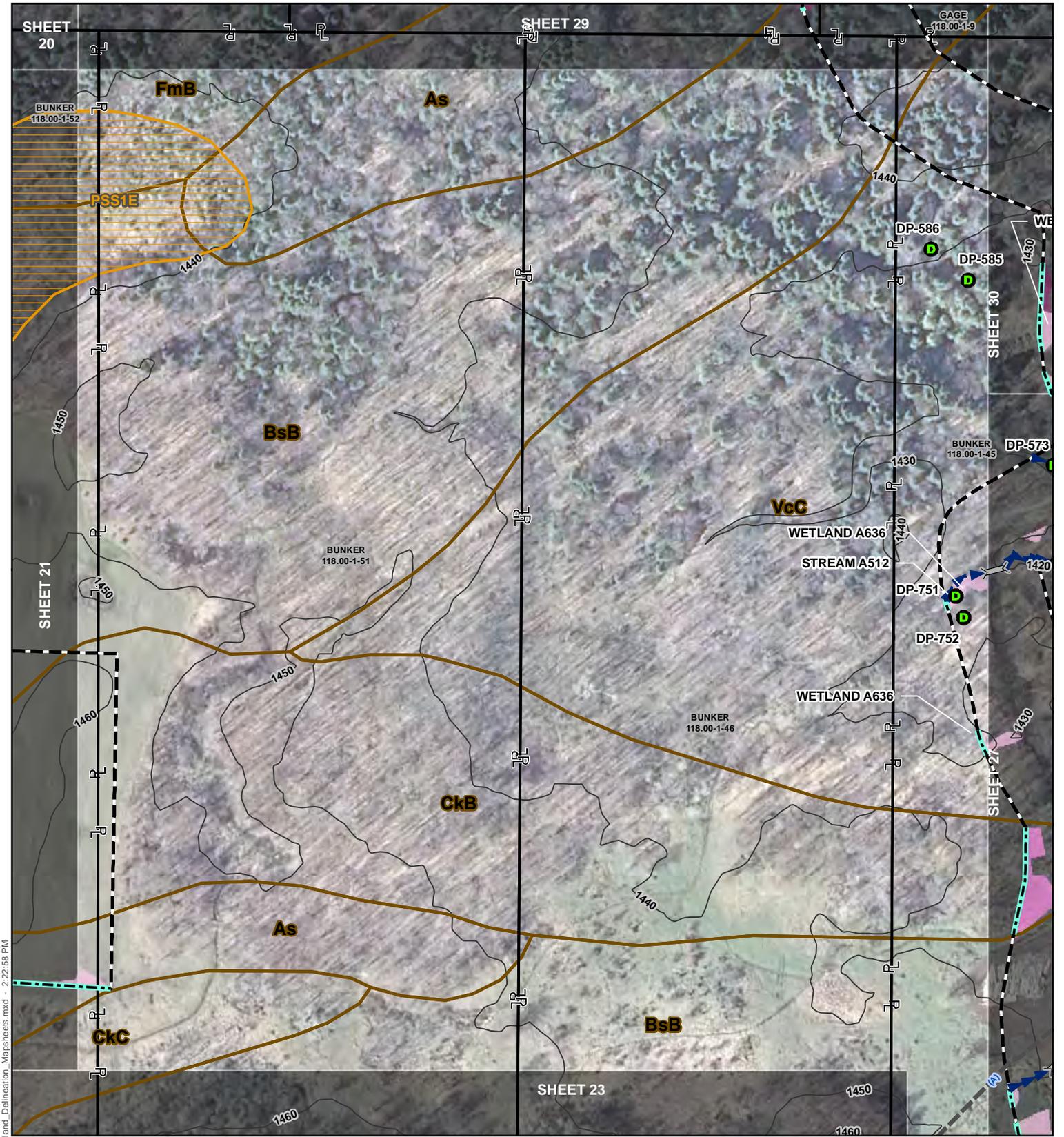
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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	



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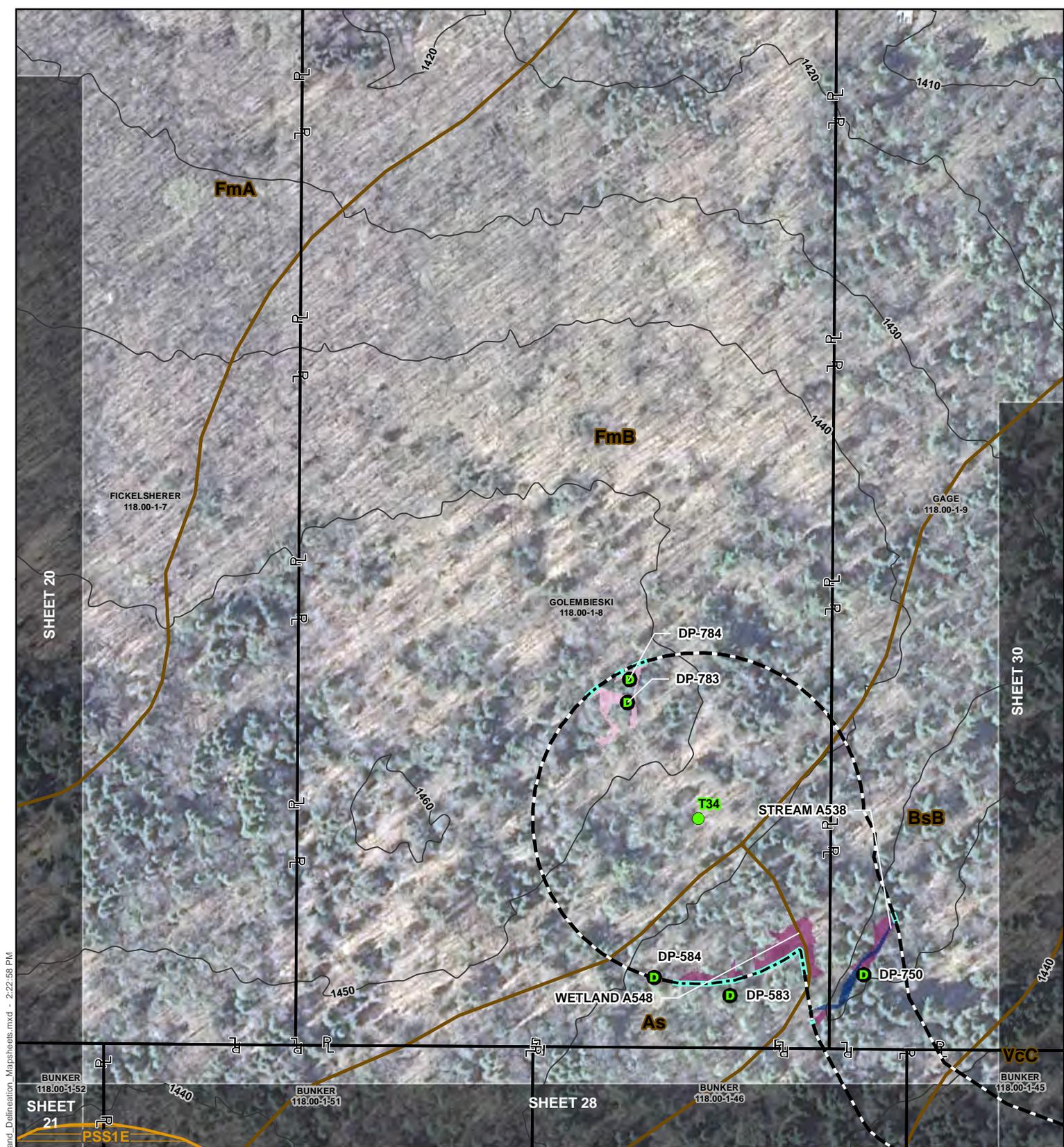
	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

Author: AK      Aerial Date: 3/21/2012      Revision Date: 5/4/2017



  
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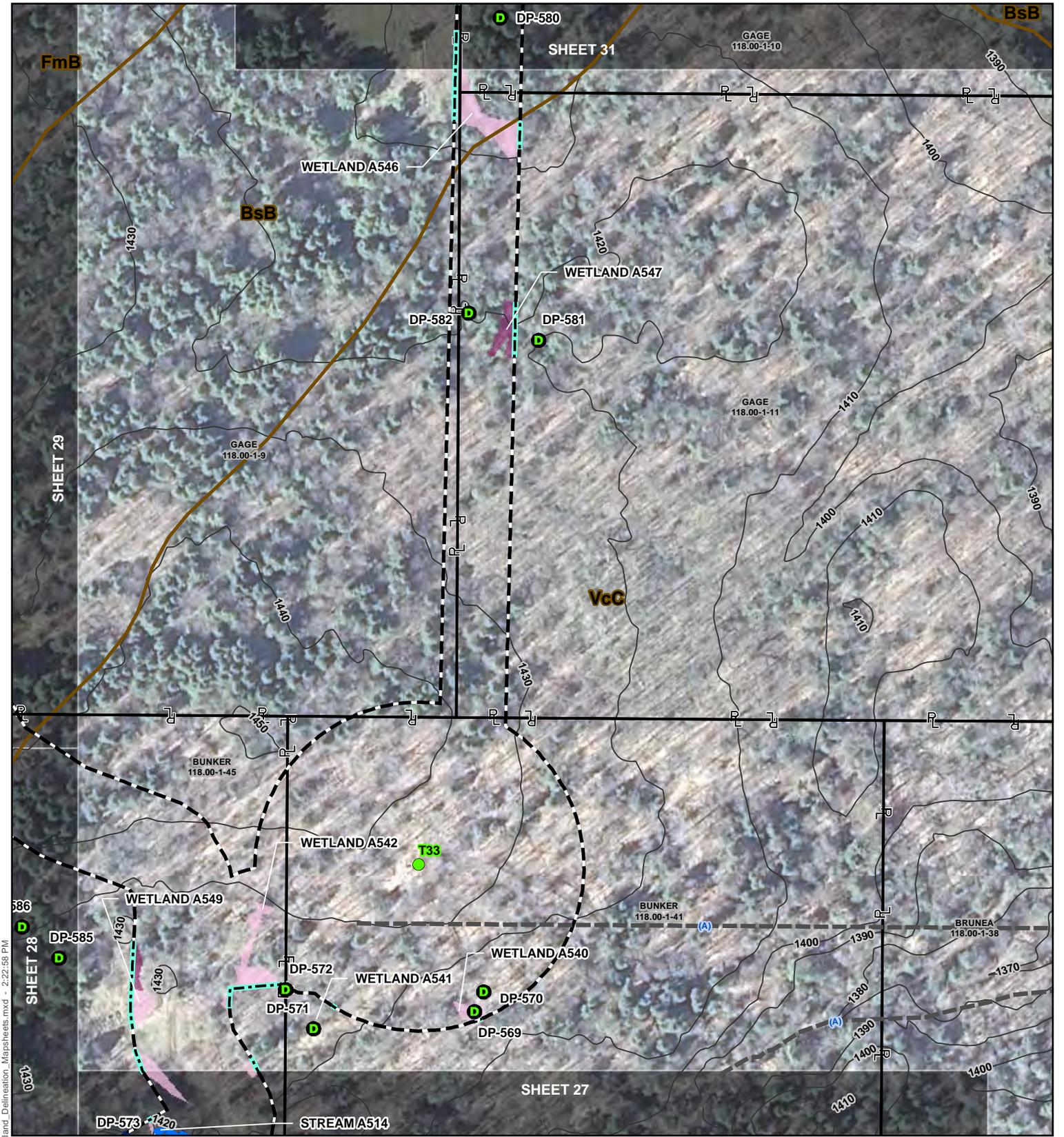
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



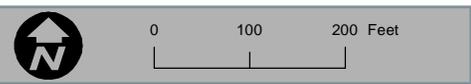
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NW1 Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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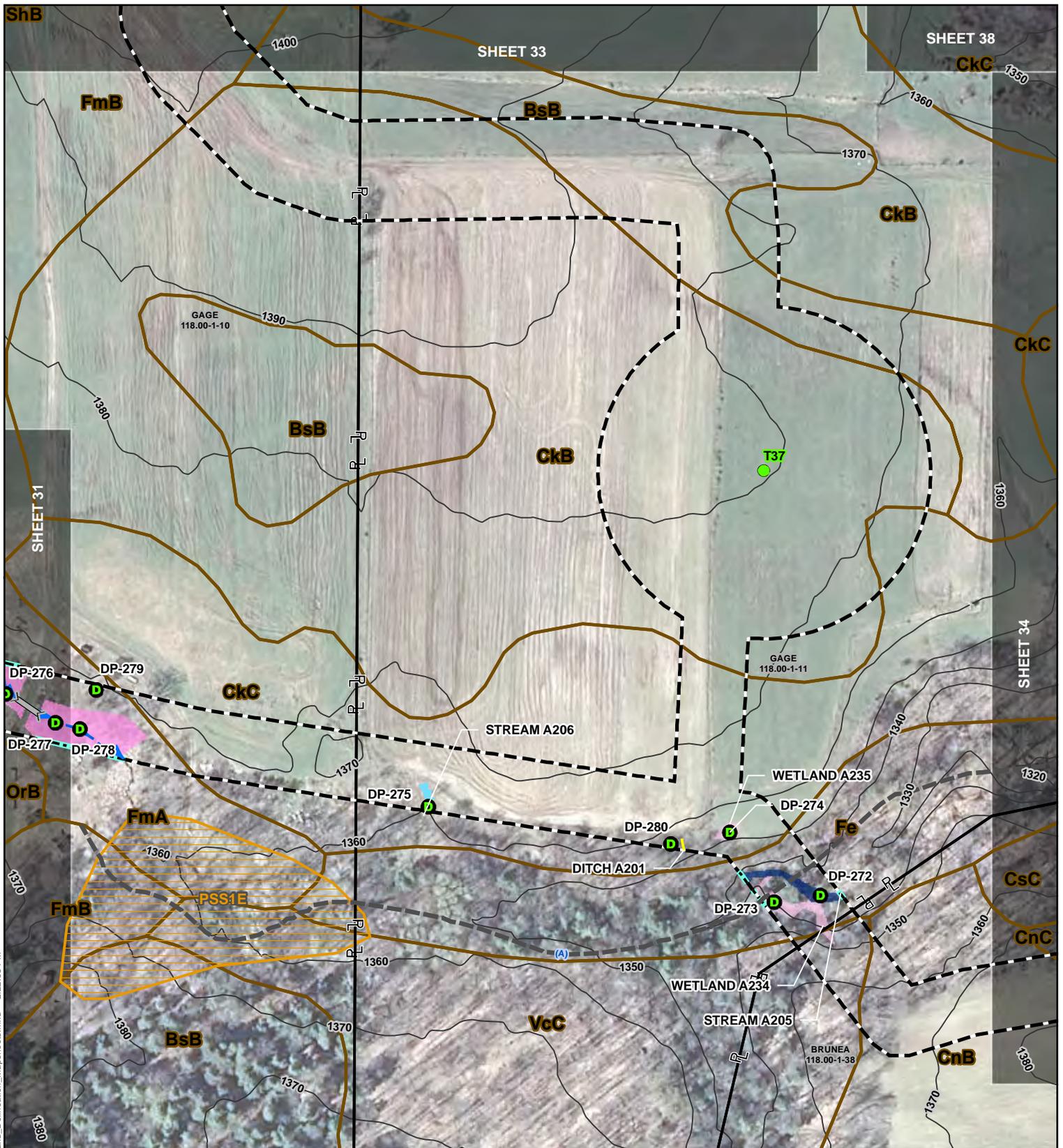
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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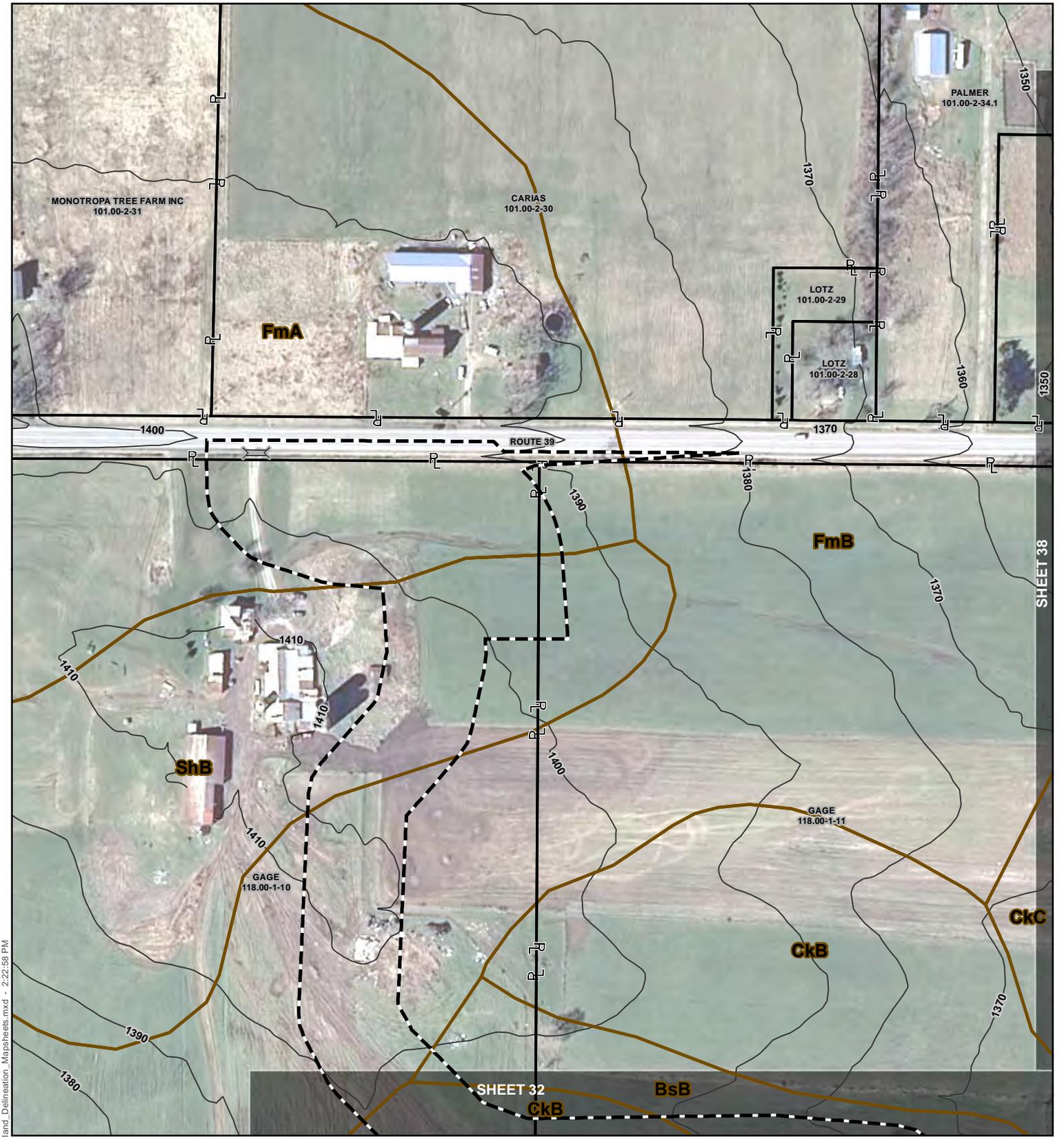


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	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

Author: AK      Aerial Date: 3/21/2012      Revision Date: 5/4/2017

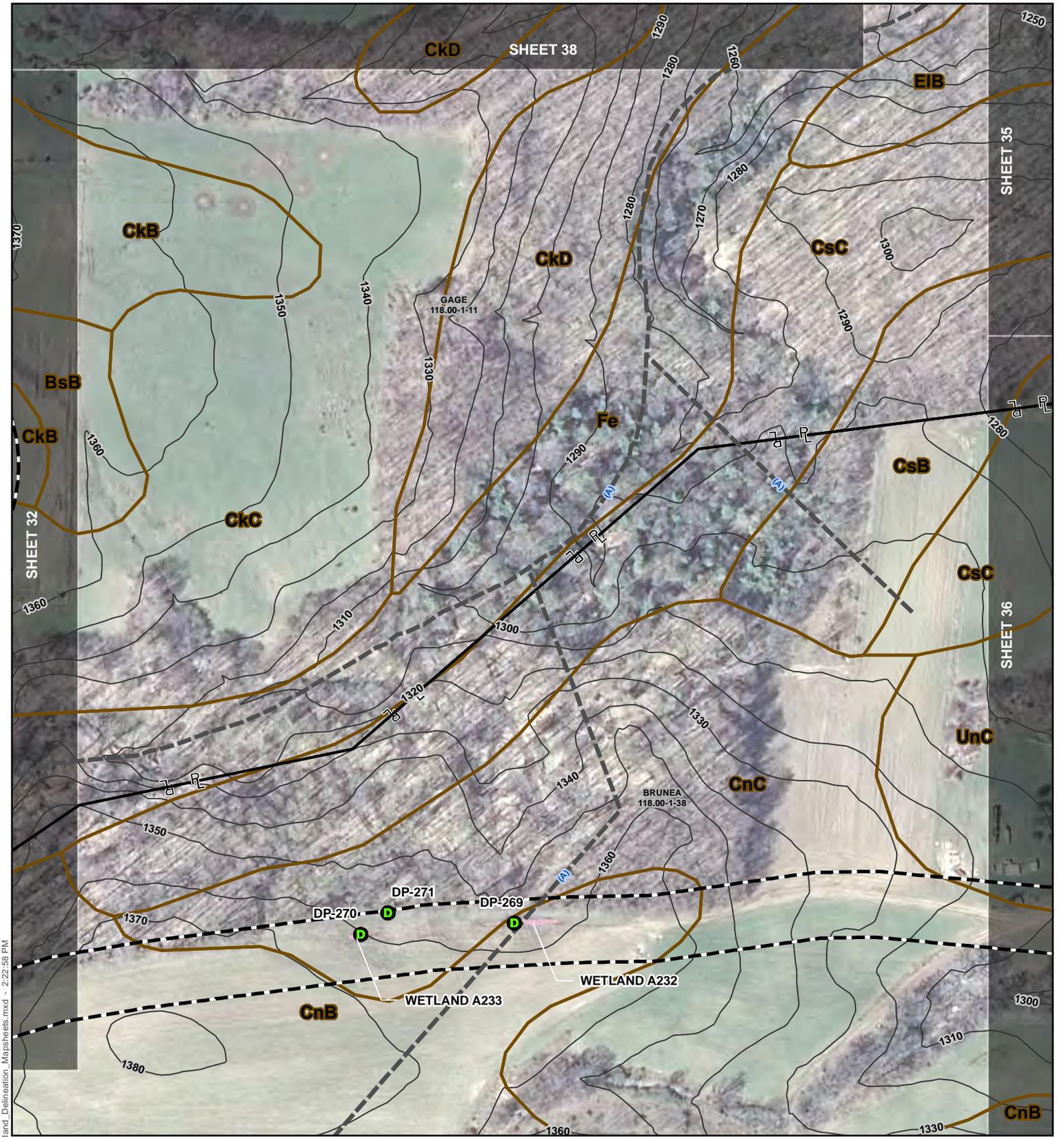
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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	

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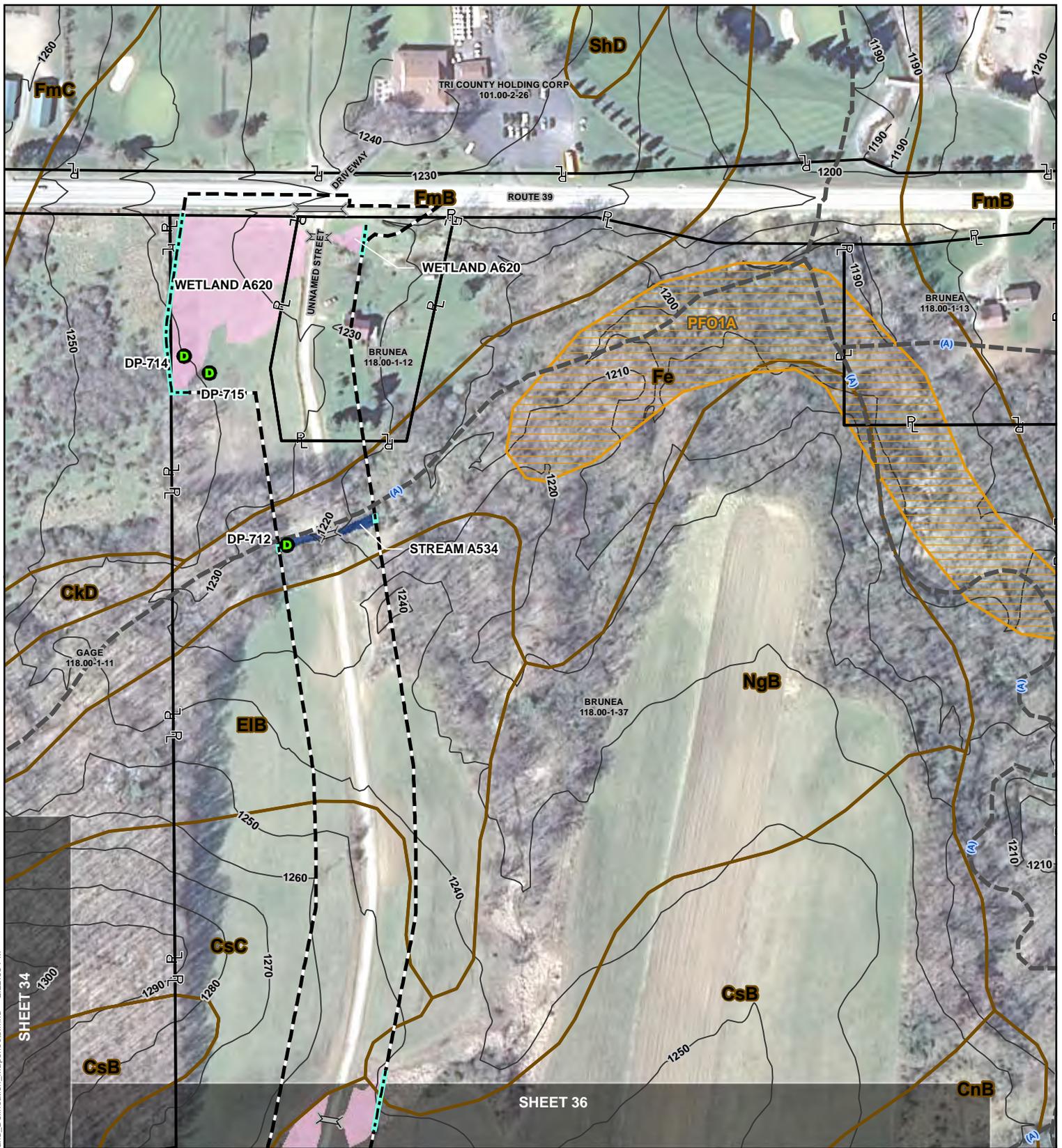
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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	



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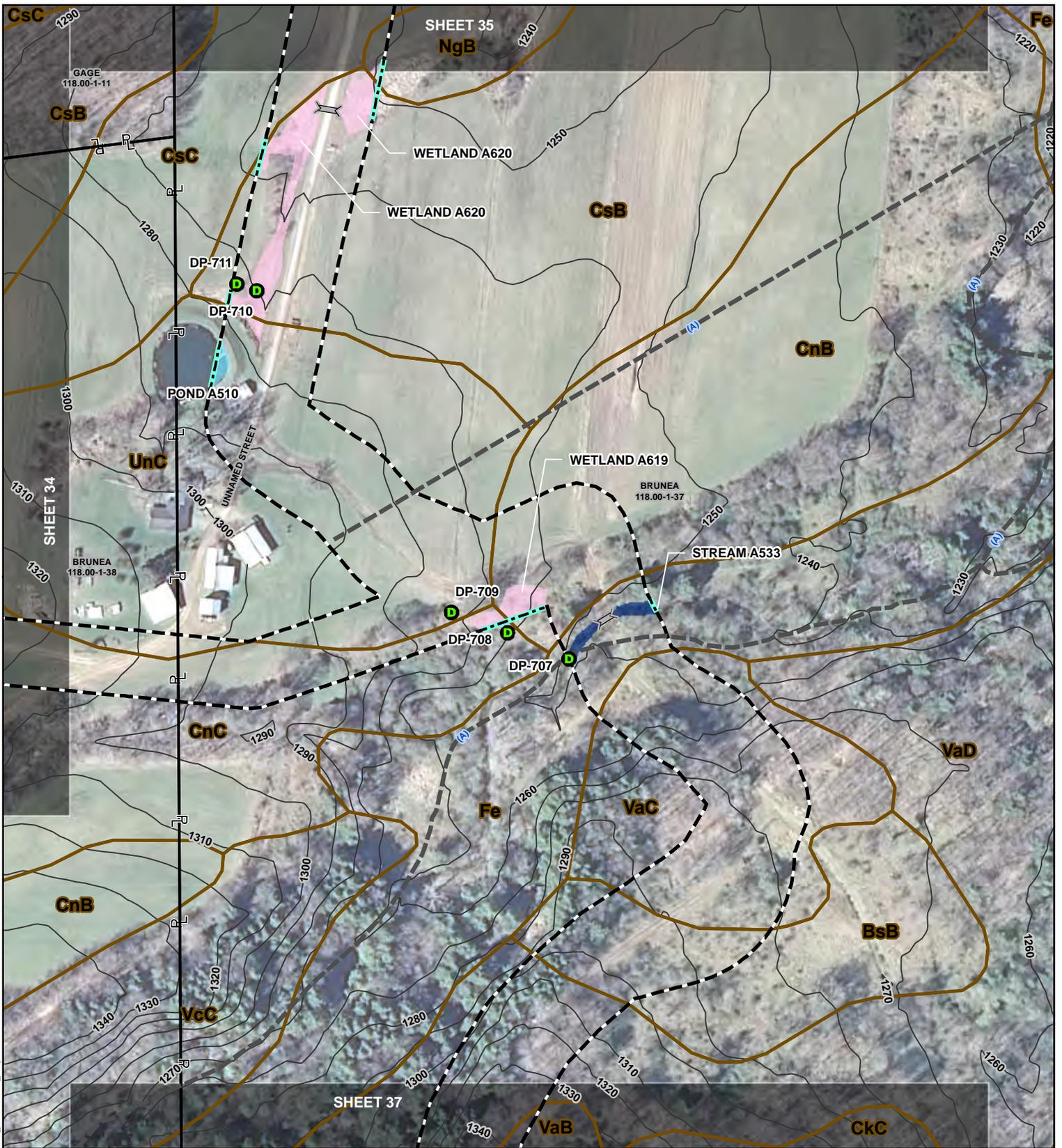


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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



  
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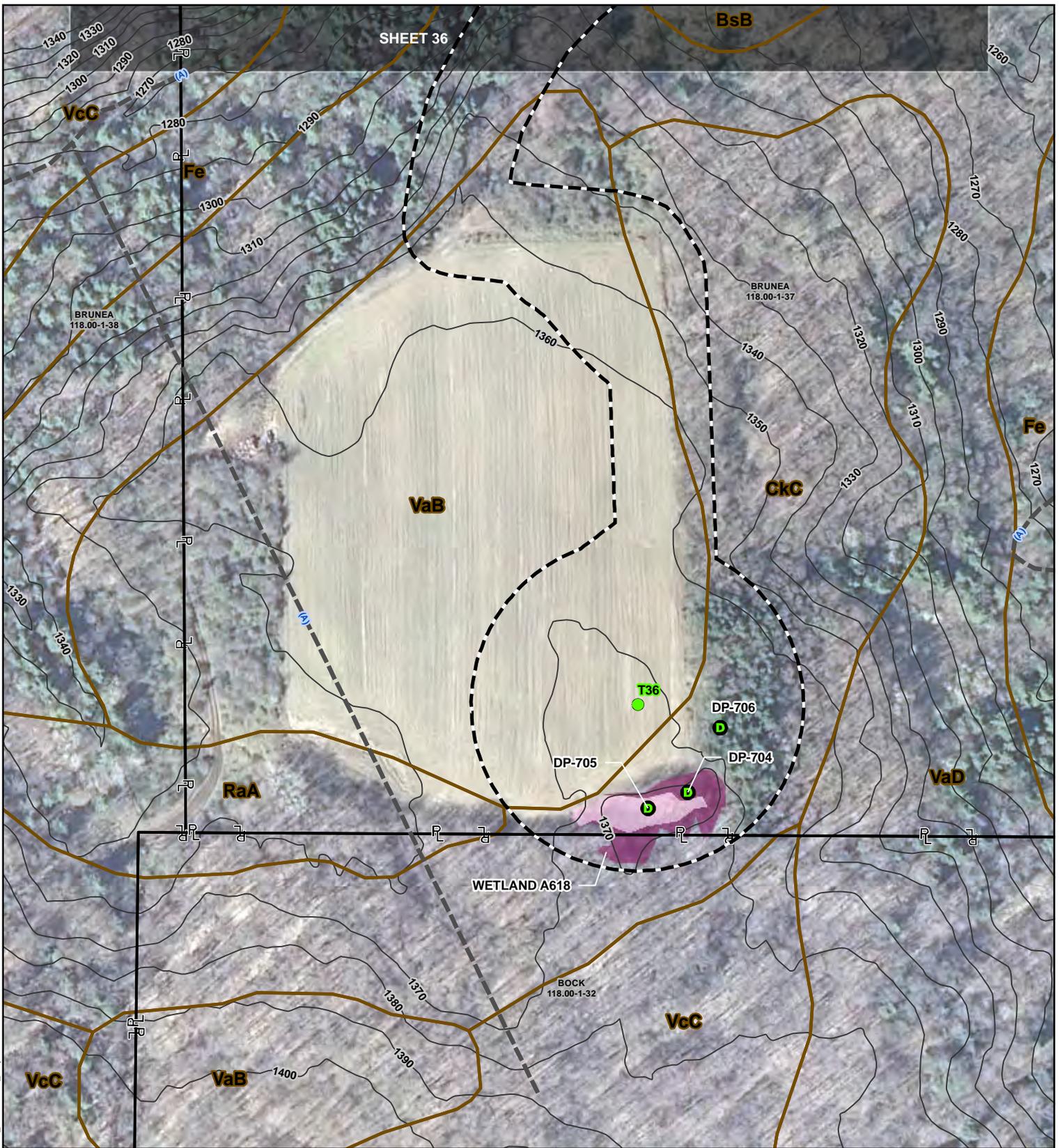
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



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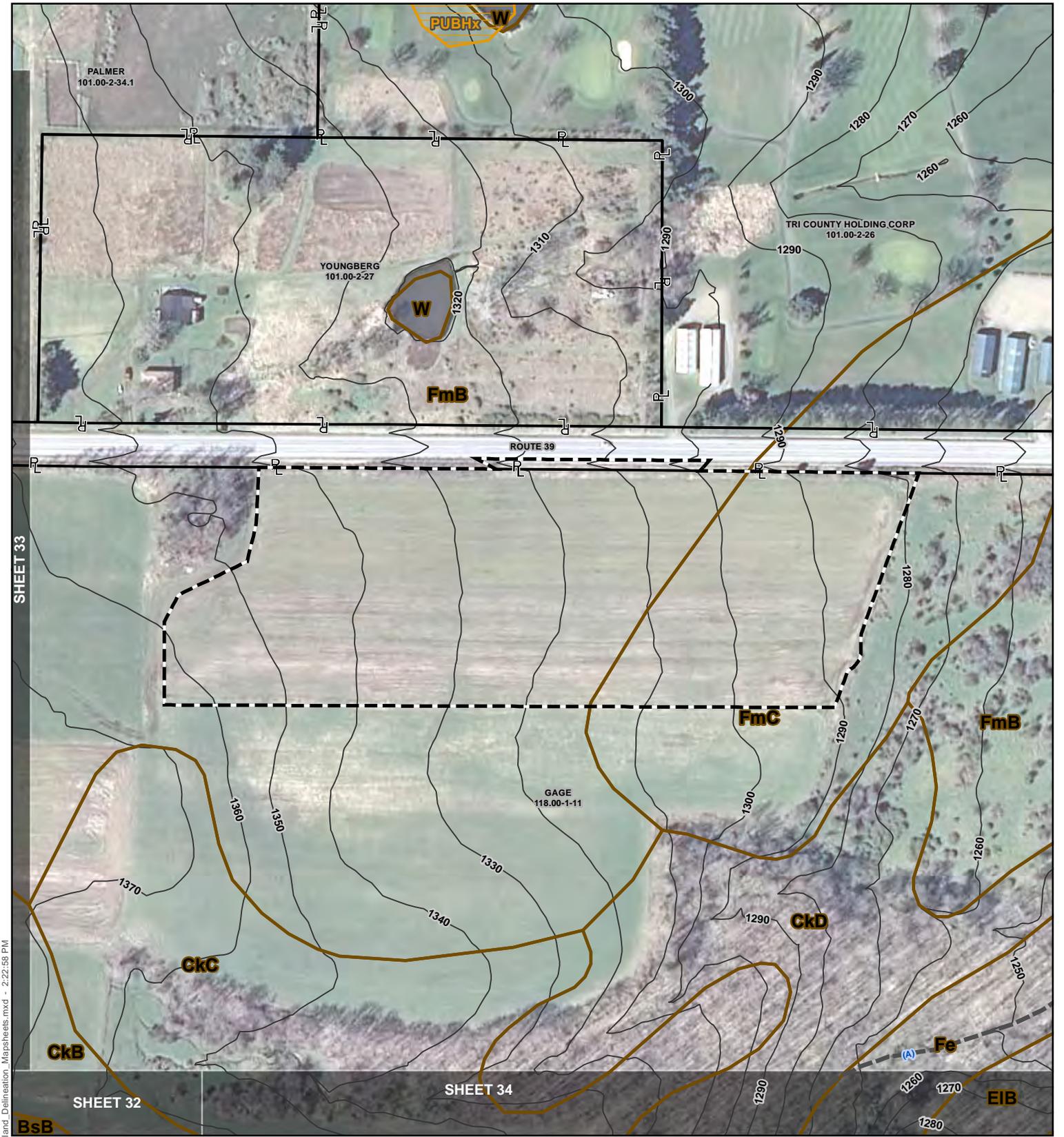
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	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

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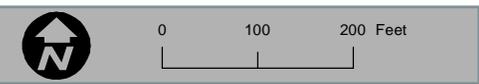
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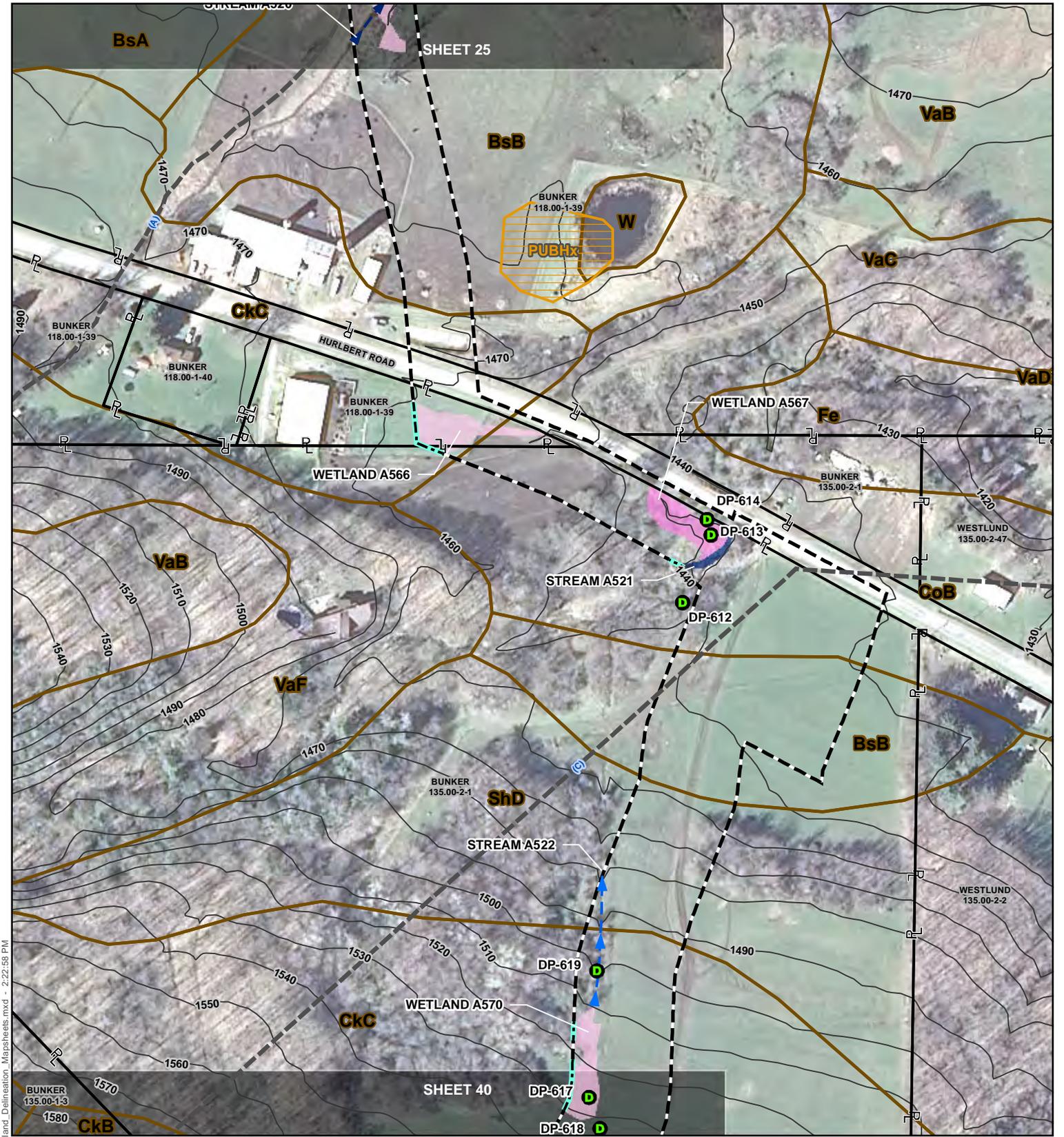
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| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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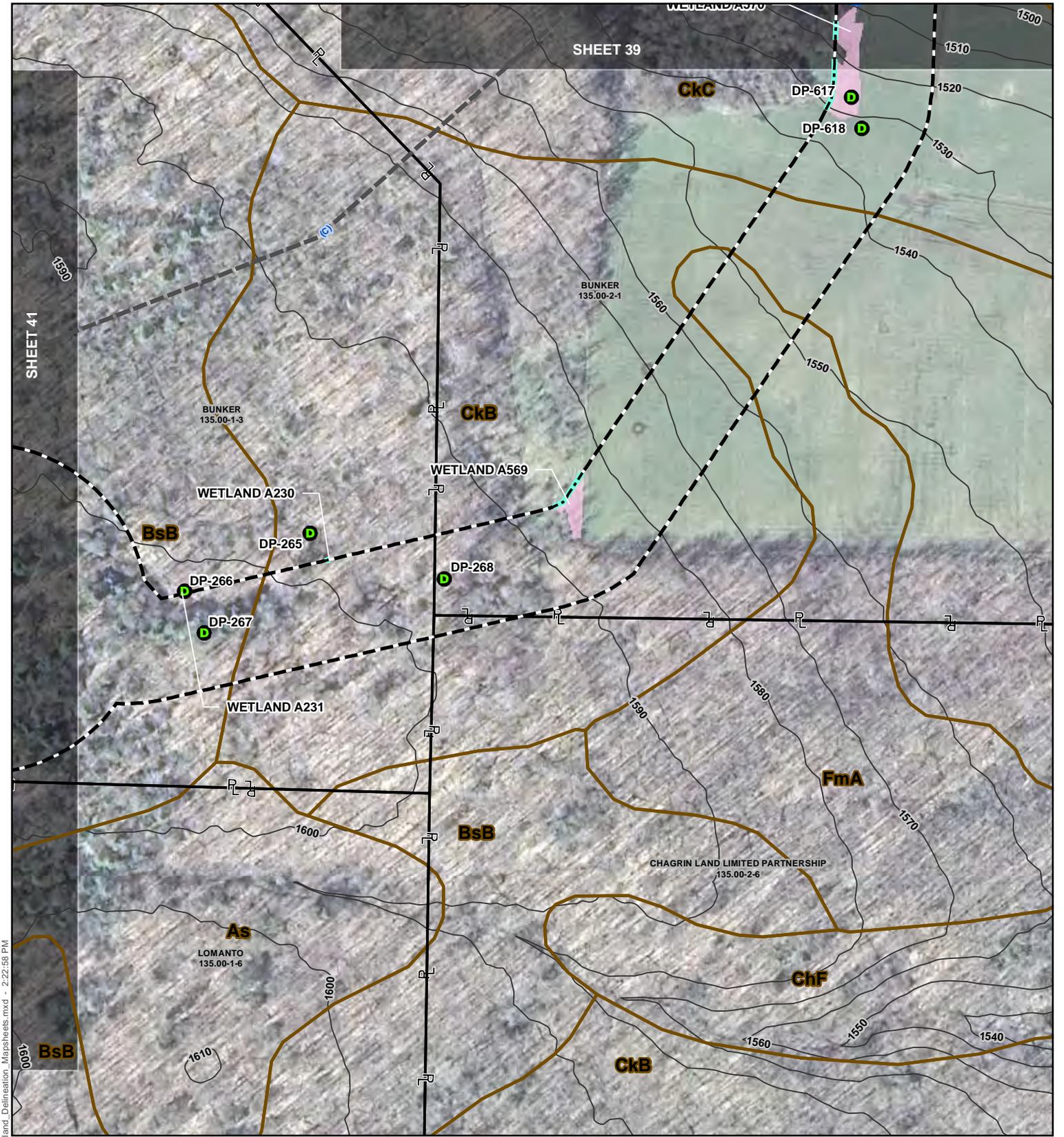


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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
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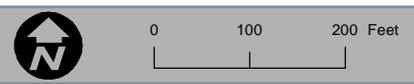
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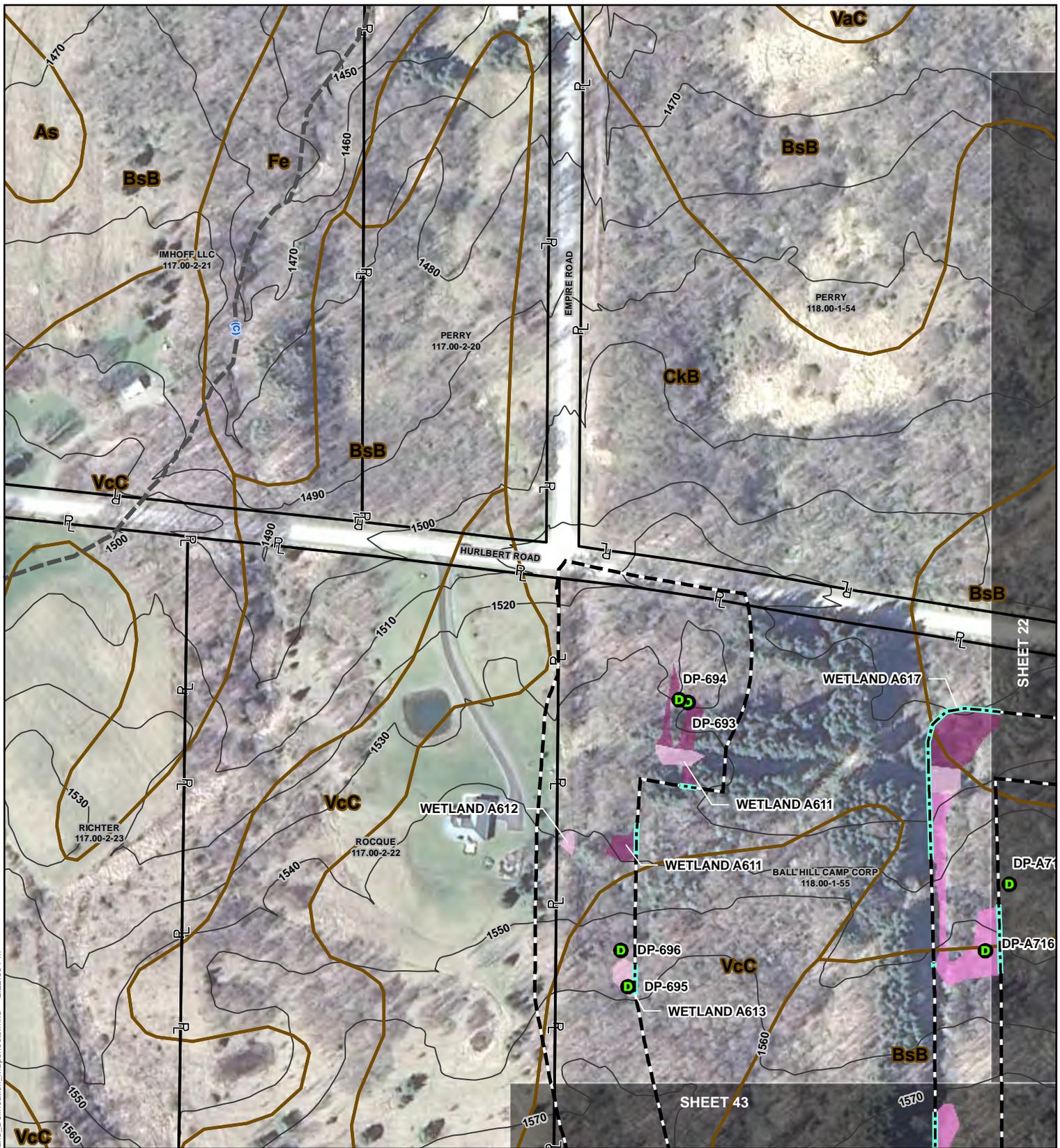
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWSI Wetland              |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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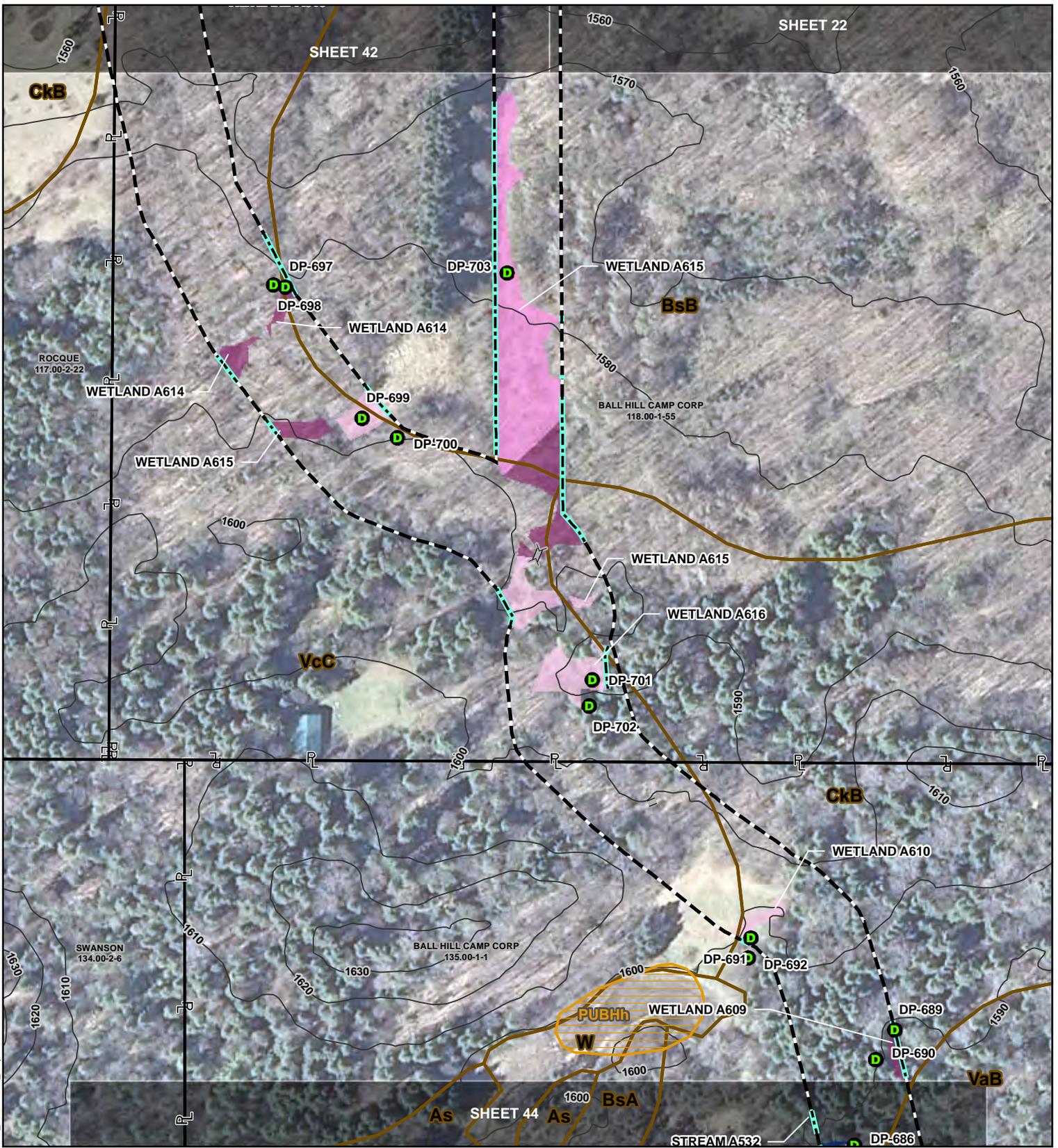


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	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

Author: AK      Aerial Date: 3/21/2012      Revision Date: 5/4/2017

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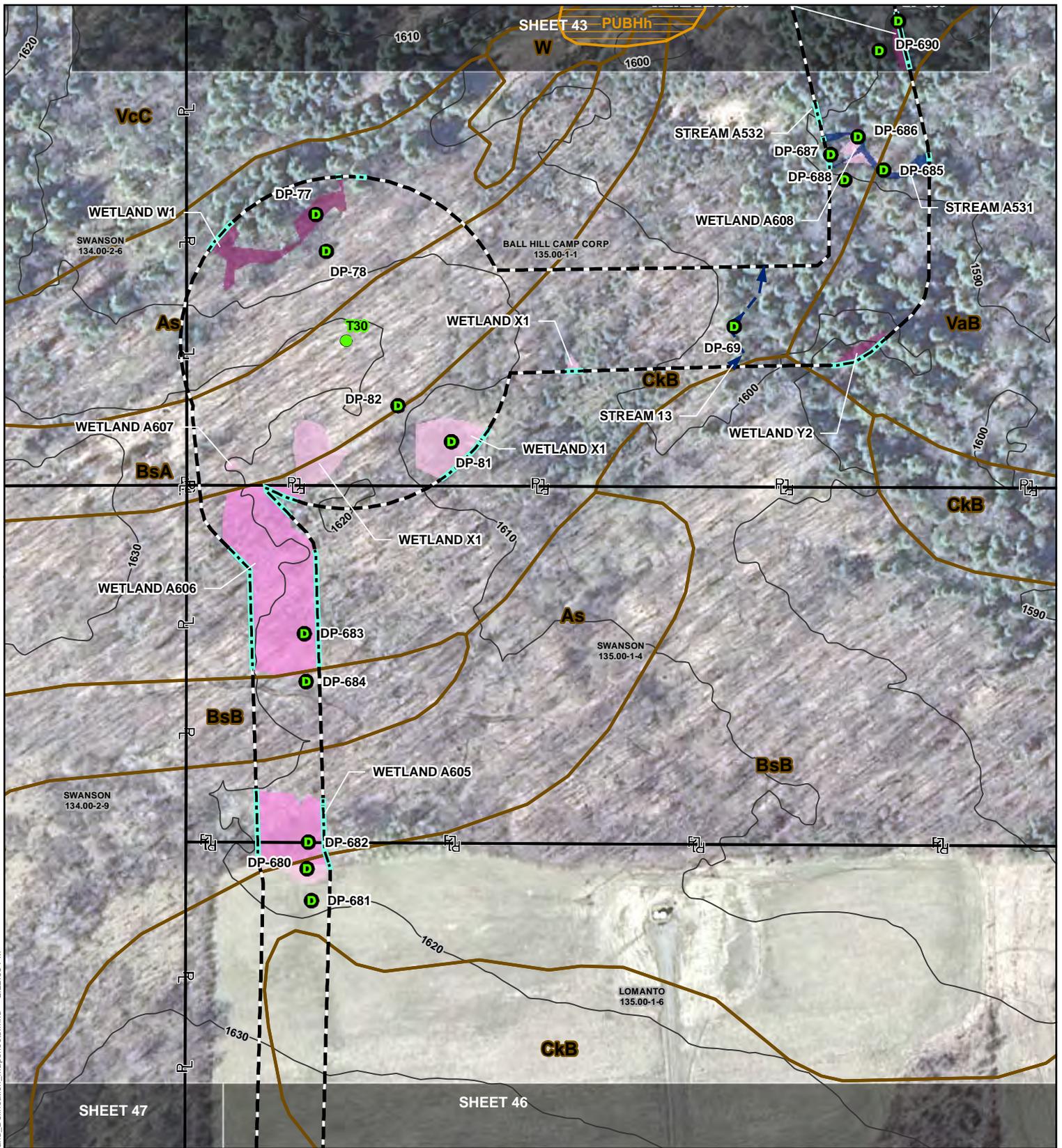
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



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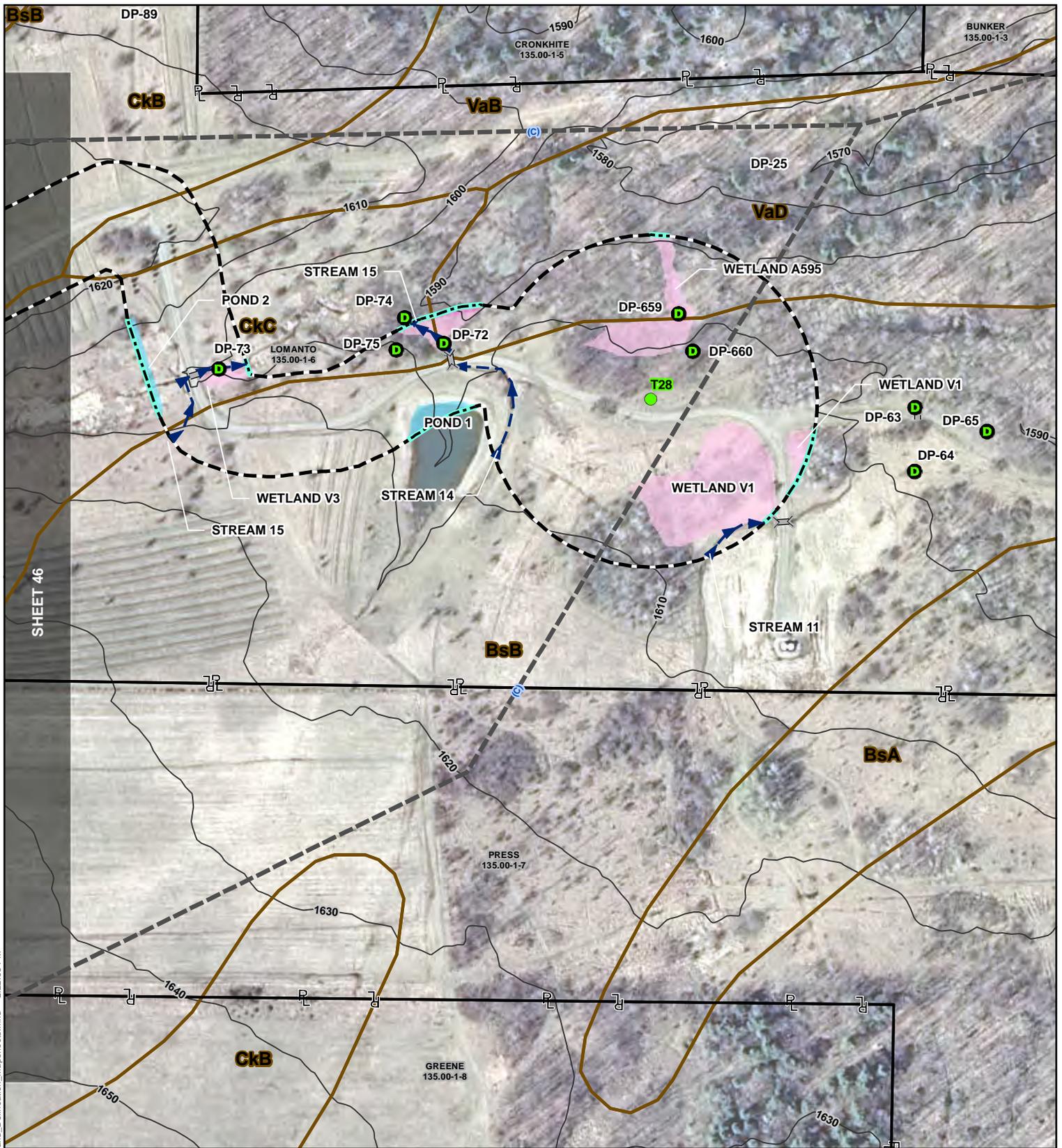
	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

Author: AK      Aerial Date: 3/21/2012      Revision Date: 5/4/2017






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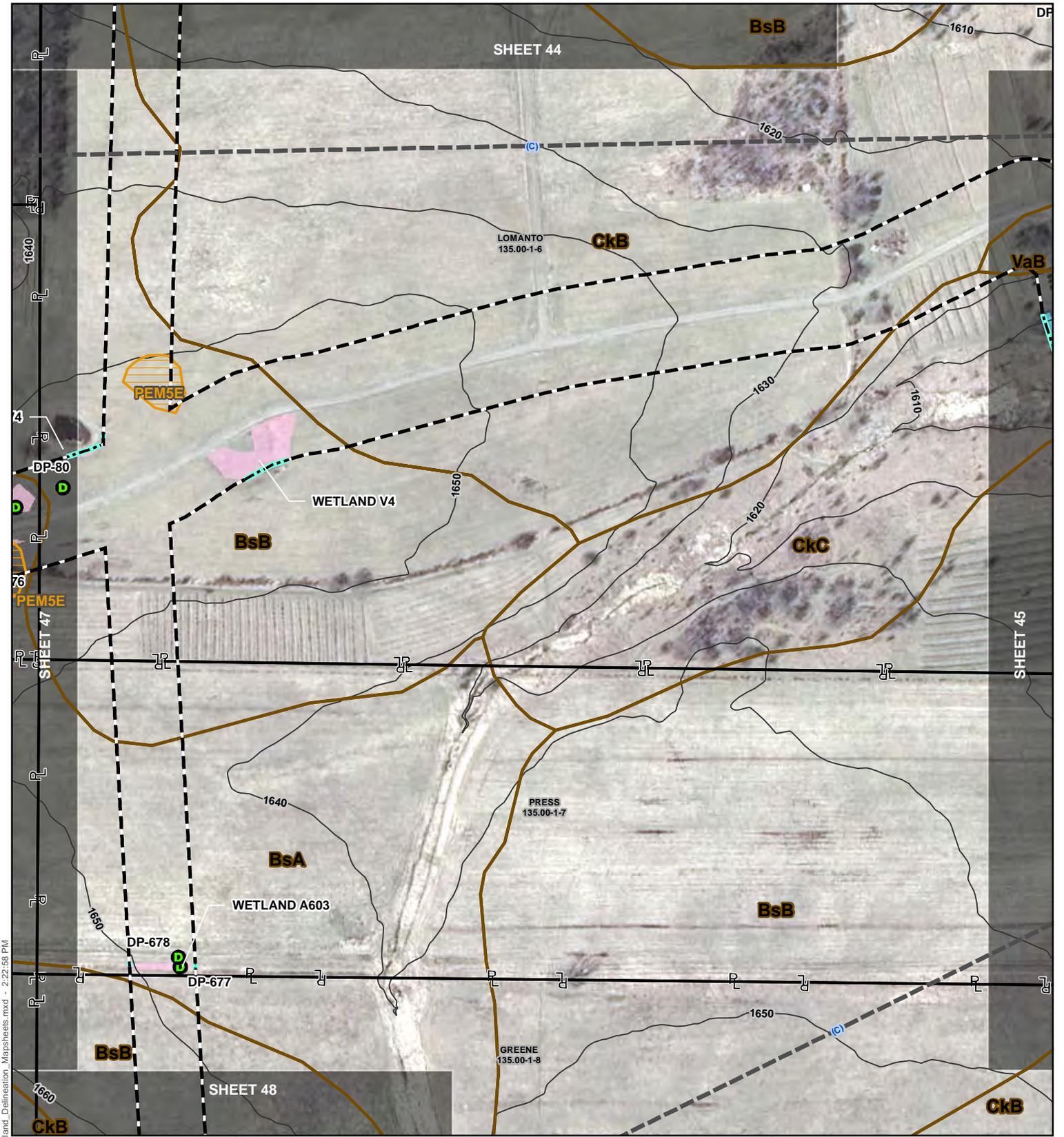


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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

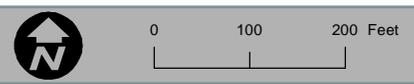


  
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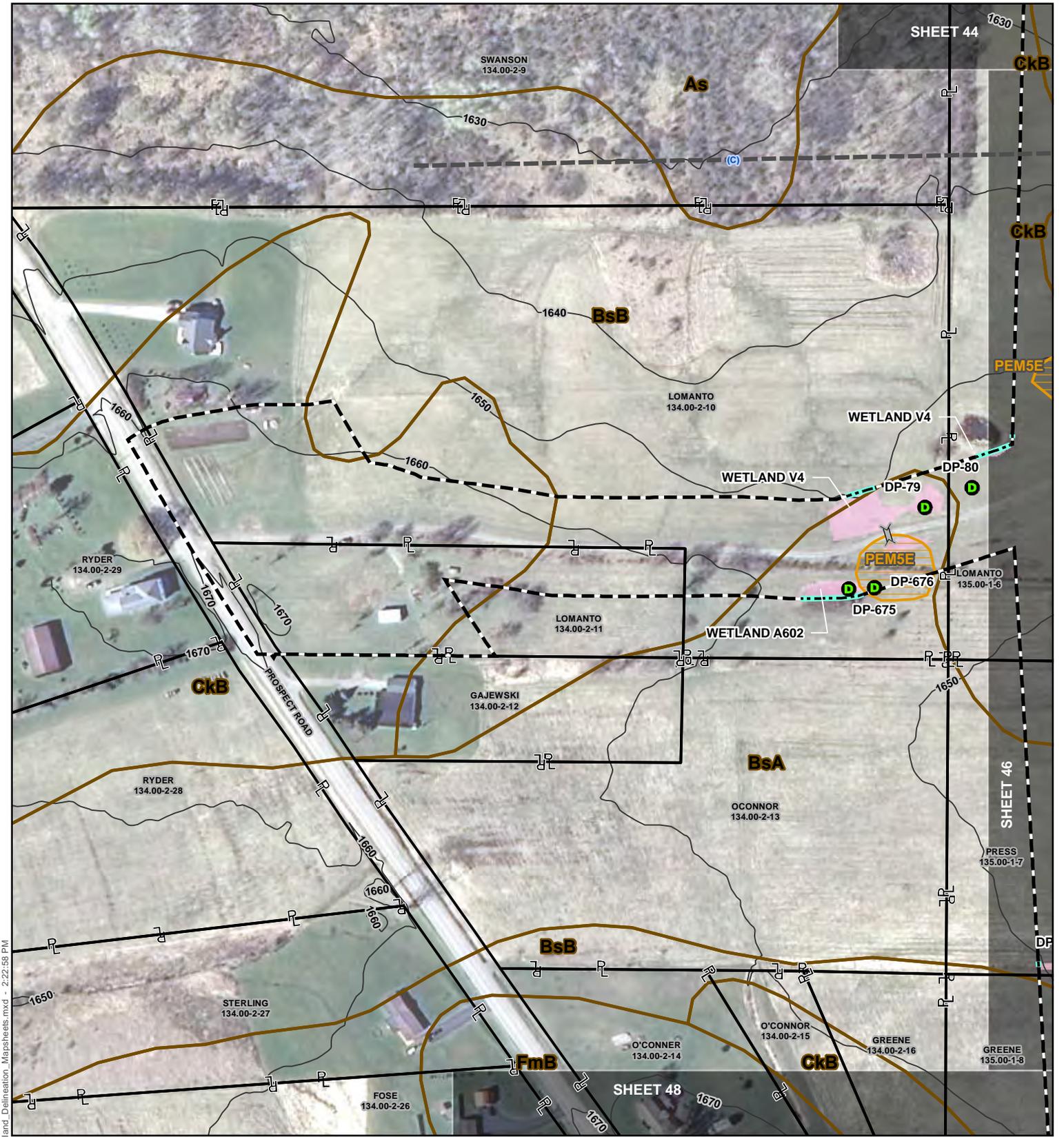


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|--|---------------------------------|--|--------------------------------|--|---------------------------|
|  | Data Point                      |  | NYSDEC Stream (Standard)       |  | NW1 Wetland               |
|  | Proposed Turbine                |  | Contours (10ft)                |  | NYSDEC Freshwater Wetland |
|  | Culvert                         |  | Delineated Intermittent Stream |  | Soil Complex Boundary     |
|  | Delineation Continuation Line   |  | Delineated Perennial Stream    |  | Parcel                    |
|  | Delineated Jurisdictional Ditch |  | Delineated Pond                |  | Project Study Limits      |
|  | Delineated Ephemeral Stream     |  | Delineated PEM Wetland         |  | Matchline                 |
|  | Delineated Intermittent Stream  |  | Delineated PFO Wetland         |  |                           |
|  | Delineated Perennial Stream     |  | Delineated PSS Wetland         |  |                           |



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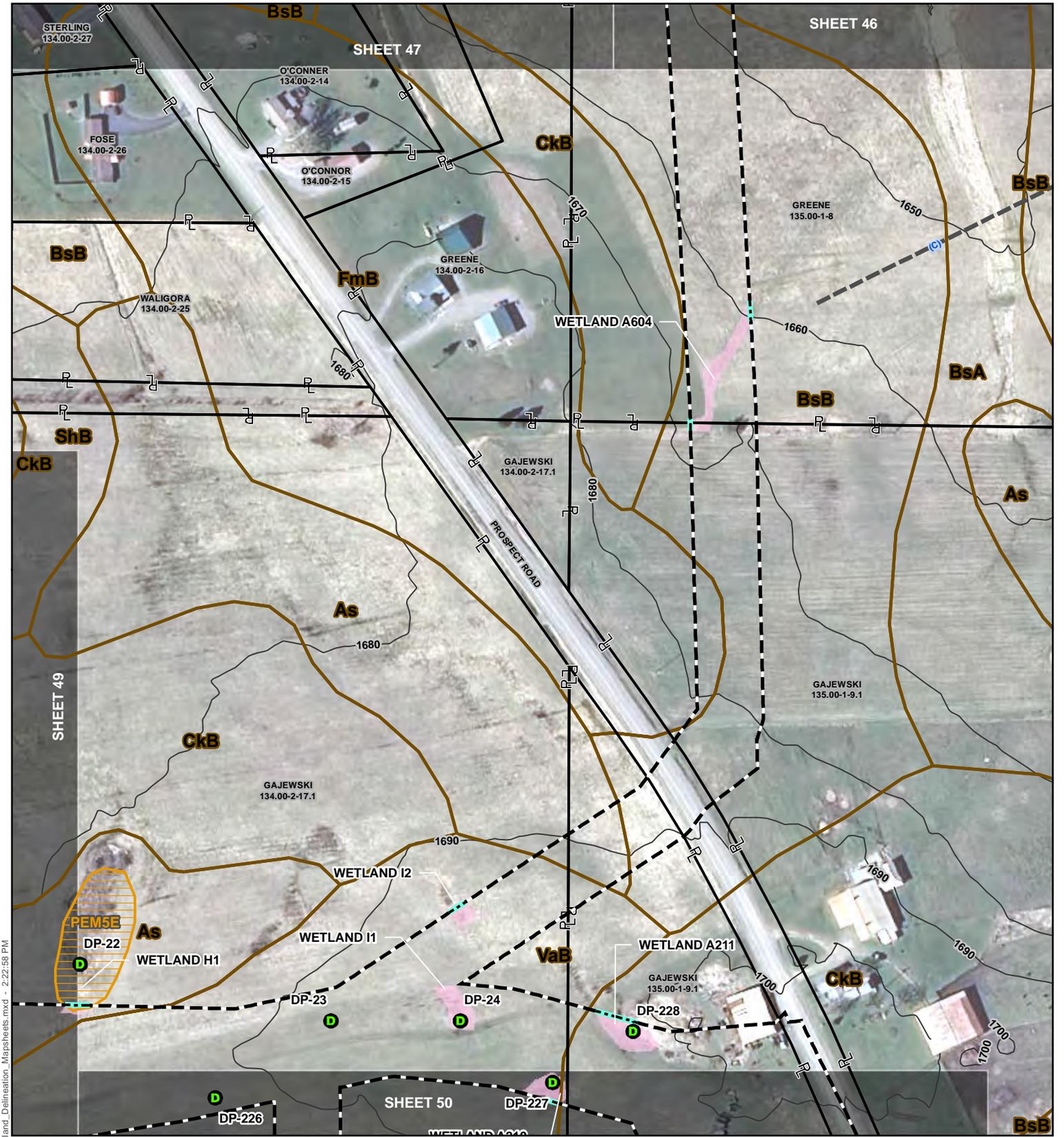
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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	

0 100 200 Feet

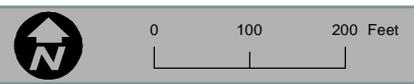
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**WETLAND DELINEATION REPORT**  
**SHEET 47 OF 108**

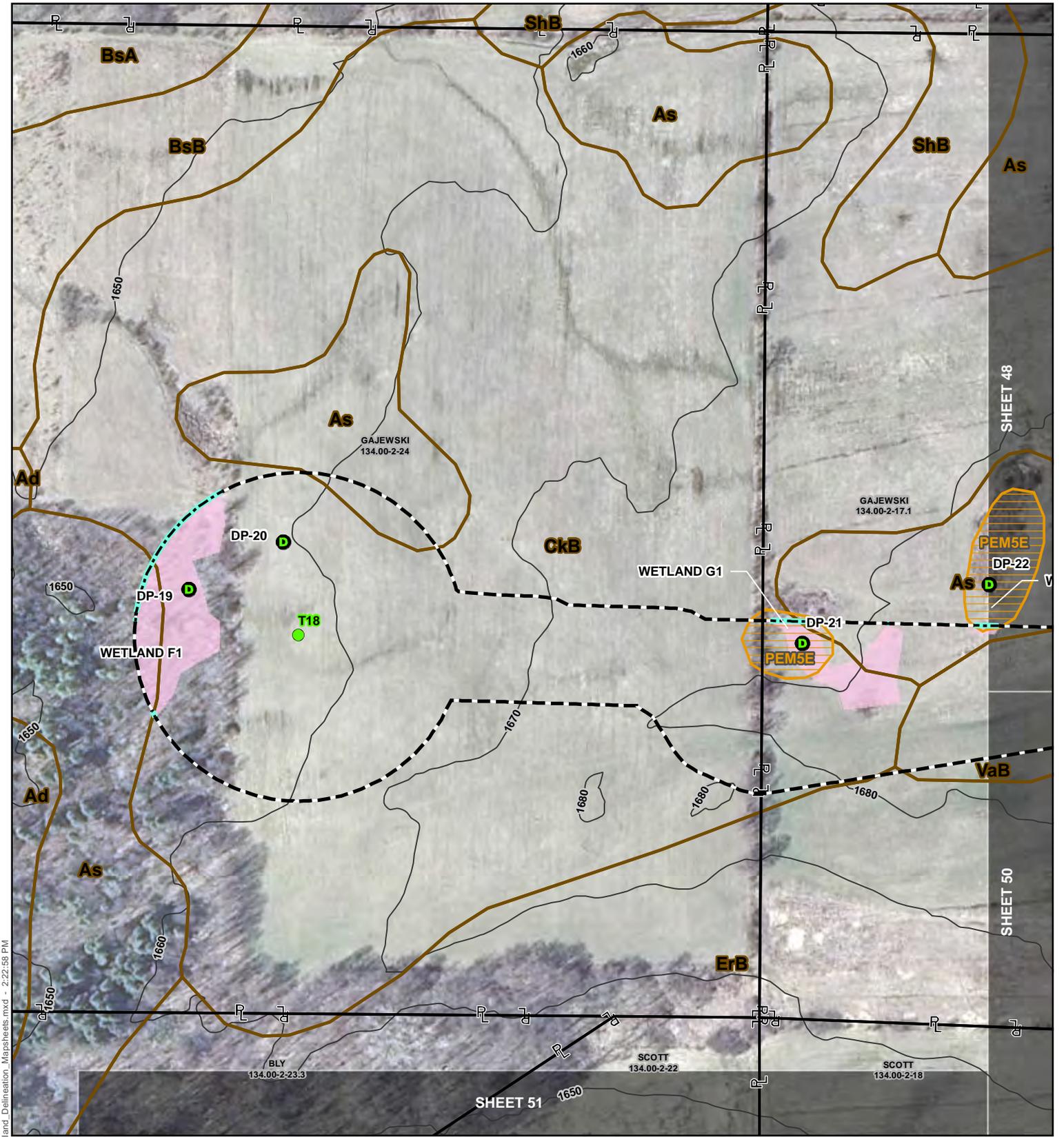


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



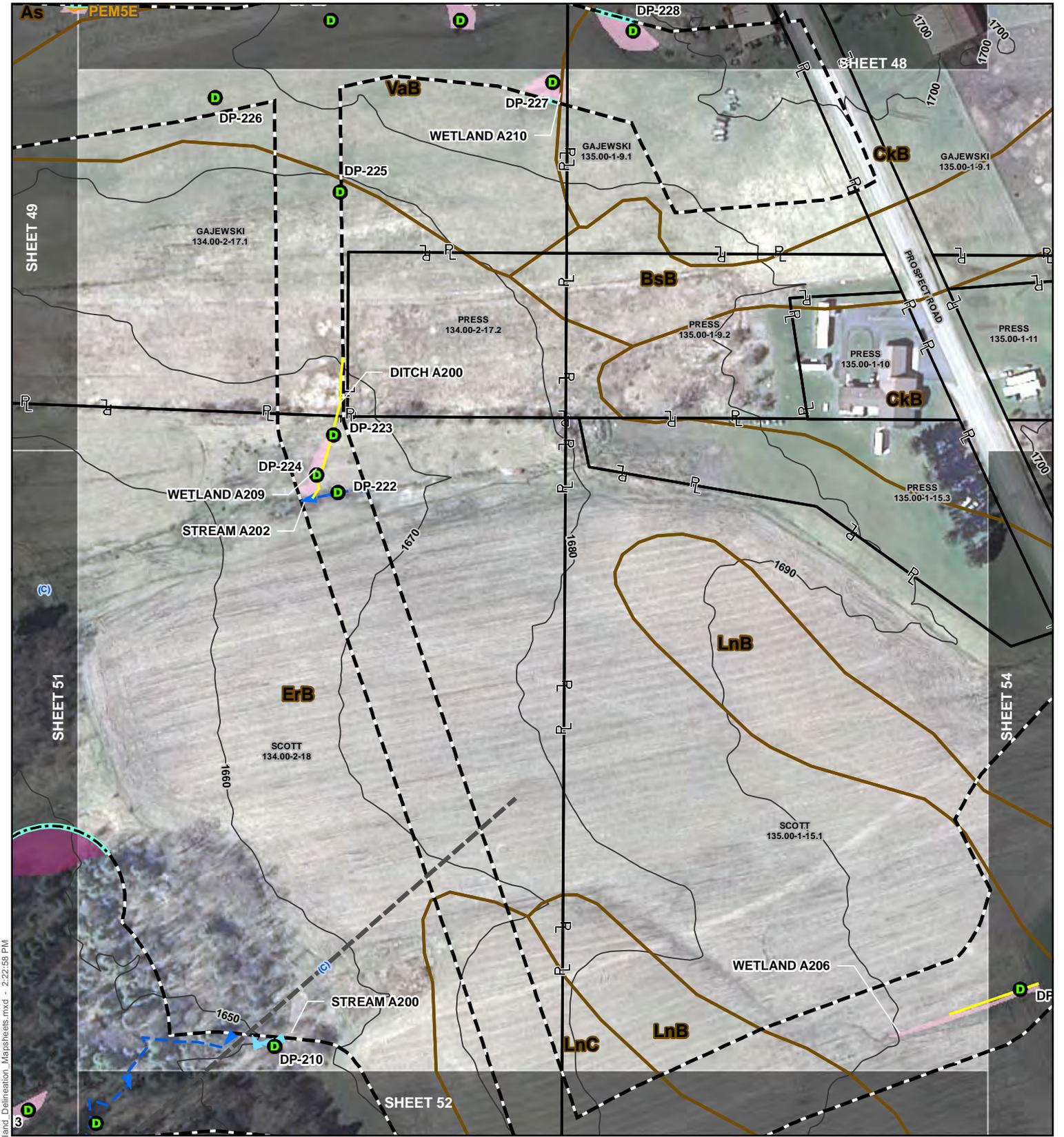
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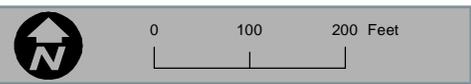
	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

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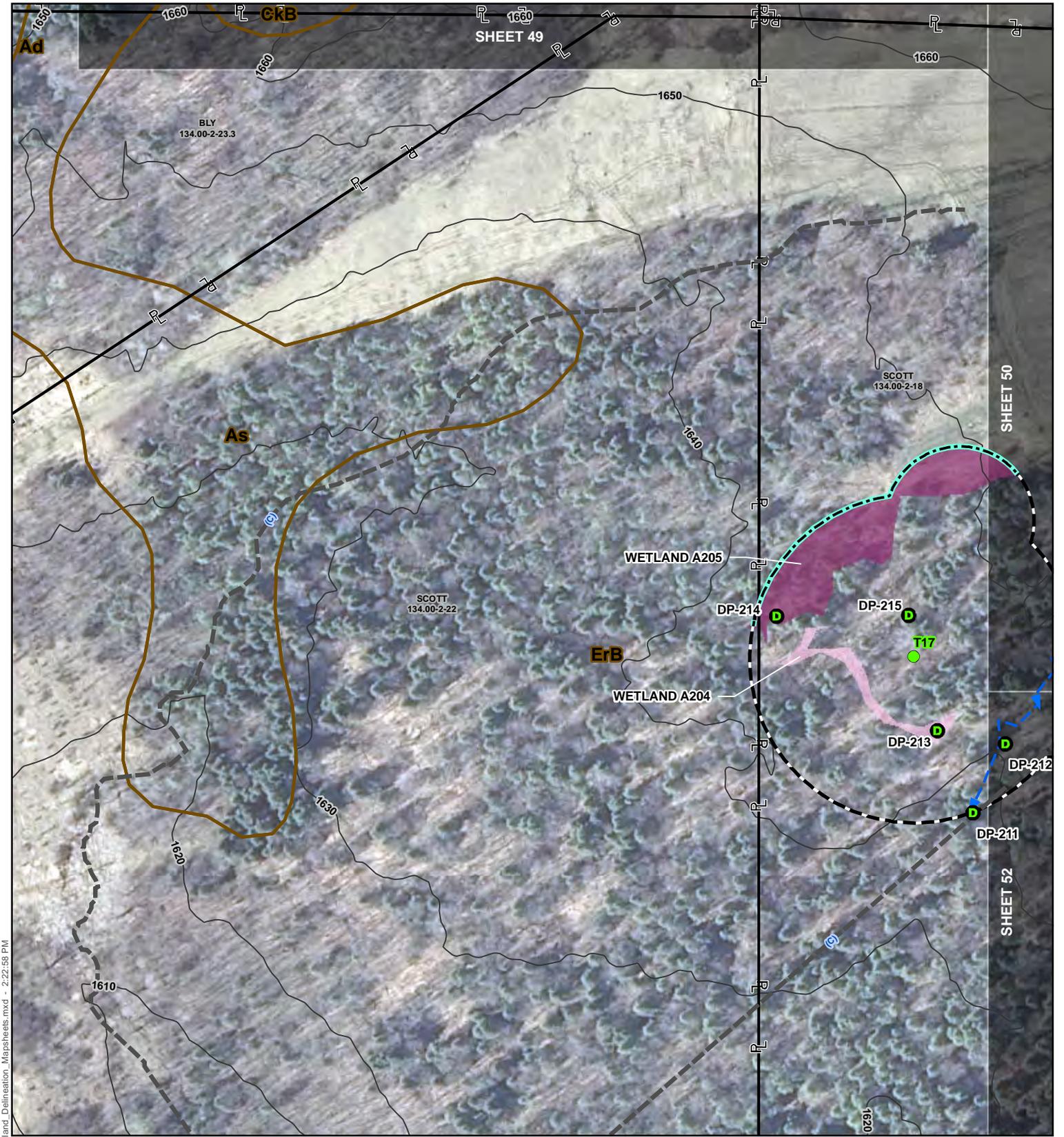
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- |                                 |                                |                           |
|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



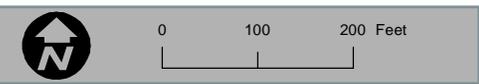
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WETLAND DELINEATION REPORT  
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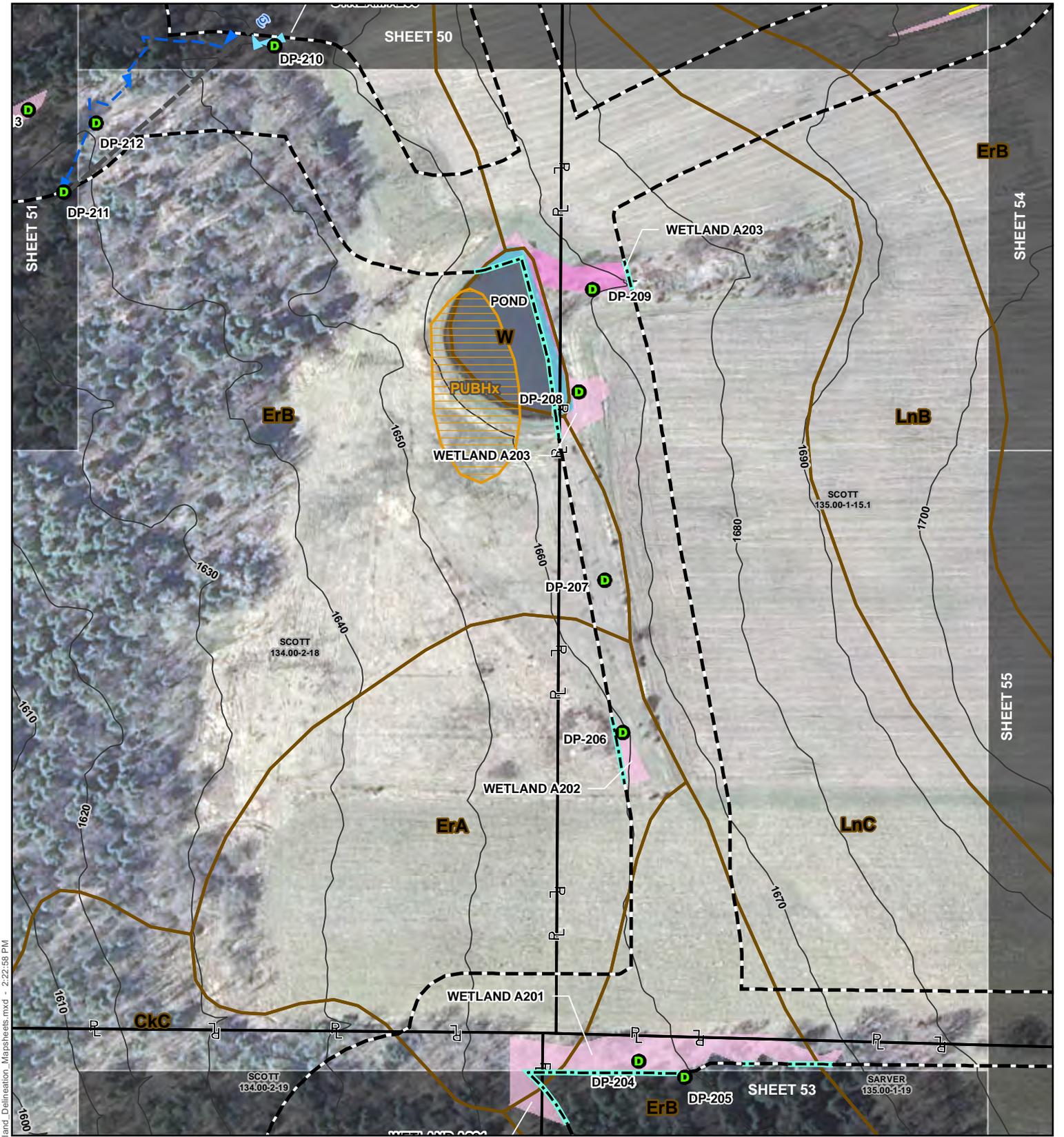


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |

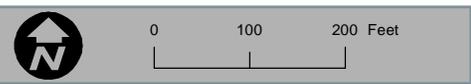


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 BALL HILL WIND PROJECT  
 WETLAND DELINEATION REPORT  
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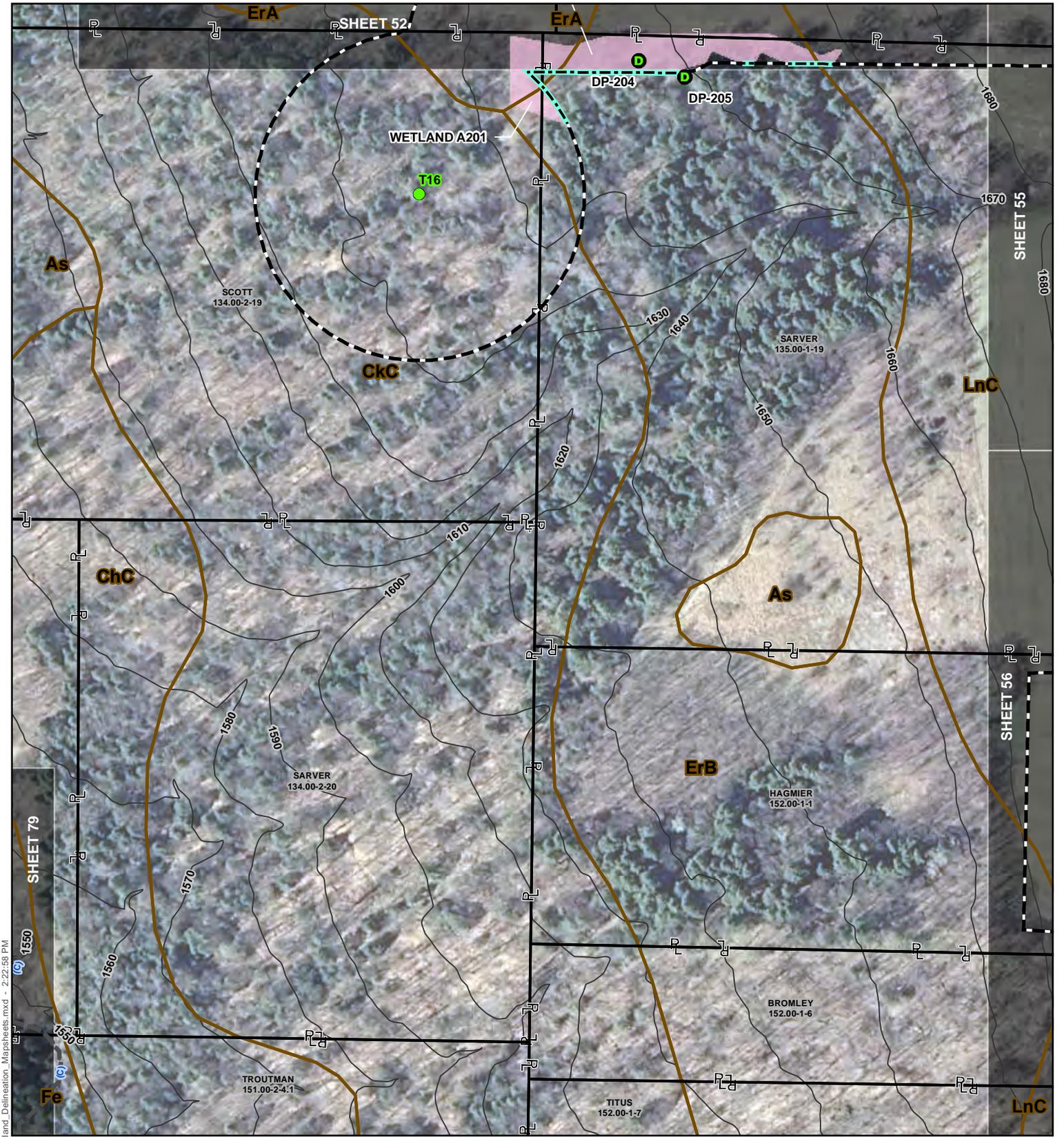


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |

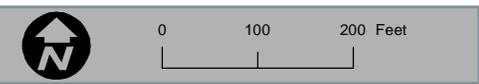


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**BALL HILL WIND PROJECT**  
**WETLAND DELINEATION REPORT**  
**SHEET 52 OF 108**

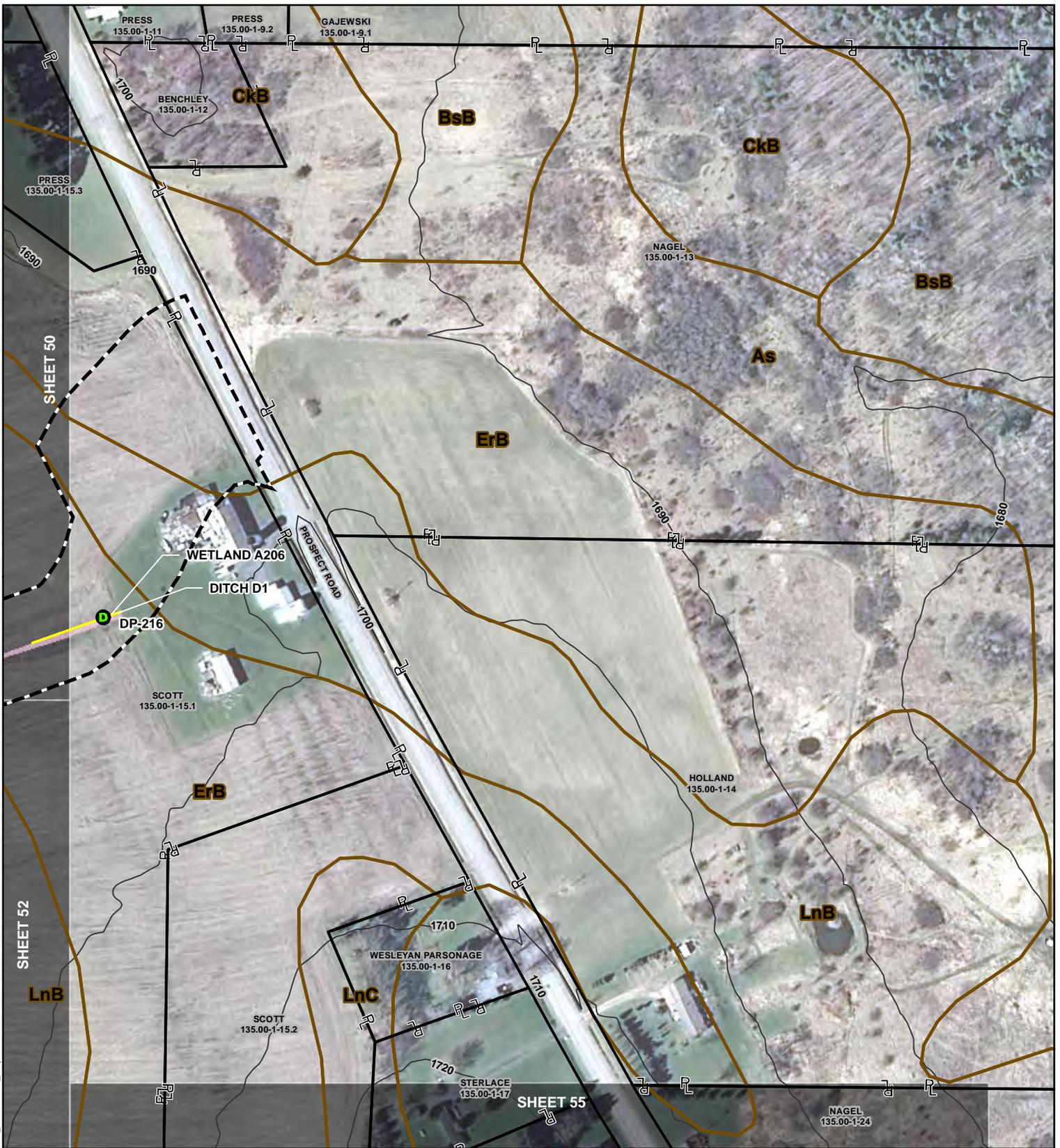


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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	



  
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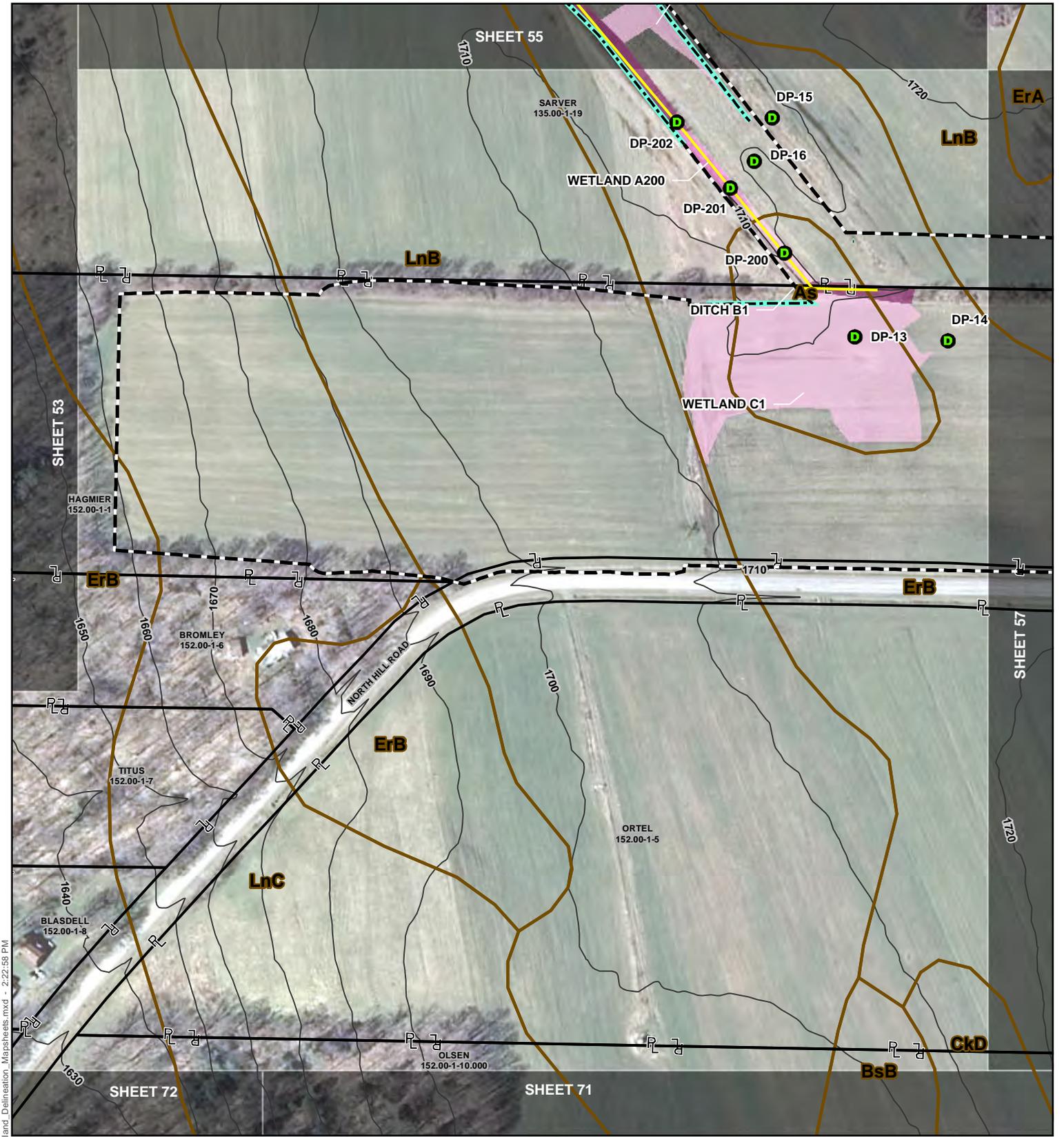


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |

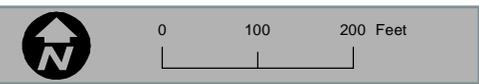


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**BALL HILL WIND PROJECT**  
**WETLAND DELINEATION REPORT**  
**SHEET 55 OF 108**

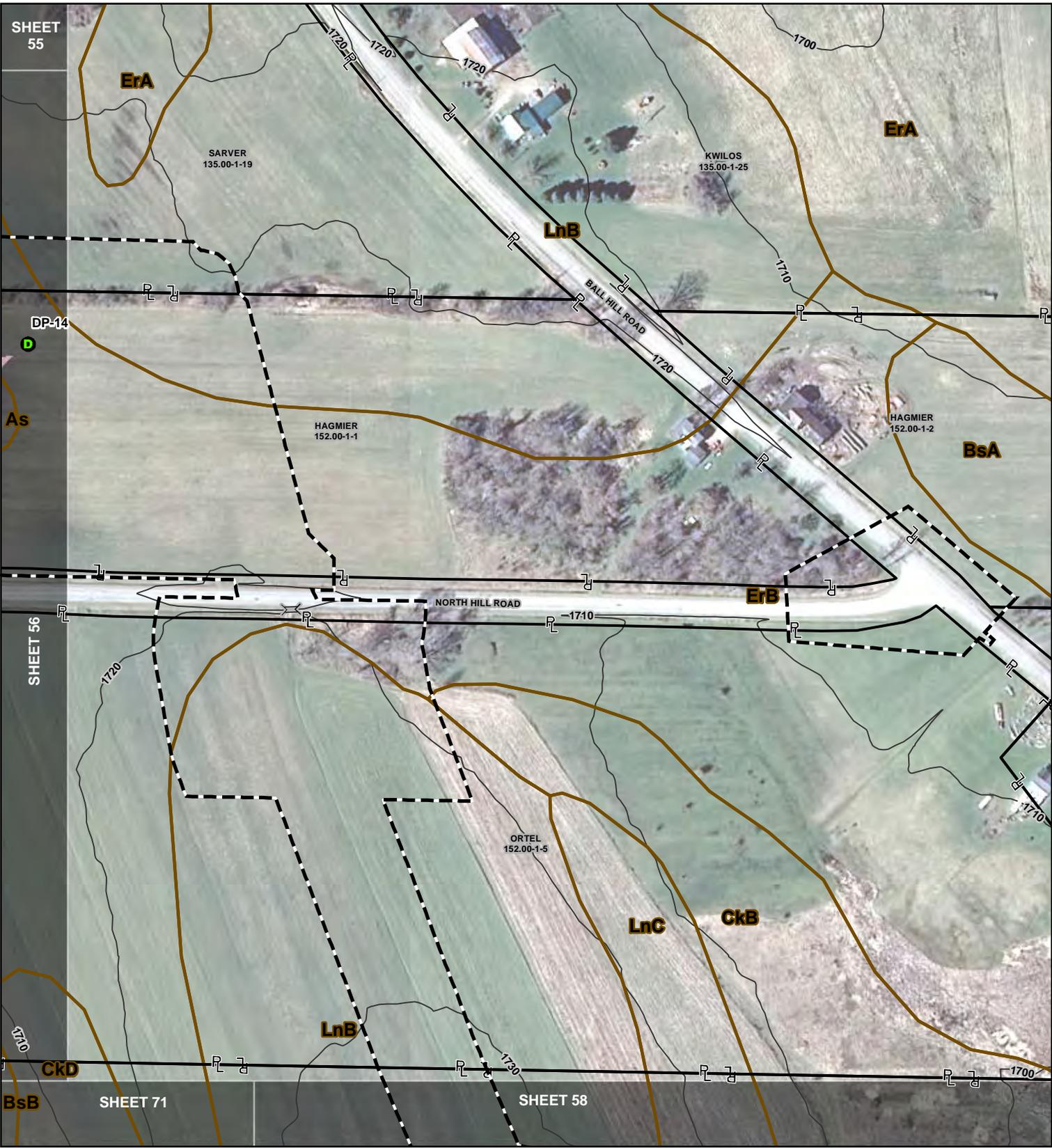


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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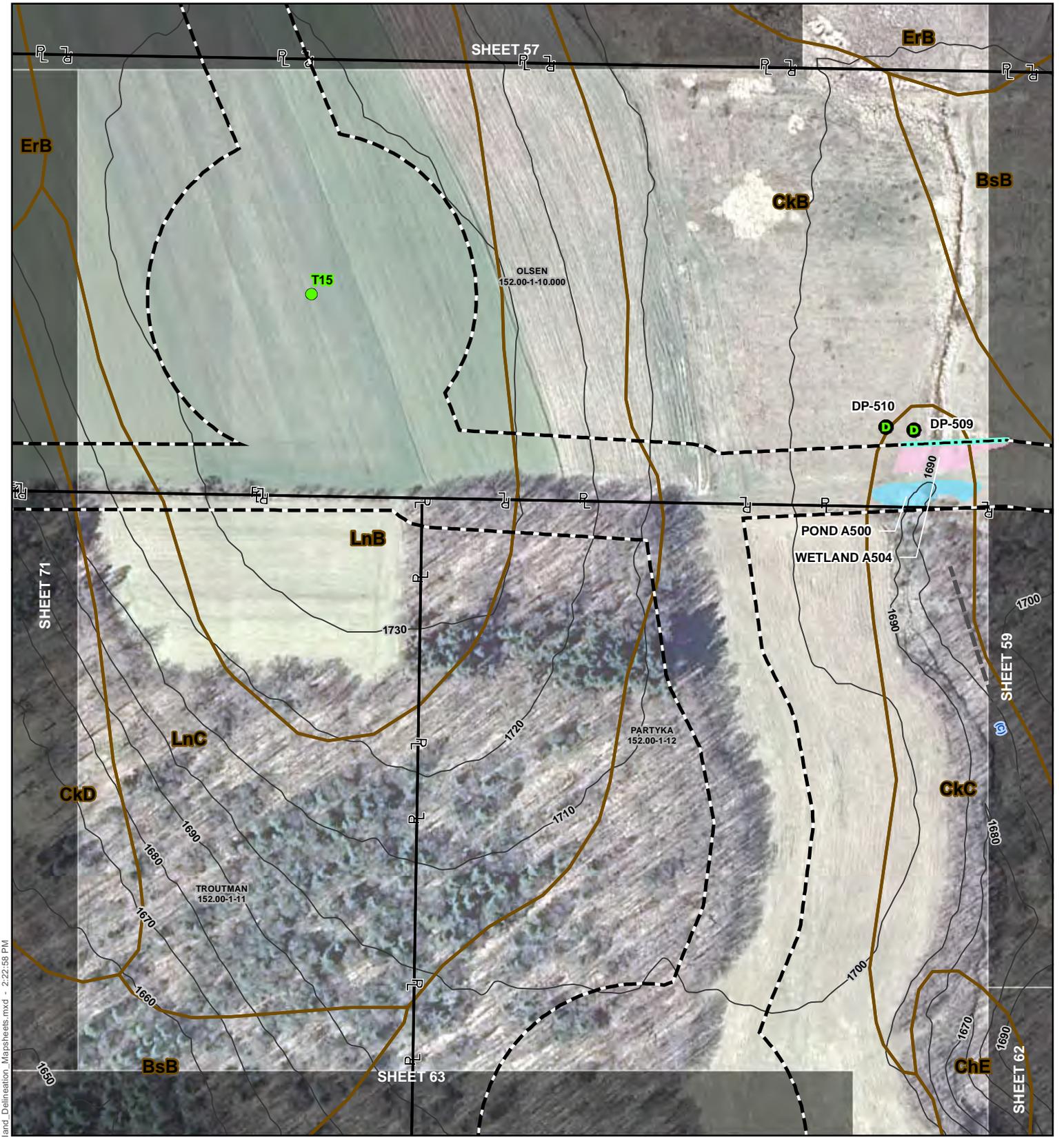
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



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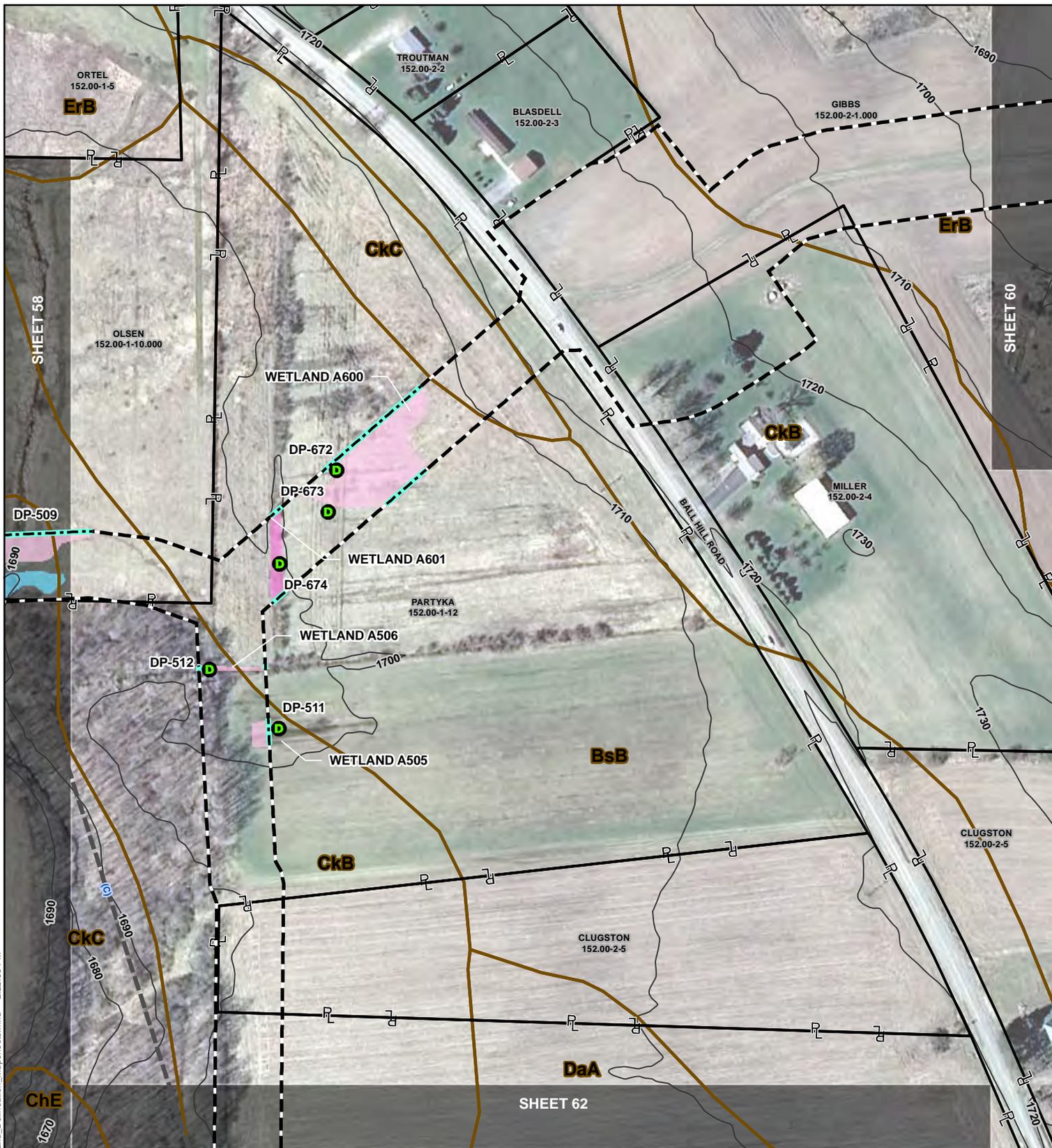
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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	



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	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



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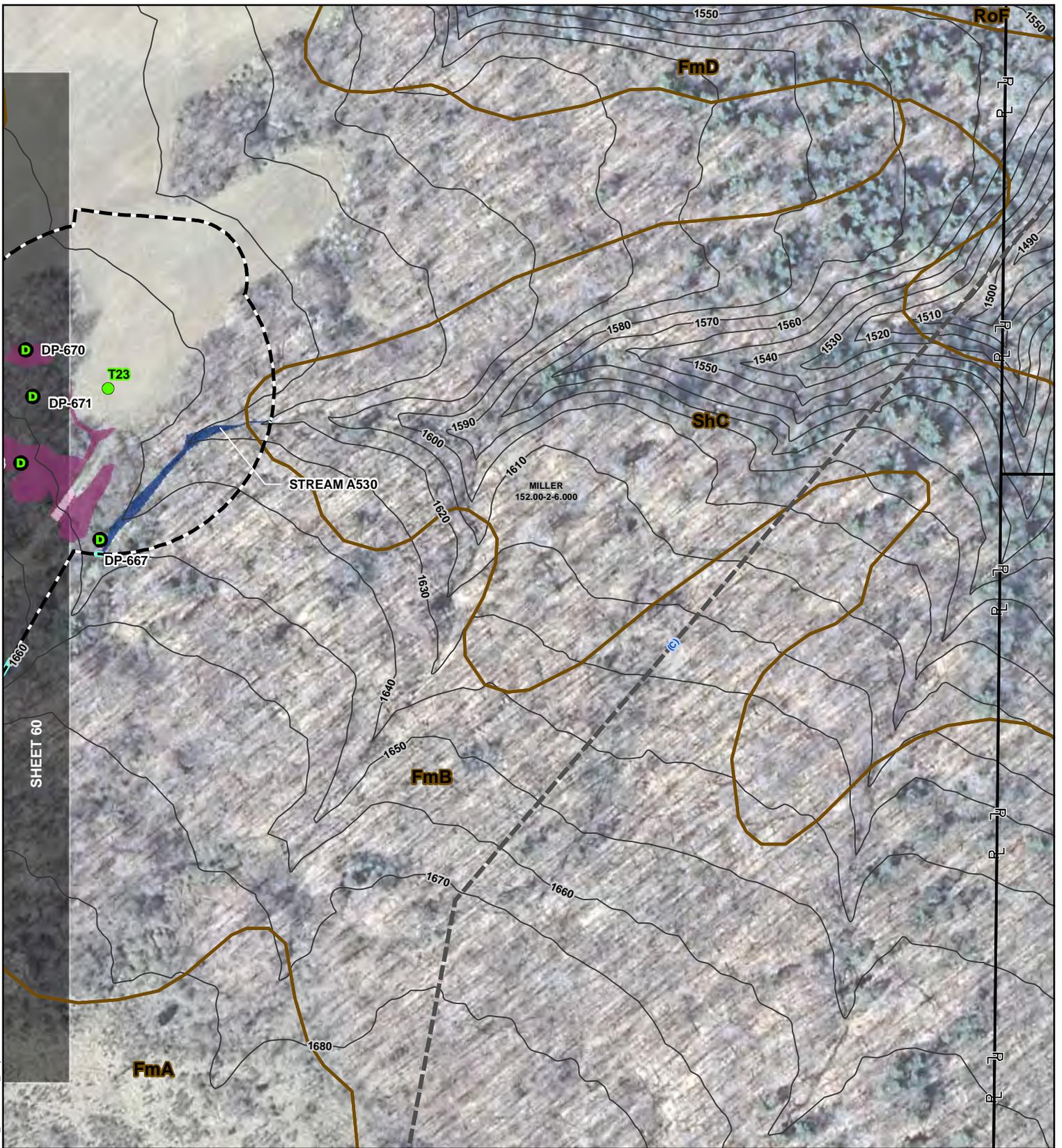
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
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	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



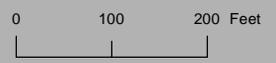
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|  | Data Point                      |  | NYSDEC Stream (Standard)       |  | NWI Wetland               |
|  | Proposed Turbine                |  | Contours (10ft)                |  | NYSDEC Freshwater Wetland |
|  | Culvert                         |  | Delineated Intermittent Stream |  | Soil Complex Boundary     |
|  | Delineation Continuation Line   |  | Delineated Perennial Stream    |  | Parcel                    |
|  | Delineated Jurisdictional Ditch |  | Delineated Pond                |  | Project Study Limits      |
|  | Delineated Ephemeral Stream     |  | Delineated PEM Wetland         |  | Matchline                 |
|  | Delineated Intermittent Stream  |  | Delineated PFO Wetland         |  |                           |
|  | Delineated Perennial Stream     |  | Delineated PSS Wetland         |  |                           |

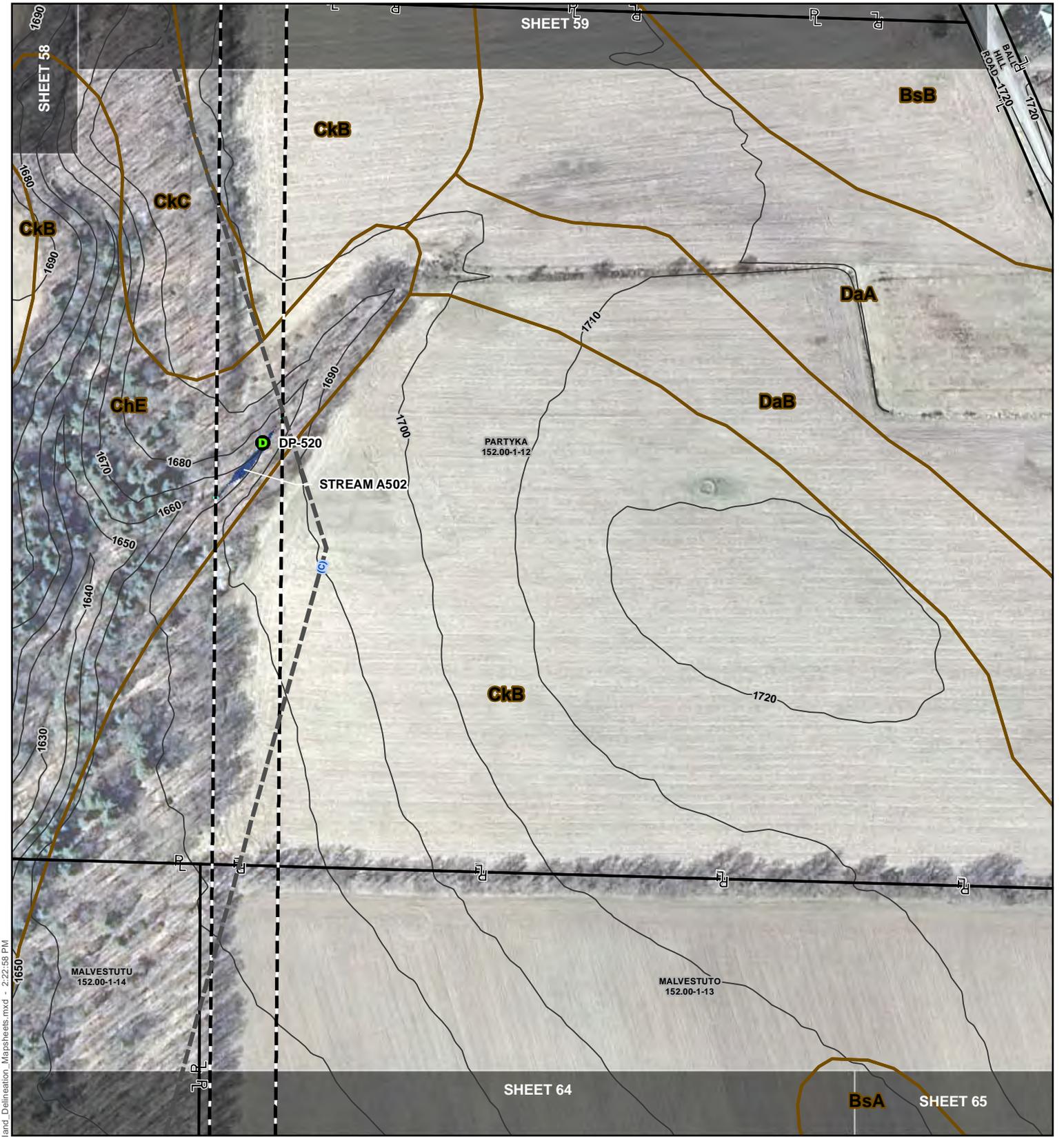


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Author: AK

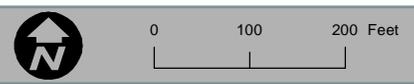
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Revision Date: 5/4/2017

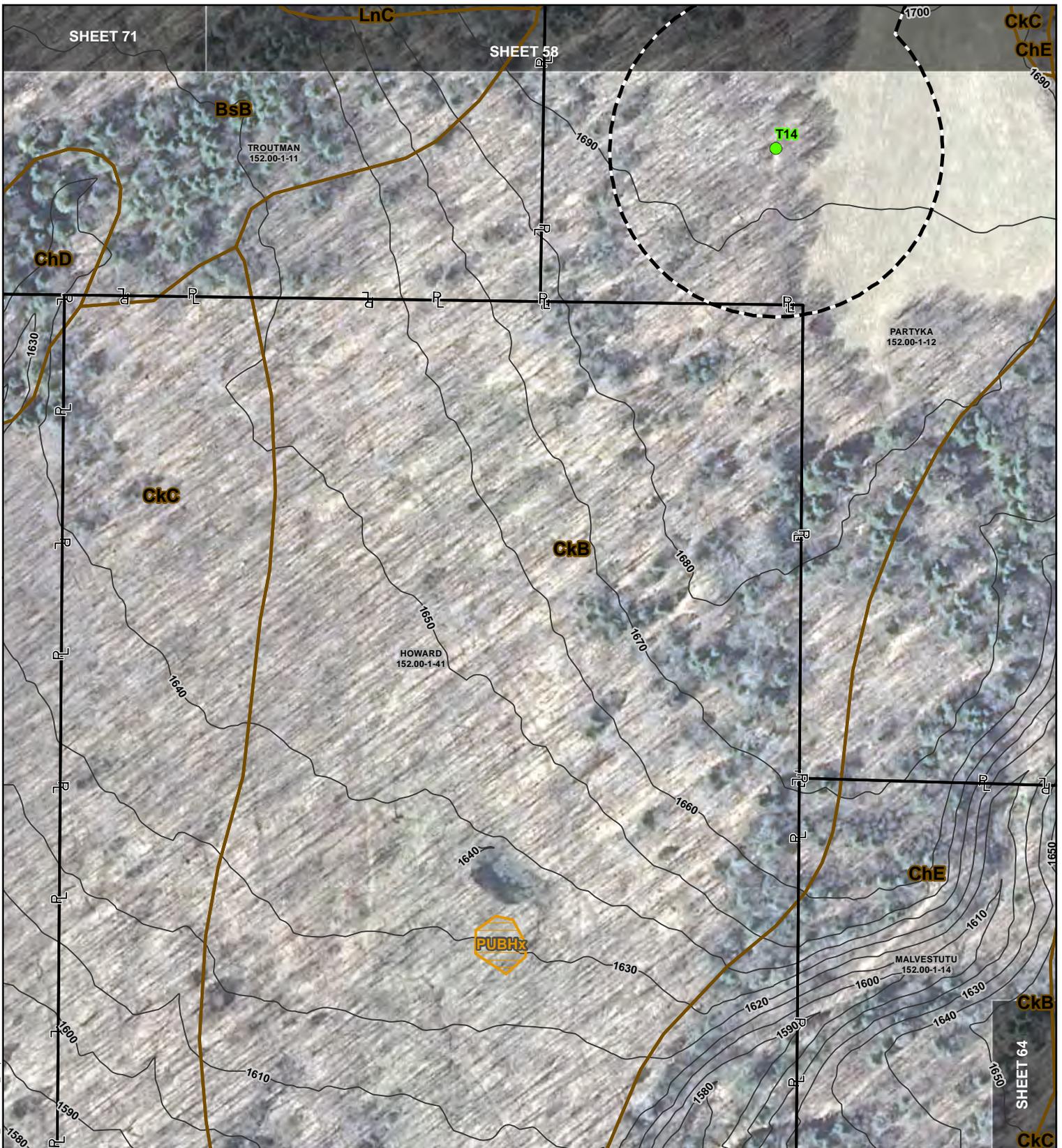


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



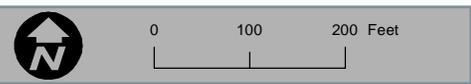
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	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



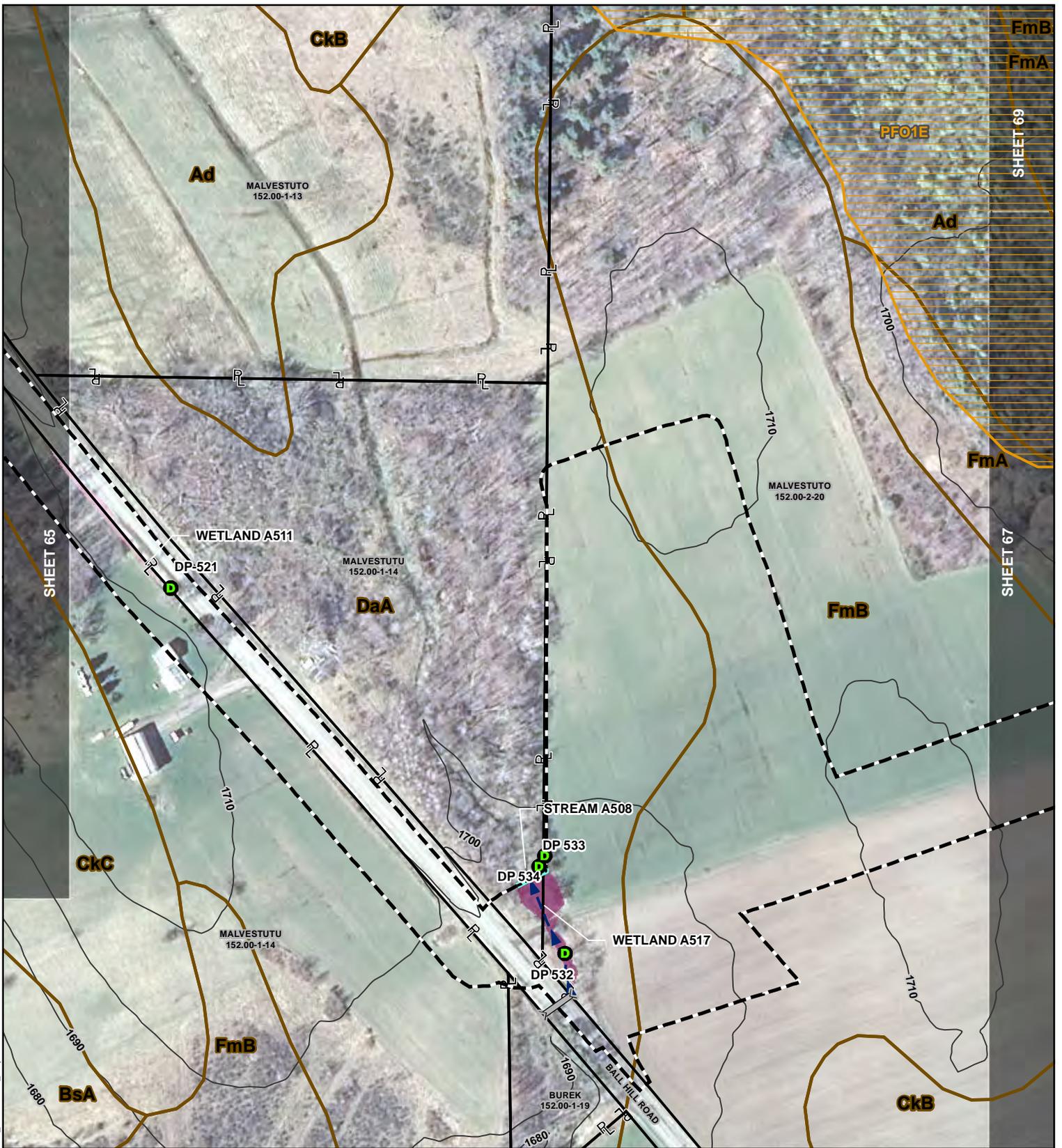
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	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

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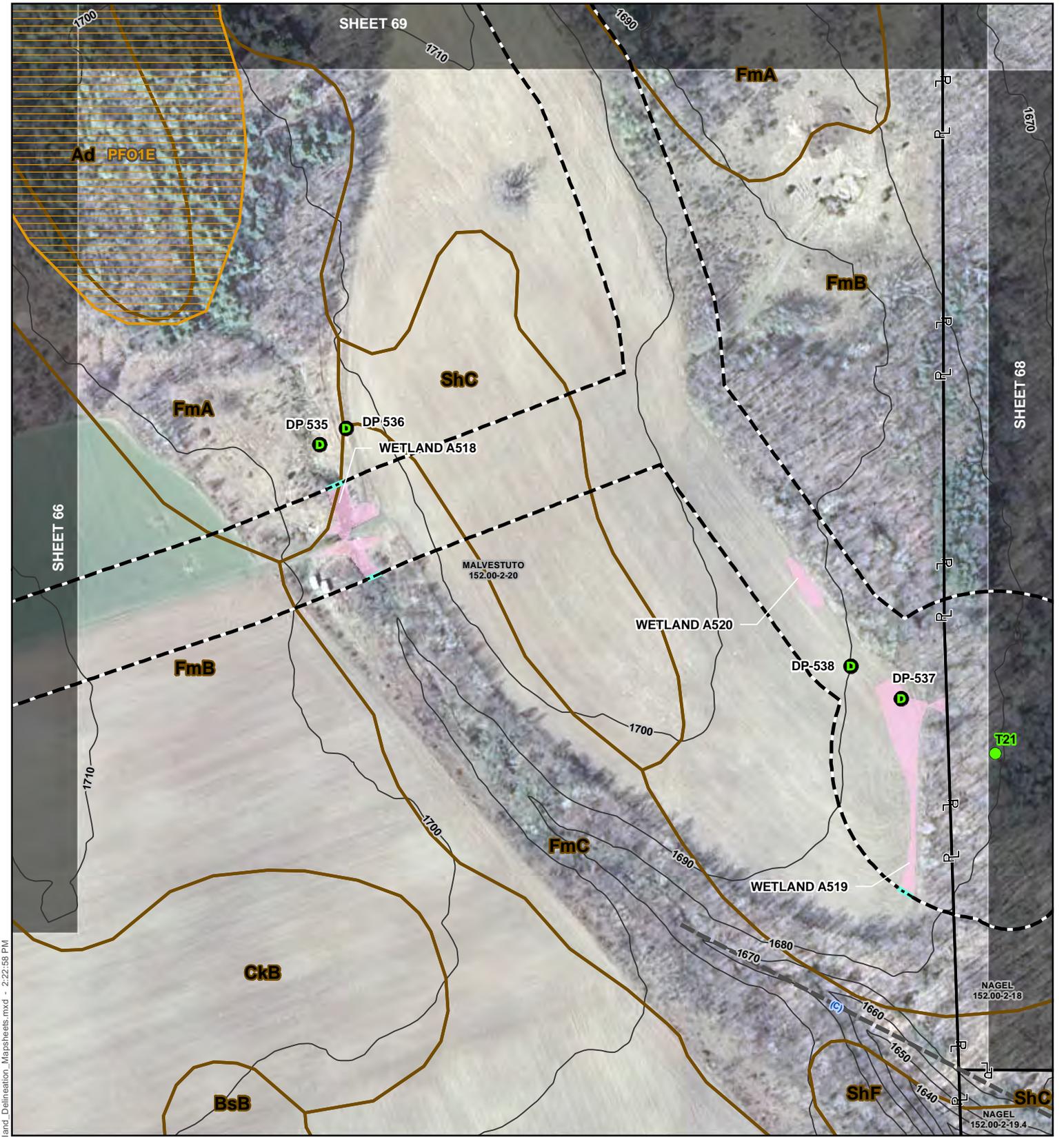
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Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	



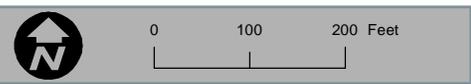
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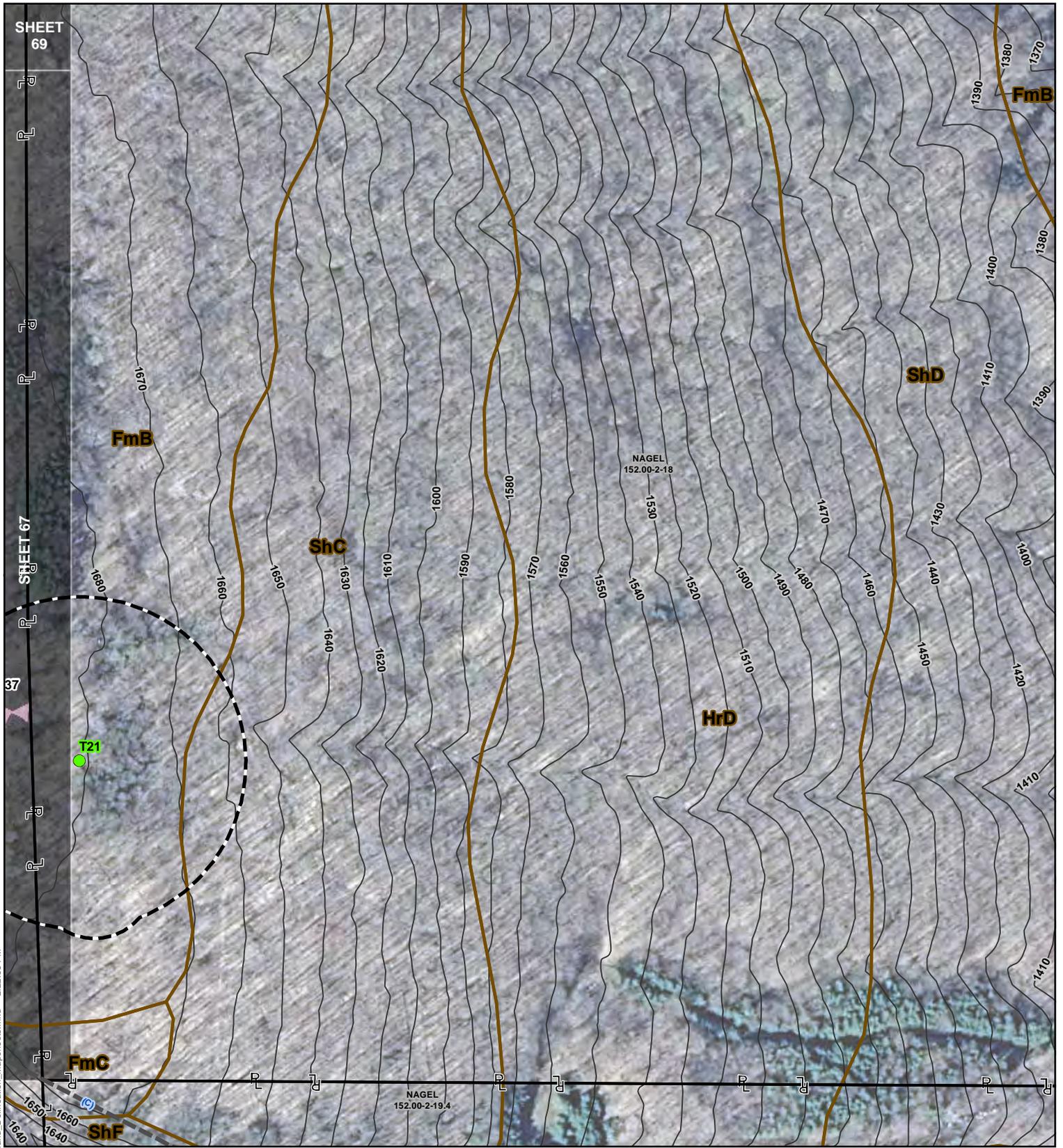
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| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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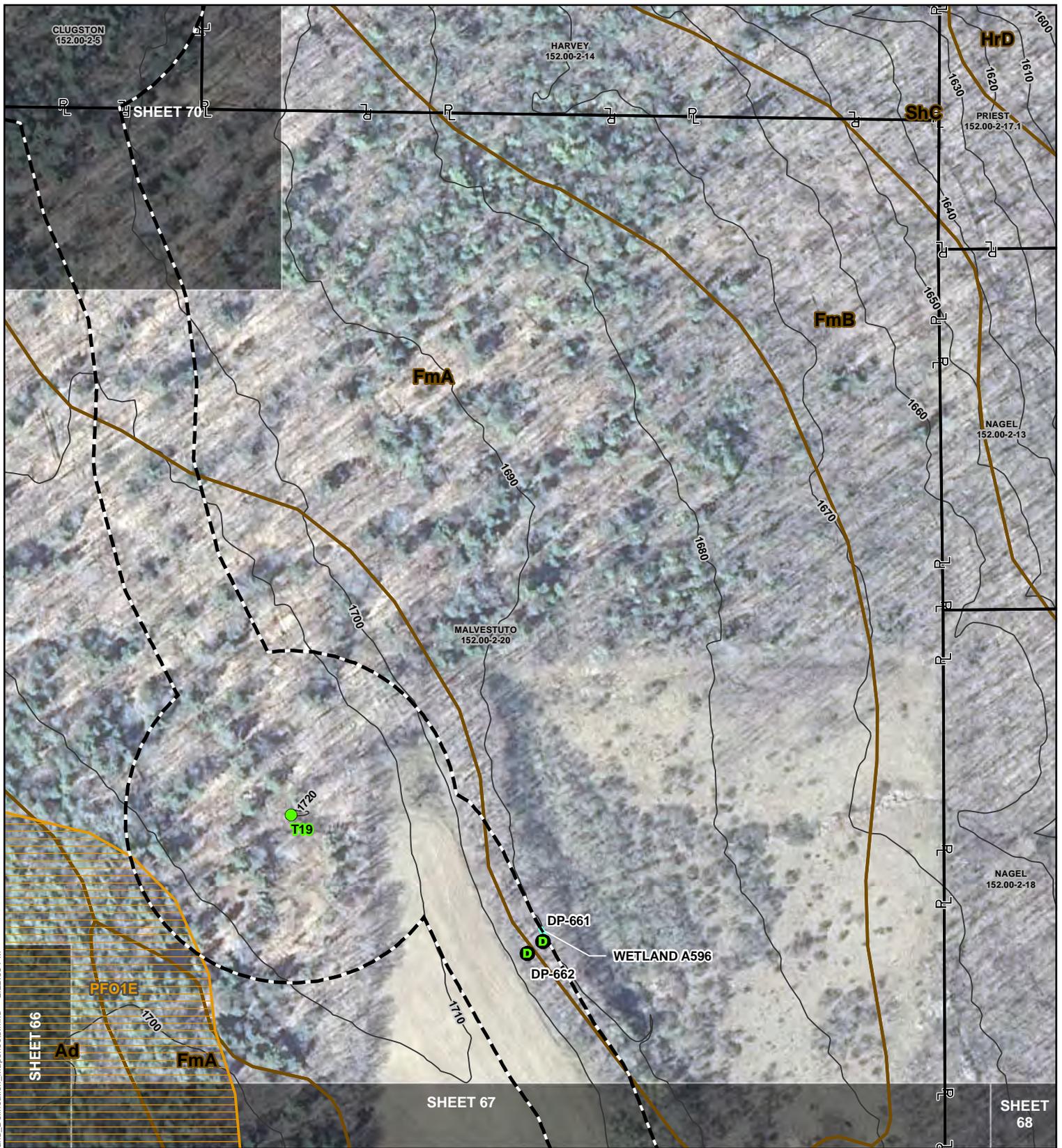


Data Point	NYSDEC Stream (Standard)	NWI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
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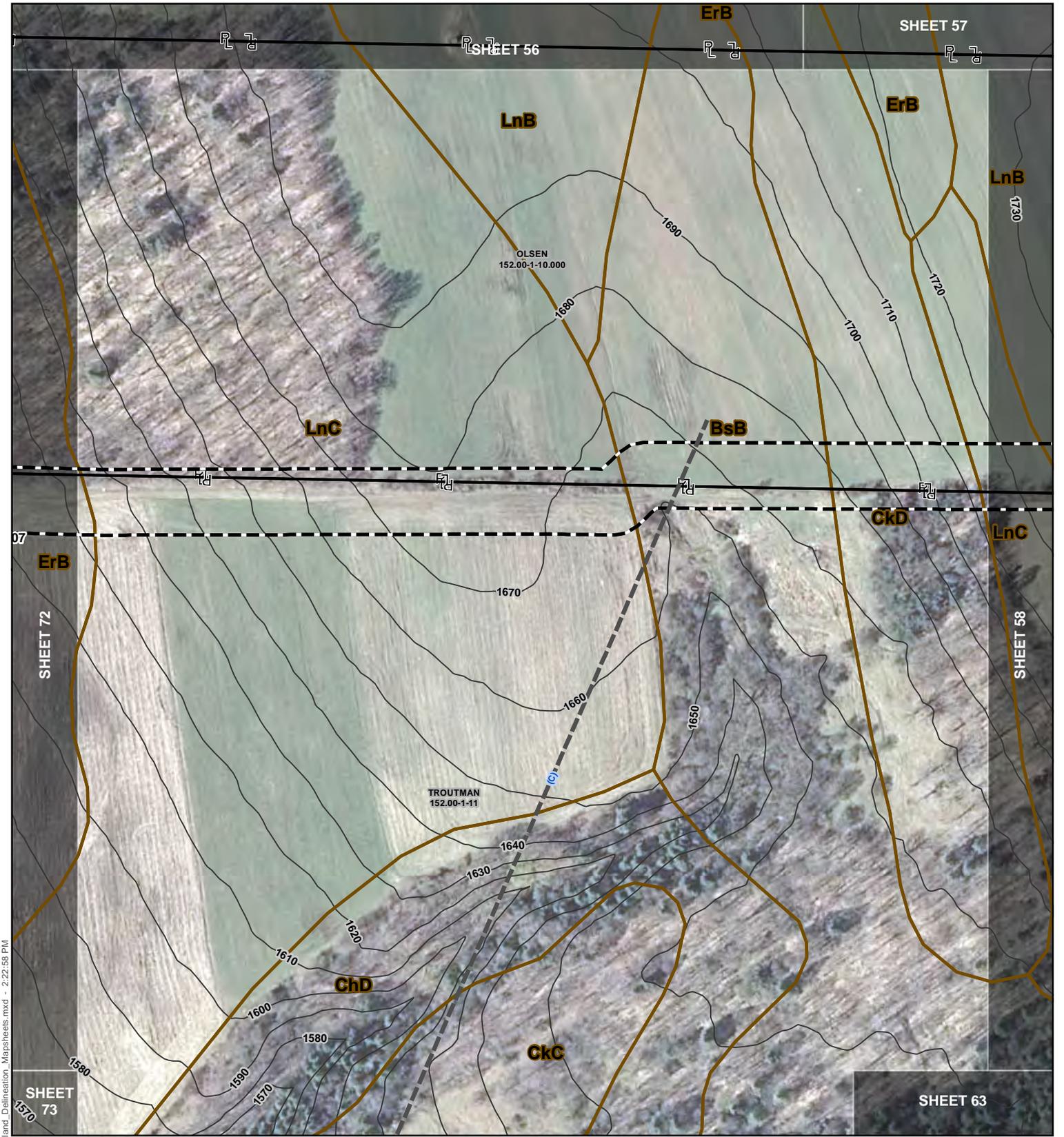
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Data Point	NYSDEC Stream (Standard)	NWI Wetland
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Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	



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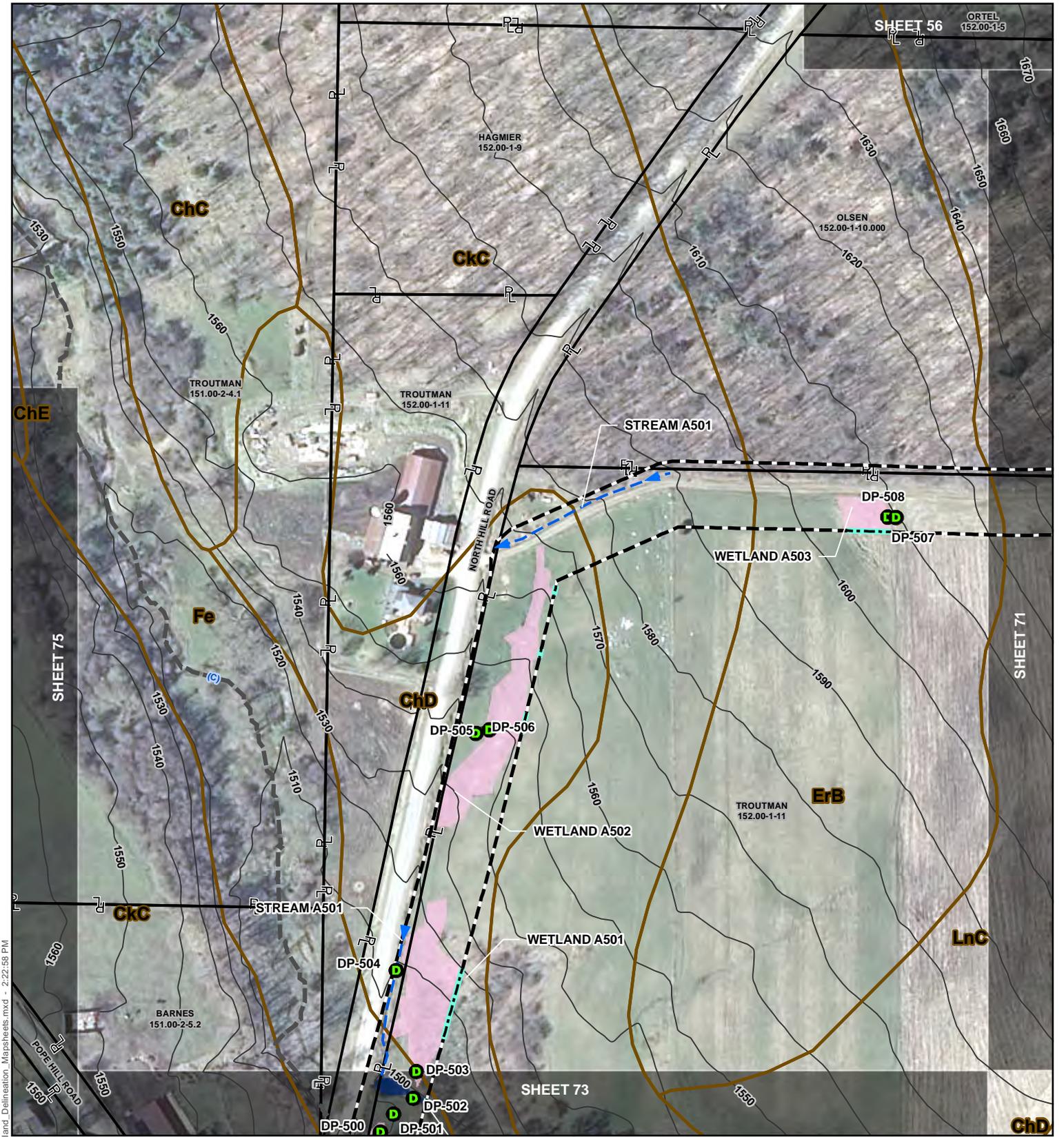
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
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	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



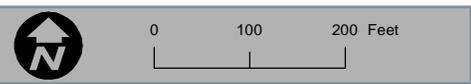
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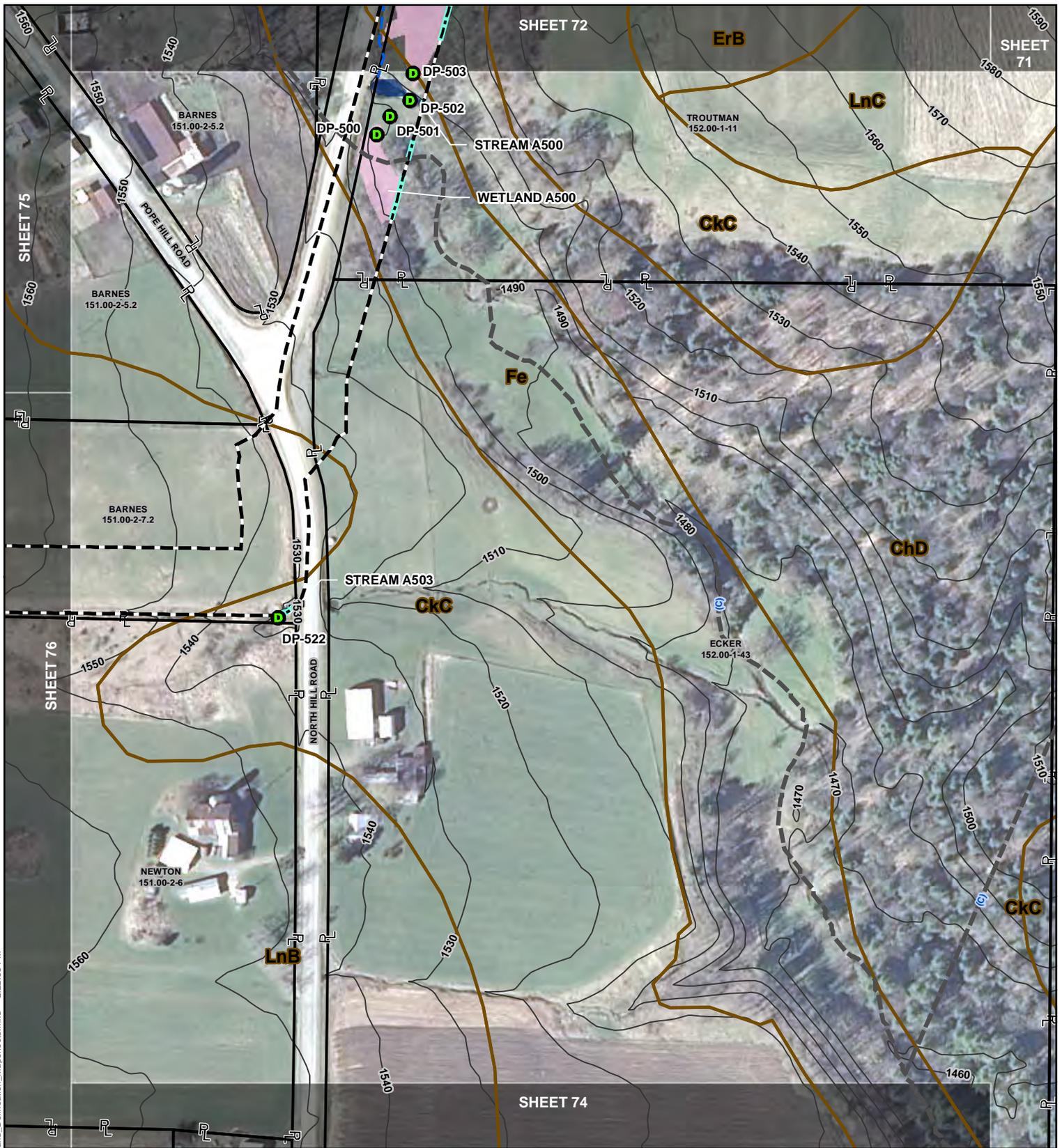
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
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| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
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	Delineated Perennial Stream		Delineated PSS Wetland		

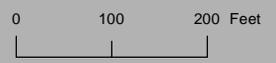


  
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|---------------------------------|--------------------------------|---------------------------|
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| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |

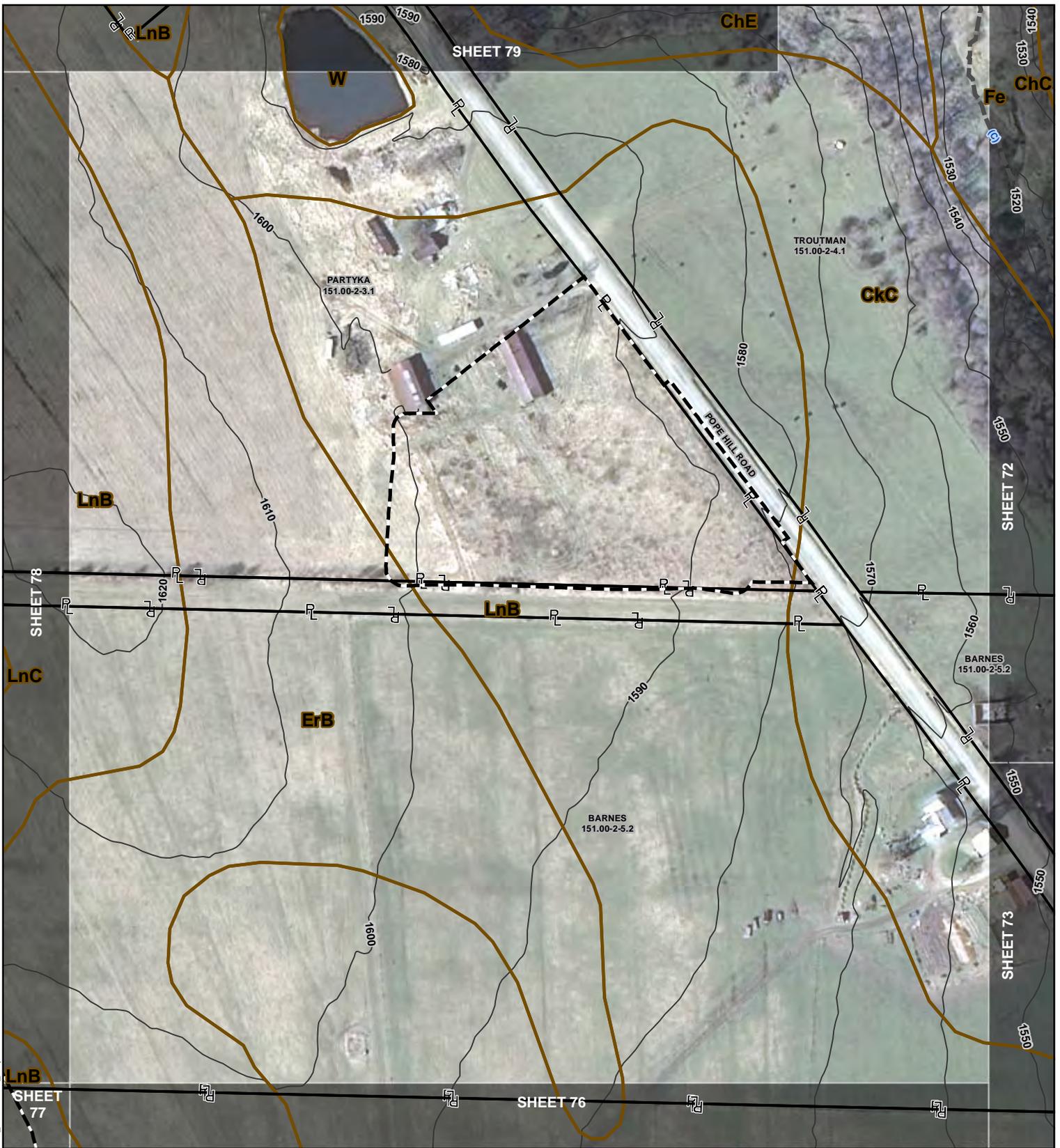


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Author: AK

Aerial Date: 3/21/2012

Revision Date: 5/4/2017



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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
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	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



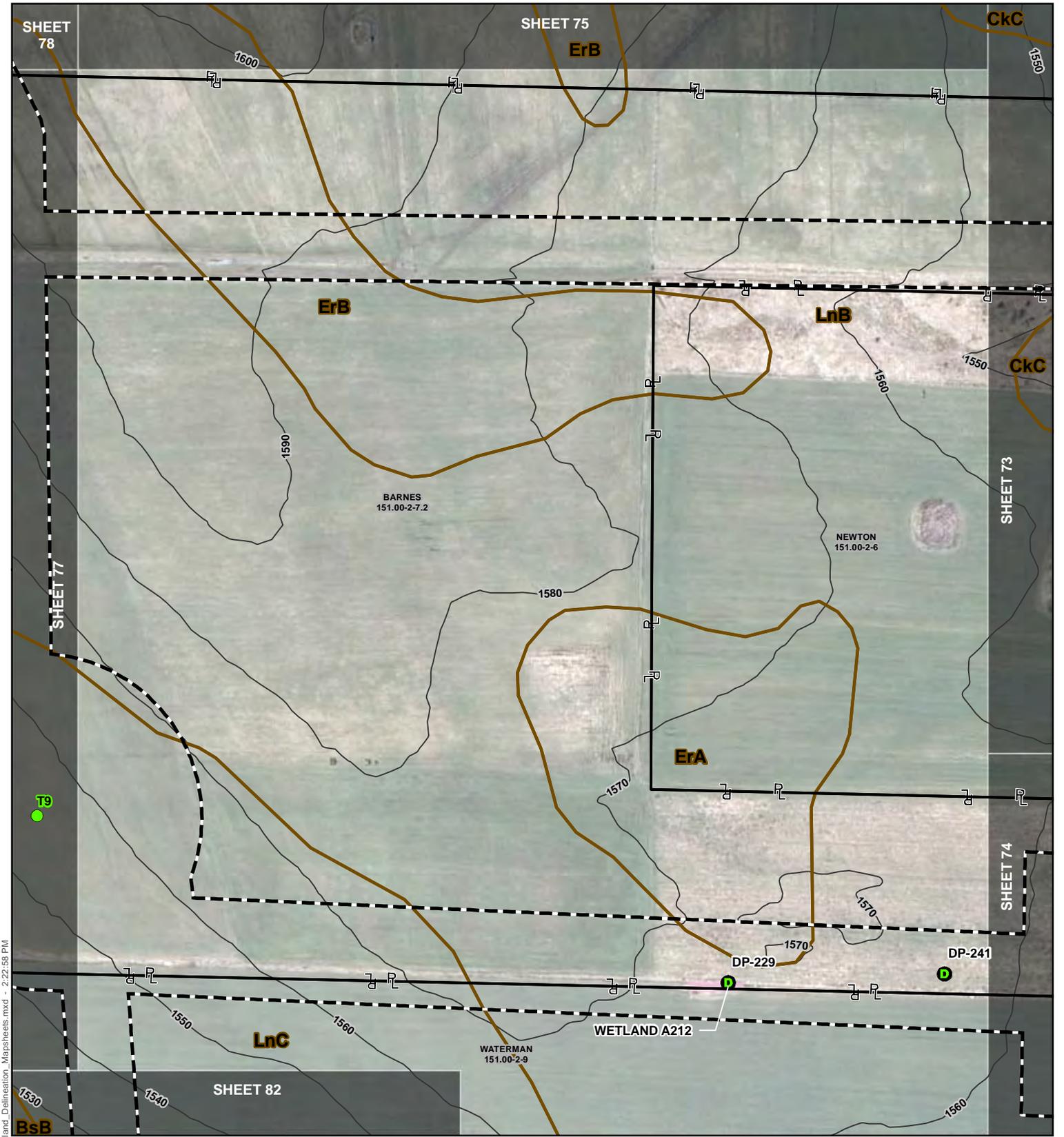
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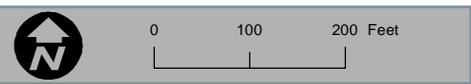
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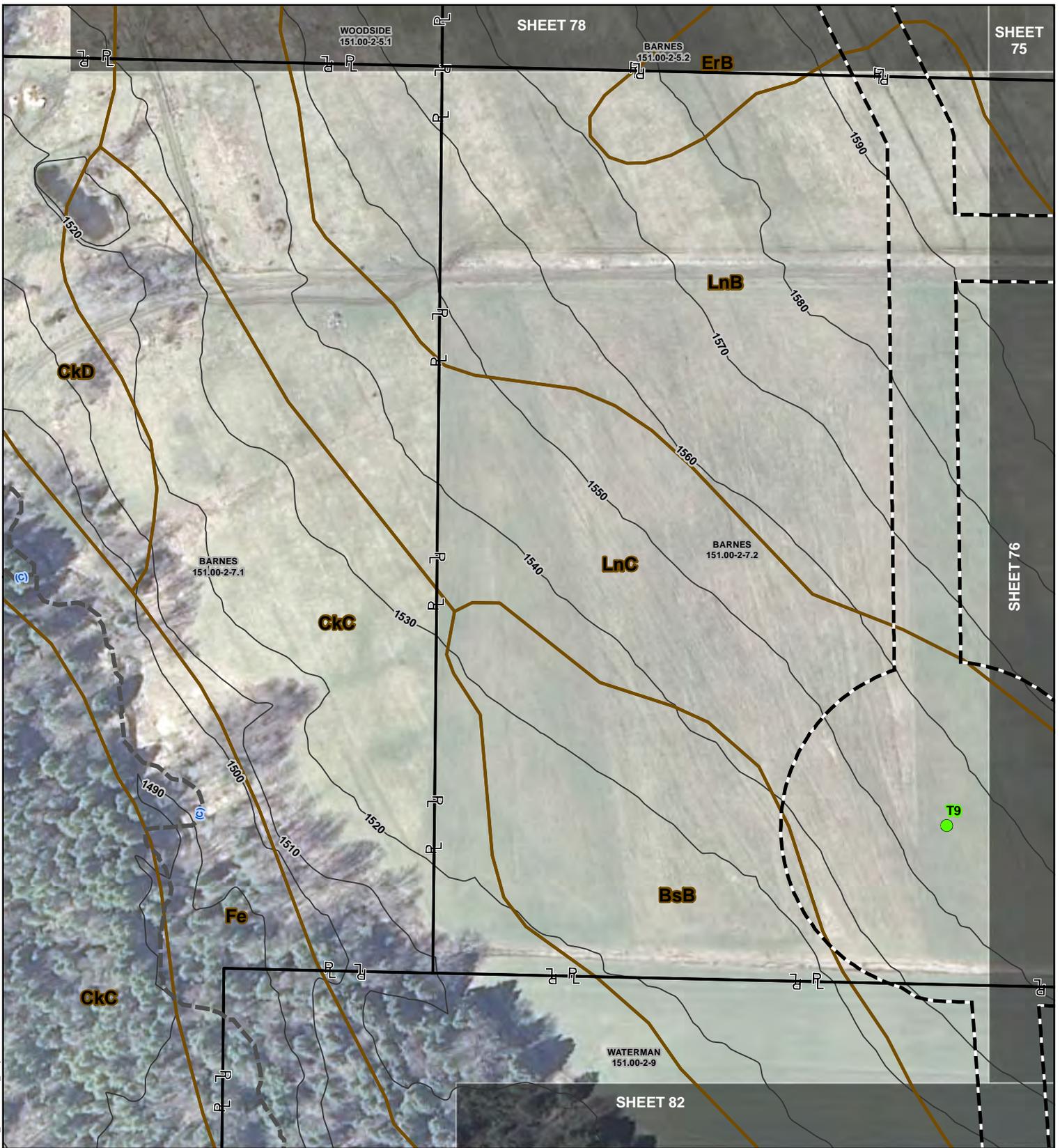


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
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| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |

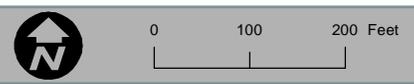


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 WETLAND DELINEATION REPORT  
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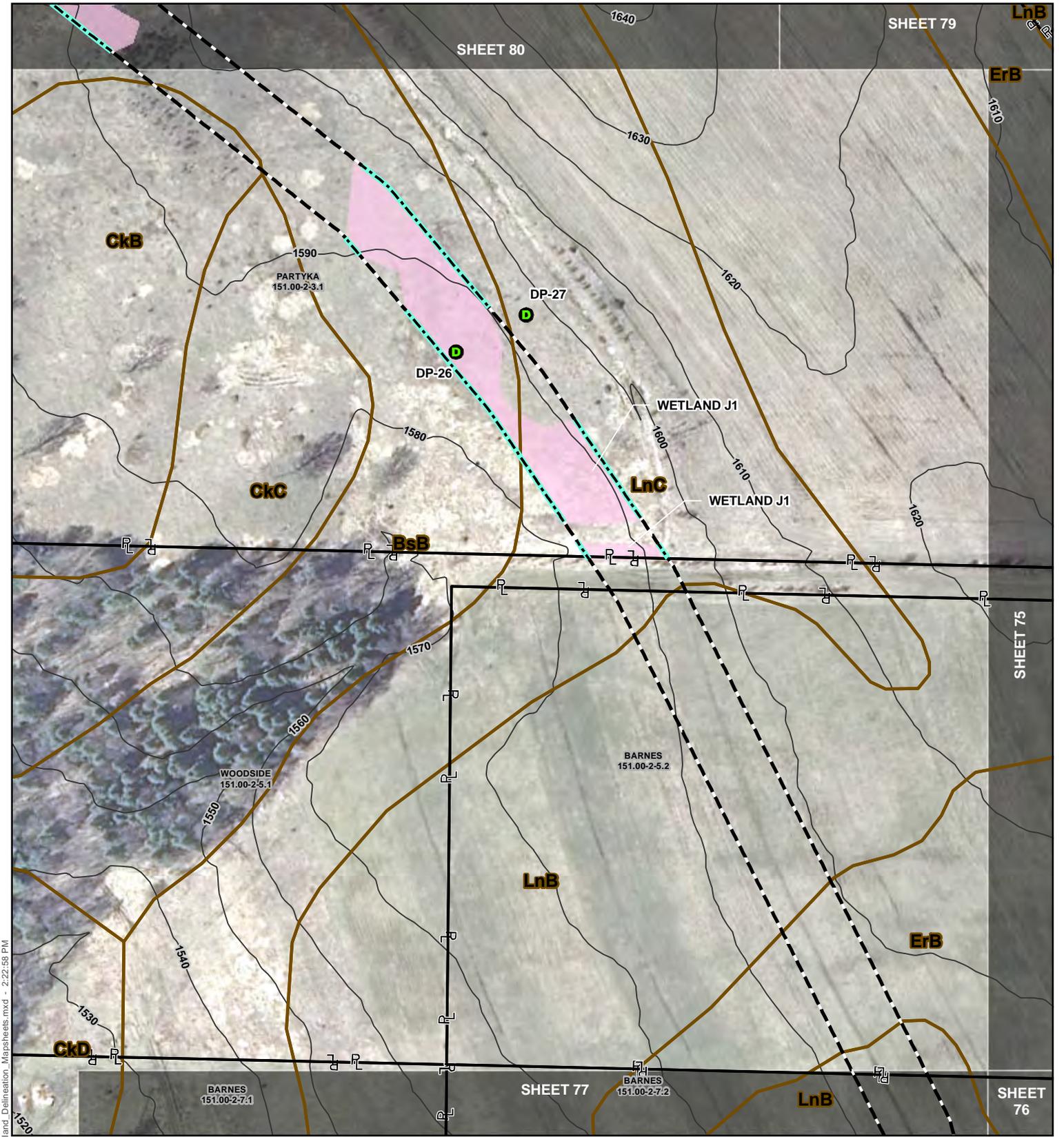


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |

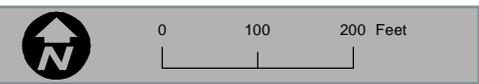


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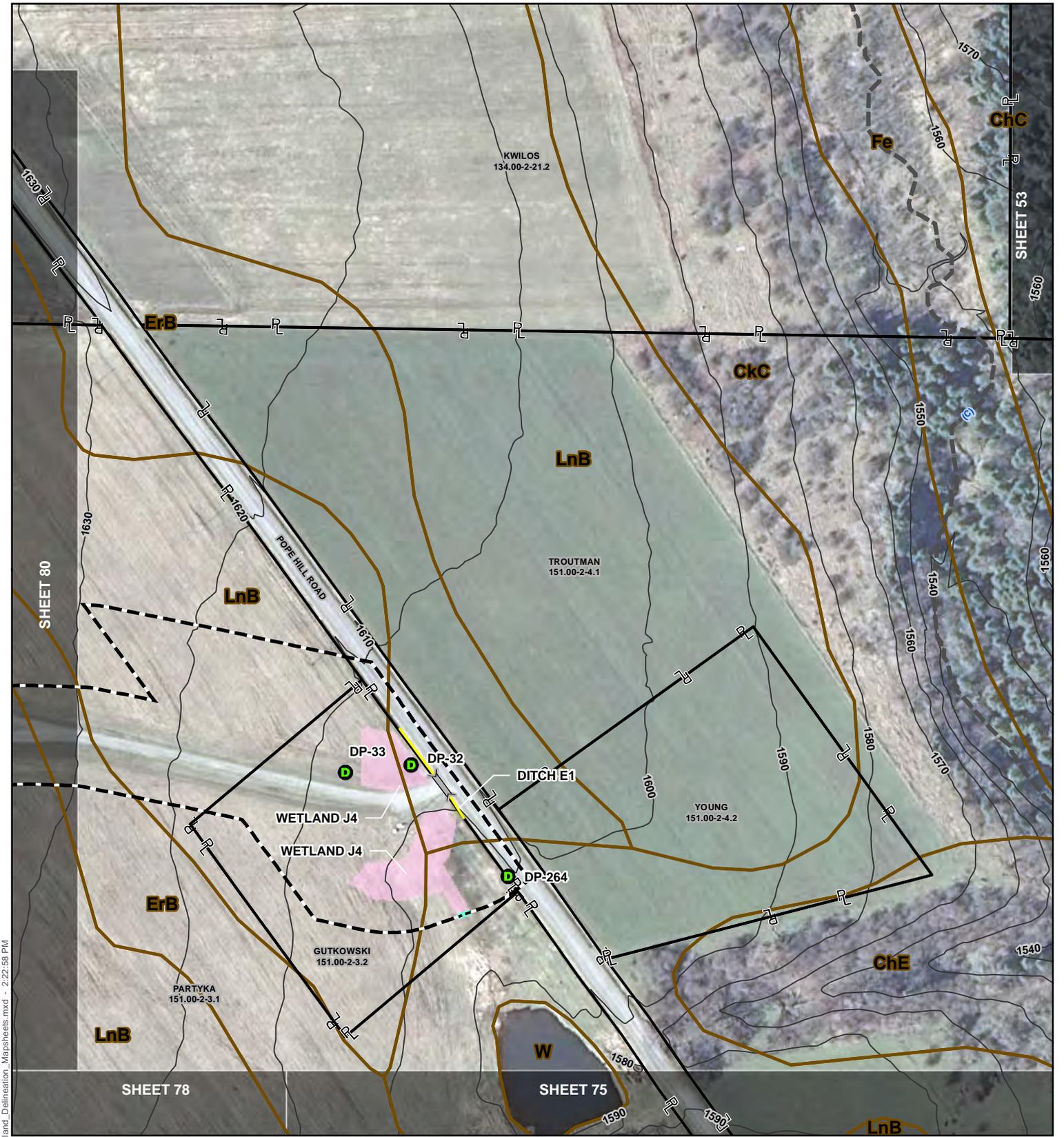


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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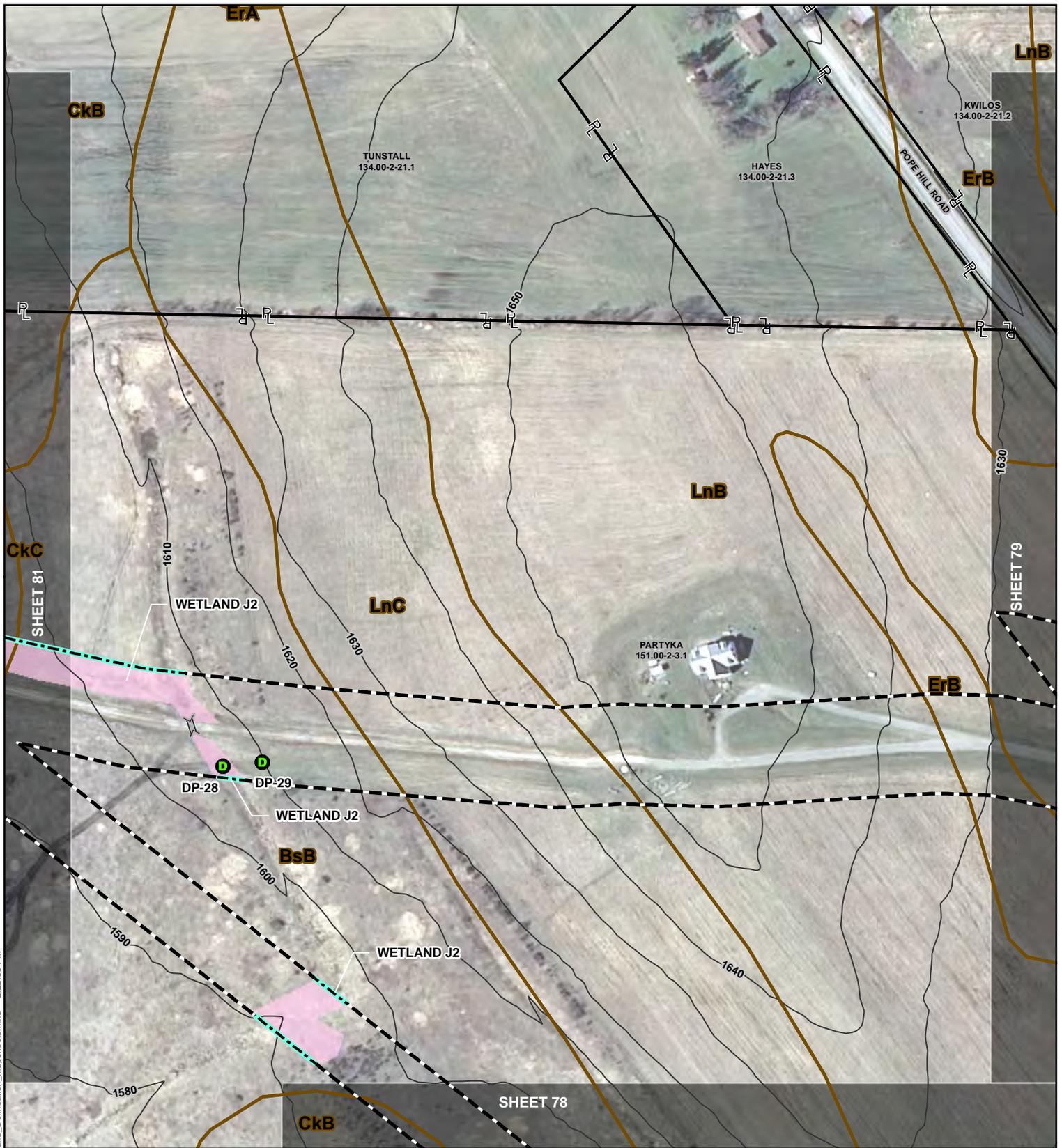
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
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0 100 200 Feet

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|  | Data Point                      |  | NYSDEC Stream (Standard)       |  | NWI Wetland               |
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|  | Delineation Continuation Line   |  | Delineated Perennial Stream    |  | Parcel                    |
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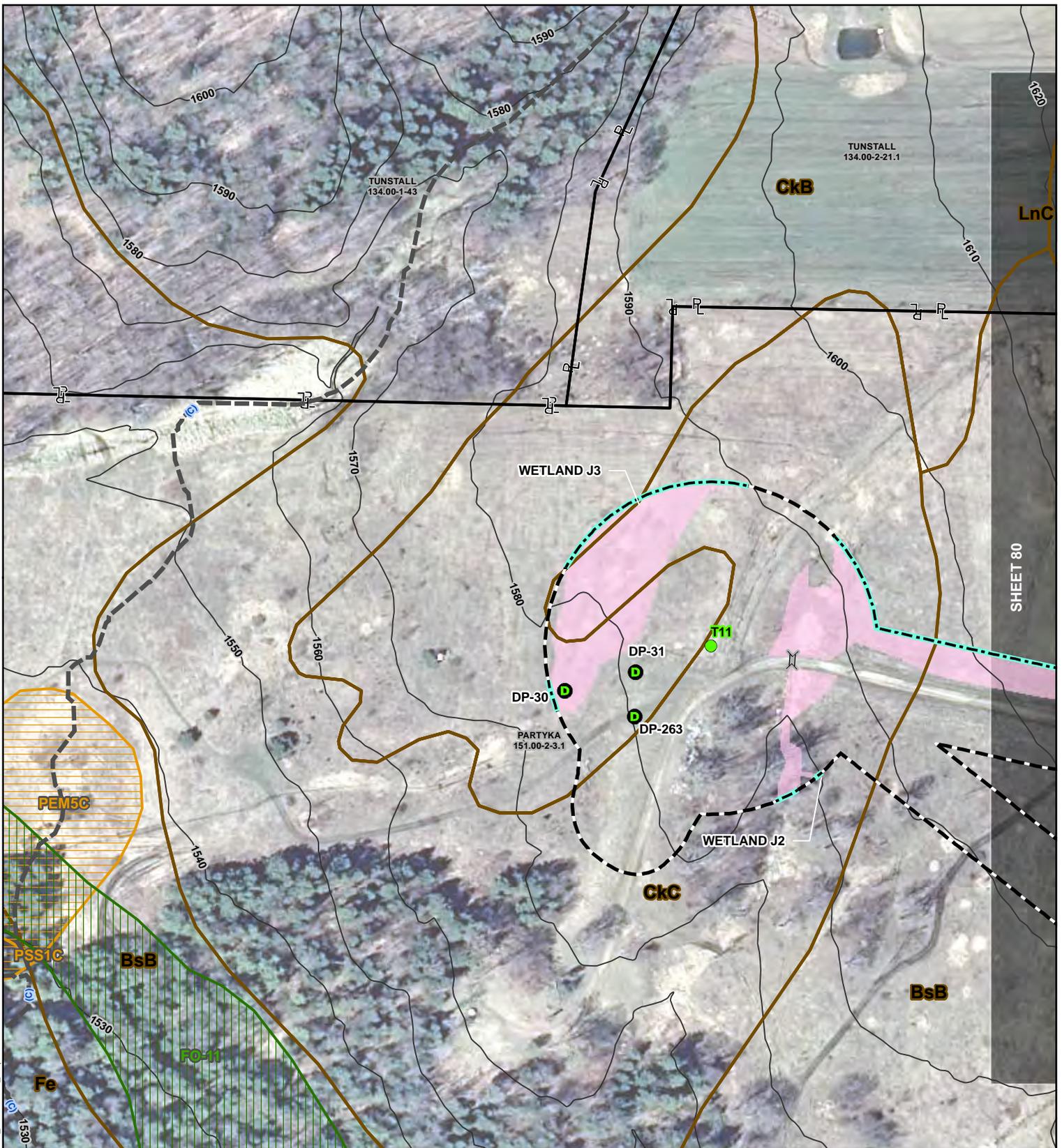


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**WETLAND DELINEATION REPORT**  
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Author: AK

Aerial Date: 3/21/2012

Revision Date: 5/4/2017



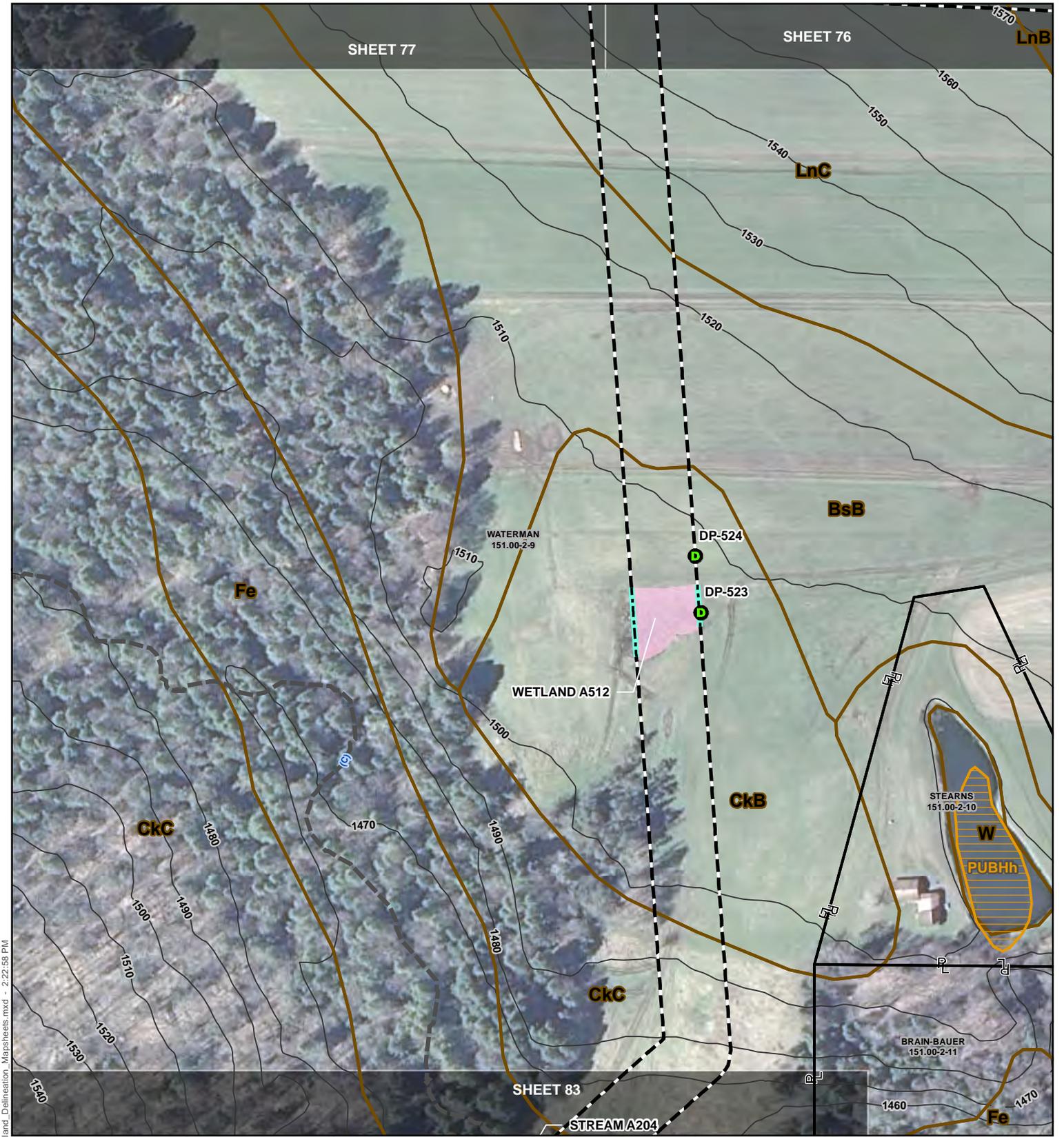
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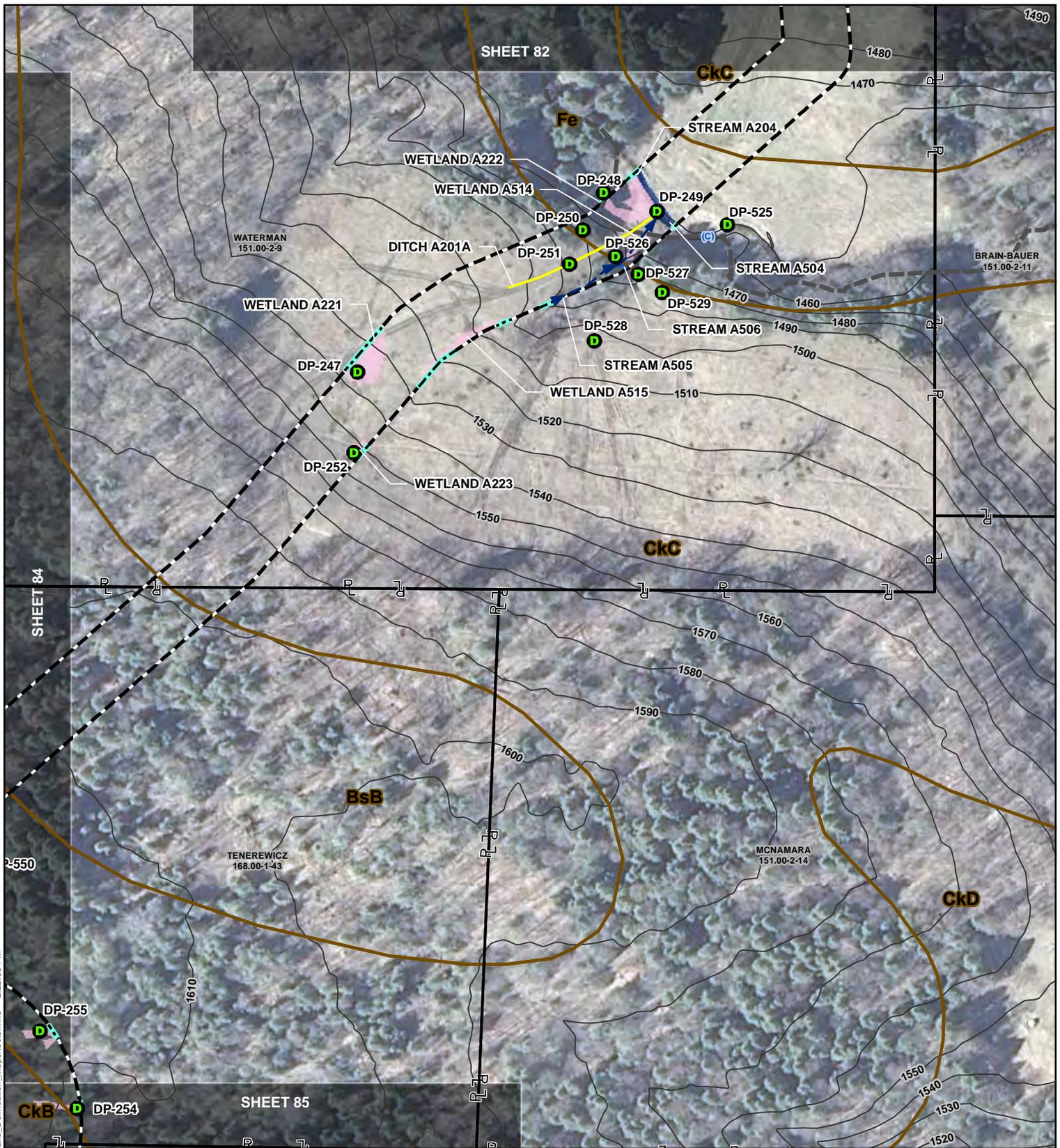
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
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	Delineated Perennial Stream		Delineated PSS Wetland		



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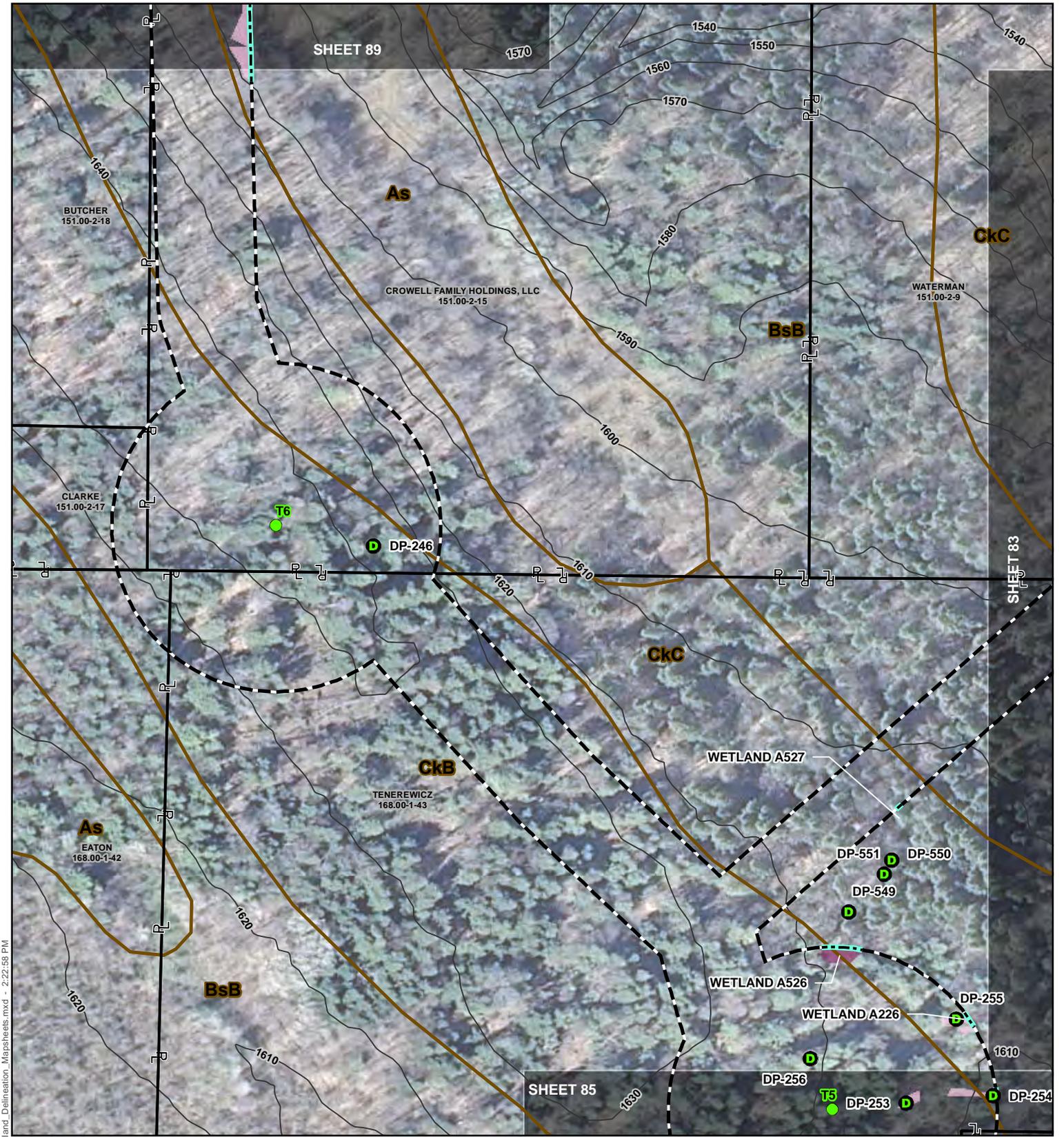
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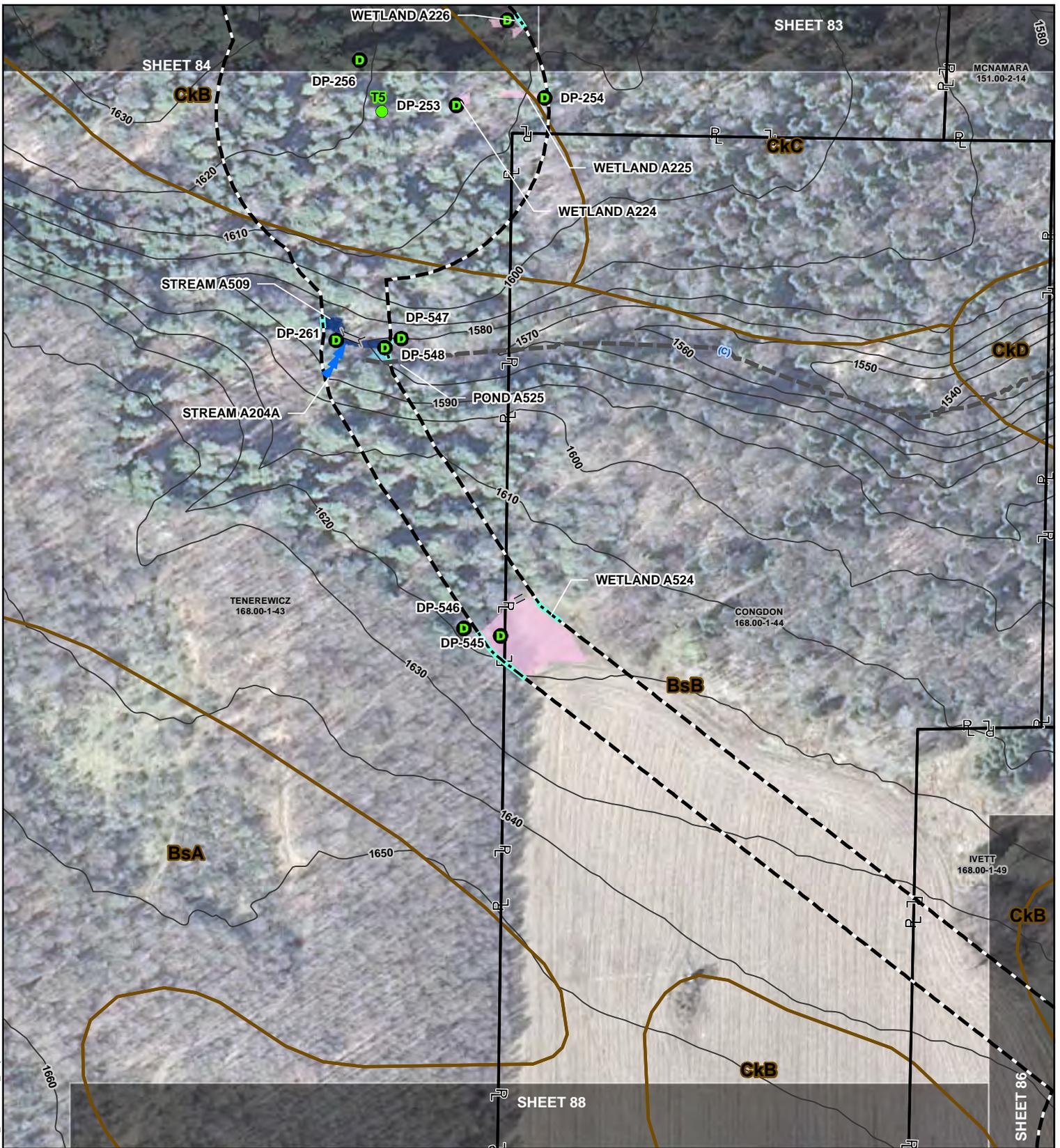
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Data Point	NYSDEC Stream (Standard)	NWSI Wetland
Proposed Turbine	Contours (10ft)	NYSDEC Freshwater Wetland
Culvert	Delineated Intermittent Stream	Soil Complex Boundary
Delineation Continuation Line	Delineated Perennial Stream	Parcel
Delineated Jurisdictional Ditch	Delineated Pond	Project Study Limits
Delineated Ephemeral Stream	Delineated PEM Wetland	Matchline
Delineated Intermittent Stream	Delineated PFO Wetland	
Delineated Perennial Stream	Delineated PSS Wetland	



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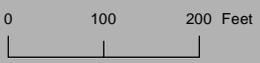
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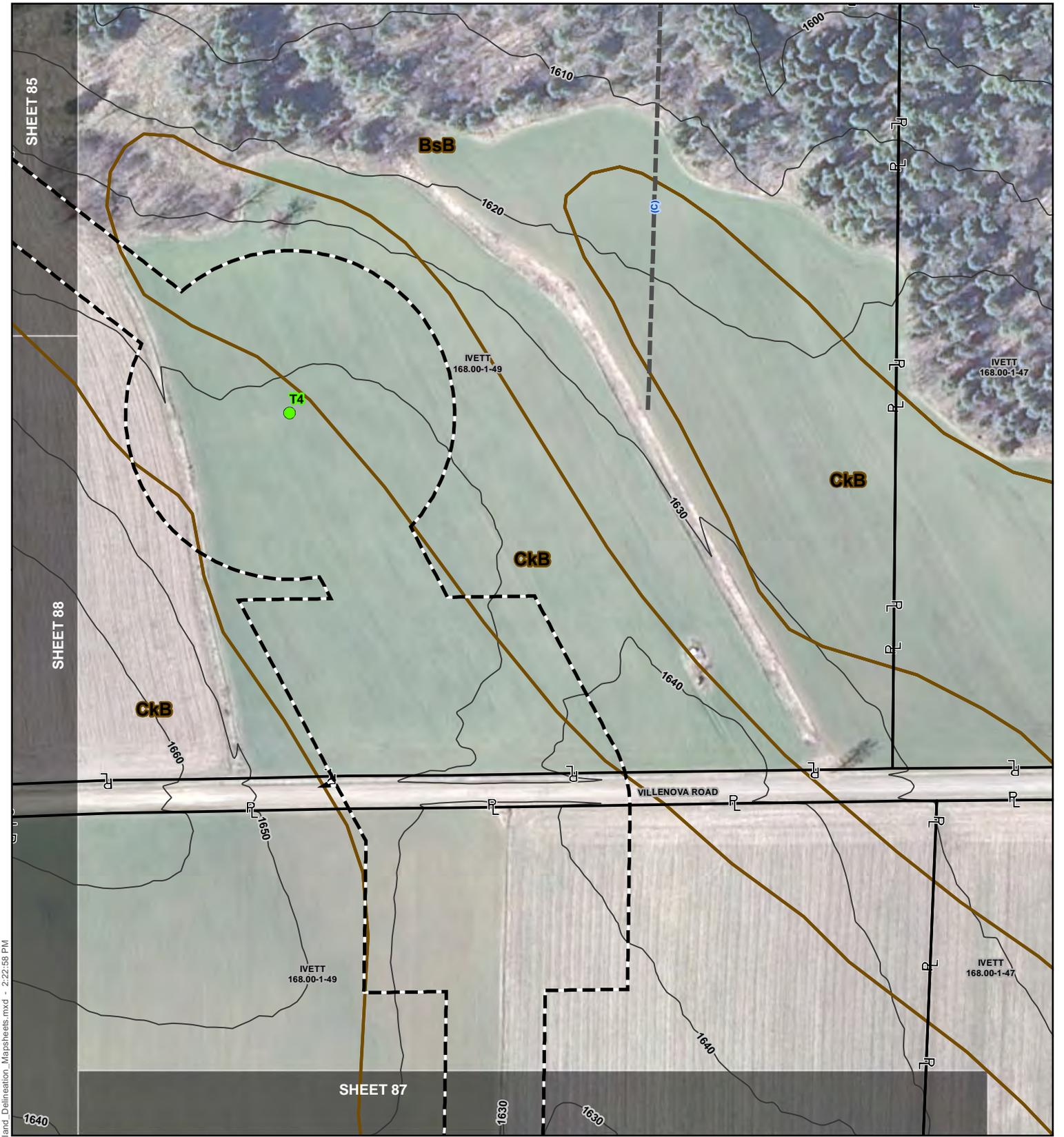
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	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
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	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

Author: AK      Aerial Date: 3/21/2012      Revision Date: 5/4/2017

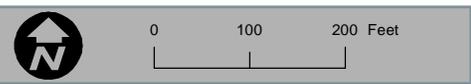


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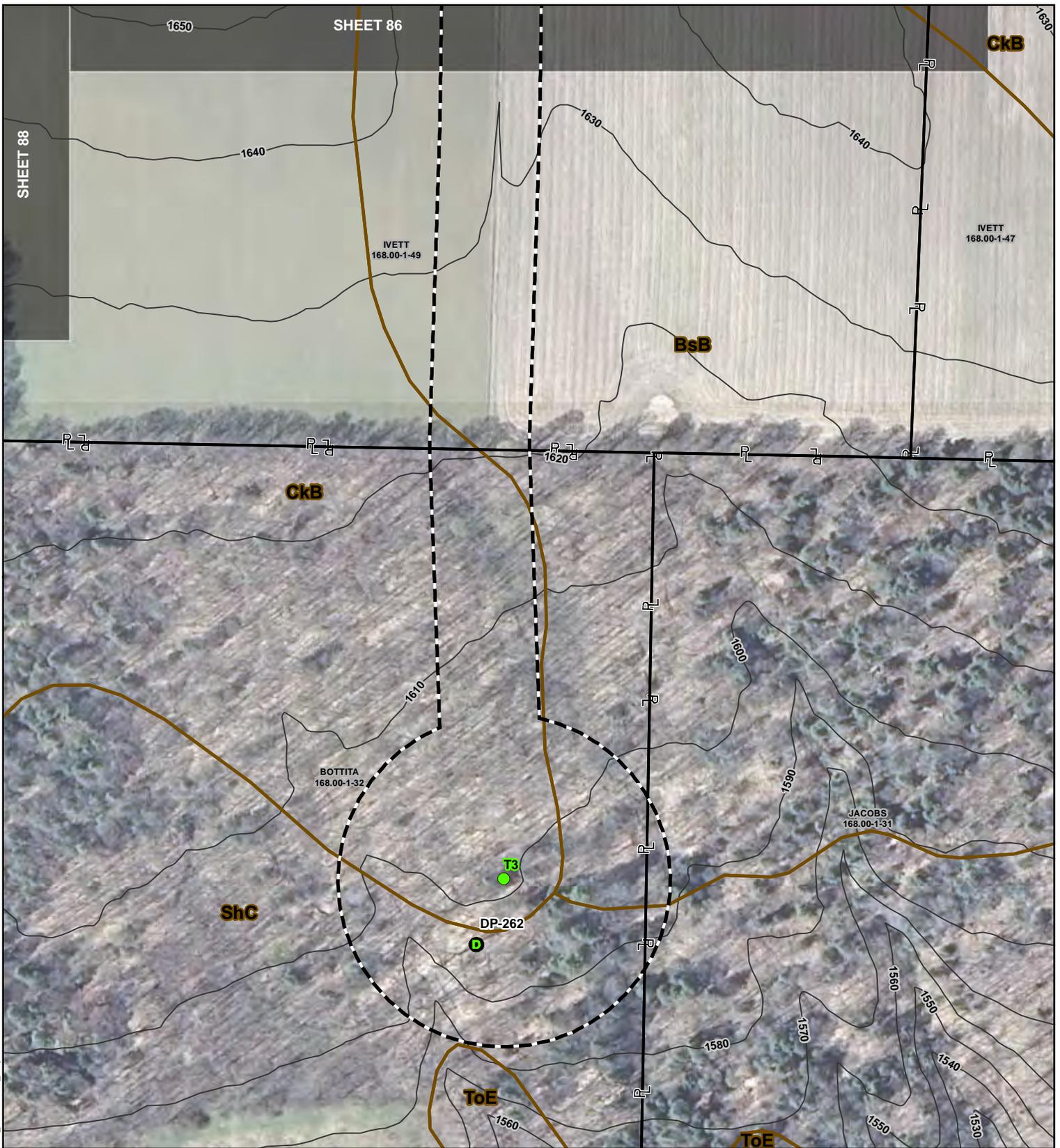
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
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| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
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| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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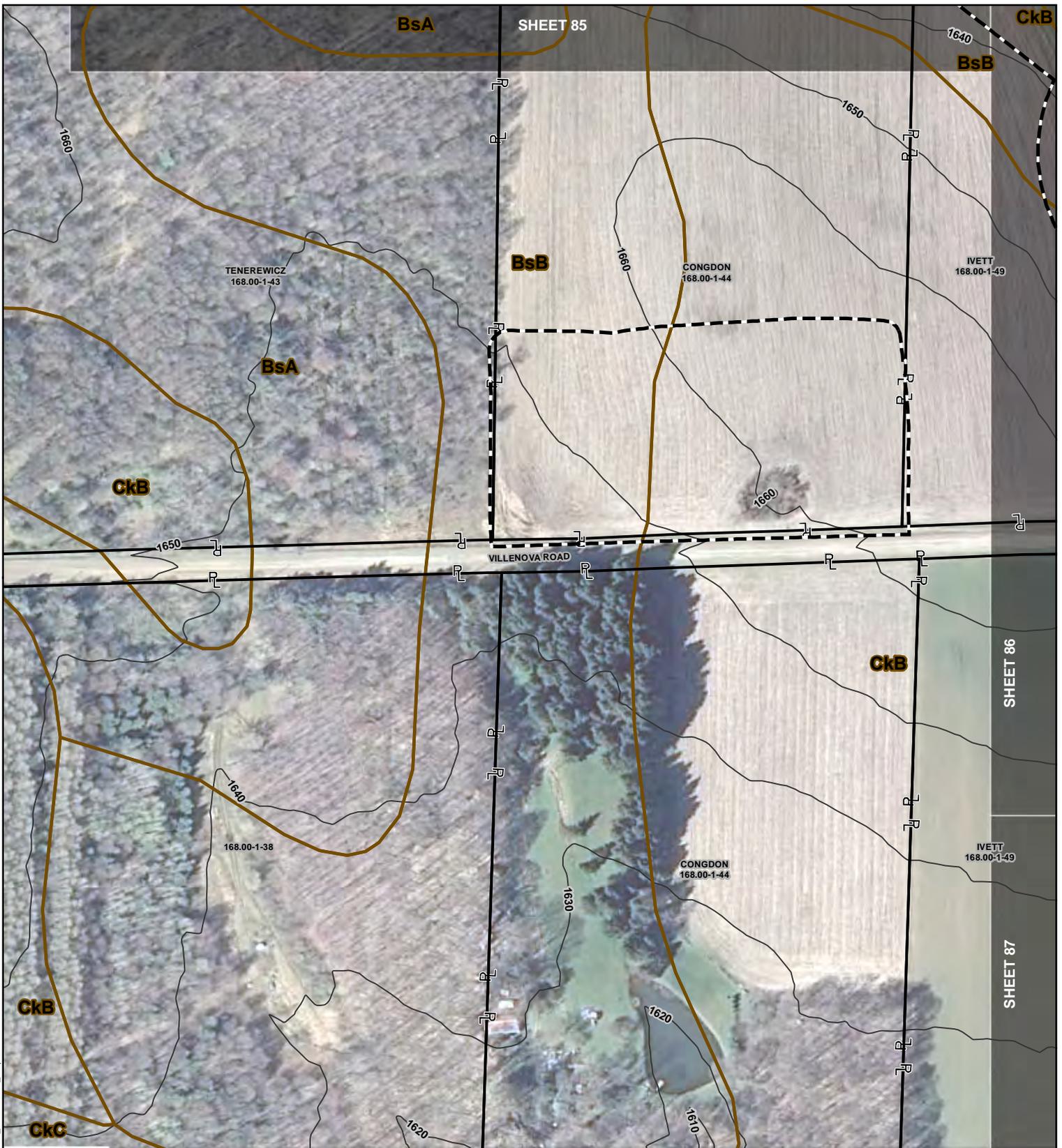
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
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	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



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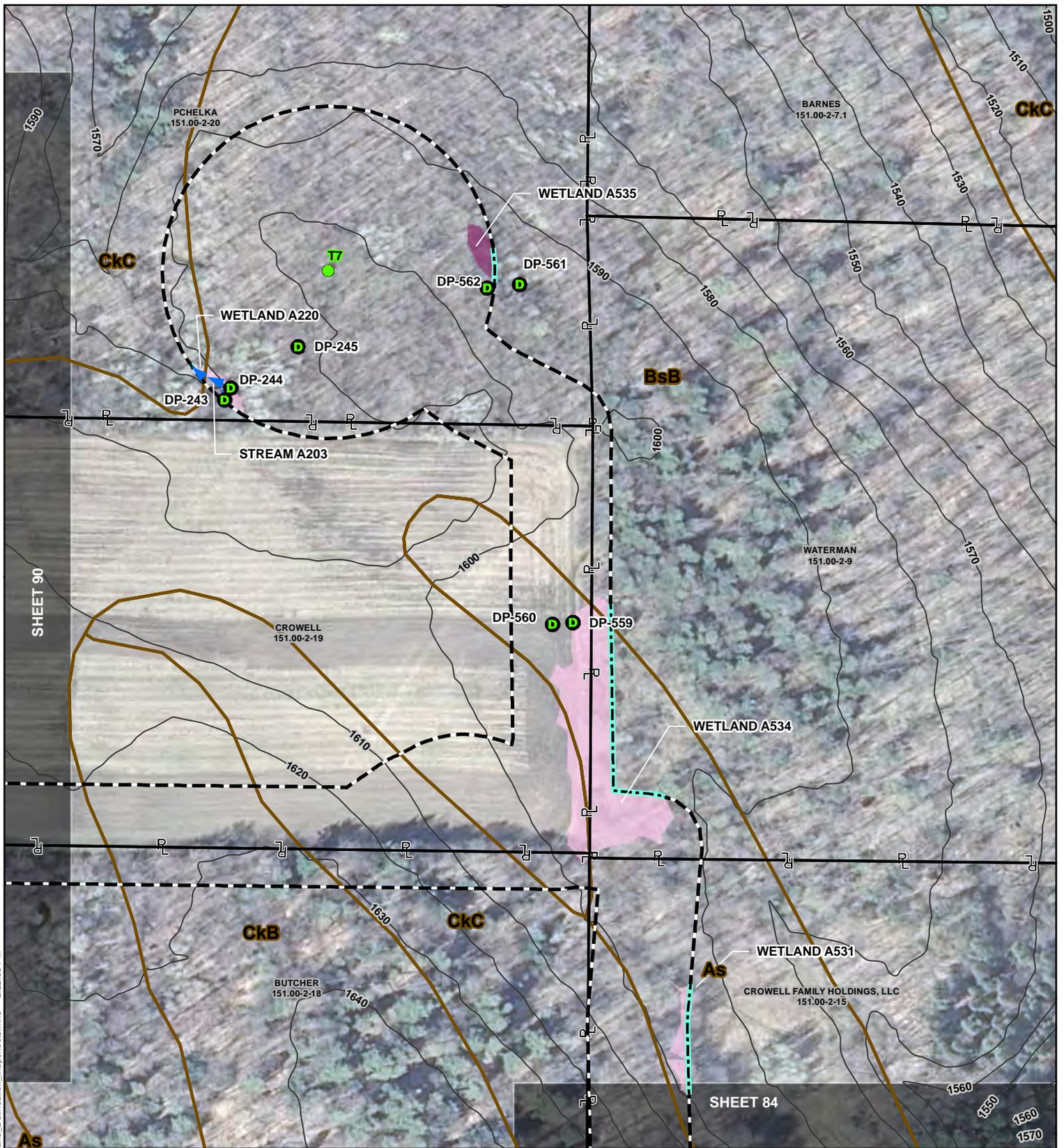
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
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	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



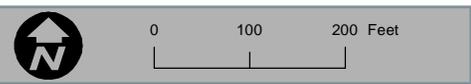
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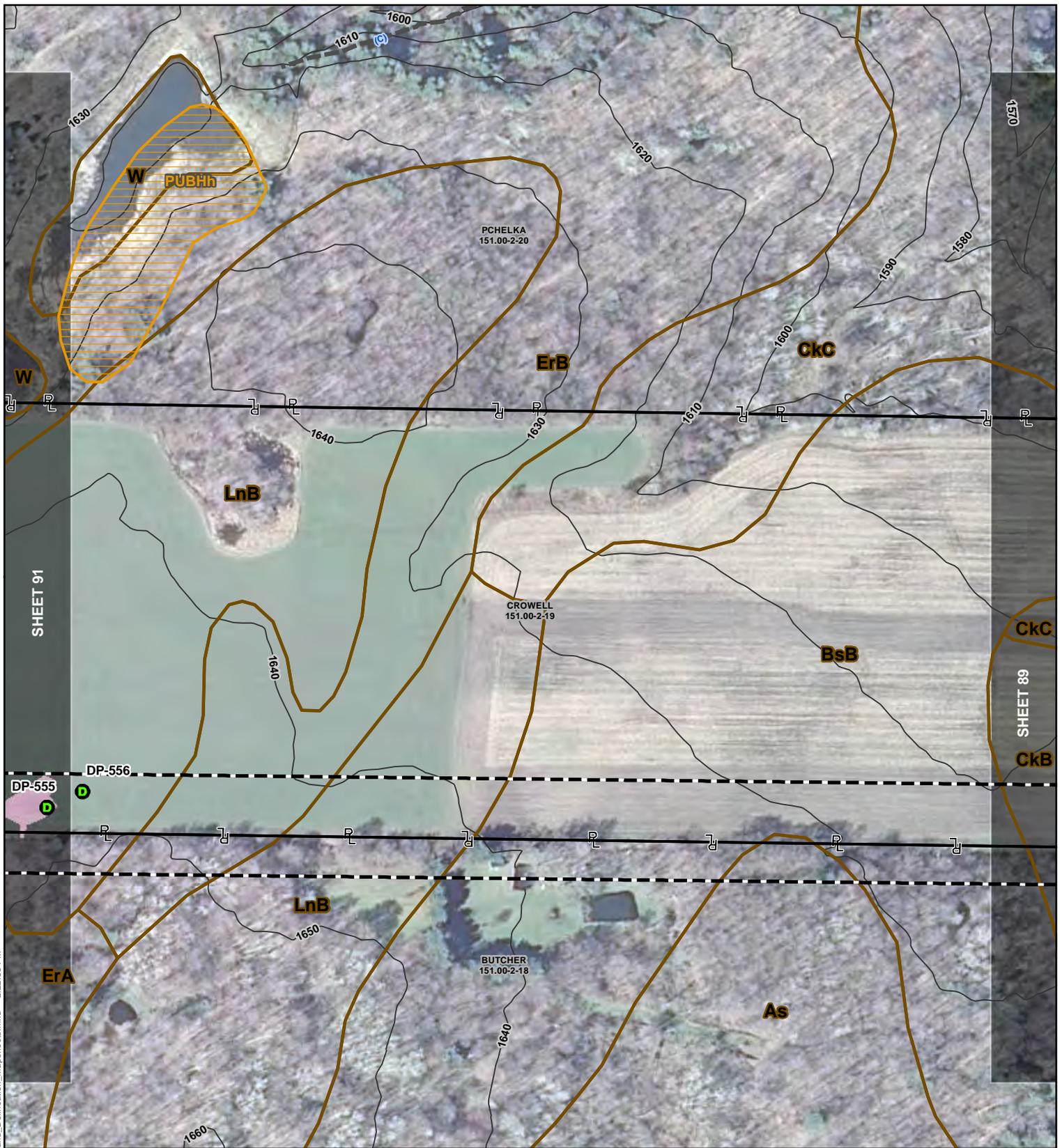


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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
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| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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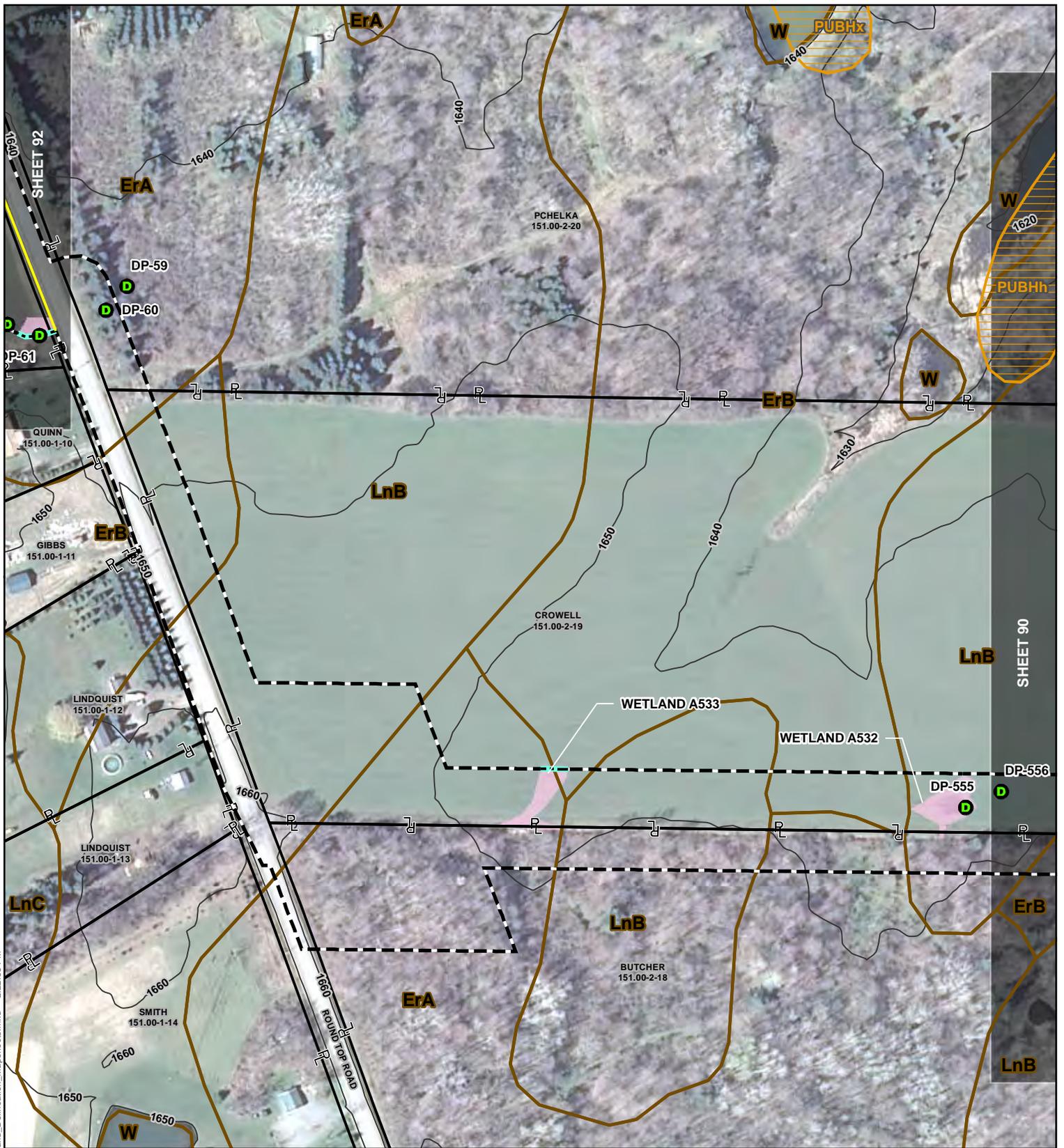
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
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	Delineated Perennial Stream		Delineated PSS Wetland		



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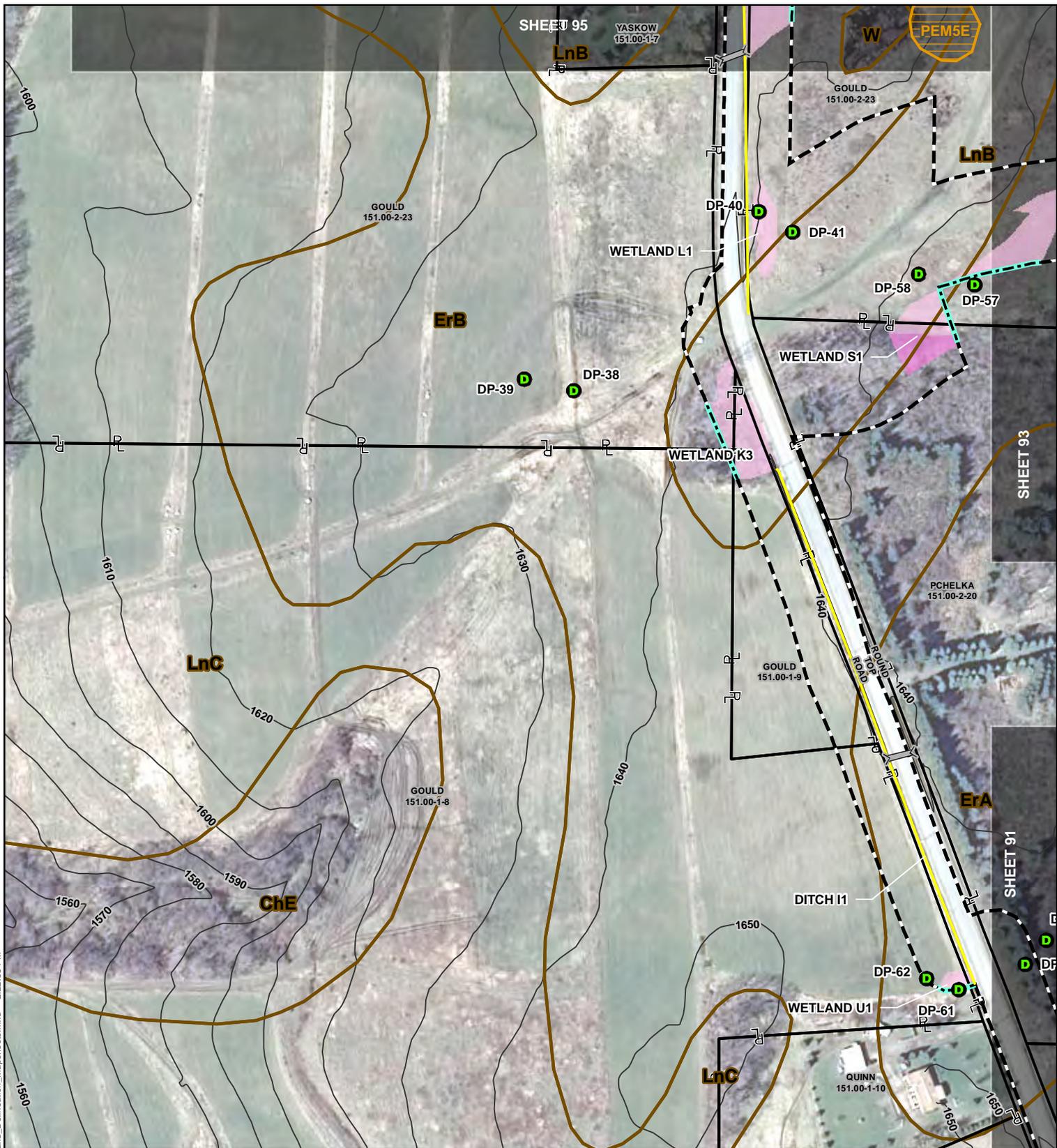
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Data Point	NYSDEC Stream (Standard)	NWI Wetland
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Delineated Jurisdictional Ditch	Delineated Perennial Stream	Parcel
Delineated Ephemeral Stream	Delineated Pond	Project Study Limits
Delineated Intermittent Stream	Delineated PEM Wetland	Matchline
Delineated Perennial Stream	Delineated PFO Wetland	
	Delineated PSS Wetland	



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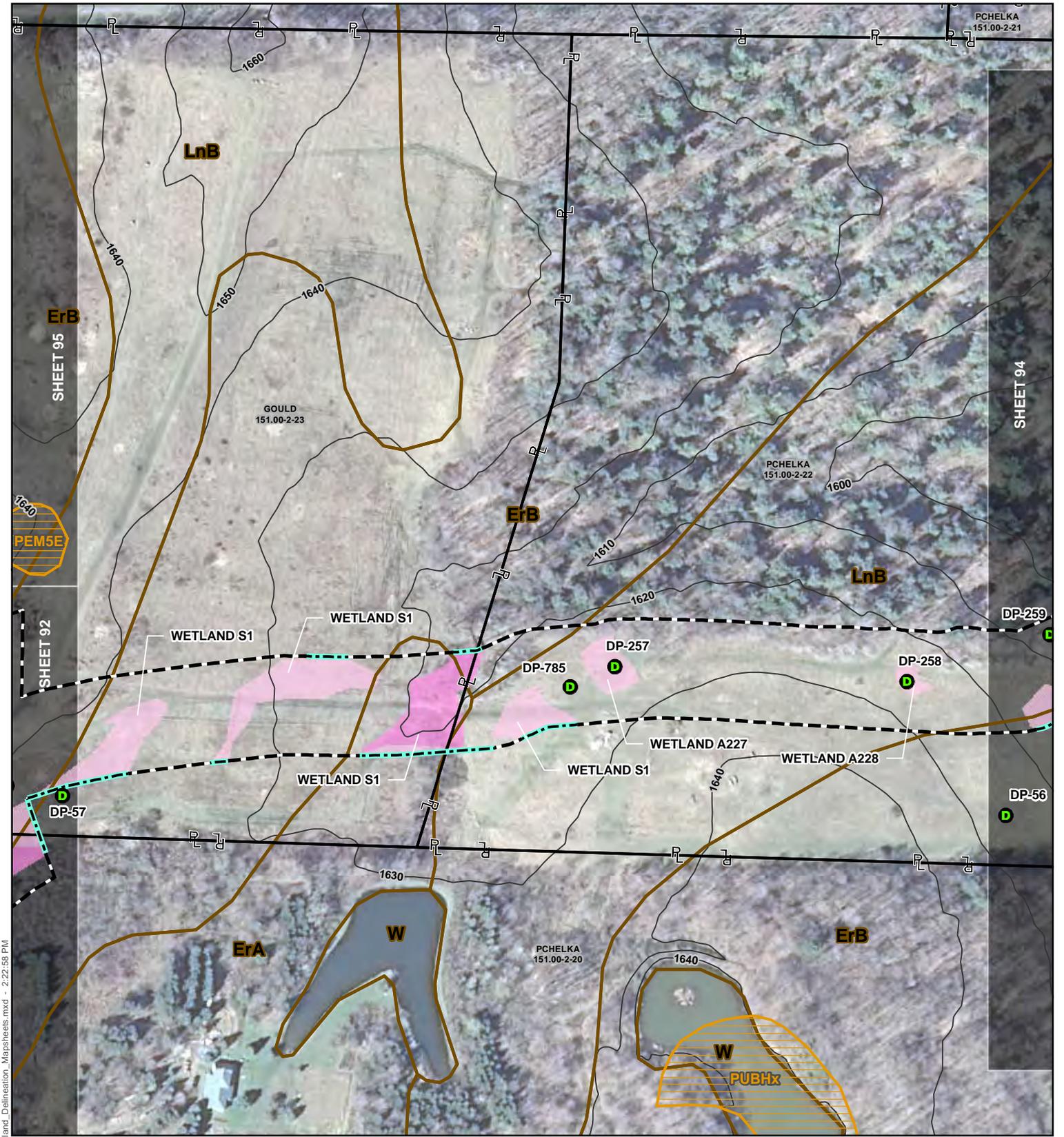
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
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	Delineated Perennial Stream		Delineated PSS Wetland		



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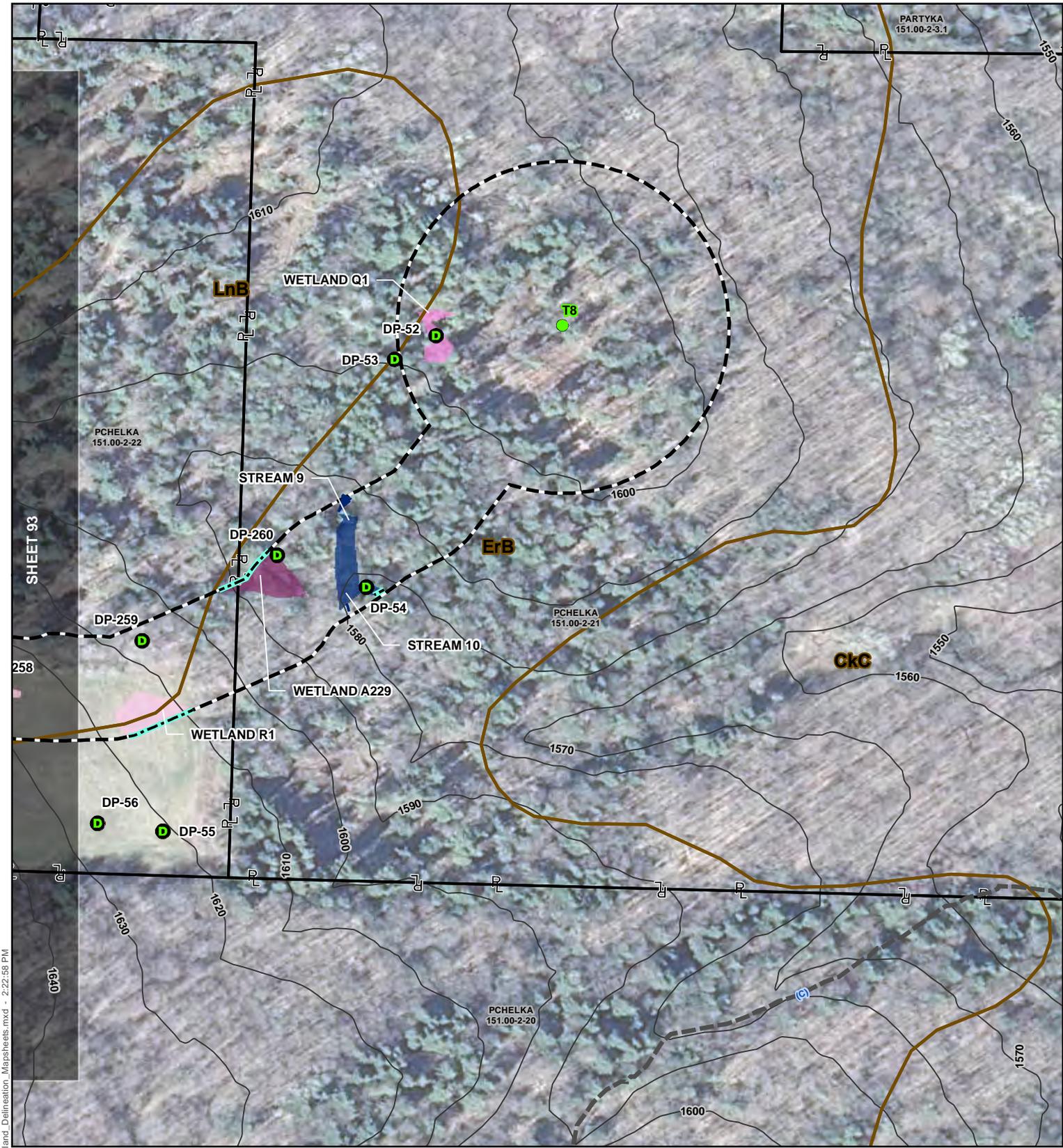
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
| Culvert                         | Delineated Intermittent Stream | Soil Complex Boundary     |
| Delineation Continuation Line   | Delineated Perennial Stream    | Parcel                    |
| Delineated Jurisdictional Ditch | Delineated Pond                | Project Study Limits      |
| Delineated Ephemeral Stream     | Delineated PEM Wetland         | Matchline                 |
| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |

0      100      200 Feet

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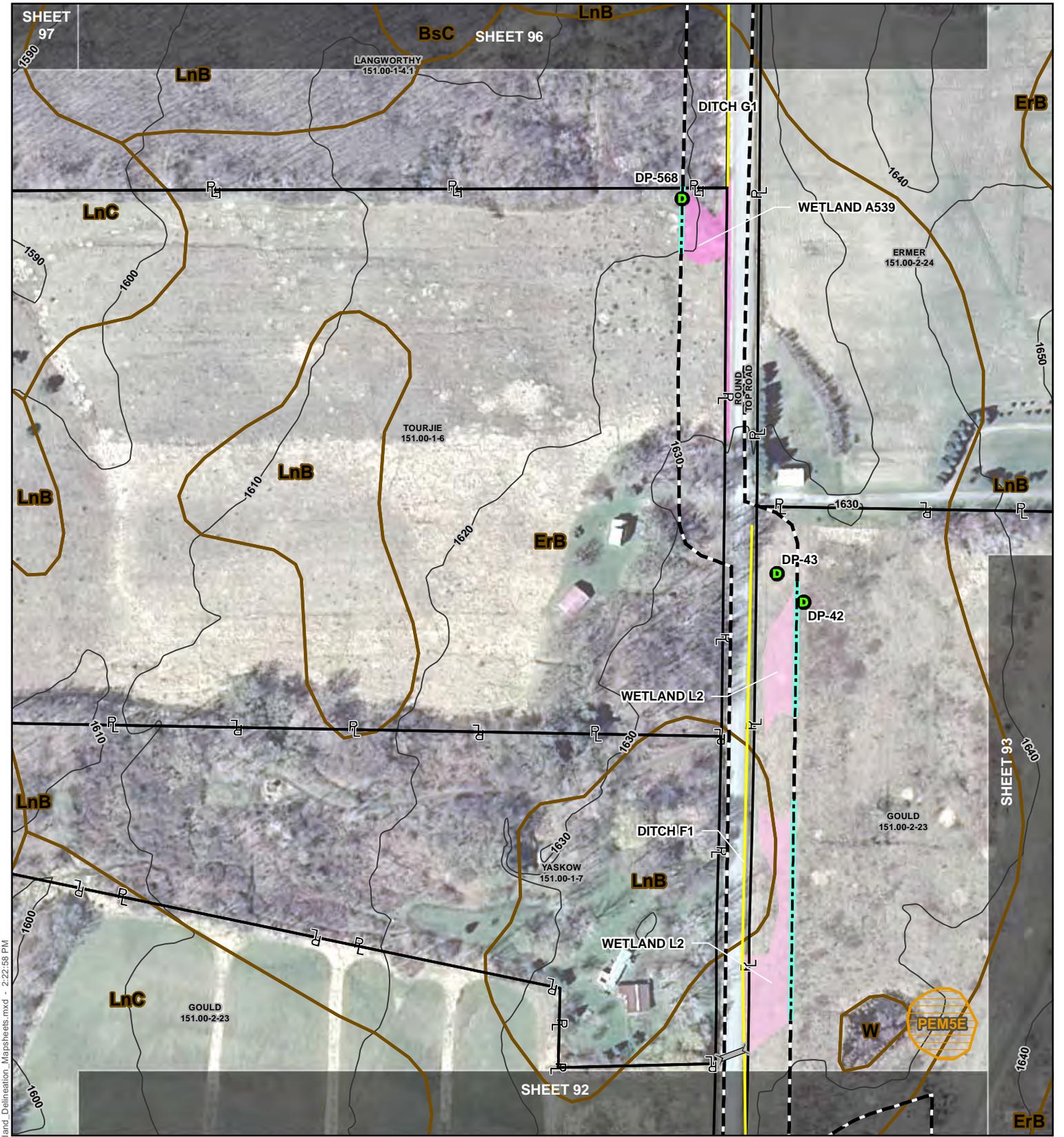
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| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |

0 100 200 Feet

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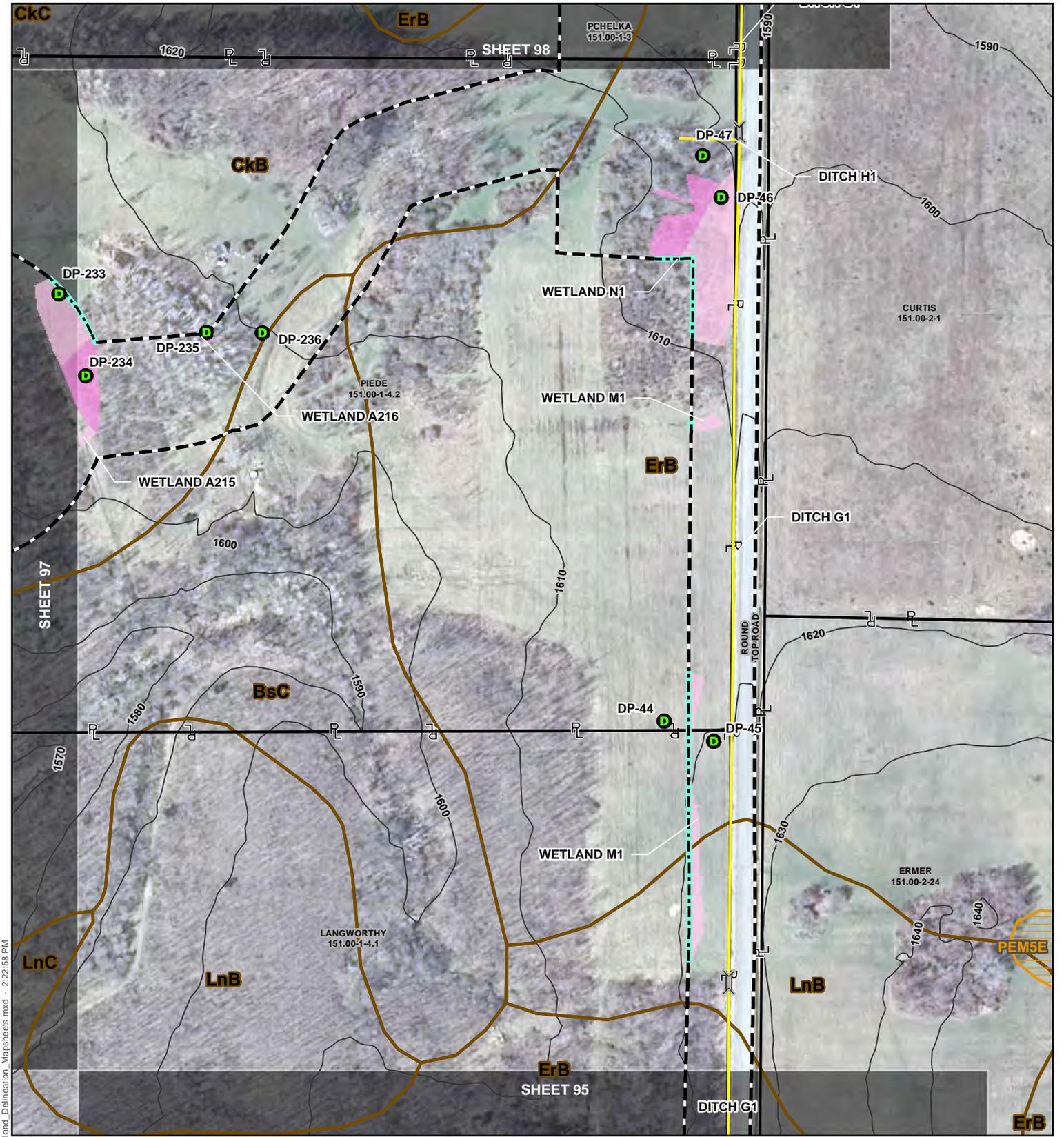
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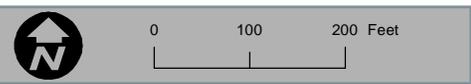
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	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
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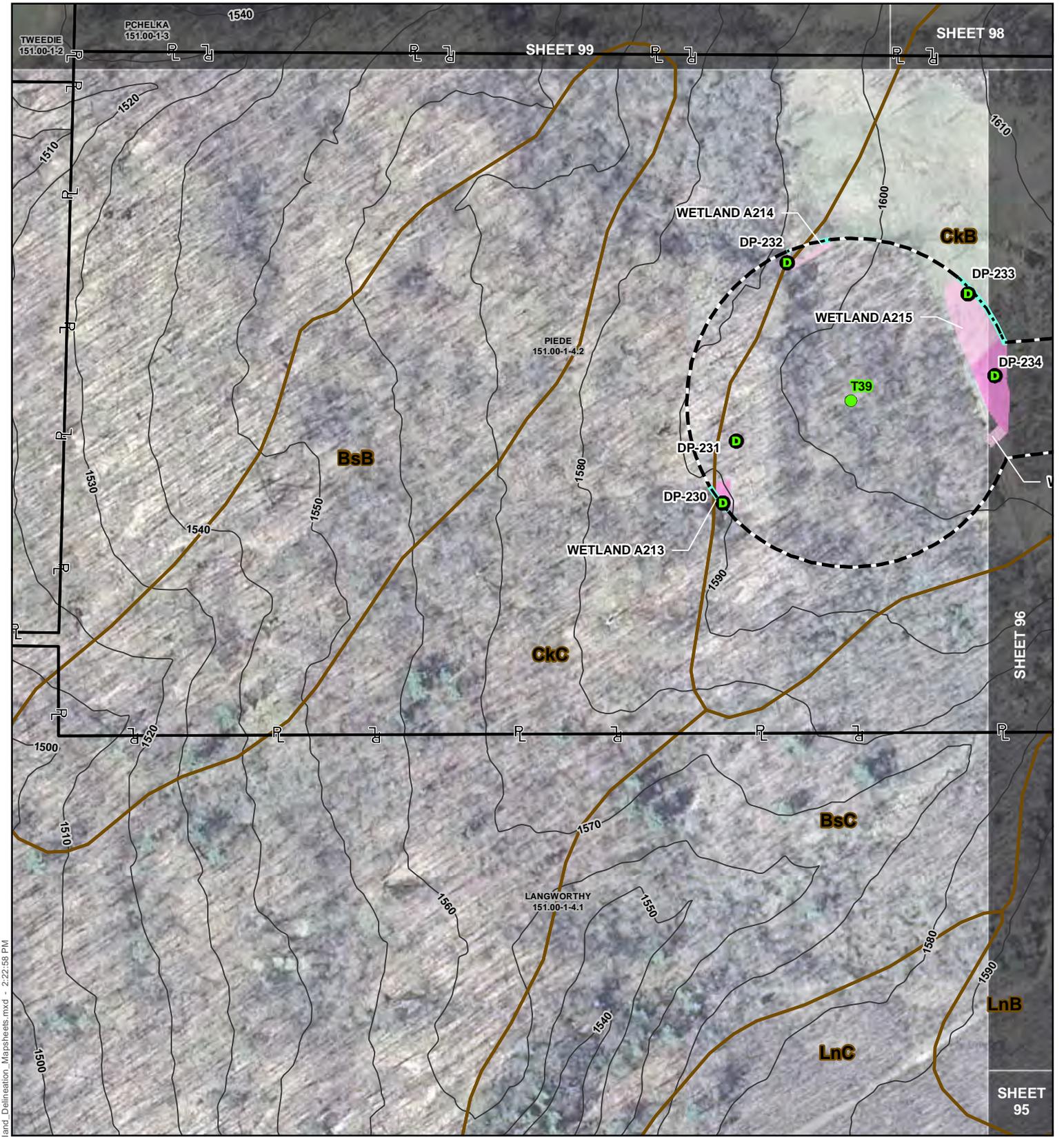


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|---------------------------------|--------------------------------|---------------------------|
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| Delineated Intermittent Stream  | Delineated PFO Wetland         |                           |
| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |

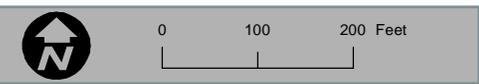


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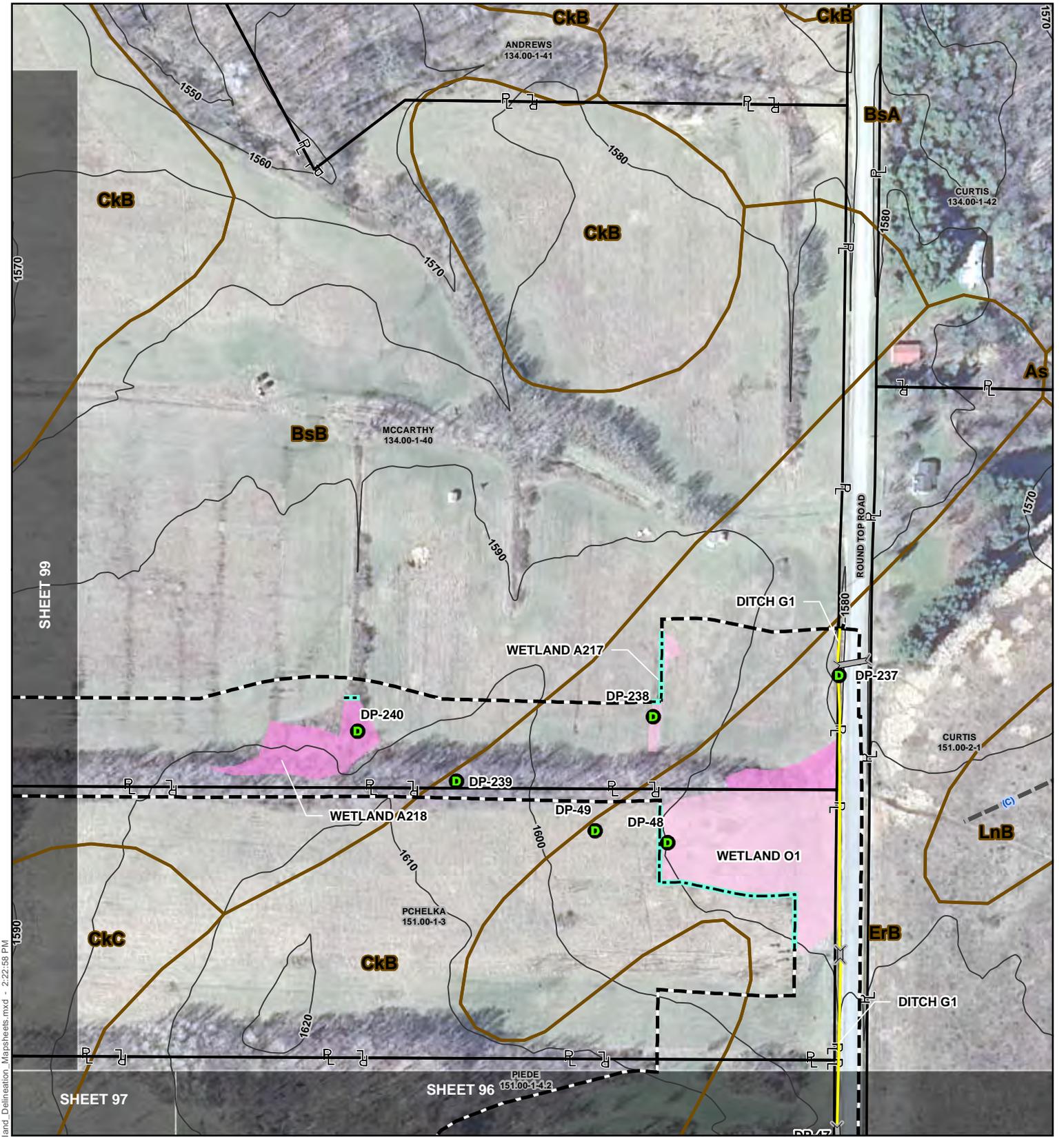


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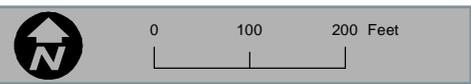


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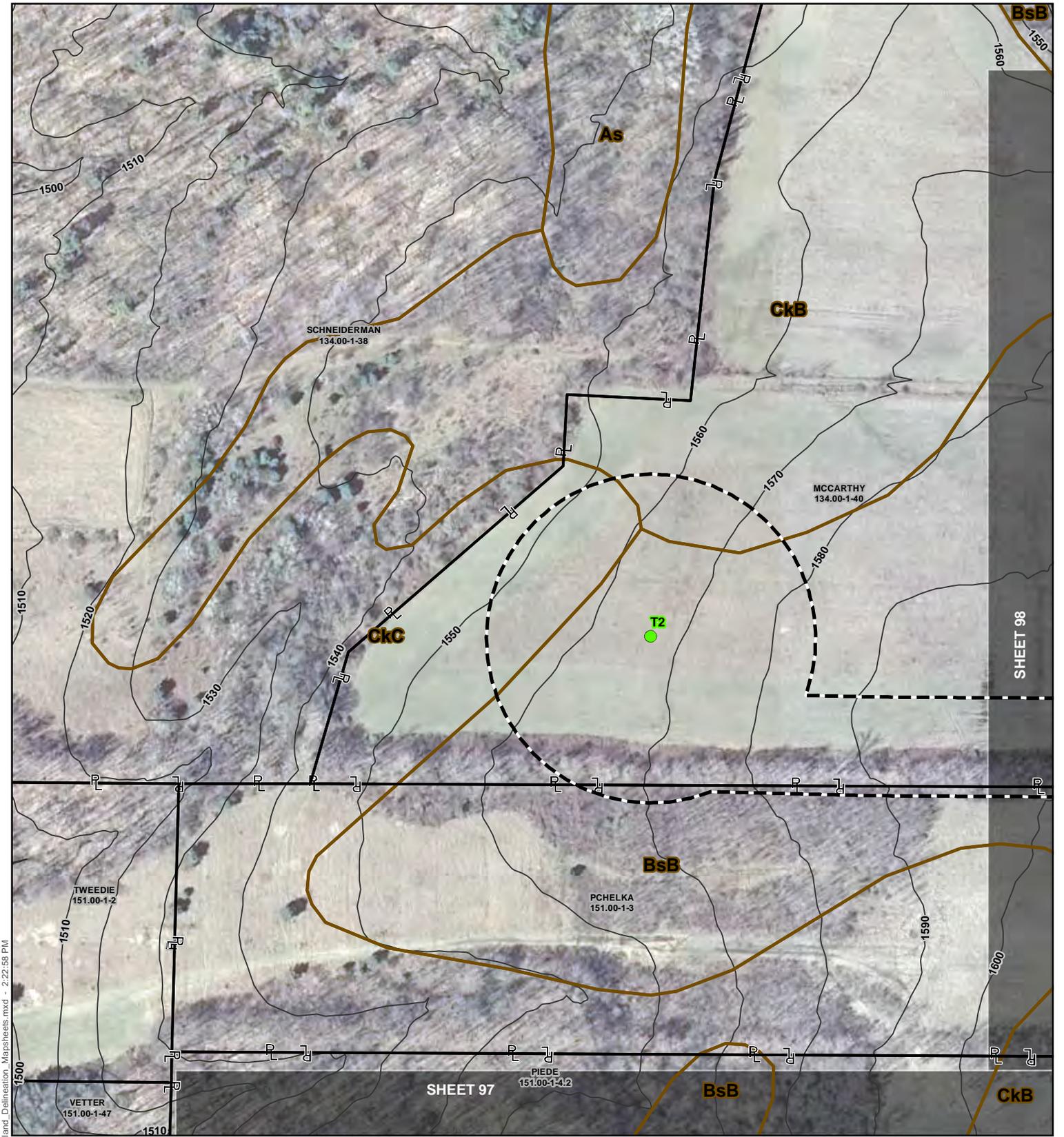


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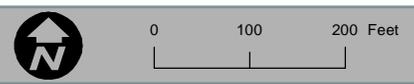


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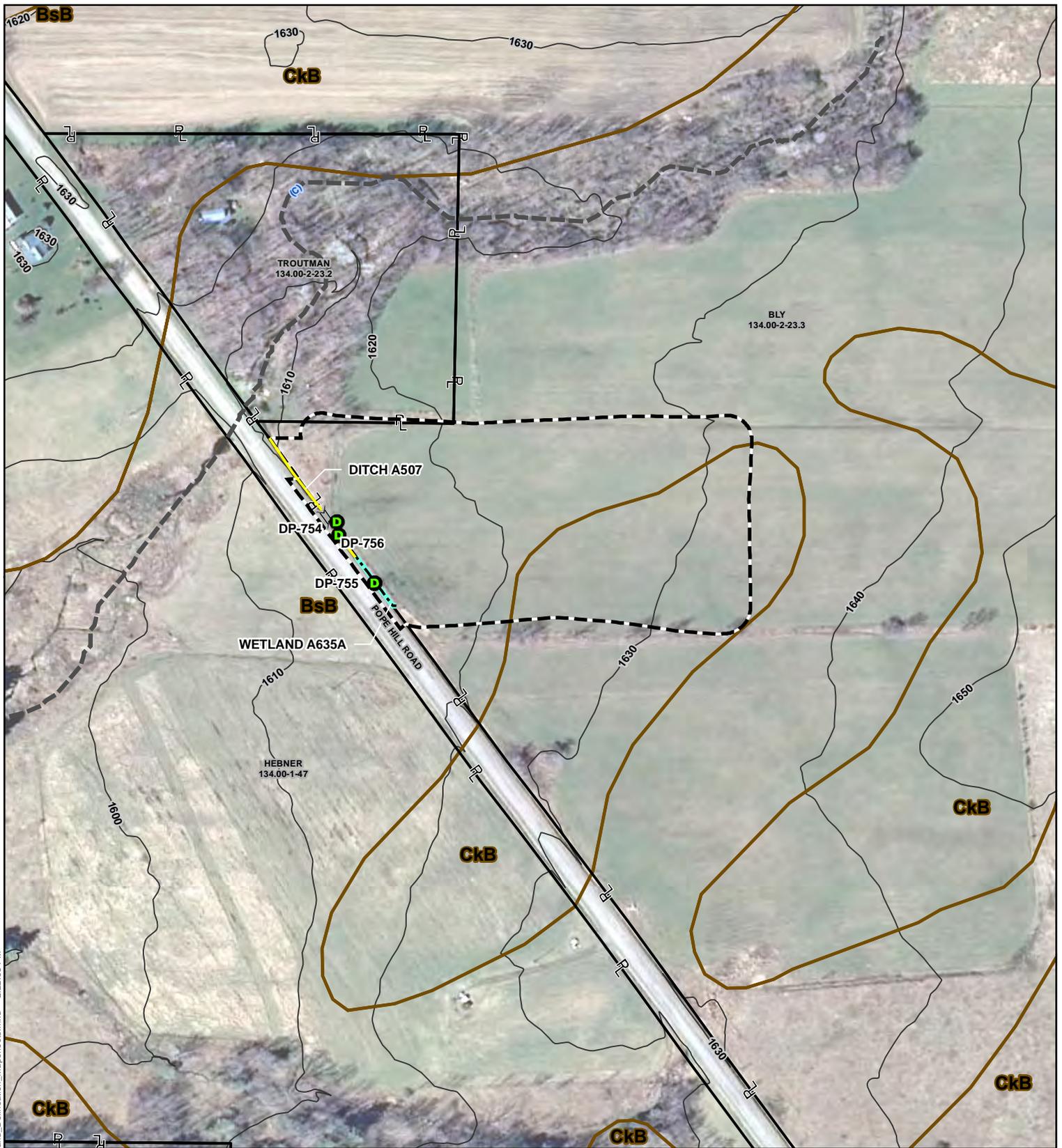


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| Delineated Perennial Stream     | Delineated PSS Wetland         |                           |



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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
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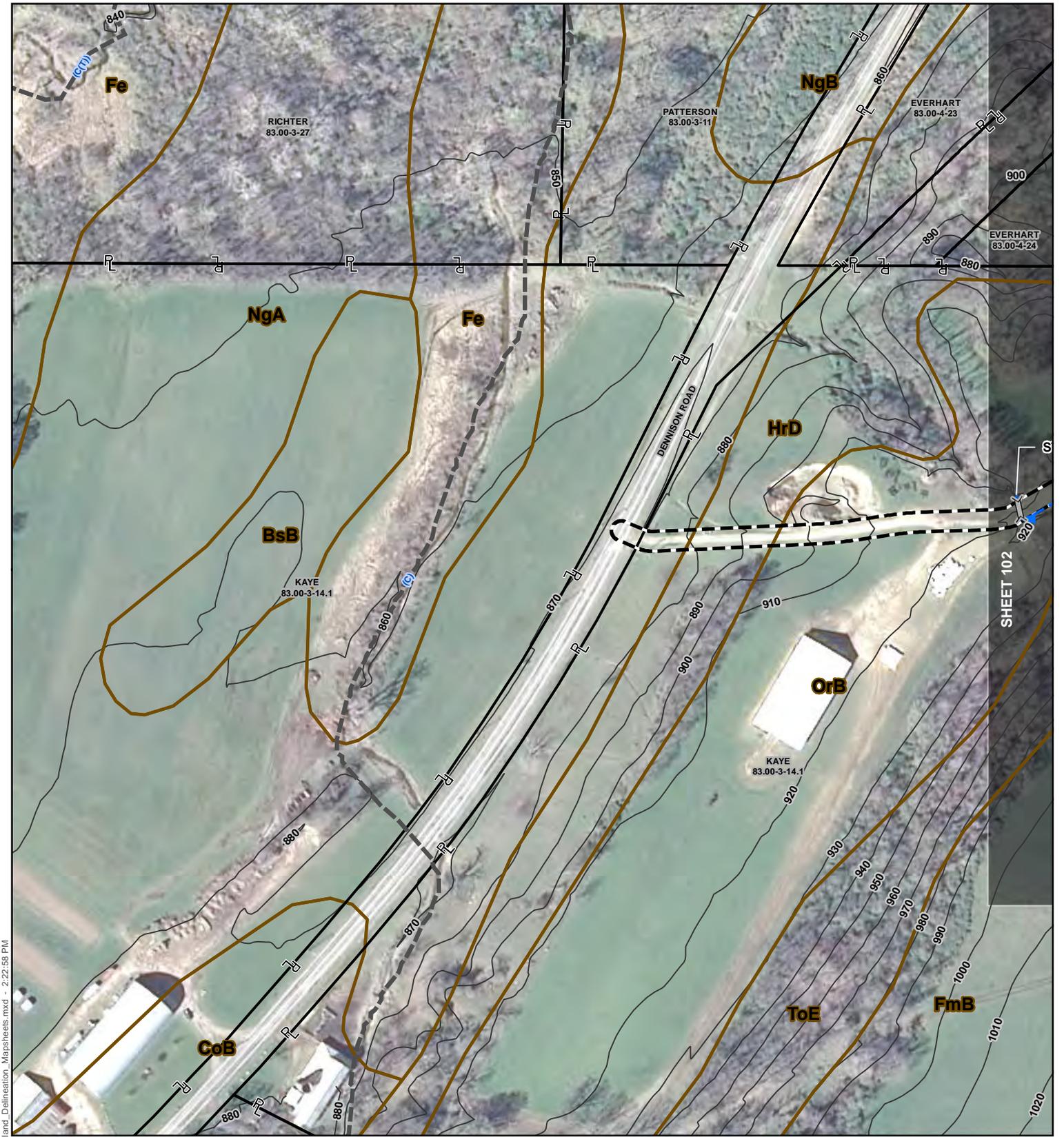
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	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
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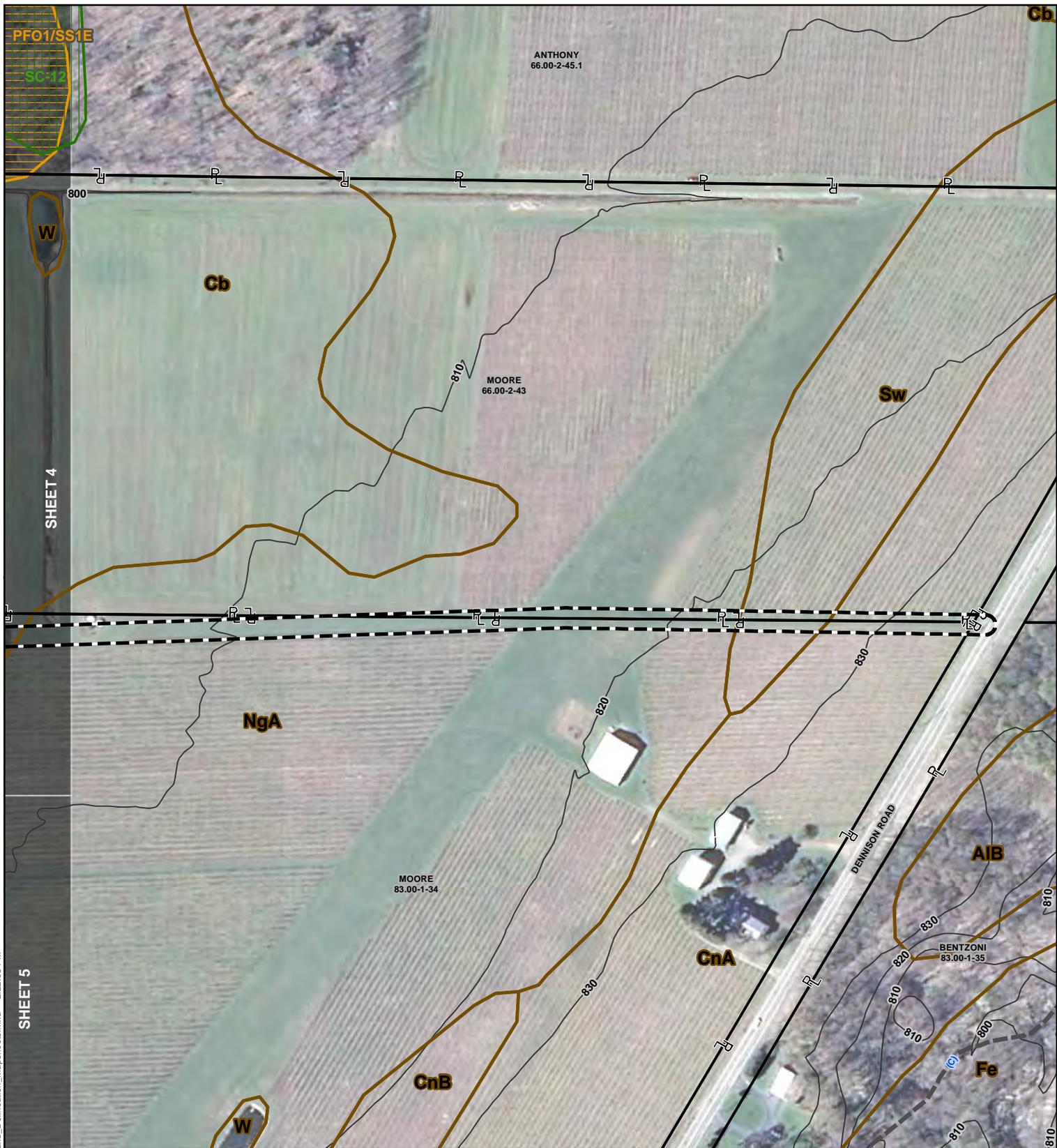
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|---------------------------------|--------------------------------|---------------------------|
| Data Point                      | NYSDEC Stream (Standard)       | NWI Wetland               |
| Proposed Turbine                | Contours (10ft)                | NYSDEC Freshwater Wetland |
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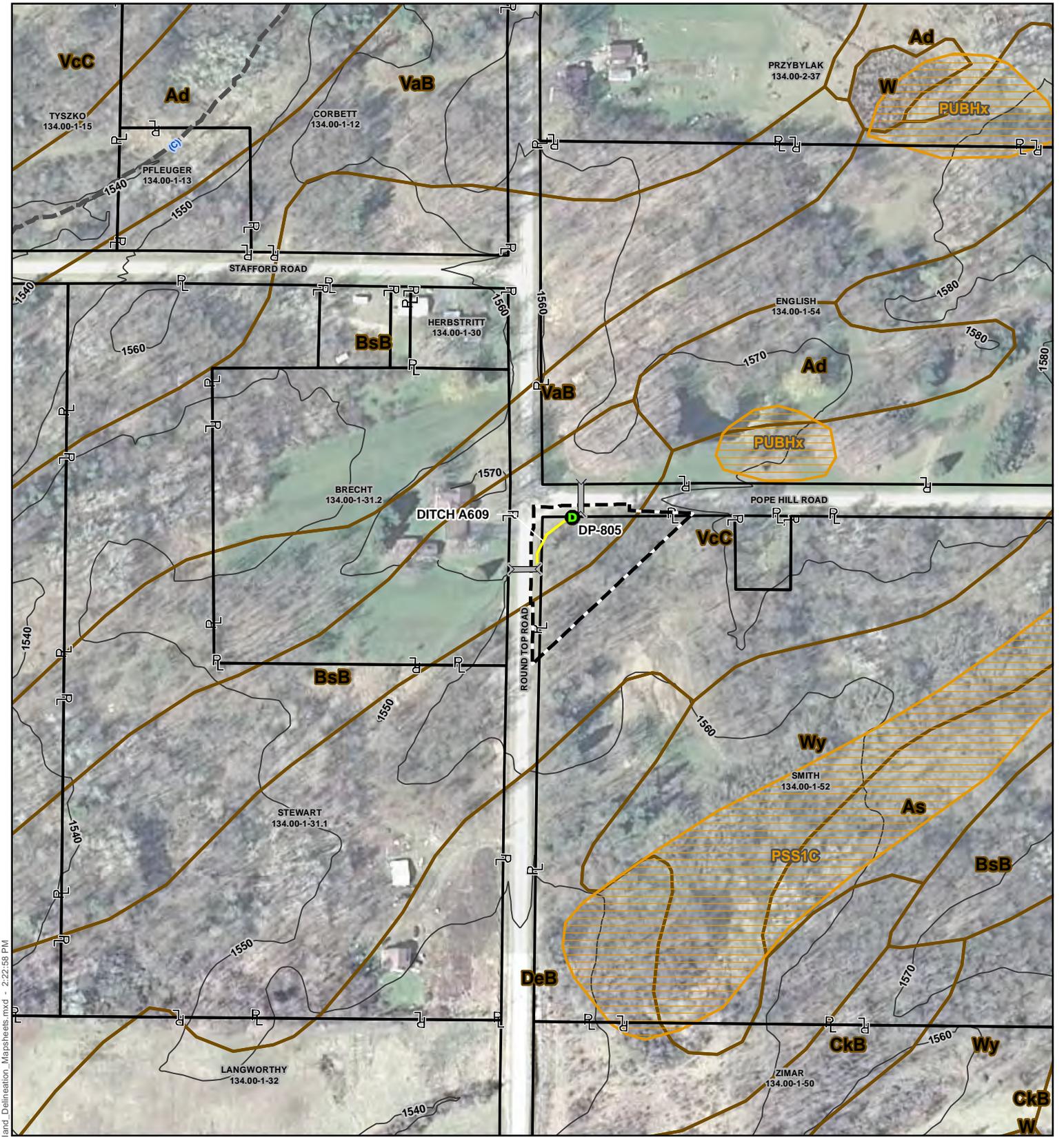
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- |  |                                 |  |                                |  |                           |
|--|---------------------------------|--|--------------------------------|--|---------------------------|
|  | Data Point                      |  | NYSDEC Stream (Standard)       |  | NWI Wetland               |
|  | Proposed Turbine                |  | Contours (10ft)                |  | NYSDEC Freshwater Wetland |
|  | Culvert                         |  | Delineated Intermittent Stream |  | Soil Complex Boundary     |
|  | Delineation Continuation Line   |  | Delineated Perennial Stream    |  | Parcel                    |
|  | Delineated Jurisdictional Ditch |  | Delineated Pond                |  | Project Study Limits      |
|  | Delineated Ephemeral Stream     |  | Delineated PEM Wetland         |  | Matchline                 |
|  | Delineated Intermittent Stream  |  | Delineated PFO Wetland         |  |                           |
|  | Delineated Perennial Stream     |  | Delineated PSS Wetland         |  |                           |



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	Data Point		NYSDEC Stream (Standard)		NWI Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



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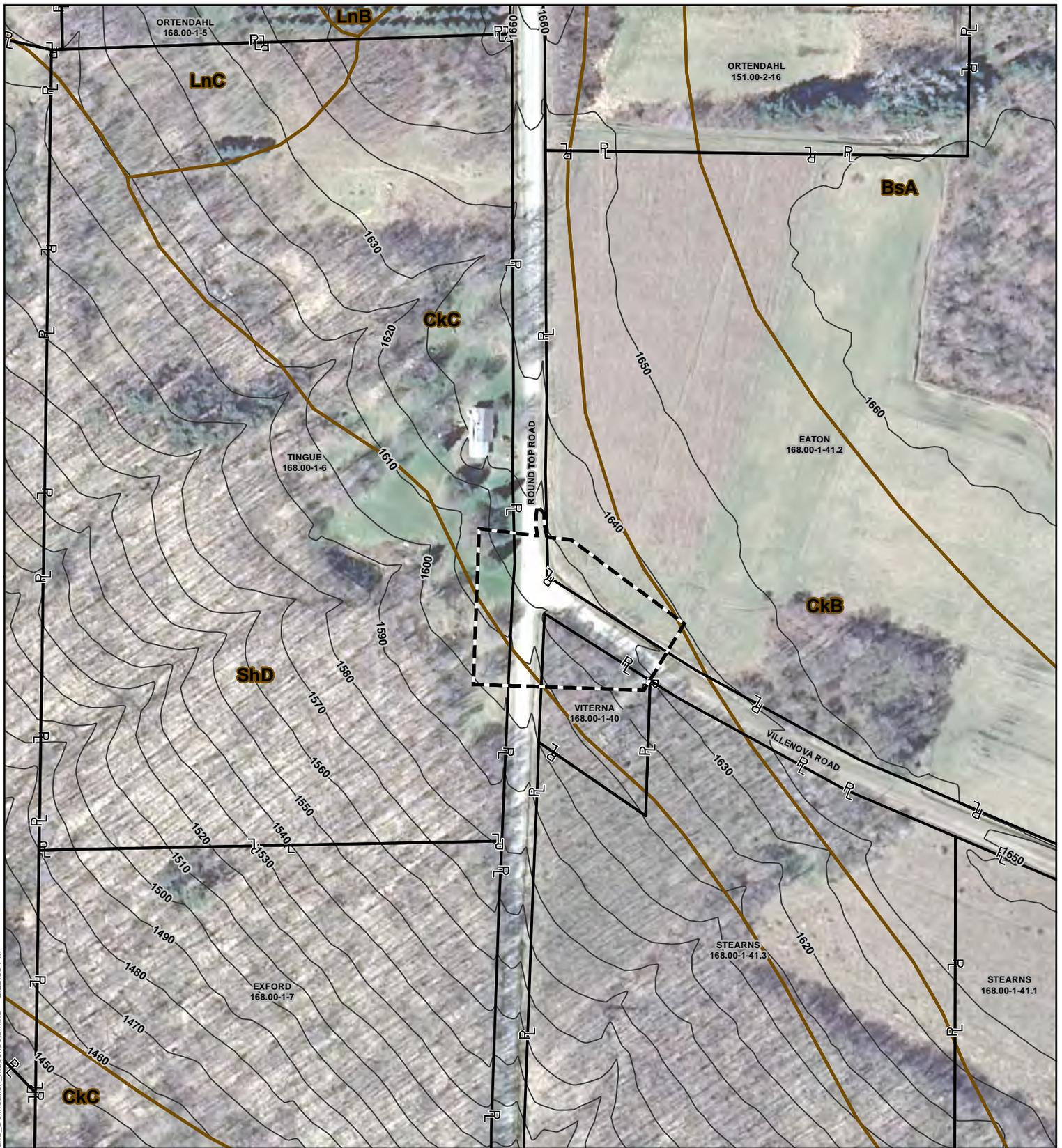
	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

Author: AK      Aerial Date: 3/21/2012      Revision Date: 5/4/2017

0      100      200 Feet

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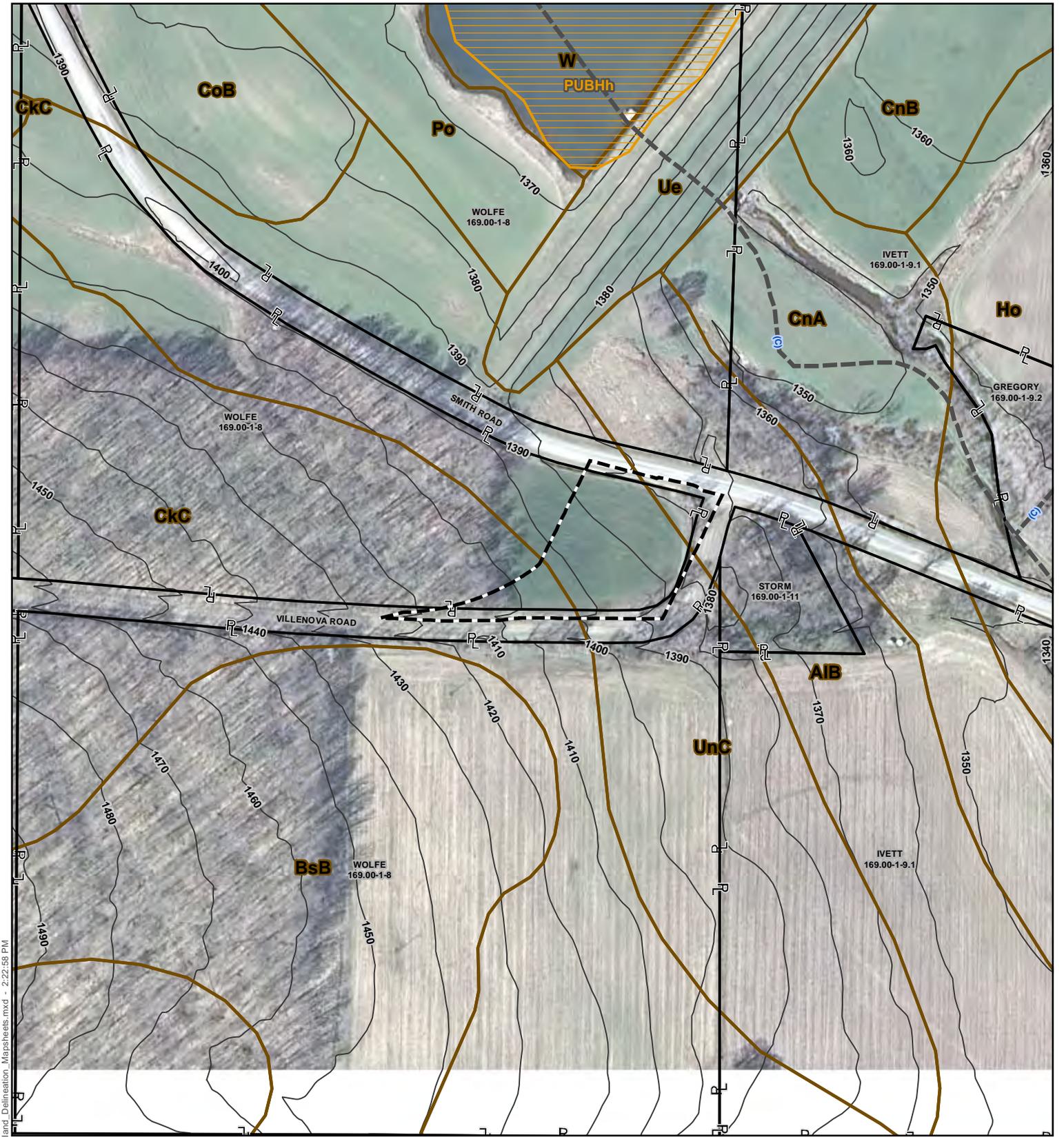


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	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		



  
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	Data Point		NYSDEC Stream (Standard)		NW1 Wetland
	Proposed Turbine		Contours (10ft)		NYSDEC Freshwater Wetland
	Culvert		Delineated Intermittent Stream		Soil Complex Boundary
	Delineation Continuation Line		Delineated Perennial Stream		Parcel
	Delineated Jurisdictional Ditch		Delineated Pond		Project Study Limits
	Delineated Ephemeral Stream		Delineated PEM Wetland		Matchline
	Delineated Intermittent Stream		Delineated PFO Wetland		
	Delineated Perennial Stream		Delineated PSS Wetland		

Author: AK      Aerial Date: 3/21/2012      Revision Date: 5/4/2017




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**WETLAND DELINEATION REPORT**  
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## TABLES

**Table 1  
Wetland Delineation Summary**

Wetland ID	Map Sheet #	Associated Data Sheet #	Cowardin Classification	Connectivity Classification*	Coordinates		Wetland Area within Study Limits		Soils	
					Latitude	Longitude	Square Feet	Acres	Soil Symbol	Hydric Component Percentage
A10	22	DP-103, DP-104	PEM	Not Isolated	42.440918	-79.128854	9,683	0.22	CkB	0
A200	55 & 56	DP-202, DP-203	PFO	Not Isolated	42.411127	-79.128120	11,370	0.26	ErB	5
							189	0.00	LnC	0
		1,786	0.04				As	90		
		2,791	0.06				ErB	5		
		3,060	0.07				ErB	5		
A201	52 & 53	DP-204, DP-205	PEM	Not Isolated	42.413515	-79.133826	3,197	0.07	As	90
							6,022	0.14	ErA	4
							18,766	0.43	ErB	5
A202	52	DP-206, DP-207	PEM	Not Isolated	42.414739	-79.134125	675	0.02	LnC	0
A203	52	DP-208, DP-207	PEM	Not Isolated	42.416748	-79.134416	2,319	0.05	ErA	4
							951	0.02	ErB	5
		4,575	0.11				LnC	0		
		125	0.003				W	0		
		6,233	0.14				LnC	0		
A204	51	DP-213, DP-215	PEM	Not Isolated	42.417606	-79.137918	1,113	0.03	W	0
							5,446	0.13	ErB	5
A205	50 & 51	DP-214, DP-215	PFO	Not Isolated	42.418133	-79.13815	19,970	0.46	ErB	5
			PEM				9,300	0.21	ErB	5
A206	50 & 54	DP-216	PEM	Not Isolated	42.417826	-79.132398	1,820	0.04	ErB	5
A209	50	DP-224, DP-225, DP-226	PEM	Not Isolated	42.420106	-79.135928	1,687	0.04	ErB	5
A210	50	DP-227, DP-226	PEM	Not Isolated	42.421705	-79.134646	162	0.004	CkB	0
							1,692	0.04	VaB	0
A211	48	DP-228, DP-226	PEM	Not Isolated	42.421931	-79.134200	3,046	0.07	CkB	0
A212	76	DP-229, DP-241	PEM	Not Isolated	42.398351	-79.137576	1,190	0.03	LnB	0
A213	97	DP-230, DP-231	PSS	Not Isolated	42.407115	-79.169238	853	0.02	CkB	0
							61	0.001	CkC	0
A214	97	DP-232, DP-231	PSS	Not Isolated	42.408109	-79.168766	775	0.02	CkB	0
							247	0.01	CkC	0
A215	96 & 97	DP-233, DP-234, DP-236	PEM	Not Isolated	42.407847	-79.167875	6,619	0.15	CkB	0
			PSS				5,049	0.12	CkB	0
A216	96	DP-235, DP-236	PSS	Not Isolated	42.407778	-79.167046	158	0.004	CkB	0
A217	98	DP-238, DP-239	PEM	Not Isolated	42.410491	-79.165060	2,193	0.05	CkB	0
A218	98	DP-240, DP-239	PSS	Not Isolated	42.410241	-79.167020	14,317	0.33	BsB	4
A219	74	DP-241, DP-242	PEM	Not Isolated	42.398541	-79.134812	618	0.01	LnB	0
A220	89	DP-244, DP-245	PEM	Not Isolated	42.396616	-79.151465	1,168	0.03	BsB	4
							167	0.004	CkC	0
A221	83	DP-247, DP-250	PEM	Not Isolated	42.392611	-79.143068	2,716	0.06	CkC	0
A222	83	DP-248, DP-250	PEM	Not Isolated	42.393269	-79.141601	2,608	0.06	Fe	60
A223	83	DP-250, DP-252	PEM	Not Isolated	42.392245	-79.143121	478	0.01	CkC	0
A224	85	DP-253, DP-256	PEM	Not Isolated	42.389500	-79.145130	480	0.01	CkB	0
A225	85	DP-254, DP-256	PEM	Not Isolated	42.389531	-79.144839	522	0.01	CkB	0
							278	0.01	CkC	0
A226	84	DP-255, DP-256	PEM	Not Isolated	42.389819	-79.144863	661	0.02	CkC	0
A227	93	DP-257, DP-259	PEM	Not Isolated	42.400254	-79.159601	4,825	0.11	LnB	0
A228	93	DP-258, DP-259	PEM	Not Isolated	42.400207	-79.157907	1,519	0.03	LnB	0
A229	94	DP-259, DP-260	PFO	Not Isolated	42.400653	-79.156410	4,292	0.10	ErB	5
A230	40	DP-265, DP-267	PEM	Not Isolated	42.430979	-79.115781	22	0.001	CkB	0

**Table 1  
Wetland Delineation Summary**

Wetland ID	Map Sheet #	Associated Data Sheet #	Cowardin Classification	Connectivity Classification*	Coordinates		Wetland Area within Study Limits		Soils	
					Latitude	Longitude	Square Feet	Acres	Soil Symbol	Hydric Component Percentage
A231	40	DP-266, DP-267	PEM	Not Isolated	42.430838	-79.116550	14	0.0003	BsB	4
A232	34	DP-269, DP-271	PEM	Not Isolated	42.451832	-79.108376	436	0.01	CnB	0
							96	0.002	CnC	0
A233	34	DP-270, DP-271	PEM	Not Isolated	42.451772	-79.109334	261	0.01	CnC	0
A234	32	DP-273	PEM	Not Isolated	42.451933	-79.112032	2,289	0.05	Fe	60
							175	0.004	VcC	0
A235	32	DP-274, DP-279	PEM	Not Isolated	42.452240	-79.112389	616	0.01	CkC	0
A236	31 & 32	DP-276, DP-277, DP-279	PEM	Not Isolated	42.452630	-79.115858	1,392	0.03	FmA	5
			PSS				14,039	0.32	FmA	5
A237	12	DP-289, DP-290	PEM	Not Isolated	42.467603	-79.149024	1,478	0.03	ToF	0
A238	12	DP-290, DP-291, DP-292	PEM	Not Isolated	42.468779	-79.149069	7,265	0.17	FmB	5
			PSS				578	0.01	OrC	5
							10,450	0.24	OrC	5
A239	11	DP-295, DP-296, DP-297	PEM	Not Isolated	42.473531	-79.149425	9,007	0.21	FmA	5
			PFO				3,620	0.08	FmB	5
							741	0.02	FmA	5
							6,111	0.14	FmB	5
A3	24	DP-91, DP-92	PEM	Not Isolated	42.439187	-79.121471	3,162	0.07	Ad	95
							51	0.001	BsB	4
A5	24	DP-91, DP-92	PEM	Not Isolated	42.439117	-79.121790	8,228	0.19	Ad	95
							2,384	0.05	BsB	4
A500	73	DP-500, DP-501	PEM	Not Isolated	42.403087	-79.134373	5,706	0.13	Fe	60
A501	72 & 73	DP-501, DP-503	PEM	Not Isolated	42.403850	-79.134128	15,641	0.36	ChD	0
							308	0.01	Fe	60
A502	72	DP-505, DP-506	PEM	Not Isolated	42.405005	-79.133730	18,249	0.42	ChD	0
A503	72	DP-507, DP-508	PEM	Not Isolated	42.405841	-79.131680	3,717	0.09	ErB	5
A504	58 & 59	DP-509, DP-510	PEM	Not Isolated	42.406129	-79.121084	710	0.02	CkB	0
							4,512	0.10	CkC	0
A505	59	DP-511	PEM	Not Isolated	42.405372	-79.119716	933	0.02	CkB	0
A506	59	DP-512	PEM	Not Isolated	42.405643	-79.119775	301	0.01	BsB	4
							468	0.01	CkB	0
A508	60	DP-514, DP-515	PEM	Not Isolated	42.407723	-79.111375	1,777	0.04	FmA	5
							1,803	0.04	FmB	5
A511	66	DP-521	PEM	Not Isolated	42.397186	-79.110999	2,488	0.06	DaA	4
A512	82	DP-523, DP-524	PEM	Not Isolated	42.395707	-79.140792	8,778	0.20	CkB	0
A514	83	NA	PEM	Not Isolated	42.393088	-79.141586	540	0.01	Fe	60
A515	83	DP-528, DP-529	PEM	Not Isolated	42.392690	-79.142534	1,660	0.04	CkC	0
A517	66	DP-533, DP-534	PFO	Not Isolated	42.395587	-79.108558	4,717	0.11	DaA	4
A518	67	DP-535, DP-536	PEM	Not Isolated	42.396569	-79.104573	327	0.01	FmA	5
							5,320	0.12	FmC	5
A519	67	DP-537, DP-538	PEM	Not Isolated	42.395673	-79.101456	8,858	0.20	FmB	5
A520	67	NA	PEM	Not Isolated	42.396366	-79.102028	1,709	0.04	FmB	5
A524	85	DP-545, DP-546	PEM	Not Isolated	42.387291	-79.144729	10,103	0.23	BsB	4
A526	84	DP-549, DP-551	PFO	Not Isolated	42.390096	-79.145581	525	0.01	CkB	0
							610	0.01	CkC	0
A527	84	DP-550, DP-551	PFO	Not Isolated	42.390725	-79.145203	34	0.001	CkC	0
A531	84 & 89	DP-557, DP-558	PEM	Not Isolated	42.393957	-79.148914	2,768	0.06	As	90
A532	91	DP-555, DP-556	PEM	Not Isolated	42.394884	-79.157658	4,191	0.10	LnB	0

**Table 1  
Wetland Delineation Summary**

Wetland ID	Map Sheet #	Associated Data Sheet #	Cowardin Classification	Connectivity Classification*	Coordinates		Wetland Area within Study Limits		Soils	
					Latitude	Longitude	Square Feet	Acres	Soil Symbol	Hydric Component Percentage
A533	91	NA	PEM	Not Isolated	42.394871	-79.159947	3,177	0.07	ErA	4
							276	0.01	ErB	5
							4	0.00	LnB	0
A534	89	DP-559, DP-560	PEM	Not Isolated	42.395193	-79.149367	26,430	0.61	As	90
							5,195	0.12	BsB	4
A535	89	DP-561, DP-562	PFO	Not Isolated	42.397207	-79.150054	2,229	0.05	BsB	4
A539	95	DP-568	PSS	Not Isolated	42.403940	-79.164162	9,522	0.22	ErB	5
A540	30	DP-569, DP-570	PEM	Not Isolated	42.445770	-79.119774	929	0.02	VcC	0
A541	27 & 30	DP-571	PEM	Not Isolated	42.445546	-79.120997	358	0.01	VcC	0
A542	30	DP-572	PEM	Not Isolated	42.445973	-79.121003	3,442	0.08	VcC	0
A543	31	DP-575, DP-576	PEM	Not Isolated	42.453115	-79.118254	9,595	0.22	FmA	5
							149	0.003	OrB	5
A544	31	DP-577, DP-578	PEM	Not Isolated	42.452342	-79.119055	2,371	0.05	FmB	5
							17,100	0.39	OrB	5
A545	31	NA	PEM	Not Isolated	42.451800	-79.119529	11,578	0.27	FmB	5
A546	30 & 31	DP-579, DP-580	PEM	Not Isolated	42.450085	-79.119719	8,804	0.20	BsB	4
							1,551	0.04	VcC	0
A547	30	DP-581, DP-582	PFO	Not Isolated	42.448612	-79.119598	2,054	0.05	VcC	0
A548	29	DP-583, DP-584	PFO	Not Isolated	42.447405	-79.123198	4,639	0.11	As	90
							3,320	0.08	BsB	4
A549	27 & 30	DP-585, DP-586	PEM	Not Isolated	42.445723	-79.121620	3,044	0.07	VcC	0
			PFO				847	0.02	VcC	0
A550	27	NA	PEM	Not Isolated	42.444925	-79.121706	381	0.01	VcC	0
A551	27	NA	PEM	Not Isolated	42.444951	-79.121314	27	0.00	VcC	0
A552	27	DP-595, DP-596	PSS	Not Isolated	42.442824	-79.121339	17,120	0.39	BsB	4
							4,947	0.11	CkB	0
A557	24	DP-601, DP-602	PEM	Not Isolated	42.440762	-79.120012	7,259	0.17	BsB	4
							3,870	0.09	CkB	0
A558	27	NA	PEM	Not Isolated	42.442325	-79.121654	6,900	0.16	BsB	4
A559	27	DP-597, DP-598	PEM	Not Isolated	42.441582	-79.121480	2,335	0.05	VaB	0
A560	24	DP-599, DP-600	PEM	Not Isolated	42.440877	-79.121367	4,727	0.11	BsB	4
A561	24	NA	PEM	Not Isolated	42.440808	-79.118293	2,201	0.05	CkB	0
A562	25	DP-604, DP-605	PEM	Not Isolated	42.441032	-79.116830	5,470	0.13	BsA	6
							6,333	0.15	CkB	0
A563	25	NA	PFO	Not Isolated	42.440920	-79.115289	1,679	0.04	BsA	6
							3,107	0.07	CkB	0
A564	25	DP-606, DP-607	PEM	Not Isolated	42.439995	-79.114437	12,407	0.28	BsA	6
A565	25	DP-610, DP-611	PEM	Not Isolated	42.437583	-79.114014	8,343	0.19	BsB	4
A566	39	NA	PEM	Not Isolated	42.435711	-79.113677	5,652	0.13	CkC	0
							729	0.02	CoB	0
A567	39	DP-613, DP-614	PSS	Not Isolated	42.435330	-79.112336	5,666	0.13	CoB	0
A569	40	NA	PEM	Not Isolated	42.431196	-79.114392	1,468	0.03	CkB	0
A570	40	DP-617, DP-618	PEM	Not Isolated	42.432942	-79.112888	5,673	0.13	CkC	0
A571	22	NA	PEM	Not Isolated	42.441586	-79.128631	468	0.01	BsB	4
							465	0.01	CkB	0
A572	22	DP-620, DP-621	PEM	Not Isolated	42.441502	-79.127787	723	0.02	BsB	4
A576	22	NA	PEM	Not Isolated	42.442020	-79.128865	917	0.02	As	90
							5,230	0.12	CkC	0

**Table 1  
Wetland Delineation Summary**

Wetland ID	Map Sheet #	Associated Data Sheet #	Cowardin Classification	Connectivity Classification*	Coordinates		Wetland Area within Study Limits		Soils	
					Latitude	Longitude	Square Feet	Acres	Soil Symbol	Hydric Component Percentage
A577	21 & 22 & 28	NA	PEM	Not Isolated	42.442850	-79.128237	6,109	0.14	As	90
							1	0.00002	BsB	4
							221	0.01	CkC	0
A578	21 & 22	DP-622, DP-623	PFO	Not Isolated	42.442364	-79.129099	6,075	0.14	As	90
			PSS				484	0.01	BsB	4
							3,146	0.07	CkC	0
							8,797	0.20	As	90
							5,417	0.12	BsB	4
							2,145	0.05	CkC	0
A580	21	DP-626, DP-627	PEM	Not Isolated	42.445153	-79.128690	10,563	0.24	BsB	4
A581	21	DP-625, DP-627, DP-628, DP-629	PEM	Not Isolated	42.445420	-79.129021	3,597	0.08	CkB	0
			PSS				16,587	0.38	BsB	4
							5,064	0.12	CkB	0
A582	19 & 20 & 21	DP-630, DP-631	PFO	Not Isolated	42.447440	-79.131856	32,071	0.74	BsB	4
							10,690	0.25	CkB	0
							227	0.01	FmB	5
A583	19	DP-632, DP-633, DP-634, DP-635	PEM	Not Isolated	42.449519	-79.134858	9,960	0.23	FmB	5
			PFO				8,091	0.19	FmB	5
			PSS				16,371	0.38	FmA	5
							12,708	0.29	FmB	5
A584	19	DP-634, DP-635	PSS	Not Isolated	42.449725	-79.134371	1,005	0.02	FmB	5
A585	18	DP-636, DP-637	PFO	Not Isolated	42.451892	-79.134838	2,123	0.05	Ad	95
							5,924	0.14	BsB	4
							17,103	0.39	OrA	5
A586	18	DP-638, DP-639	PFO	Not Isolated	42.453277	-79.134717	4,740	0.11	Ad	95
							29,543	0.68	BsB	4
							1,089	0.02	CkB	0
A587	17 & 18	DP-640, DP-641	PFO	Not Isolated	42.454214	-79.137108	41,567	0.95	Ad	95
							33,110	0.76	As	90
							18,963	0.44	BsB	4
							11,730	0.27	CkB	0
			PSS				8,533	0.20	ShB	0
							36,367	0.83	BsB	4
							17,492	0.40	FmA	5
							113,868	2.61	FmB	5
A591	14	DP-648, DP-649	PSS	Not Isolated	42.462145	-79.149115	43,830	1.01	FmA	5
							948	0.02	FmB	5
							8,283	0.19	OrB	5
A592	15	DP-650, DP-651	PEM	Not Isolated	42.457476	-79.147747	17,189	0.39	FmA	5
			PFO				47,393	1.09	FmA	5
A593	3	DP-652, DP-653	PFO	Not Isolated	42.507042	-79.154842	1,640	0.04	Cb	96
							105,290	2.42	NgA	4
A594	3 & 4	DP-653, DP-654	PFO	Not Isolated	42.505457	-79.152718	42,932	0.99	Cb	96
			PEM				21,947	0.50	NgA	4
							4,455	0.10	Cb	96
							1,582	0.04	NgA	4
A595	45	DP-659, DP-660	PEM	Not Isolated	42.429065	-79.126053	6,505	0.15	BsB	4
							3,294	0.08	VaD	0
A596	69	DP-661, DP-662	PFO	Not Isolated	42.399097	-79.103512	141	0.003	FmA	5

**Table 1  
Wetland Delineation Summary**

Wetland ID	Map Sheet #	Associated Data Sheet #	Cowardin Classification	Connectivity Classification*	Coordinates		Wetland Area within Study Limits		Soils		
					Latitude	Longitude	Square Feet	Acres	Soil Symbol	Hydric Component Percentage	
A597	60	DP-663, DP-664	PSS	Not Isolated	42.407857	-79.114228	2,131	0.05	ErB	5	
A598	60 & 61	DP-668, DP-669	PEM	Not Isolated	42.409029	-79.110778	8,827	0.20	FmA	5	
			PFO				607	0.01	FmB	5	
A599	60	DP-670, DP-671	PFO	Not Isolated	42.409507	-79.110809	1,955	0.04	FmB	5	
A6	23 & 24	DP-93, DP-94	PEM	Not Isolated	42.440659	-79.122537	9,729	0.22	BsB	4	
A600	59	DP-672, DP-673	PEM	Not Isolated	42.406497	-79.119078	15,716	0.36	BsB	4	
A601	59	DP-674	PSS	Not Isolated	42.406093	-79.119635	2,384	0.05	BsB	4	
A602	47	DP-675, DP-676	PEM	Not Isolated	42.427944	-79.135196	2,114	0.05	BsA	6	
A603	46	DP-677, DP-678	PEM	Not Isolated	42.426385	-79.133849	956	0.02	BsA	6	
A604	48	NA	PEM	Not Isolated	42.424700	-79.133701	3,891	0.09	BsB	4	
A605	44	DP-680, DP-681, DP-682	PEM	Not Isolated	42.431173	-79.133990	152	0.003	As	90	
			PSS				1,426	0.03	BsB	4	
							10,218	0.23	As	90	
							379	0.01	BsB	4	
A606	44	DP-683, DP-684	PEM	Not Isolated	42.432201	-79.134074	262	0.01	BsA	6	
			PSS				1,143	0.03	CkB	0	
							23	0.001	BsA	6	
							60	0.001	BsB	4	
							29,051	0.67	CkB	0	
A607	44	NA	PEM	Not Isolated	42.432665	-79.134324	251	0.01	BsA	6	
A608	44	DP-687, DP-688	PEM	Not Isolated	42.433968	-79.130846	1,323	0.03	CkB	0	
							281	0.01	VaB	0	
A609	43	DP-689, DP-690	PFO	Not Isolated	42.434421	-79.130624	1,078	0.02	CkB	0	
A610	43	DP-691, DP-692	PEM	Not Isolated	42.434963	-79.131394	1,880	0.04	CkB	0	
							203	0.00	VcC	0	
A611	42	DP-693 & DP-694	PEM	Not Isolated	42.439939	-79.134273	1,603	0.04	CkB	0	
			PFO				5,194	0.12	CkB	0	
A612	42	NA	PEM	Not Isolated	42.439451	-79.134948	488	0.01	CkB	0	
A613	42	DP-695, DP-696	PEM	Not Isolated	42.438896	-79.134627	1,509	0.03	VcC	0	
A614	43	DP-697, DP-698	PFO	Not Isolated	42.437284	-79.134328	504	0.01	BsB	4	
							2,721	0.06	VcC	0	
							980	0.02	BsB	4	
A615	43	DP-699, DP-700, DP-703	PEM	Not Isolated	42.436307	-79.132704	530	0.01	CkB	0	
			PFO				6,785	0.16	VcC	0	
							3,209	0.07	BsB	4	
							2,234	0.05	CkB	0	
							5,590	0.13	VcC	0	
							27,262	0.63	BsB	4	
							287	0.01	VcC	0	
A616	43	DP-701, DP-702	PEM	Not Isolated	42.435984	-79.132442	359	0.01	CkB	0	
							6,807	0.16	VcC	0	
A617	22 & 42	DP-716, DP-717	PEM	Not Isolated	42.439336	-79.132824	1,769	0.04	CkB	0	
			PFO				5,453	0.13	BsB	4	
							1,192	0.03	CkB	0	
							4,062	0.09	BsB	4	
A618	37	DP-704, DP-705, DP-706	PEM	Not Isolated	42.447070	-79.102435	6,394	0.15	CkB	0	
							PFO	7,292	0.17	CkC	0
								0.16	0.000004	VaB	0
							10,201	0.23	CkC	0	

**Table 1  
Wetland Delineation Summary**

Wetland ID	Map Sheet #	Associated Data Sheet #	Cowardin Classification	Connectivity Classification*	Coordinates		Wetland Area within Study Limits		Soils	
					Latitude	Longitude	Square Feet	Acres	Soil Symbol	Hydric Component Percentage
A619	36	DP-708, DP-709	PEM	Not Isolated	42.452123	-79.103289	2,881	0.07	CnB	0
							1,080	0.02	CnC	0
A620	35 & 36	DP-710, DP-711, DP-714, DP-715	PEM	Not Isolated	42.457594	-79.104984	14,862	0.34	CsB	5
							151	0.003	CsC	5
							37,604	0.86	FmB	5
							404	0.01	NgB	4
							547	0.01	UnC	0
A622	22	DP-718	PEM	Not Isolated	42.439851	-79.132097	487	0.01	BsB	4
			PFO				2,731	0.06	BsB	4
A623	22	NA	PEM	Not Isolated	42.439753	-79.130789	2,086	0.05	BsB	4
			PFO				5,741	0.13	BsB	4
A624	22	DP-721, DP-722, DP-723	PEM	Not Isolated	42.439737	-79.129808	6,940	0.16	BsB	4
			PSS				11,733	0.27	BsB	4
A625	25	DP-724, DP-725	PEM	Not Isolated	42.440946	-79.113749	1,073	0.02	BsA	6
							1,418	0.03	CkB	0
A626	25 & 26	DP-726, DP-727	PEM	Not Isolated	42.440590	-79.111829	4,479	0.10	CkB	0
A627	26	DP-728, DP-729	PFO	Not Isolated	42.440590	-79.111829	5,162	0.12	VcC	0
			PEM				6,038	0.14	VcC	0
A628	21	DP-730, DP-731	PEM	Not Isolated	42.444086	-79.128142	3,277	0.08	BsB	4
A629	19 & 20	DP-732, DP-733	PFO	Not Isolated	42.449238	-79.132400	21,639	0.50	FmB	5
A630	19 & 20	DP-733, DP-734	PEM	Not Isolated	42.449654	-79.132414	3,331	0.08	FmB	5
A631	21	DP-625, DP-627	PSS	Not Isolated	42.444777	-79.129129	3,583	0.08	BsB	4
A633	16	DP-738, DP-739	PSS	Not Isolated	42.454462	-79.142324	18,339	0.42	FmA	5
			PEM				2,104	0.05	FmA	5
			105				0.00	FmB	5	
A634	16	DP-740, DP-741	PEM	Not Isolated	42.455294	-79.145110	6,511	0.15	FmB	5
			PFO				1,888	0.04	FmB	5
A635	16	DP-742, DP-743	PSS	Not Isolated	42.455831	-79.145639	77	0.00	As	90
							20,397	0.47	FmA	5
							16,761	0.38	FmB	5
A635A	100	DP-755, DP-756	PEM	Not Isolated	42.419251	-79.152058	987	0.02	BsB	4
A635B	24	DP-748, DP-749	PEM	Not Isolated	42.438193	-79.120932	5,822	0.13	As	90
							1,656	0.04	CkC	0
A636	27 & 28	DP-751, DP-752	PEM	Not Isolated	42.444704	-79.122092	2,704	0.06	VcC	0
A638	11	DP-758, DP-759	PFO	Not Isolated	42.474730	-79.149398	36,250	0.83	FmA	5
							5,409	0.12	FmB	5
A639	9 & 10	DP-763, DP-764	PFO	Not Isolated	42.479641	-79.149309	4,931	0.11	ToF	0
A640	8	DP-768, DP-769	PEM	Not Isolated	42.484643	-79.149706	223	0.01	HrB	5
A641	7 & 8	DP-773, DP-774, DP-775	PEM	Not Isolated	42.490148	-79.150912	29,923	0.69	BrB	3
							51,470	1.18	NgA	4
							4,904	0.11	Po	0
			63				0.001	Rh	5	
			9,830				0.23	BrB	3	
			10,549				0.24	HrD	5	
		PSS					16,016	0.37	NgA	4

**Table 1  
Wetland Delineation Summary**

Wetland ID	Map Sheet #	Associated Data Sheet #	Cowardin Classification	Connectivity Classification*	Coordinates		Wetland Area within Study Limits		Soils	
					Latitude	Longitude	Square Feet	Acres	Soil Symbol	Hydric Component Percentage
A642	7	NA	PSS	Not Isolated	42.490707	-79.152676	3,013	0.07	Po	0
A643	4 & 5 & 6	DP-777, DP-778, DP-796	PEM	Not Isolated	42.497489	-79.153496	8,017	0.18	Rh	5
							36,525	0.84	Cb	96
			61,415				1.41	NgA	4	
			7,103				0.16	Sw	8	
			336				0.008	W	0	
			7,413				0.17	Cb	96	
			69,241				1.59	NgA	4	
			83,299				1.91	Cb	96	
			153,937				3.53	NgA	4	
			3,103				0.07	Sw	8	
A644	4	DP-779, DP-780	PEM	Not Isolated	42.503483	-79.152810	981	0.02	W	0
A645	29	DP-783, DP-784	PEM	Not Isolated	42.448430	-79.124129	17,609	0.40	NgA	4
A646	6	DP-784A, DP-785A, DP-786	PEM	Not Isolated	42.492793	-79.150830	49,955	1.15	NgA	4
							2,493	0.06	FmB	5
			PSS				4,905	0.11	Po	0
A647	102	DP-791, DP-792	PEM	Not Isolated	42.479291	-79.153946	1,123	0.03	CnA	0
A648	4	DP-797, DP-798	PEM	Not Isolated	42.502369	-79.149818	1,658	0.04	Po	0
A649	4	DP-798, DP-799	PEM	Not Isolated	42.503116	-79.150295	1,939	0.04	HrB	5
A650	4	DP-802, DP-804	PEM	Isolated	42.504535	-79.150564	1,987	0.05	Cb	96
A651	4	DP-803, DP-804	PEM	Not Isolated	42.504747	-79.151255	9,418	0.22	Cb	96
							6,265	0.14	Cb	96
A652	18	DP-806, DP-807	PEM	Not Isolated	42.451235	-79.133313	16,916	0.39	NgA	4
							28,945	0.66	Cb	96
			PFO				9,433	0.22	FmB	5
A8	22	DP-99, DP-100	PEM	Not Isolated	42.440717	-79.129155	1,137	0.03	FmB	5
A9	22	DP-101, DP-102	PEM	Not Isolated	42.441266	-79.127960	309	0.01	BsB	4
							9,592	0.22	CkB	0
C1	56	DP-13, DP-14	PEM	Not Isolated	42.410643	-79.127863	1	0.00002	BsB	4
							47,411	1.09	As	90
							17,155	0.39	ErB	5
D1	55 & 56	DP-15, DP-16	PEM	Not Isolated	42.412100	-79.128839	89	0.00	LnB	0
F1	49	DP-19, DP-20	PEM	Not Isolated	42.422137	-79.141785	9,518	0.22	ErB	5
							6,464	0.15	As	90
G1	49	DP-21	PEM	Not Isolated	42.421842	-79.138120	19,528	0.45	CkB	0
							3,804	0.09	As	90
							9,590	0.22	CkB	0
H1	48 & 49	DP-22, DP-23, DP-226	PEM	Not Isolated	42.422016	-79.137329	436	0.01	As	90
I1	48	DP-24, DP-23	PEM	Not Isolated	42.422036	-79.135157	2,546	0.06	VaB	0
I2	48	DP-24, DP-23	PEM	Not Isolated	42.422420	-79.135127	815	0.02	VaB	0
J1	78	DP-26, DP-27	PEM	Not Isolated	42.405382	-79.144330	35,194	0.81	BsB	4
							20,469	0.47	LnC	0
							26,038	0.60	BsB	4
J2	80 & 81	DP-28, DP-29	PEM	Not Isolated	42.406558	-79.146200	26,589	0.61	CkC	0
							13,368	0.31	CkB	0
J3	81	DP-30, DP-31, DP-263	PEM	Not Isolated	42.408448	-79.149541	24,460	0.56	CkC	0
							3,174	0.07	CkC	0
J4	79	DP-32, DP-33	PEM	Not Isolated	42.407140	-79.140616	5,055	0.12	ErB	5
							11,848	0.27	LnB	0

**Table 1  
Wetland Delineation Summary**

Wetland ID	Map Sheet #	Associated Data Sheet #	Cowardin Classification	Connectivity Classification*	Coordinates		Wetland Area within Study Limits		Soils	
					Latitude	Longitude	Square Feet	Acres	Soil Symbol	Hydric Component Percentage
K3	92	DP-38, DP-39	PEM	Not Isolated	42.399097	-79.163962	9,411	0.22	LnB	0
L1	92	DP-40, DP-41	PEM	Not Isolated	42.399949	-79.163840	3,277	0.08	ErB	5
							823	0.02	LnB	0
L2	95	DP-42, DP-43	PEM	Not Isolated	42.401466	-79.163784	23,113	0.53	ErB	5
							1,924	0.04	LnB	0
M1	96	DP-44, DP-45	PEM	Not Isolated	42.406045	-79.164288	3,284	0.08	ErB	5
							2,883	0.07	LnB	0
N1	96	DP-46, DP-47	PEM	Not Isolated	42.408103	-79.164184	14,837	0.34	ErB	5
			PSS				6,079	0.14	ErB	5
O1	98	DP-48, DP-49	PEM	Not Isolated	42.409821	-79.164499	46,216	1.06	ErB	5
			PSS				7,599	0.17	ErB	5
Q1	94	DP-52, DP-53	PSS	Not Isolated	42.401654	-79.155496	2,312	0.05	ErB	5
							54	0.001	LnB	0
R1	94	DP-55, DP-56	PEM	Not Isolated	42.400072	-79.157045	2,151	0.05	ErB	5
							2,579	0.06	LnB	0
S1	92 & 93	DP-57, DP-58	PEM	Not Isolated	42.400061	-79.161755	1,854	0.04	ErA	4
			PSS				22,374	0.51	ErB	5
							9,518	0.22	LnB	0
							10,481	0.24	ErA	4
							3,638	0.08	ErB	5
1,944	0.04	LnB	0							
U1	92	DP-61, DP-62	PEM	Not Isolated	42.396823	-79.162740	1,270	0.03	ErA	4
V1	45	DP-64, DP-65	PEM	Not Isolated	42.428442	-79.125650	26,939	0.62	BsB	4
V3	45	DP-74, DP-75	PEM	Not Isolated	42.428901	-79.128368	3,080	0.07	CkC	0
			PSS				1,444	0.03	VaD	0
							21	0.0005	CkC	0
V4	46 & 47	DP-79, DP-80	PEM	Not Isolated	42.428268	-79.134938	462	0.01	VaD	0
							7,670	0.18	BsA	6
W1	44	DP-77, DP-78	PFO	Not Isolated	42.433652	-79.133958	7,787	0.18	BsB	4
							6,368	0.15	As	90
X1	44	DP-81, DP-82	PEM	Not Isolated	42.432777	-79.133093	2,808	0.06	BsA	6
							8,352	0.19	CkB	0
Y2	44	DP-86, DP-87	PFO	Not Isolated	42.433159	-79.130826	1,524	0.03	VaB	0

**Table 2  
Stream Delineation Summary**

Stream ID	Map Sheet #	Associated Data Sheet #	Stream Name	Tributary of	Flow Regime	NYSDEC Classification Designation*	NYSDEC Standard Designation	Latitude	Longitude	Stream Width (Top of Bank Average, Ft.)	Stream Reach Length (Within Study Limits, Linear Ft.)
9	94	NA	Unnamed Tributary	West Branch Conewango Creek	Perennial	C	ND	42.400963	-79.156009	NA	27
10	94	DP-54	Unnamed Tributary	West Branch Conewango Creek	Perennial	C	ND	42.400719	-79.155975	25.0	198
11	45	DP-63	Unnamed Tributary	Silver Creek	Perennial	C	ND	42.428269	-79.125540	4.0	104
13	44	DP-69	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.433280	-79.131510	10.0	180
14	45	DP-72	Unnamed Tributary	Silver Creek	Perennial	C	ND	42.428879	-79.126781	1.0	293
15	45	DP-73	Unnamed Tributary	Silver Creek	Perennial	C	ND	42.428755	-79.128560	3.5	202
18	24	DP-90	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.439180	-79.121816	5.5	163
19	23	DP-95	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.440794	-79.123432	5.0	107
A200	50	DP-210	Unnamed Tributary	West Branch Conewango Creek	Ephemeral	C	ND	42.417709	-79.136189	7.5	57
A200	50, 51, 52	DP-211	Unnamed Tributary	West Branch Conewango Creek	Intermittent	C	ND	42.417713	-79.136708	7.5	460
A202	50	DP-222	Unnamed Tributary	West Branch Conewango Creek	Intermittent	C	ND	42.419999	-79.135831	2.5	101
A203	89	DP-243	Unnamed Tributary	West Branch Conewango Creek	Intermittent	D	ND	42.396661	-79.151540	5.0	80
A204	83	DP-249	Unnamed Tributary	West Branch Conewango Creek	Perennial	C	ND	42.388427	-79.145817	9.0	93
A204A	85	DP-261	Unnamed Tributary	West Branch Conewango Creek	Intermittent	D	ND	42.393313	-79.141510	3.5	59
A205	32	DP-272	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.452019	-79.112011	16.0	159
A206	32	DP-275	Unnamed Tributary	Silver Creek	Ephemeral	D	ND	42.452370	-79.114058	2.5	42
A207	31, 32	DP-278	Unnamed Tributary	Silver Creek	Intermittent	A	ND	42.452586	-79.115894	3.0	181
A208	12, 13	DP-286	Unnamed Tributary	Walnut Creek	Ephemeral	D	ND	42.467190	-79.149160	5.0	154
A209	13	DP-285	Unnamed Tributary	Walnut Creek	Ephemeral	D	ND	42.467322	-79.149027	2.5	31
A210	12	DP-287	Unnamed Tributary	Walnut Creek	Intermittent	C	ND	42.467758	-79.149356	20.5	238
A211	12, 13	DP-288	Unnamed Tributary	Walnut Creek	Ephemeral	D	ND	42.467140	-79.149415	5.0	377
A212	12	DP-293	Unnamed Tributary	Walnut Creek	Ephemeral	D	ND	42.469638	-79.149417	6.0	181
A213	12	DP-294	Unnamed Tributary	Walnut Creek	Ephemeral	D	ND	42.469319	-79.149683	3.0	85
A500	73	DP-502	Unnamed Tributary	West Branch Conewango Creek	Perennial	C	ND	42.403413	-79.134287	13.0	121
A501	72, 73	DP-504	Unnamed Tributary	West Branch Conewango Creek	Intermittent	D	ND	42.405746	-79.133563	4.0	524
A502	62	DP-520	Unnamed Tributary	West Branch Conewango Creek	Perennial	C	ND	42.402294	-79.119785	10.0	159
A503	73	DP-522	Unnamed Tributary	West Branch Conewango Creek	Perennial	C	ND	42.401297	-79.134854	13.0	24
A504	83	DP-525	Unnamed Tributary	West Branch Conewango Creek	Perennial	C	ND	42.393194	-79.141418	20.0	32
A505	83	DP-526	Unnamed Tributary	West Branch Conewango Creek	Perennial	C	ND	42.392879	-79.141994	4.0	207
A506	83	DP-527	Unnamed Tributary	West Branch Conewango Creek	Intermittent	D	ND	42.393005	-79.141658	3.0	14
A508	66	DP-532	Unnamed Tributary	West Branch Conewango Creek	Perennial	C	ND	42.395480	-79.108522	5.5	187
A509	85	DP-547	Unnamed Tributary	West Branch Conewango Creek	Perennial	C	ND	42.388535	-79.145737	11.0	119
A511	27	DP-573	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.445188	-79.121435	7.0	204
A512	27, 28	DP-574	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.444741	-79.122113	6.5	164
A514	27	DP-587	Unnamed Tributary	Silver Creek	Intermittent	D	ND	42.445253	-79.121440	9.0	59
A515	27	NA	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.442868	-79.121396	7.0	177
A518	24	DP-603	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.440890	-79.118159	5.5	213
A519	25	DP-608	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.437947	-79.114137	3.5	101
A520	25	DP-609	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.437476	-79.114061	7.0	139
A521	39	DP-612	Unnamed Tributary	Silver Creek	Perennial	C	ND	42.435189	-79.112201	10.0	115
A522	39	DP-619	Unnamed Tributary	Silver Creek	Intermittent	D	ND	42.433581	-79.112798	7.0	198
A523	21	DP-624	Tupper Creek	Walnut Creek	Perennial	C	ND	42.444370	-79.129051	3.0	677
A526	1	DP-656	Unnamed Tributary	Silver Creek	Perennial	C	ND	42.512009	-79.158757	17.5	215
A527	7	DP-657	Unnamed Tributary	Walnut Creek	Perennial	C	ND	42.490870	-79.152964	23.0	272
A528	7	DP-658	Unnamed Tributary	Walnut Creek	Perennial	C	ND	42.490534	-79.152266	9.0	394
A529	60	DP-666	Unnamed Tributary	North Branch Conewango Creek	Perennial	C	ND	42.407681	-79.114543	10.0	148
A530	60, 61	DP-667	Unnamed Tributary	North Branch Conewango Creek	Perennial	C	ND	42.408973	-79.110108	8.0	440
A531	44	DP-685	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.433926	-79.130665	12.0	188
A532	44	DP-686	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.434053	-79.130961	8.0	107
A533	36	DP-707	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.451960	-79.102959	23.0	136
A534	35	DP-712	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.456535	-79.104583	9.0	129
A535	22	DP-719	Unnamed Tributary	Tupper Creek	Perennial	C	ND	42.439724	-79.130724	4.0	102
A537	24	DP-747	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.438045	-79.121148	4.0	207

**Table 2  
Stream Delineation Summary**

Stream ID	Map Sheet #	Associated Data Sheet #	Stream Name	Tributary of	Flow Regime	NYSDEC Classification Designation*	NYSDEC Standard Designation	Latitude	Longitude	Stream Width (Top of Bank Average, Ft.)	Stream Reach Length (Within Study Limits, Linear Ft.)
A538	29	DP-750	Unnamed Tributary	Silver Creek	Perennial	A	ND	42.447298	-79.122798	9.0	203
A539	10	DP-761	Unnamed Tributary	Walnut Creek	Ephemeral	D	ND	42.478860	-79.149354	3.0	212
A540	10	DP-762	Unnamed Tributary	Walnut Creek	Perennial	C	ND	42.479524	-79.149391	20.0	287
A541	9	DP-765	Unnamed Tributary	Walnut Creek	Ephemeral	D	ND	42.481243	-79.149358	7.0	278
A542	9	DP-766	Unnamed Tributary	Walnut Creek	Ephemeral	D	ND	42.482592	-79.149403	5.0	312
A543	8, 9	DP-767	Unnamed Tributary	Walnut Creek	Intermittent	D	ND	42.483895	-79.149338	6.0	252
A544	8	DP-770	Unnamed Tributary	Walnut Creek	Ephemeral	D	ND	42.484671	-79.149599	2.0	56
A545	8	DP-771	Unnamed Tributary	Walnut Creek	Ephemeral	D	ND	42.485904	-79.149486	4.0	175
A546	8	DP-772	Unnamed Tributary	Walnut Creek	Intermittent	D	ND	42.487419	-79.149456	5.0	281
A547	2	DP-781	Unnamed Tributary	Silver Creek	Intermittent	C	ND	42.508736	-79.158319	11.0	247
A700	102	DP-794	Unnamed Tributary	Walnut Creek	Intermittent	C	ND	42.478555	-79.156870	3.0	30

**Notes:**

NYSDEC Classification Designations:

- AA or A: waters used as a source of drinking water
- B: waters with best usage for swimming and other contact recreation, but not for drinking water
- C: waters supportin are subject to the stream protection provisions of the New York State Protection of Waters regulations.
- D: other waters, the lowest classification standard

NYSDEC Standard Designations:

- ND: no assigned designation
- T: may support a trout population
- TS: may support trout spawning

Waters with classifications of A, B, and C may, but will not always have an associated Standard Designation relative to trout use.

Streams with a classification of AA, A, B, or with a classification of C with a standard of "T" or "TS" are referred to a "Protected Streams" and are subject to the stream protection provisions of the New York State Protection of Waters regulations.

\*Streams that do not appear on the NYSDEC mapping are assigned to Class D, with the exception of any "continuous flowing natural stream" which is assigned the same classification as the water to which it is a tributary. Due to errors in the available electronic mapping, Fisher recommends coordination with NYSDEC to verify stream designations of any streams that may be impacted by the Project.

**Table 3  
Ditch Delineation Summary**

Ditch ID	Map Sheet #	Associated Data Sheet #	Jurisdictional or Non-Jurisdictional*	Latitude	Longitude	Ditch Width (Top of Bank Average, Ft.)	Ditch Reach Length (Within Project Study Limits, Linear Ft.)
A200	50	DP-223	Jurisdictional	42.420263	-79.135835	3	222
A201	32	DP-280	Jurisdictional	42.452181	-79.112637	1.5	18
A201A	83	DP-251	Jurisdictional	42.393048	-79.141867	2.25	256
A203	14	DP-282	Jurisdictional	42.460303	-79.148758	3.4	232
A204	14	DP-283	Jurisdictional	42.460448	-79.148784	3.5	232
A205	13	DP-284	Jurisdictional	42.463756	-79.149309	4.5	218
A501	60	DP-665	Jurisdictional	42.407715	-79.113856	9	178
A504	22	DP-720	Jurisdictional	42.439848	-79.129335	2	68
A507	100	DP-754	Jurisdictional	42.419686	-79.152518	2	201
A509	10, 11	DP-760	Jurisdictional	42.475424	-79.149576	3	612
A510	7	DP-776	Jurisdictional	42.490378	-79.151209	2	267
A511	2	DP-782	Jurisdictional	42.508356	-79.157319	9	295
A600	6	DP-783A	Jurisdictional	42.492908	-79.150125	6	175
A607	4	DP-800	Jurisdictional	42.503249	-79.150452	2	164
A608	4	DP-801	Jurisdictional	42.503970	-79.150176	8	471
A609	105	DP-805	Jurisdictional	42.426593	-79.163695	6	118
B1	56	NA	Jurisdictional	42.410968	-79.127812	NA	123
C1	56	NA	Jurisdictional	42.411426	-79.128459	NA	724
D1	54	NA	Jurisdictional	42.417940	-79.131995	NA	144
E1	79	DP-264	Jurisdictional	42.407655	-79.140498	28	132
F1	95	NA	Jurisdictional	42.401701	-79.163952	NA	1,193
G1	96	DP-237	Jurisdictional	42.406874	-79.164070	9	2,307
H1	96	NA	Jurisdictional	42.408615	-79.164221	NA	92
I1	92	NA	Jurisdictional	42.397870	-79.163197	NA	831

**Notes:**

\*Jurisdiction classifications provided represent the professional opinion of Fisher Associates. For approval of these classifications, a request for Jurisdictional Determination should be made to the US Army Corps of Engineers. Classification as a jurisdictional ditch herein is based on the presence of a defined bed and bank, an ordinary high water mark (OHWM), a direct or indirect connection to a traditional navigable water (TNW), and at least one of the following supplementing attributes:

- a) Presence of relatively permanent flowing or standing water;
- b) A natural stream that has been altered;
- c) Excavated in a jurisdictional waters of the US (WOTUS);
- d) Connects two or more jurisdictional WOTUS; or
- e) Drains natural water bodies (including wetlands) into a tributary system of a TNW.

Ditches are not regulated by the New York State Department of Environmental Conservation unless they are determined to be altered natural tributaries possessing a state-regulated classification and/or standard designation.

## **Appendices**

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**Appendix A**

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**Wetland Data Forms**

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/27/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-13  
 Investigator(s): DJL, VJM Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): depressions Local relief (concave, convex, none): concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR-R Lat: 79.12771 Long: 42.410771 Datum: NAD 83  
 Soil Map Unit Name: Ashville silt loam (As) NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>CZ</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (Inches): <u>1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (Inches): <u>4"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (Inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 13

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

0 = Total Cover

Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

0 = Total Cover

Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Eleocharis sp.</u>	<u>40</u>	<u>YES</u>	<u>FAC</u>
2. <u>Scirpus atrovirens</u>	<u>20</u>	<u>YES</u>	<u>OBL</u>
3. <u>Panicum capillare</u>	<u>15</u>	<u>NO</u>	<u>FAC</u>
4. <u>Juncus canadensis</u>	<u>10</u>	<u>NO</u>	<u>OBL</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

85 = Total Cover

42.5  
17

Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

0 = Total Cover

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/27/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-14  
 Investigator(s): DJL, VJM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Convex Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.127187 Long: 42.410757 Datum: NAD 83  
 Soil Map Unit Name: Fine silt loam (F1B) NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <u>No wetland hydrology indicators present</u>	

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP-14

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____	
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Solidago altissima</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. <u>Plantago lanceolata</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>		
3. <u>Dactylis glomerata</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>		
4. <u>Yarrow Capillare</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>		
5. <u>Plantago major</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
<u>100</u> = Total Cover					
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>	
Remarks: (Include photo numbers here or on a separate sheet.)     					





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/27/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-15  
 Investigator(s): DJL, VJM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Concave Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.128182 Long: 46.411681 Datum: NAD 83  
 Soil Map Unit Name: Erie Silt loam (Ecb) NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>WL-D1</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) <table style="width:100%; border: none;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																				
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																				
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																				
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																				
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																				
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																				
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																				
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																				
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																				
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																					
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>4 1/2"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8"</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____																				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																					
Remarks:																					

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 15

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
<b>Sapling/Shrub Stratum (Plot size: 15')</b>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
<b>Herb Stratum (Plot size: 5')</b>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1. <u>Juncus effusus</u> 40 YES FACW 2. <u>Carex sp.</u> 30 YES FAC 3. <u>Scirpus atrovirens</u> 20 YES OBL 4. <u>Juncus canadensis</u> 20 YES OBL				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0' ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Woody Vine Stratum (Plot size: 30')</b>				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1. _____ 2. _____ 3. _____ 4. _____				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/27/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-16  
 Investigator(s): DJL, VJM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Convex Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.128281 Long: 42.411499 Datum: NAD 83  
 Soil Map Unit Name: Eric Silt loam (Erb) NW classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)                ___ Aquatic Fauna (B13) ___ Saturation (A3)                            ___ Marl Deposits (B15) ___ Water Marks (B1)                        ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)                ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)                      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)                 ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)                        ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)    ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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**Field Observations:**  
 Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 (Includes capillary fringe)  
 Wetland Hydrology Present? Yes \_\_\_\_\_ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No wetland Hydrology Indicators present

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-16

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>10</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.6</u> (A/B)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1.				
2.				
3.				
4.				
5.				
6.				
7.				
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>60</u>	<u>Yes</u>	<u>FACU</u>	
2.	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
3.	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
4.	<u>10</u>	<u>Yes</u>	<u>FACU</u>	
5.	<u>5</u>	<u>No</u>	<u>FACU</u>	
6.	<u>5</u>	<u>No</u>	<u>FAC</u>	
7.	<u>5</u>	<u>No</u>	<u>FAC</u>	
8.				
9.				
10.				
11.				
12.				
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1.				
2.				
3.				
4.				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

**SOIL**

Sampling Point: DP-16

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-9	10YR 4/3	100	—	—	—	—	Silt loam	
9-18	10YR 4/3	95	7.5YR 4/6	5	C	m	Silt loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

- |  |  |  |
|--|--|--|
| <p><b>Hydric Soil Indicators:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Histosol (A1)</li> <li><input type="checkbox"/> Histic Epipedon (A2)</li> <li><input type="checkbox"/> Black Histic (A3)</li> <li><input type="checkbox"/> Hydrogen Sulfide (A4)</li> <li><input type="checkbox"/> Stratified Layers (A5)</li> <li><input type="checkbox"/> Depleted Below Dark Surface (A11)</li> <li><input type="checkbox"/> Thick Dark Surface (A12)</li> <li><input type="checkbox"/> Sandy Mucky Mineral (S1)</li> <li><input type="checkbox"/> Sandy Gleyed Matrix (S4)</li> <li><input type="checkbox"/> Sandy Redox (S5)</li> <li><input type="checkbox"/> Stripped Matrix (S6)</li> <li><input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)</li> <li><input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)</li> <li><input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)</li> <li><input type="checkbox"/> Loamy Gleyed Matrix (F2)</li> <li><input type="checkbox"/> Depleted Matrix (F3)</li> <li><input type="checkbox"/> Redox Dark Surface (F6)</li> <li><input type="checkbox"/> Depleted Dark Surface (F7)</li> <li><input type="checkbox"/> Redox Depressions (F8)</li> </ul> | <p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)</li> <li><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</li> <li><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)</li> <li><input type="checkbox"/> Dark Surface (S7) (LRR K, L, M)</li> <li><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)</li> <li><input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)</li> <li><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</li> <li><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)</li> <li><input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)</li> <li><input type="checkbox"/> Red Parent Material (F21)</li> <li><input type="checkbox"/> Very Shallow Dark Surface (TF12)</li> <li><input type="checkbox"/> Other (Explain in Remarks)</li> </ul> |
|--|--|--|

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/></p>
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Remarks:



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/28/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-19  
 Investigator(s): DSL, VJM Section, Township, Range: Villeva  
 Landform (hillslope, terrace, etc.): Depressions Local relief (concave, convex, none): Concave Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR-R Lat: 79.141774 Long: 42.422162 Datum: NAD 83  
 Soil Map Unit Name: Ashville Silt (non) (As) NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-F1</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>&lt; 1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:   	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 19

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ulmus americana</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <u>Acer rubrum</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>	
3. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<u>15</u>
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Cornus amomum</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. <u>Viburnum dentatum</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<u>10</u>
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Viola sp.</u>	<u>40</u>	<u>YES</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Solidago altissima</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>	
3. <u>Dracopis sensibilis</u>	<u>15</u>	<u>NO</u>	<u>FACW</u>	
4. <u>Equisetum sp.</u>	<u>15</u>	<u>NO</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<u>100</u>
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<u>0</u>
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____				
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/28/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP- 20  
 Investigator(s): DJL, USM Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Till plain Local relief (concave, convex, none): Convex Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: NAD 83  
 Soil Map Unit Name: Chautauqua silt loam (Ck B) NWM classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <u>No wetland hydrology indicators present</u>	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-20

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>0</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Dactylis glomerata</u>	<u>60</u>	<u>YES</u>	<u>FACU</u>	
2. <u>Tritolium pratense</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	
3. <u>Hesperia sp.</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>	
4. <u>Gallium sp</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>	
5. <u>Fragaria virginiana</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>105</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)   				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/27/15  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-21  
 Investigator(s): DJL, VJM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Depressions Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR-R Lat: 79.138324 Long: 42.421954 Datum: NAD 83  
 Soil Map Unit Name: Ashville silt loam (As) NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-0-1</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>&lt;1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:   	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-21

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Juncus effusus</u>	<u>50</u>	<u>YES</u>	<u>FACW</u>	
2. <u>Carex tribuloides</u>	<u>20</u>	<u>YES</u>	<u>DBL</u>	
3. <u>Carex sp</u>	<u>20</u>	<u>NO</u>	<u>FAC</u>	
4. <u>Lycopodium americanum</u>	<u>5</u>	<u>NO</u>	<u>DBL</u>	
5. <u>Hieracium sp</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>100</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	= Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

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**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

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**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

---

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

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**Hydrophytic Vegetation Present?**      Yes X      No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/27/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-22  
 Investigator(s): DJL, VJM Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): Depressions Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR-R Lat: 79.137276 Long: 42.422204 Datum: NAD 83  
 Soil Map Unit Name: Ashville Silt loam (As) NWM classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-H11</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP-22

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Salix nigra</u>	<u>30</u>	<u>YES</u>	<u>FACW</u>
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Typha angustifolia</u>	<u>80</u>	<u>YES</u>	<u>OBL</u>
2. <u>Salix nigra</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes 1 No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/27/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-23  
 Investigator(s): DJL, VSM Section, Township, Range: VILKROVA  
 Landform (hillslope, terrace, etc.): Moraines Local relief (concave, convex, none): Convex Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.135864 Long: 42.421974 Datum: NAD 83  
 Soil Map Unit Name: Valley gravelly silt/loam (vsB) NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks: <u>No wetland hydrology indicators present</u>	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-23

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Dactylis glomerata</u>	<u>40</u>	<u>YES FACU</u>		
2. <u>Tritolium pratense</u>	<u>20</u>	<u>YES FACU</u>		
3. <u>Plantago lanceolata</u>	<u>20</u>	<u>YES FACU</u>		
4. <u>Callium sp.</u>	<u>10</u>	<u>NO FACU</u>		
5. <u>Ranunc. acuta</u>	<u>10</u>	<u>NO FACU</u>		
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)  <div style="height: 100px; border: 1px solid black;"></div>				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/27/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-54  
 Investigator(s): DTL, VSM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plains Local relief (concave, convex, none): Concave Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.135136 Long: 42.421977 Datum: NAD 83  
 Soil Map Unit Name: Busti Silt/loam (BsB) NWM classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>WL-I1 &amp; WL-I2</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)      ___ Aquatic Fauna (B13) ___ Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>4"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-24

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
0 = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
0 = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: <u>5'</u> )				
1. <u>Juncus phaeus</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Carex sp.</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Phalaris arundinacea</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
40 = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: <u>30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0 = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/30/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-26  
 Investigator(s): DJL VSM Section, Township, Range: Villelona  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.144193 Long: 42.405132 Datum: NAD 83  
 Soil Map Unit Name: Busti Silt loam (Bsk) NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-51</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): Water Table Present? Yes <input checked="" type="checkbox"/> No <u>10</u> Depth (inches): Saturation Present? Yes <input checked="" type="checkbox"/> No <u>4</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:   	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 26

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Siripia caryocarpus</u>	<u>25</u>	<u>Yes</u>	<u>OBL</u>
2. <u>Phalaris arundinacea</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>
3. <u>Taraxacum officinale</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>
4. <u>Taraxacum officinale</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>
5. <u>Solidago altissima</u>	<u>10</u>	<u>No</u>	<u>FAC</u>
6. <u>Oxalis corniculata</u>	<u>10</u>	<u>No</u>	<u>FACW</u>
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = 4

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 10/30/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-27  
 Investigator(s): DJL, VJM Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): Till Plains Local relief (concave, convex, none): Convex Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.1438 Long: 42.40529 Datum: NAD 83  
 Soil Map Unit Name: Busti Silt Loam (Bsb) NW classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <table style="width:100%;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p><u>Secondary Indicators (minimum of two required)</u></p> <table style="width:100%;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																															
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																															
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																															
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																															
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																															
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																															
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																															
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																															
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																															
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																																
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<input type="checkbox"/> Microtopographic Relief (D4)																																
<input type="checkbox"/> FAC-Neutral Test (D5)																																
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
Remarks: <u>No wetland hydrology indicators present</u>																																

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-27

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>0</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____	
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Solidago canadensis</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. <u>Rubus hispidus</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>		
3. <u>Lotus corniculatus</u>	<u>20</u>	<u>NO</u>	<u>FACU</u>		
4. <u>Fragaria virginiana</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
<u>100</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>	
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
<u>0</u> = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/02/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-20  
 Investigator(s): DTC KIM Section, Township, Range: Villebois  
 Landform (hillslope, terrace, etc.): Till plain Local relief (concave, convex, none): Concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.146669 Long: 42.407603 Datum: NAD 83  
 Soil Map Unit Name: Chautauqua silt loam (C&B) NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-52</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>21</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:   	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 28

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Leersia oryzoides</u>	<u>70</u>	<u>YES</u>	<u>OBL</u>	
2. <u>Juncus effusus</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
3. <u>Epilobium sp.</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>	
4. <u>Verbena hastata</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>	
5. <u>Lycopus americanus</u>	<u>5</u>	<u>NO</u>	<u>OBL</u>	
6. _____	_____	_____	_____	
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover <u>55</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
_____ = Total Cover <u>0</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/02/2011  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-29  
 Investigator(s): DJL, VJM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Convex Slope (%): 8-15  
 Subregion (LRR or MLRA): LRR-R Lat: 79.146449 Long: 42.407621 Datum: NAD 83  
 Soil Map Unit Name: Chataugua silt loam (CkC) NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)      ___ Aquatic Fauna (B13) ___ Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (Includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks: <u>No Wetland Hydrology Indicators Present</u>	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-29

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				
1.	<u>70</u>	<u>YES</u>	<u>FACU</u>	
2.	<u>50</u>	<u>YES</u>	<u>FACU</u>	
3.	<u>15</u>	<u>NO</u>	<u>FACU</u>	
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	<u>145</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>15'</u> )				
1.				
2.				
3.				
4.				
	<u>0</u>	= Total Cover		
12.5 29				
<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)				
<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>				
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/02/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-30  
 Investigator(s): DJL, VSM Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): Fill Plain Local relief (concave, convex, none): Concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.149877 Long: 42.407902 Datum: NAD 83  
 Soil Map Unit Name: Chautauqua silt loam (CbB) NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-53</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-30

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u> = Total Cover			
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Juncus effusus</u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Agrostis stolonifera</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Phalaris arundinacea</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>	
4. <u>Lotus corniculatus</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
5. <u>Euthamia graminifolia</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
6. <u>Solidago sp.</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
7. <u>Epilobium sp.</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>125</u> = Total Cover			<u>62.5</u> <u>25</u>
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u> = Total Cover			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/02/2018  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP- 31  
 Investigator(s): DJL, VJM Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): Till plain Local relief (concave, convex, none): Convex Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.149483 Long: 42.40798 Datum: NAD 83  
 Soil Map Unit Name: Chautauqua silt loam (Ckb) NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)    	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks: <u>no wetland hydrology indicators present</u>	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 31

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				<b>Dominance Test worksheet:</b>
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
4. _____				
5. _____				
6. _____				
7. _____				
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				<b>Prevalence Index worksheet:</b>
1. _____				Total % Cover of: _____ Multiply by:
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
6. _____				UPL species _____ x 5 = _____
7. _____				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Phlox Pictense</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Lotus crinkubtus</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	<input type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Solidago altissima</u>	<u>15</u>	<u>YES</u>	<u>FACU</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
4. <u>Trifolium pratense</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. <u>Plantago lanceolata</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
6. <u>Achillea millefolium</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. <u>Potentilla pennsylvanica</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<u>85</u>	= Total Cover		<b>Definitions of Vegetation Strata:</b>
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
1. _____				<b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
2. _____				<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
3. _____				<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
4. _____				
	<u>0</u>	= Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>

Remarks: (Include photo numbers here or on a separate sheet.)





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/02/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-32  
 Investigator(s): DJL, VEM Section, Township, Range: VILLANOVA  
 Landform (hillslope, terrace, etc.): Till plain Local relief (concave, convex, none): Concave Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.140529 Long: 42.407599 Datum: NAD 83  
 Soil Map Unit Name: Erie Silt loam (F1B2) NWM classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>WL-54</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) _____ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) _____ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <u>Corn</u> <input checked="" type="checkbox"/> Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>21</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:   	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-32

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				
1.	<u>60</u>	<u>YES</u>	<u>OBL</u>	
2.	<u>30</u>	<u>YES</u>	<u>FAC</u>	
3.	<u>30</u>	<u>YES</u>	<u>OBL</u>	
4.	<u>20</u>	<u>NO</u>	<u>FACW</u>	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	<u>140</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				
1.				
2.				
3.				
4.				
	<u>0</u>	= Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/02/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-33  
 Investigator(s): DSL, VSM Section, Township, Range: Villerava  
 Landform (hillslope, terrace, etc.): Till Plains Local relief (concave, convex, none): Convex Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.140899 Long: 42.407567 Datum: NAD 83  
 Soil Map Unit Name: Langford Silt loam (Lnb) NMI classification: —  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  <div style="text-align: center; height: 100px;"> </div>	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <u>No wetland hydrology indicators present</u>	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-33

<u>Tree Stratum</u> (Plot size: <u>32'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Zea mays</u>	<u>50</u>	<u>YES</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Oxalis corniculatus</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
3. <u>Poa pratensis</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>60</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
Remarks: (Include photo numbers here or on a separate sheet.)  _____ _____ _____				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/03/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-30  
 Investigator(s): DSP, VSM Section, Township, Range: Villenora  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.164889 Long: 42.399245 Datum: NAD 83  
 Soil Map Unit Name: Erie silt loam (E1B) NWI classification: P1M

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-K3</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<u>Secondary Indicators (minimum of two required)</u>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches):		
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u>		
Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u>		
		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP- 3A

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
<u>0</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Cornus americana</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Viburnum dentatum</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
<u>10</u> = Total Cover			
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Phalaris arundinacea</u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Aster sp</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
<u>120</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
<u>0</u> = Total Cover			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: DP- 38

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-9	10YR 3/1	90	7.5YR 3/4	<del>70</del> 5	C	M	Silt Loam	
9-18	10YR 5/2	90	7.5YR 5/6	10	C	M	Silt Loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L, M)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

**Remarks:**



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/03/2008  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-59  
 Investigator(s): DJL, VJM Section, Township, Range: Millers  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Convex Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.165763 Long: 42.399291 Datum: NAD 83  
 Soil Map Unit Name: Erie Silt loam (Erb) NW classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> ___ Surface Water (A1)                      ___ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2)                    ___ Aquatic Fauna (B13) ___ Saturation (A3)                            ___ Marl Deposits (B15) ___ Water Marks (B1)                          ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)                ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)                        ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)                   ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)                         ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)    ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8</u> Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks: <u>No wetland hydrology indicators present</u>	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 39

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5'</u> )				
1. <u>Phytolacca</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>	
2. <u>Dactyloctenium aegyptium</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>	
3. <u>Galium mollugo</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
4. <u>Plantago lanceolata</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
5. <u>Tribulus terrestris</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
6. <u>Rhus glabra</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>100</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>50</u> <u>20</u>				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/03/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-40  
 Investigator(s): DSL, VJM Section, Township, Range: Villelona  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.163868 Long: 42.399489 Datum: NAD 83  
 Soil Map Unit Name: Erie Silt loam (E.B) NWM classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-L7</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:   	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 46

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Juncus effusus</u>	<u>30</u>	<u>YES</u>	<u>FACW</u>	
2. <u>Mentha piporita</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>	
3. <u>Epidemia sp.</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>	
4. <u>Agrostis stolonifera</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>100</u> = Total Cover <u>50</u> <u>20</u>				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)     				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/03/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-41  
 Investigator(s): DJL, VSM Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Convex Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.163678 Long: 42.399905 Datum: NAD 83  
 Soil Map Unit Name: Erie silt loam (Erb) NWM classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks: <u>No wetland hydrology indicators present</u>	

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP- 41

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Viburnum dentatum</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>30</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Solidago altissima</u>	<u>70</u>	<u>YES</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Mnium polifolium</u>	<u>50</u>	<u>YES</u>	<u>FACU</u>	
3. <u>Pectylos glauca</u>	<u>20</u>	<u>NO</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>140</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/03/2007  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-42  
 Investigator(s): DSL, VJM Section, Township, Range: Villeuva  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Concave Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.163634 Long: 42.402515 Datum: NAD 83  
 Soil Map Unit Name: Eric silt loam (E1B) NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>WL-42</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2)      ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> ___ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <u>6</u> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <u>0</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	







**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/03/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-42  
 Investigator(s): DJL VSM Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.163785 Long: 42.402635 Datum: NAD 83  
 Soil Map Unit Name: Eric Silt Loam (E1B) NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <u>No wetland hydrology indicators present</u>	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 43

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
Sapling/Shrub Stratum (Plot size: <u>15'</u> ) <span style="float:right"><u>0</u> = Total Cover</span>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
Herb Stratum (Plot size: <u>5'</u> ) <span style="float:right"><u>0</u> = Total Cover</span>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Dactylis glomerata</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>	
2. <u>Phleum pratense</u>	<u>40</u>	<u>YES</u>	<u>FACU</u>	
3. <u>Solidago altissima</u>	<u>20</u>	<u>NO</u>	<u>FACU</u>	
4. <u>Aster sp</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>	
5. <u>Viburnum dentatum</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>	
6. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: <u>30'</u> ) <span style="float:right"><u>120</u> = Total Cover</span>				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover <span style="float:right"><u>60</u> <u>24</u></span>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/03/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-44  
 Investigator(s): DJL, VJM Section, Township, Range: Villelona  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Concave Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.164454 Long: 42.406188 Datum: NAD 83  
 Soil Map Unit Name: Fine Silt loam (FEB) NWM classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>WL-M1</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators</u> (minimum of one is required; check all that apply)</p> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2)      ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators</u> (minimum of two required)</p> ___ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP-44

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Juncus effusus</u>	<u>40</u>	<u>YES</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Scirpus americanus</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>	
3. <u>Lotus corniculatus</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
4. <u>Hesperis sp.</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
5. <u>Phalaris quadrifida</u>	<u>20</u>	<u>NO</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>105</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<u>52.5</u> <u>21</u>				
Remarks: (Include photo numbers here or on a separate sheet.)  _____ _____ _____				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/03/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-45  
 Investigator(s): DJL VJM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Convex Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.164174 Long: 42.406104 Datum: NAD 83  
 Soil Map Unit Name: Eric Silt loam (EeL) NW classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)      ___ Aquatic Fauna (B13) ___ Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks: <u>No wetland hydrology indicators present</u>	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-15

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
1.				
2.				
3.				
4.				
5.				
6.				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1.				
2.				
3.				
4.				
5.				
6.				
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>10</u>	<u>NO</u>	<u>FAC</u>	
2.	<u>5</u>	<u>NO</u>	<u>FACU</u>	
3.	<u>10</u>	<u>NO</u>	<u>FACU</u>	
4.	<u>10</u>	<u>NO</u>	<u>FACU</u>	
5.	<u>5</u>	<u>NO</u>	<u>FACU</u>	
6.				
7.	<u>60</u>	<u>YES</u>	<u>FACU</u>	
8.	<u>30</u>	<u>YES</u>	<u>FACU</u>	
9.				
10.				
11.				
12.				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1.				
2.				
3.				
4.				
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/03/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-446  
 Investigator(s): DTC VSM Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Concave Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.164153 Long: 42.408373 Datum: NAD 83  
 Soil Map Unit Name: Eric silt loam (E1C) NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>WL-NI</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators</u> (minimum of one is required; check all that apply)</p> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2)      ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators</u> (minimum of two required)</p> ___ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>5</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP-46

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix sp.</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>YES</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover <u>15</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Corylus americana</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
2. <u>Salix sp.</u>	<u>15</u>	<u>YES</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover <u>35</u>				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Typha latifolia</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Solidago altissima</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>	
3. <u>Equisetum sp.</u>	<u>2.5</u>	<u>YES</u>	<u>FAC</u>	
4. <u>Aster sp.</u>	<u>20</u>	<u>NO</u>	<u>FAC</u>	
5. <u>Agrostis alba</u>	<u>1.5</u>	<u>NO</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover <u>120</u>				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/03/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-47  
 Investigator(s): DJL, VJM Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): Till plain Local relief (concave, convex, none): convex Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.164256 Long: 42.408546 Datum: NAD 83  
 Soil Map Unit Name: fine silt loam (Erb) NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)      ___ Aquatic Fauna (B13) ___ Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks: <u>No wetland hydrology indicators present</u>	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 47

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer rubrum</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)
2. <u>Malax sp.</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>	
3. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>	
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
Herb Stratum (Plot size: <u>5'</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1. <u>Salidaga canadensis</u>	<u>70</u>	<u>YES</u>	<u>FACU</u>	
2. <u>Aster sp. (calico)</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: <u>30'</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/04/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-48  
 Investigator(s): DJL, USM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): concave Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.165017 Long: 42.409849 Datum: NAD 83  
 Soil Map Unit Name: Eric Silt loam (E1B) NWM classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-01</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <table style="width:100%;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input checked="" type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p><u>Secondary Indicators (minimum of two required)</u></p> <table style="width:100%;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input checked="" type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input checked="" type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																															
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<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																															
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<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																															
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<input type="checkbox"/> FAC-Neutral Test (D5)																																
<p><b>Field Observations:</b></p> <table style="width:100%;"> <tr> <td>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></td> <td>Depth (inches): <u>6</u></td> </tr> <tr> <td>Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></td> <td>Depth (inches): <u>6</u></td> </tr> <tr> <td>Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></td> <td>Depth (inches): <u>0</u></td> </tr> </table> <p>(includes capillary fringe)</p>	Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>6</u>	Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>6</u>	Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>	<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>																									
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>6</u>																															
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>6</u>																															
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
Remarks:																																

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP-40

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris quadrifida</u>	<u>40</u>	<u>YES</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Scirpus cyperinus</u>	<u>30</u>	<u>YES</u>	<u>OBL</u>	
3. <u>Eriolobos sp</u>	<u>25</u>	<u>YES</u>	<u>FAC</u>	
4. <u>Aster sp</u>	<u>20</u>	<u>NO</u>	<u>UPL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>115</u> = Total Cover <u>57%</u>				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover <u>23%</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (Include photo numbers here or on a separate sheet.)  _____ _____ _____				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautaugua County Sampling Date: 11/04/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-49  
 Investigator(s): DJL, VJM Section, Township, Range: Villiers  
 Landform (hillslope, terrace, etc.): Till plain Local relief (concave, convex, none): convex Slope (%): 3-5  
 Subregion (LRR or MLRA): LRR-R Lat: 79.165424 Long: 42.409897 Datum: NAD 83  
 Soil Map Unit Name: Chautaugua silt/clay (CKB) NWI classification: —  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No — (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes X No —  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>—</u> No <u>X</u> Hydric Soil Present? Yes <u>—</u> No <u>X</u> Wetland Hydrology Present? Yes <u>X</u> No <u>—</u>	Is the Sampled Area within a Wetland? Yes <u>—</u> No <u>X</u> If yes, optional Wetland Site ID: <u>—</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) <u>X</u> High Water Table (A2)      ___ Aquatic Fauna (B13) <u>X</u> Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>—</u> No <u>X</u> Depth (inches): Water Table Present? Yes <u>X</u> No <u>—</u> Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No <u>—</u> Depth (inches): <u>6</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u>—</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:   	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 49

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
1.				
2.				
3.				
4.				
5.				
6.				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1.				
2.				
3.				
4.				
5.				
6.				
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>30</u>	<u>YES</u>	<u>FACU</u>	
2.	<u>30</u>	<u>YES</u>	<u>FACU</u>	
3.	<u>20</u>	<u>YES</u>	<u>FAC</u>	
4.	<u>20</u>	<u>NO</u>	<u>FACU</u>	
5.	<u>5</u>	<u>NO</u>	<u>FACU</u>	
6.	<u>5</u>	<u>NO</u>	<u>FACU</u>	
7.	<u>5</u>	<u>NO</u>	<u>FACU</u>	
8.				
9.				
10.				
11.				
12.				
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1.				
2.				
3.				
4.				
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				





# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Ball Hill Wind Project City/County: Chautauqua County State: NY Sampling Date: 11/04, 2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC Section, Township, Range: Villenova Sampling Point: DP-52  
 Investigator(s): DJL, VJM Local relief (concave, convex, none): Concave Slope (%): 3-8  
 Landform (hillslope, terrace, etc.): Fill Plain Datum: NAD 83  
 Subregion (LRR or MLRA): LRR-R Lat: 79.155498 Long: 42.401663 NWI classification: PSS  
 Soil Map Unit Name: Eric Silt loam (E1B)  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? Yes  No  (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Remarks: (Explain alternative procedures here or in a separate report.)	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-Q7</u>
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## HYDROLOGY

- Wetland Hydrology Indicators:**
- Primary Indicators (minimum of one is required; check all that apply)
- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9)                  | <input type="checkbox"/> Surface Soil Cracks (B6)                  |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input checked="" type="checkbox"/> Drainage Patterns (B10)        |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Marl Deposits (B15)                        | <input type="checkbox"/> Moss Trim Lines (B16)                     |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1)           |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input checked="" type="checkbox"/> Geomorphic Position (D2)       |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks)                 | <input type="checkbox"/> Shallow Aquitard (D3)                     |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |   | <input type="checkbox"/> Microtopographic Relief (D4)              |
|  |   | <input type="checkbox"/> FAC-Neutral Test (D5)                     |

**Field Observations:**

Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>4</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>4</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP-52

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Tsuga canadensis</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 84% (A/B)

58  
61  
50  
76  
20

Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Salix sp.</u>	<u>45</u>	<u>YES</u>	<u>FAC</u>
2. <u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Aster sp.</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>
2. <u>Poa sp.</u>	<u>30</u>	<u>YES</u>	<u>FAC</u>
3. <u>Solidago altissima</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
_____	<u>0</u>	_____	_____

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/04/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-53  
 Investigator(s): DJL VSM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): convex Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.155726 Long: 42.401561 Datum: NAD 83  
 Soil Map Unit Name: Erie silt loam (E1B) NWI classification: —

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: no wetland hydrology indicators present

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-53

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Tsuga canadensis</i>	45	YES	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>17%</u> (A/B)
2. <i>Betula alleghaniensis</i>	10	NO	FAC	
3. <i>Acer saccharum</i>	20	YES	FACU	
4.				
5.				
6.				
7.				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1. <i>Betula alleghaniensis</i>	10	YES	FAC	
2. <i>Tsuga canadensis</i>	10	YES	FACU	
3. <i>Fagus grandifolia</i>	10	YES	FACU	
4.				
5.				
6.				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Aster alleghaniensis</i>	30	YES	FACU	
2. <i>Dryopteris</i>	10	NO	FAC	
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1.				
2.				
3.				
4.				
_____ = Total Cover _____				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
_____ = Total Cover _____				
Remarks: (Include photo numbers here or on a separate sheet.)				

**SOIL**

Sampling Point: DP-53

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-2	10YR 2/2	100	—	—	—	—	Loam	
2-4	10YR 2/1	100	—	—	—	—	Loam	
4-10	10YR 4/4	100	—	—	—	—	silt/loam	
10-20	10YR 4/3	95	7.5YR 5/6	5	C	M	silt/loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L, M)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/04/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-55

Investigator(s): DTL, LSM Section, Township, Range: Villavan

Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): concave Slope (%): \_\_\_\_\_

Subregion (LRR or MLRA): LRR-R Lat: 79.157 Long: 42.399607 Datum: NAD 83

Soil Map Unit Name: Eric Silt Loam (FEB) NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)

Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_

Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>WL-RZ</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>9</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-55

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Agrostis alba</u>	<u>60</u>	<u>YES</u>	<u>FACW</u>	
2. <u>Phleum pratense</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	
3. <u>Glyceria sp.</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>	
4. <u>Juncus effusus</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
5. <u>Scirpus cyperinus</u>	<u>10</u>	<u>NO</u>	<u>OPL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>130</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)  _____ _____ _____				

**SOIL**

Sampling Point: DP-55

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%						
0-9	10YR 3/2	90	7.5YR 3/4	10			L	M	Silt/loam	
9-18	10YR 4/2	90	7.5YR 5/6	10			C	M	Silt/loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L, M)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/04/2016  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP- 56  
 Investigator(s): DJL, VJM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Concave Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.157362 Long: 42.399638 Datum: NAD 83  
 Soil Map Unit Name: Erie Silt loam (E1B) NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)                  ___ Aquatic Fauna (B13) ___ Saturation (A3)                            ___ Marl Deposits (B15) ___ Water Marks (B1)                         ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)                 ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)                        ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)                    ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)                         ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)    ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (Includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: no wetland hydrology indicators present

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP- 5b

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u> = Total Cover			
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salidago altissima</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>	
2. <u>Oxalis carota</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	
3. <u>Phleum pratense</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	
4. <u>Dactylis glomerata</u>	<u>20</u>	<u>NO</u>	<u>FACU</u>	
5. <u>Achillea millefolium</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
6. <u>Aster sp.</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>	
7. <u>Lotus corniculatus</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
8. <u>Fragaria virginiana</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
9. <u>Agrostis stolonifera</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>135</u> = Total Cover			<u>67.5</u> <u>27</u>
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u> = Total Cover			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: DP-56

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-3	10YR 3/3	95	7.5YR 3/4	5	C	M	Silt loam	
3-18	10YR 4/4	100	—	—	C	M	Silt loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L, M)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

*No hydric soil indicators present*



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/04/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-57  
 Investigator(s): DTL VJM Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): Till plain Local relief (concave, convex, none): Concave Slope (%): 3-6  
 Subregion (LRR or MLRA): LRR-R Lat: 79.162664 Long: 42.399693 Datum: NAD 83  
 Soil Map Unit Name: Fine silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>42-57</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<u>Secondary Indicators (minimum of two required)</u>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)		
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>5</u>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-57

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Agrostis stolonifera</u>	<u>30</u>	<u>YES</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Juncus effusus</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
3. <u>Scirpus cyperinus</u>	<u>10</u>	<u>NO</u>	<u>OBL</u>	
4. <u>Aster sp.</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>	
5. <u>Galium mollugo</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
6. <u>Solidago affinis</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	
7. <u>Phleum pratense</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
8. <u>Fraxinus virginiana</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
9. <u>Maeris</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
10. <u>Lolus coriugulatus</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>60</u> = Total Cover <u>60</u>				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover <u>24</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/04/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-58  
 Investigator(s): DJC, VSM Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): Till plain Local relief (concave, convex, none): convex Slope (%): 3-8  
 Subregion (LRR or MLRA): LRR-R Lat: 79.162977 Long: 42.399735 Datum: NAD 83  
 Soil Map Unit Name: Eric silt loam (Erb) NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	



**SOIL**

Sampling Point: DP-58

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (Inches)	Matrix		Redox Features		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-9	10YR 3/3	95	10YR 3/4	5	C	M	Si/H/loam	
9-20	10YR 4/3	95	10YR 4/6	5	C	M	Si/H/loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L, M)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/04/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-61  
 Investigator(s): DSL USM Section, Township, Range: Villerova  
 Landform (hillslope, terrace, etc.): Fall plain Local relief (concave, convex, none): concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR-R Lat: 79.162728 Long: 42.396787 Datum: NAD 83  
 Soil Map Unit Name: Erie Silt loam (EA) NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (if no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-42</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP- 61

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Cornus amomum</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>20</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris quadrinacea</u>	<u>75</u>	<u>YES</u>	<u>FACW</u>	
2. <u>Aster sp</u>	<u>15</u>	<u>NO</u>	<u>FAC</u>	
3. <u>Solidago canadensis</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>95</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Vitis riparia</u>	<u>10</u>	<u>YES</u>	<u>FAC</u>	<u>47.5</u> <u>19</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	= Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by:

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/04/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-62  
 Investigator(s): DJL, USM Section, Township, Range: Villena  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Convex Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.162906 Long: 42.396833 Datum: NAD 83  
 Soil Map Unit Name: Erie Silt loam (E1A) NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)                  ___ Aquatic Fauna (B13) ___ Saturation (A3)                            ___ Marl Deposits (B15) ___ Water Marks (B1)                         ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)                 ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)                        ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)                   ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)                         ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)     ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: - No water table present within 20" - No saturation present within 20" - Soil moist but no wetland hydrology indicators observed	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 62

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				
1.	<u>30</u>	<u>YES</u>	<u>FACU</u>	
2.	<u>30</u>	<u>YES</u>	<u>FACU</u>	
3.	<u>5</u>	<u>NO</u>	<u>FAC</u>	
4.	<u>15</u>	<u>YES</u>	<u>FACU</u>	
5.	<u>5</u>	<u>NO</u>	<u>FACU</u>	
6.	<u>5</u>	<u>NO</u>	<u>FACU</u>	
7.	<u>15</u>	<u>YES</u>	<u>FACW</u>	
8.				
9.				
10.				
11.				
12.				
<u>105</u> = Total Cover <u>52%</u>				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				
1.				
2.				
3.				
4.				
<u>0</u> = Total Cover				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/05/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-64  
 Investigator(s): DJL, USM Section, Township, Range: VILLENOVA  
 Landform (hillslope, terrace, etc.): Till Plains Local relief (concave, convex, none): Concave Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.12453 Long: 42.428515 Datum: NAD 83  
 Soil Map Unit Name: Busti silt loam (Pm) NWI classification: Pm  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p>Primary Indicators (minimum of one is required; check all that apply)</p> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2)      ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<p><b>Secondary Indicators (minimum of two required)</b></p> ___ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>12</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>6</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	







**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/05/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-65  
 Investigator(s): DJL, USM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Drain Local relief (concave, convex, none): Convex Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.124129 Long: 42.428681 Datum: NAD 83  
 Soil Map Unit Name: Busti Silt Loam (Bsb) NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <u>No wetland hydrology indicators present</u>	

**VEGETATION** – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Populus tremuloides</u>	<u>90</u>	<u>YES</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>90</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				
1. <u>Carpinus caroliniana</u>	<u>60</u>	<u>YES</u>	<u>FAC</u>	
2. <u>Malus sp.</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
3. <u>Amelanchier sp.</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>	
4. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>	
5. <u>Crataegus sp.</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
<u>95</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: <u>30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)   				





## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/06/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-74  
 Investigator(s): DSL, VSM Section, Township, Range: Villerova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Concave Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): LRR-R Lat: 79.127372 Long: 42.429137 Datum: NAD 83  
 Soil Map Unit Name: Chautauqua Silt loam (CkC) NWI classification: Pkm  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>WL-US</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2)      ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>4</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-74

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u> )				
1. <u>Salix sp.</u>	<u>80</u>	<u>YES</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>80</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5'</u> )				
1. <u>Salidapa gigantea</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
2. <u>Leersia oryzoides</u>	<u>10</u>	<u>YES</u>	<u>OBL</u>	
3. <u>Charlea sensibilis</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>35</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<u>7</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (Include photo numbers here or on a separate sheet.)				





## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/26/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-75  
 Investigator(s): DSL, USM Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): Convex Slope (%): 3-4  
 Subregion (LRR or MLRA): LRR-R Lat: 79.127418 Long: 42.429002 Datum: NAD 83  
 Soil Map Unit Name: Busti Silt loam (B&B) NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.)			

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																				
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																				
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																				
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																				
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																				
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																				
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																				
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																				
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																				
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																					
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>																				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																					
Remarks: <u>No wetland hydrology indicators present</u>																					

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP-75

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Prunus serotina</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)	
2. <u>Acer saccharum</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>		
3. <u>Malus sp.</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>60</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____	
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Prunus serotina</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>		<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0' <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>30</u> = Total Cover				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Toluda go a Hissing</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>		<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
2. <u>Rubus allegheniensis</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>		
3. <u>Pteridium aquilinum</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>		
4. <u>Sagaria virginiana</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>		
5. <u>Phlox praeclara</u>	<u>10</u>	<u>NO</u>	<u>FACU</u>		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
<u>70</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>	
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
<u>0</u> = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/16/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP- 77  
 Investigator(s): DJL Section, Township, Range: Villageon  
 Landform (hillslope, terrace, etc.): Depressions Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR-R Lat: 79.133863 Long: 42.483703 Datum: NAD 83  
 Soil Map Unit Name: Ashville silt loam (AS) NWI classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W1-W2</u>
Remarks: (Explain alternative procedures here or in a separate report.)  	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: DP-77

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>YES</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <u>Betula alleghaniensis</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1. <u>Ulmus americana</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>	
2. <u>Betula alleghaniensis</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Onoclea sensibilis</u>	<u>30</u>	<u>YES</u>	<u>FACW</u>	
2. <u>Nola sp.</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>	
3. <u>Sphagnum sp.</u>	<u>10</u>	<u>NO</u>	<u>OBL</u>	
4. <u>Carex sp.</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
5. <u>Carex sp.</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1. _____	<u>70</u>	_____	<u>35</u>	
2. _____	_____	_____	<u>14</u>	
3. _____	_____	_____	_____	
4. _____	<u>0</u>	_____	_____	
_____ = Total Cover				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/12/01  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-23  
 Investigator(s): [Signature] Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plain Local relief (concave, convex, none): convex Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR-R Lat: 79.133805 Long: 42.433552 Datum: NAD 83  
 Soil Map Unit Name: [Signature] NWI classification: CBsA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks: <u>No wetland hydrology indicators present</u>	

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP- 78

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer saccharum</u>	<u>50</u>	<u>YES</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. <u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
3. <u>Pinus serotina</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
4. <u>Betula canadensis</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>	
5. <u>Betula alleghaniensis</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
6. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
7. _____	_____	_____	_____	
<u>9%</u> = Total Cover <u>43%</u>				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>Acer saccharum</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>30</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>

**SOIL**

Sampling Point: DP- 78

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-0	10YR 3/3	100	—	—	—	—	silt/clay	
0-10	10YR 5/6	100	—	—	—	—	silt/clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L, M)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

**Remarks:**



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/11/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP-79  
 Investigator(s): DJL Section, Township, Range: Villenova  
 Landform (hillslope, terrace, etc.): Till Plains Local relief (concave, convex, none): concave Slope (%): 0-3  
 Subregion (LRR or MLRA): LRR-R Lat: 79. Long: 42. Datum: NAD 83  
 Soil Map Unit Name: Basty Silt loam (B3A) NWI classification: PKM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>WL-V6</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <table style="width:100%;"> <tr> <td><input checked="" type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input checked="" type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p><u>Secondary Indicators (minimum of two required)</u></p> <table style="width:100%;"> <tr> <td><input type="checkbox"/> Surface Soil Cracks (B6)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Drainage Patterns (B10)</td> </tr> <tr> <td><input type="checkbox"/> Moss Trim Lines (B16)</td> </tr> <tr> <td><input type="checkbox"/> Dry-Season Water Table (C2)</td> </tr> <tr> <td><input type="checkbox"/> Crayfish Burrows (C8)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td> </tr> <tr> <td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Geomorphic Position (D2)</td> </tr> <tr> <td><input type="checkbox"/> Shallow Aquitard (D3)</td> </tr> <tr> <td><input type="checkbox"/> Microtopographic Relief (D4)</td> </tr> <tr> <td><input type="checkbox"/> FAC-Neutral Test (D5)</td> </tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																															
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																															
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																															
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																															
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																															
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																															
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																															
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																															
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																															
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																																
<input type="checkbox"/> Surface Soil Cracks (B6)																																
<input checked="" type="checkbox"/> Drainage Patterns (B10)																																
<input type="checkbox"/> Moss Trim Lines (B16)																																
<input type="checkbox"/> Dry-Season Water Table (C2)																																
<input type="checkbox"/> Crayfish Burrows (C8)																																
<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)																																
<input type="checkbox"/> Stunted or Stressed Plants (D1)																																
<input checked="" type="checkbox"/> Geomorphic Position (D2)																																
<input type="checkbox"/> Shallow Aquitard (D3)																																
<input type="checkbox"/> Microtopographic Relief (D4)																																
<input type="checkbox"/> FAC-Neutral Test (D5)																																
<p><b>Field Observations:</b></p> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  																																
Remarks:   																																

**VEGETATION – Use scientific names of plants.**

Sampling Point: DP-79

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.				
2.				
3.				
4.				
5.				
6.				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1.				
2.				
3.				
4.				
5.				
6.				
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>90</u>	<u>45</u>	<u>FACW</u>	
2.	<u>5</u>	<u>10</u>	<u>FACW</u>	
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1.				
2.				
3.				
4.				
Total % Cover: <u>95</u> = Total Cover <span style="float:right"><u>475</u> <u>19</u></span>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1.				
2.				
3.				
4.				
Total % Cover: <u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				





**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Ball Hill Wind Project City/County: Chautauqua County Sampling Date: 11/11/2015  
 Applicant/Owner: Ball Hill Wind Energy, LLC State: NY Sampling Point: DP- B0  
 Investigator(s): DJL Section, Township, Range: Villanova  
 Landform (hillslope, terrace, etc.): Till plain Local relief (concave, convex, none): convex Slope (%): 12-23  
 Subregion (LRR or MLRA): LRR-R Lat: 79. Long: 42. Datum: NAD 83  
 Soil Map Unit Name: Basti silt loam (BcA) NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation ND, Soil ND, or Hydrology ND significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation ND, Soil ND, or Hydrology ND naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one is required; check all that apply)</b> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>	
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	