
Appendix C
Wetlands and Waterbodies Report
for the Arkwright Summit Wind Farm



**Draft
Wetlands and Waterbodies Report
for the Arkwright Summit Wind Farm
Towns of Arkwright and Pomfret
Chautauqua County, New York**

December 2008

Prepared for:

ARKWRIGHT SUMMIT WIND FARM, LLC.

Prepared by:

ECOLOGY AND ENVIRONMENT, INC.
368 Pleasant View Drive
Lancaster, New York 14086

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List of Abbreviations and Acronyms

Arkwright Summit	Arkwright Summit LLC
AA	adjacent area
amsl	above mean sea level
CFR	Code of Federal Regulations
cm	centimeters
CWA	Clean Water Act
DEIS	Draft Environmental Impact Statement
E & E	Ecology and Environment, Inc.
ECL	Environmental Conservation Law
GPS	global positioning system
JD	Jurisdictional Determination
kV	kilovolt
MW	megawatt
New Grange	New Grange Wind Farm, LLC
NWI	National Wetland Inventory
NYSDEC	New York State Department of Environmental Conservation
PEM	palustrine emergent wetland
PFO	palustrine forested wetland
POI	point-of-interconnect
PSS	palustrine scrub-shrub wetland
SEQR	State Environmental Quality Review

List of Abbreviations and Acronyms (cont.)

t	trout
ts	trout spawning
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WOZ	Wind Overlay Zone

1

Introduction

This report has been prepared to support the Arkwright Summit Wind Farm (the Project), formerly New Grange Wind Farm, Supplemental Environmental Impact Statement (SEIS) for Arkwright Summit Wind Farm LLC, a wholly-owned subsidiary of Horizon Wind Energy, and to support the Joint Permit Application submitted to the United States Army Corps of Engineers (USACE) and the New York State Department of Environmental Conservation (NYSDEC) for the Project. The Project will be reviewed by the Town of Arkwright, the local lead agency under the State Environmental Quality Review (SEQR).

Ecology and Environment, Inc. (E & E) delineated and evaluated wetlands and waterbodies within the Project Area that are, or have the potential to be, regulated by the USACE under Section 404 of the Clean Water Act (CWA), and/or regulated by NYSDEC under Section 401 of the CWA, Article 24 - Freshwater Wetlands Act, and Article 15 - Protection of Waters Program. This document is intended to provide the results of those delineations along with related information necessary for the USACE and NYSDEC to verify wetland delineations and to make and document Jurisdictional Determinations (JD) of the wetlands within the area surveyed.

Section 1 of this report provides a general Project description; Section 2 outlines the regulatory framework that governs activities in wetlands and waterbodies; Section 3 provides a description of the ecological setting of the Project Area, including the results of a preliminary data review; Section 4 outlines the methodologies used to conduct field surveys; Section 5 provides the results of field surveys; and Section 6 provides the references used in compiling this report. Appendices A through E provide photologs and datasheets for each cluster of the Project Area. Appendix F provides wetland mapping for the Project. Appendix F also provides wetland mapping on oversized frames with an aerial photograph underlay for use during field verifications.

Project Description

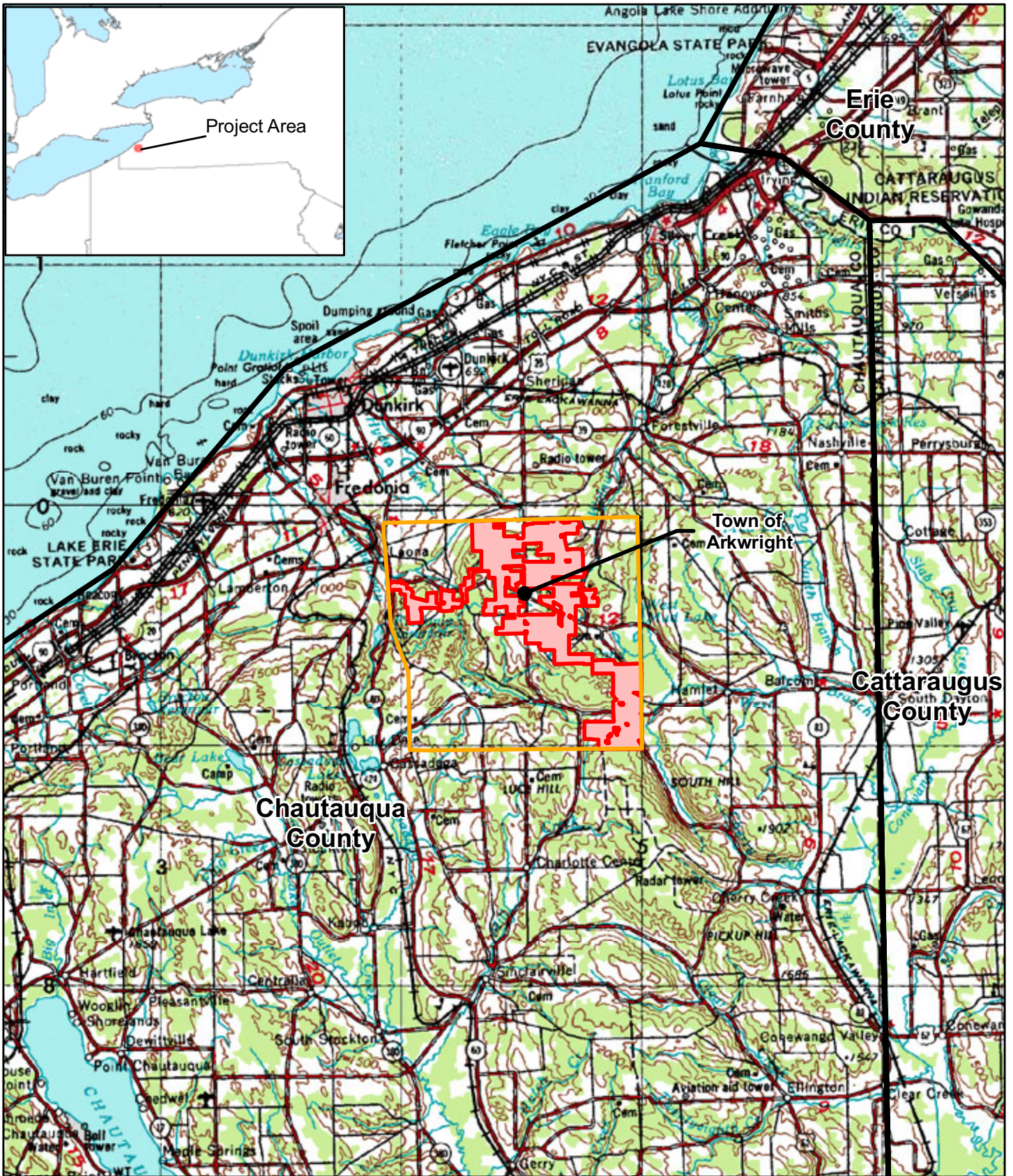
Arkwright Summit Wind Farm LLC proposes to construct and operate a wind energy facility (Project) in the towns of Arkwright and Pomfret in Chautauqua County, located in western New York State (see Figure 1-1).

The Project includes:

- Development of a wind-powered generating facility within an approximately 5,961-acre area in the Towns of Arkwright and Pomfret (see Figure 1-2, Frame 1) including:
 - 44 wind turbines with a maximum capacity of 79.2 megawatts (MW);
 - Approximately 15.5 miles of 34-foot-wide gravel access roads connecting each wind turbine to a Town or County roadway for construction purposes. Following construction, these roads will be narrowed to the extent practicable for ongoing maintenance and operation of the turbines;
 - Approximately 23.5 miles of electrical collection line to allow the delivery of electricity to a substation in the Town of Pomfret. This will consist of 5.4 miles of overhead collection line and approximately 18.1 miles of underground collection line that will be co-located with access roads where practicable;
 - An operation and maintenance building in the Town of Arkwright with a 5 acre footprint on an 8.7 acre parcel;
 - Four permanent meteorological towers in the Town of Arkwright;
 - A project construction laydown yard in the Town of Arkwright. The footprint will be approximately 8.3 acres;
 - A substation with a 100 by 170 foot footprint and associated point-of-interconnect (POI) switchyard in the Town of Pomfret on a 5-acre parcel between State Highway 60 and the Arkwright-Pomfret town line. This POI will deliver electricity to an existing 115-kilovolt (kV) transmission line.

This report shows the boundaries of and describes the wetlands delineated within the Survey Corridor.

To facilitate field review and preparation of JDs, this report presents the wetland delineation results organized by clusters and access road groups. Each cluster includes multiple access road groups along with associated access roads and collection lines that are in geographic proximity to each other (e.g., the Southeast Cluster includes all facilities south of Route 83 and east of Meadows Road). Each access road group is identified by the primary access road to the turbine grouping (e.g., Access Road Group 1 is served by Access Road 1). Figure 1-2 and Table 1-1 identify the layout and location of each cluster and access road group, and all associated facilities. These divisions are for the sole purpose of organizing work flow and discussion and do not imply any separation of facilities.



- Arkwright Summit Wind Farm Project Area
- Arkwright Summit Wind Farm Project Site/WOZ (11-25-08)
- County Boundary

Figure 1-1
 Project Vicinity Map
 Arkwright Summit Wind Farm

Source:
 USGS 250K Topo Quad
 Clough Harbor & Associates LLP, 2008

0 0.5 1 2
 Miles



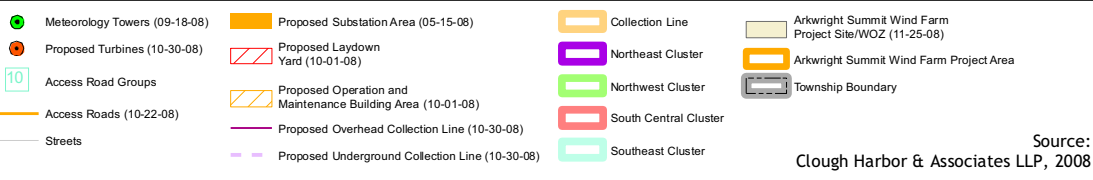
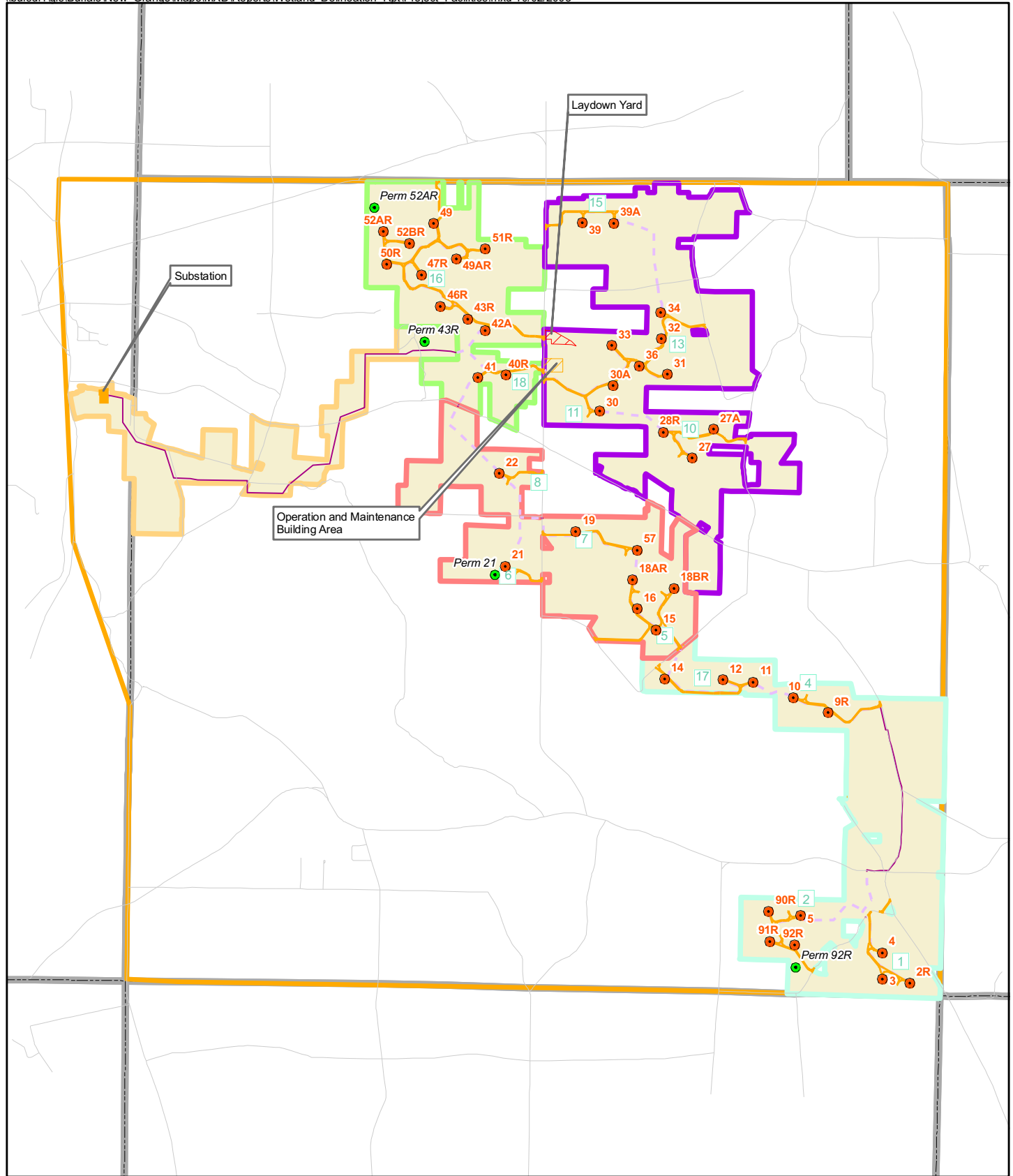


Figure 1-2
Project Facilities Map
Arkwright Summit Wind Farm

Source:
 Clough Harbor & Associates LLP, 2008

0 0.25 0.5 1 Miles

Table 1-1 Turbine Clusters

Cluster	Access Road Group	Facilities Included in Access Road Groups	Municipality
Southeast	1	Turbines 2R, 3, and 4	Town of Arkwright
	2	Turbines 5R, 90R, 91R, and 92R; and permanent meteorological tower 92R	Town of Arkwright
	4	Turbines 9R and 10	Town of Arkwright
	17	Turbines 11, 12, and 14	
South Central	5	Turbines 15, 18BR, 16, and 18AR	Town of Arkwright
	6	Turbine 21 and permanent meteorological tower 21	Town of Arkwright
	7	Turbines 19 and 57	Town of Arkwright
	8	Turbine 22	Town of Arkwright
Northeast	10	Turbines 27A, 28R, and 27	Town of Arkwright
	11	Turbines 30, 30A, and 33	Town of Arkwright
	13	Turbines 34, 32, 36, and 31	Town of Arkwright
	15	Turbines 39A and 39R	Town of Arkwright
	N/A	Operation and Maintenance Building	Town of Arkwright
	N/A	Laydown Yard	Town of Arkwright
Northwest	18	Turbines 40R and 41	Town of Arkwright
	16	Turbines 42A, 46R, 50R, and 52AR; permanent meteorological tower 52AR; and Turbines 52BR, 47R, 49AR, 51R, and 49	Town of Arkwright
Collection Line	N/A	Collection line, permanent meteorological tower 43R, and substation	Towns of Arkwright and Pomfret

The following terms are used throughout this document to describe the proposed action.

- **Project.** “Project” refers to all activities associated with the construction, operation, and individual components of the Arkwright Summit Wind Farm, including, but not limited to, turbines (including blades, towers, nacelle, foundations, etc.), electrical collection lines, access roads, crane pads, laydown yard, meteorological towers, and other facilities. Hereinafter, the terms Project and Wind Farm can be used interchangeably.
- **Project Site.** The Project Site refers to the parcels of land where the Project will be placed. The Project Site is approximately 5,961 acres. Arkwright Summit Wind Farm LLC has obtained consent from all landowners within the Project Site. This term is also used interchangeably with the Wind Overlay Zone (WOZ).

- **Project Area.** The Project Area refers to the larger geographic study area including the Project Site and immediate vicinity. The Project Area is approximately 24,000 acres. The Project Area is bordered at its northern extent by the Arkwright-Sheridan town line and Straight Road; at its eastern extent by the Arkwright-Villanova town line; at its southern extent by the Arkwright-Charlotte town line; and at its western extent by State Highway 60 (located in the Town of Pomfret, approximately 0.5 miles west of the Arkwright-Pomfret town line).
- **Survey Corridor.** The limit of the corridor within which wetlands and waterbodies were delineated and for which a JD is being sought. This report pertains solely to those wetlands and waterbodies identified within and adjacent to the Project Site and generally includes a 250-foot corridor centered on linear facilities and a circular area with a 250-foot radius surrounding each turbine and meteorological tower. In some areas surveys were restricted or expanded (i.e., restricted because of property access or expanded to ensure that regulated buffers adjacent to NYSDEC wetlands were identified). The Survey Corridor covers approximately 983 acres. This report pertains only to wetlands and waterbodies delineated in the Survey Corridor. The extent of the Survey Corridor for which a JD is sought is depicted on the mapping for each sector in Appendix F.
- **Cluster.** One or more access road groups in close geographic proximity to each other (see Figure 1-2).
- **Access Road Group.** One or more wind turbines in geographic proximity that are served by a single system of access roads and collection lines are called an access road group (see Figure 1-2).

2

Regulatory Review and Permit Requirements

This report was prepared to address the requirements of the CWA of 1977; New York State Article 15, Title 5; and New York State Article 24. Each of these requirements is discussed below.

2.1 Clean Water Act

The CWA was implemented to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Under Sections 401 and 404 of the CWA, permits must be issued for certain activities that may impact wetlands and waterways. Section 401 of the CWA requires state water quality certification or waiver for any federally permitted action involving discharges into waters of the United States to ensure that the permitted action will not violate the state's water quality standards or impair designated uses. The New York State agency responsible for administering the Section 401 program is NYSDEC. Section 404 of the CWA requires that a permit be obtained for the discharge of dredged or fill material into waters of the United States, including wetlands and streams. Waters of the United States are defined under 33 Code of Federal Regulations (CFR), and wetlands are specifically defined under 33 CFR Part 328.3(b). The permitting agency responsible for Section 404 permits is the USACE. The Project falls within the jurisdiction of the USACE Buffalo District and within the jurisdiction of Region 9 of NYSDEC.

The USACE will make a JD for delineated features following a field review of the Project. Based on guidance issued by the USACE in June 2008, the applicant may request either a Preliminary JD or an Approved JD (USACE 2008).

If Arkwright Summit requests a Preliminary JD, all wetlands and waters delineated during field surveys will be considered federally jurisdictional regardless of surface water connections to waters of the U.S. or potential impacts on the physical and/or chemical nature of traditional navigable waters. Any permits sought or issued will be based on the assumption that all wetlands and waters are federally jurisdictional. In the event that Arkwright Summit later determines that an Approved JD is required, the request for a Preliminary JD may be revised to a request for an Approved JD.

2. Regulatory Review and Permit Requirements

If Arkwright Summit requests an Approved JD, the USACE will make a determination for each wetland and water, based on the surface connections and the potential importance of water quality within traditional navigable waterways (USACE 2007).

A pre-application meeting for this Project was held on August 22, 2008 with representatives of USACE. The intent of this meeting was to provide a general overview of the Project and to discuss permitting for a project of this nature.

2.2 New York State Environmental Conservation, Law Article 15, Title 5

These regulations of the New York State Environmental Conservation Law (ECL), also known as the “Protection of Waters” Program, are designed to regulate any activities that could impact protected watercourses within New York State. Protected waters include all waters classified as C(t), C(ts), B, or A, as well as all navigable waters. Article 15 covers disturbances of streambeds and banks and disposal of fill material and excavation in protected waterbodies. Application for a permit under Article 15 is completed jointly with the USACE permit application. The Project Area falls within the jurisdiction of Region 9 of NYSDEC.

2.3 New York State Environmental Conservation Law, Article 24

Article 24 of the New York State ECL is titled the New York Freshwater Wetland Act. This law provides for regulation of certain activities that could adversely affect wetlands of 5 hectares (12.4 acres) or more as well as smaller wetlands identified as having an unusually significant local value. Activities that occur within 30.5 meters (100 feet) of the wetland boundary are also regulated. NYSDEC maintains a database (both in map form and electronic) identifying regulated state wetland complexes. While the NYSDEC database provides the basis for state regulation of wetland complexes, the actual extent of field jurisdiction is based on the actual boundaries of the wetlands, which can be expanded or modified based on in-field review and delineation of existing wetland boundaries. Application for a permit under Article 24 is completed jointly with the USACE permit application.

Pre-application meetings for this Project were held on March 20, 2008 with representatives of NYSDEC. The intent of these meetings was to provide a general overview of the Project and to discuss permitting for a project of this nature. Additionally, representatives from NYSDEC visited and reviewed the Project Site on September 10, 2008.

3

Project Area Description

3.1 General Project Area Description

The Project Area is located in the Towns of Arkwright and Pomfret in Chautauqua County. It is located at the western end of the Allegheny Plateau of New York State in western New York, 9.5 miles southeast of the southern shore of Lake Erie, approximately 8 miles southeast of the City of Dunkirk, 6 miles southeast of the Village of Fredonia, 6 miles southwest of the Village of Forestville, and 5.5 miles northeast of the Village of Cassadaga (as measured from the geographic center of the Project Area to the center of each municipality). An aerial photograph of the Project is presented in Figure 3-1. The Project Area is characterized by moderate relief with a northwest trending hill cut by ravines such as Dutch Hollow and Ball Gulf. The Project Area is located within the Chautauqua-Conneaut drainage basin (United States Geological Survey [USGS] Hydrologic Unit 04120101) and the Conewango drainage basin (USGS Hydrologic Unit 05010002). Within the Project Area, elevations range from less than 1,700 feet to 2,100 feet above mean sea level (amsl). Because of engineering constraints posed by steep slopes, the majority of the Survey Corridor is located in areas that are generally characterized by slightly to moderately sloping topography. Figure 3-2 shows the Project Area on a USGS Quadrangle Map. Figure 3-3 displays the Project Area and the surrounding NYSDEC and National Wetland Inventory (NWI) mapped wetlands. The watershed boundary locations in relation to the Survey Corridor are depicted in Figure 3-4.

The Project Area is characterized by deciduous and mixed forest, and agricultural fields (pasture, hayfield, and croplands). Less than five percent of the Project Area is comprised of wetland habitat, open water habitat, residential areas, and commercial/industrial uses. Agricultural properties within the Project Area primarily consist of active agricultural land and pasture land. The forested communities throughout the Project Area include a mixture of beech-maple mesic forest and hemlock-northern hardwoods. Current and historic silviculture is evident throughout the Project Area, and forest stands range from recently timbered to more mature. The general population pattern in the area is rural residential, consisting of scattered residences along roads.

3.2 Preliminary Data Review

Prior to performing fieldwork, background information was reviewed to assist in the initial identification of wetlands and waterbodies.

3.2.1 Review of Existing Wetland Information

Information sources used to determine the possible presence of wetlands included color-infrared aerial photographs of the Project Area (see Figure 3-1); USGS 7.5-Minute Series topographic maps (see Figure 3-2); United States Fish and Wildlife Service (USFWS) (NWI) maps and NYSDEC Freshwater Wetlands maps (see Figure 3-3); and Chautauqua County soil survey (see Figure 3-5).

USGS topographic maps and aerial photos indicate the possible presence of wetlands in the Project Area. The NWI maps depict wetlands occurring throughout the Project Area. NYSDEC Freshwater Wetlands maps depict state-regulated wetlands in the Project Area. The Chautauqua County Soil Survey indicates the presence of hydric soils and soils with potential hydric inclusions in the Project Area. Based on the results of the desktop review, it was determined that field verification would be required to determine the presence and extent of wetlands in the Project Area. Depending on their nexus with waters of the U.S., any of the wetlands depicted in these reference materials could be federally jurisdictional.

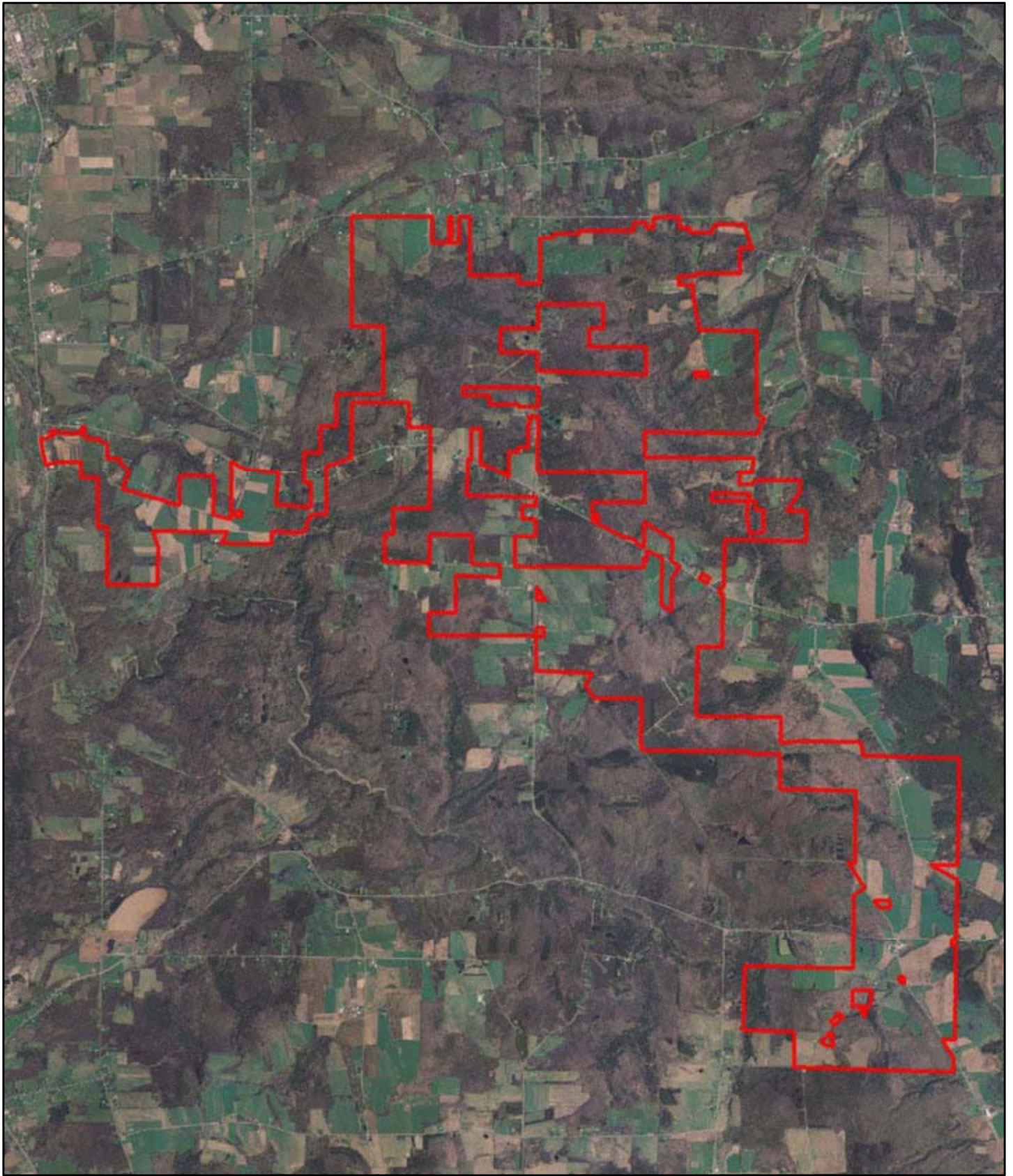
Wetlands under State Jurisdiction

Under Article 24 of the New York State ECL, New York State regulates wetlands that exceed 5 hectares (12.4 acres) or have locally significant ecological value. New York State also regulates a 100-foot upland buffer area surrounding each regulated wetland to protect the wetland. Work within either state-regulated wetlands or the regulated adjacent area (AA) requires a permit.

Based on analysis of NYSDEC mapping, four wetlands under the jurisdiction of New York State (totaling approximately 502.6 acres) lie within the Project Area. Table 3-1 provides a listing of the NYSDEC-mapped wetlands within the Project Area along with the wetland class. These wetlands were avoided during the siting process and as such, were not near any Survey Corridors and were not delineated.

Table 3-1 Mapped NYSDEC Wetlands in the Project Area

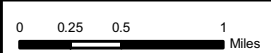
NYSDEC Wetland ID	Class
FO-1	I
FO-10	II
CS-3	II
CS-4	II

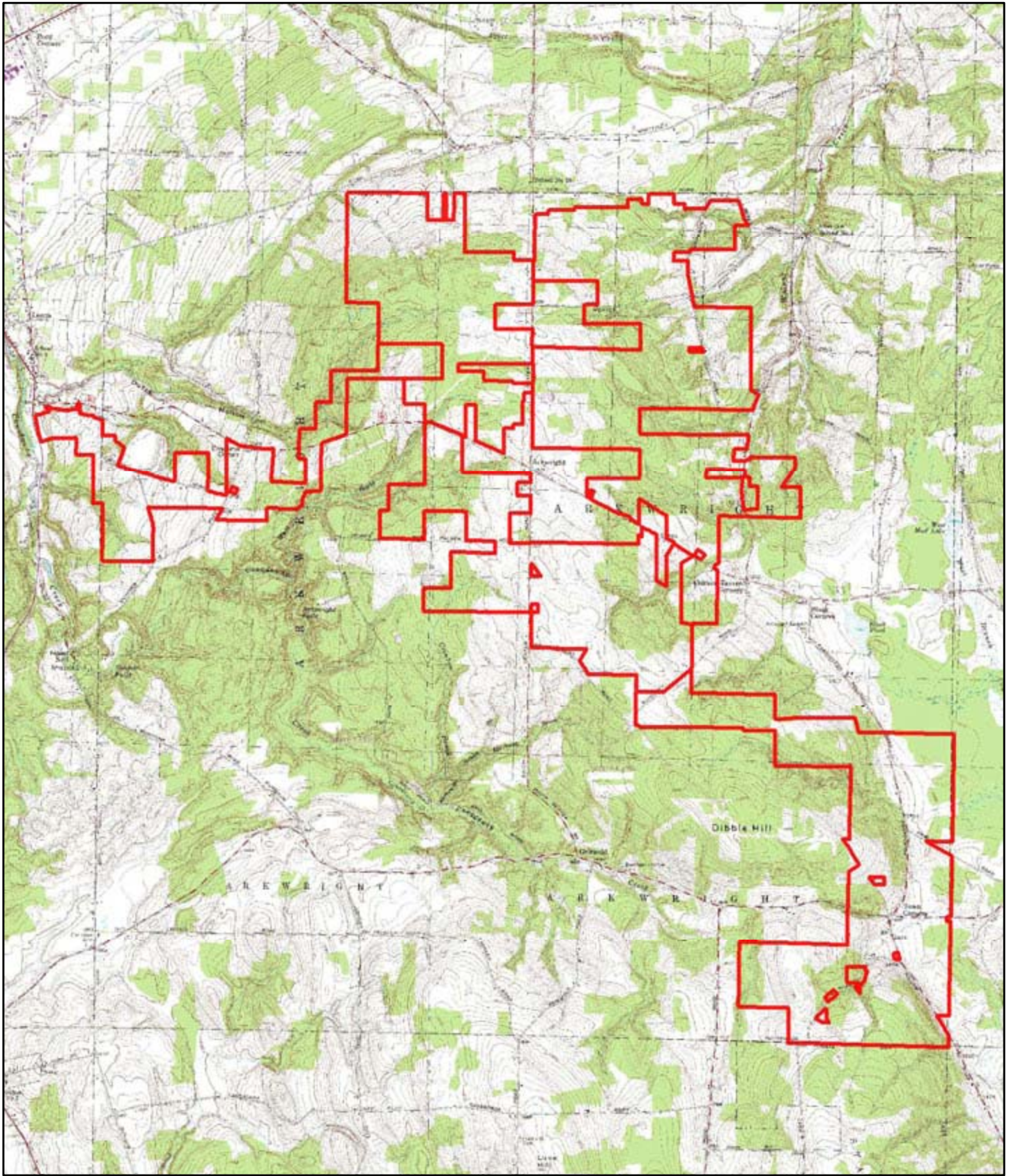


 Arkwright Summit Wind Farm Project Site/WOZ (11-25-2008)

Figure 3-1
Aerial Photograph
Arkwright Summit Wind Farm

Source:
Aerials: NYS GIS Clearinghouse, 2004
Clough Harbor & Associates LLP, 2008



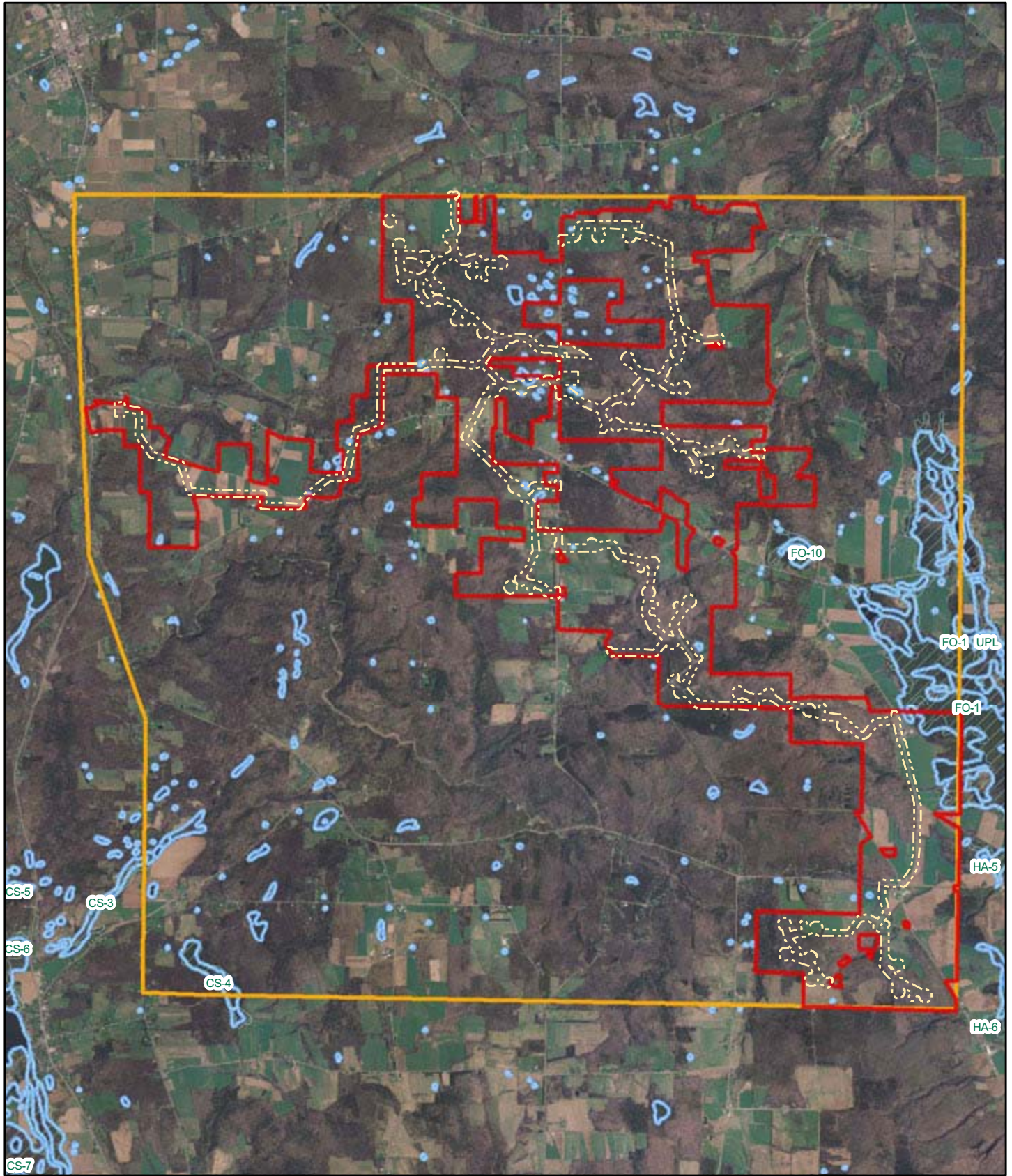


 Arkwright Summit Wind Farm
Project Site/WOZ (11-25-08)

Figure 3-2
USGS Topographic Map
Arkwright Summit Wind Farm

Source:
USGS Quad, 1990
Clough Harbor & Associates LLP, 2008





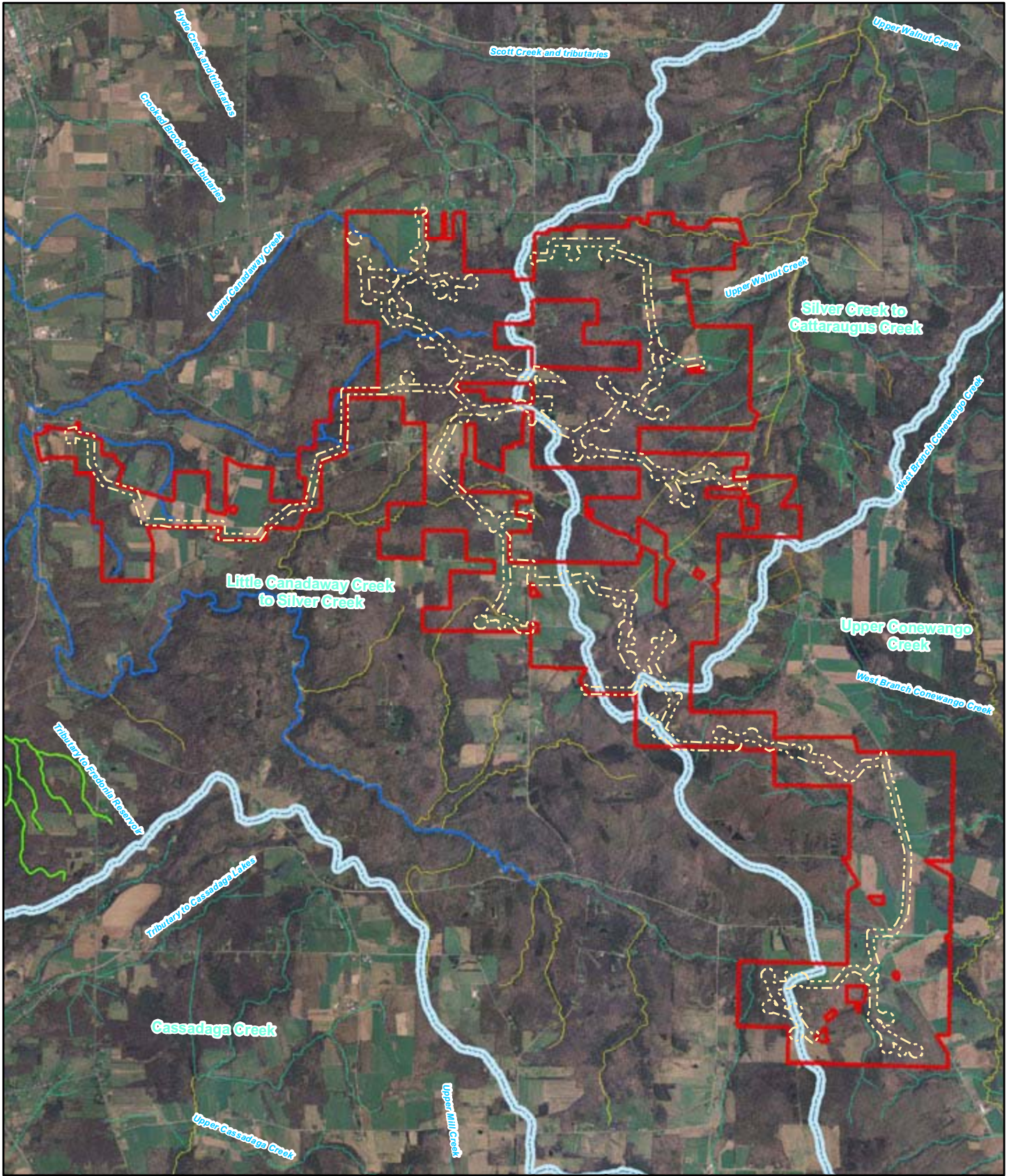
- Limit of Jurisdictional Determination (10-30-08)
- Arkwright Summit Wind Farm Project Site/WOZ (11-25-08)
- Arkwright Summit Wind Farm Project Area
- NYS DEC Wetland
- USFWS NWI Wetland




Figure 3-3
 NWI and NYSDEC Mapped Wetlands
 Arkwright Summit Wind Farm

Source:
 Wetlands: NYSDEC & USFWS
 Clough Harbor & Associates, 2008
 Aerial: NYS GIS Clearinghouse, 2004

0 0.25 0.5 1
 Miles





-  Limit of Jurisdictional Determination (10-30-08)
-  Arkwright Summit Wind Farm Project Site/WOZ (11-25-08)
-  Hydrologic Unit Boundary (11 Digit)






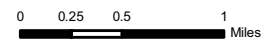
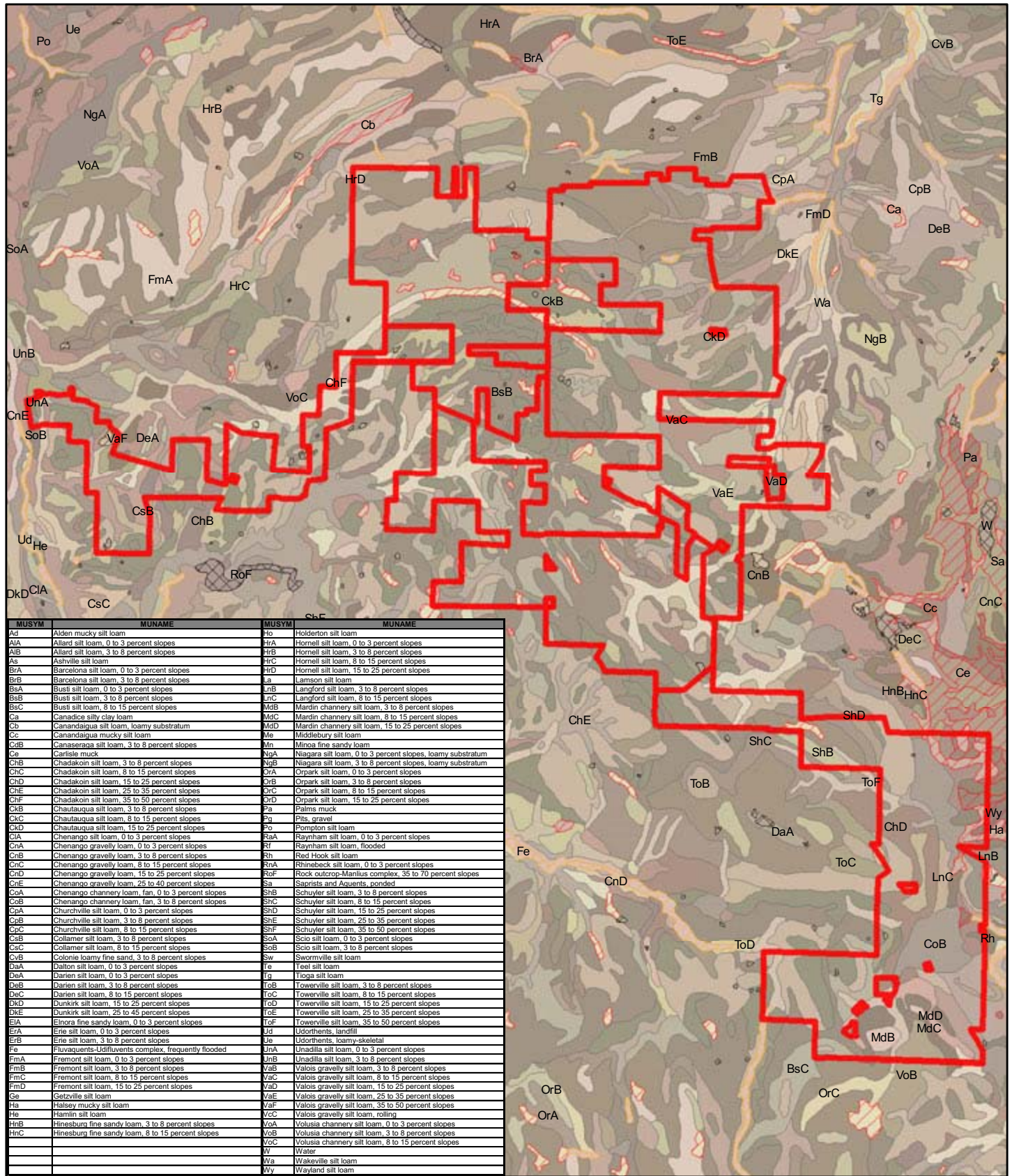
- NYSDEC Stream Classification**
-  A
 -  AA
 -  B
 -  C
 -  C(T)

Figure 3-4
 NYSDEC Streams and Watershed Boundaries
 Arkwright Summit Wind Farm

Source:
 NYS DEC, 2008
 Aerials: NYS GIS Clearinghouse, 2004
 Clough Harbor & Associates LLP, 2008





MUSYM	MUNAME	MUSYM	MUNAME
Ad	Alden mucky silt loam	Ho	Holderton silt loam
AIA	Allard silt loam, 0 to 3 percent slopes	HrA	Hornell silt loam, 0 to 3 percent slopes
AIB	Allard silt loam, 3 to 8 percent slopes	HrB	Hornell silt loam, 3 to 8 percent slopes
As	Ashville silt loam	HrC	Hornell silt loam, 8 to 15 percent slopes
BA	Barcelona silt loam, 0 to 3 percent slopes	HrD	Hornell silt loam, 15 to 25 percent slopes
BrB	Barcelona silt loam, 3 to 8 percent slopes	La	Lamson silt loam
BsA	Busti silt loam, 0 to 3 percent slopes	LnB	Langford silt loam, 3 to 8 percent slopes
BsB	Busti silt loam, 3 to 8 percent slopes	LnC	Langford silt loam, 8 to 15 percent slopes
BsC	Busti silt loam, 8 to 15 percent slopes	MdB	Mardin channery silt loam, 3 to 8 percent slopes
Ca	Canada silty clay loam	MdC	Mardin channery silt loam, 8 to 15 percent slopes
Cb	Canandaigua silt loam, loamy substratum	Me	Middlebury silt loam
Cc	Canandaigua mucky silt loam	Mn	Minoa fine sandy loam
CdB	Canaseroga silt loam, 3 to 8 percent slopes	NaA	Niagara silt loam, 0 to 3 percent slopes, loamy substratum
Ce	Carlele muck	NdB	Niagara silt loam, 3 to 8 percent slopes, loamy substratum
CnB	Chadakoik silt loam, 3 to 8 percent slopes	OrA	Orpark silt loam, 0 to 3 percent slopes
CnC	Chadakoik silt loam, 8 to 15 percent slopes	OrB	Orpark silt loam, 3 to 8 percent slopes
CnD	Chadakoik silt loam, 15 to 25 percent slopes	OrC	Orpark silt loam, 8 to 15 percent slopes
CnE	Chadakoik silt loam, 25 to 35 percent slopes	OrD	Orpark silt loam, 15 to 25 percent slopes
ChF	Chadakoik silt loam, 35 to 50 percent slopes	Pa	Palms muck
CkB	Chautauqua silt loam, 3 to 8 percent slopes	Pg	Pits, gravel
CkC	Chautauqua silt loam, 8 to 15 percent slopes	Pp	Pompton silt loam
CnD	Chautauqua silt loam, 15 to 25 percent slopes	RhA	Rayham silt loam, 0 to 3 percent slopes
CIA	Chenango silt loam, 0 to 3 percent slopes	RhB	Rayham silt loam, flooded
CnA	Chenango gravelly loam, 0 to 3 percent slopes	Rh	Red Hook silt loam
CnB	Chenango gravelly loam, 3 to 8 percent slopes	RnA	Rhinebeck silt loam, 0 to 3 percent slopes
CnC	Chenango gravelly loam, 8 to 15 percent slopes	RoF	Rock outcrop-Manlius complex, 35 to 70 percent slopes
CnD	Chenango gravelly loam, 15 to 25 percent slopes	Sa	Saraxis and Aquetas, ponded
CoA	Chenango gravelly loam, 25 to 40 percent slopes	ShB	Schuyler silt loam, 0 to 3 percent slopes
CoB	Chenango channery loam, fan, 0 to 3 percent slopes	ShC	Schuyler silt loam, 3 to 8 percent slopes
CoC	Chenango channery loam, fan, 3 to 8 percent slopes	ShD	Schuyler silt loam, 8 to 15 percent slopes
CpA	Churchville silt loam, 0 to 3 percent slopes	ShE	Schuyler silt loam, 15 to 25 percent slopes
CpB	Churchville silt loam, 3 to 8 percent slopes	ShF	Schuyler silt loam, 25 to 35 percent slopes
CpC	Churchville silt loam, 8 to 15 percent slopes	ShG	Schuyler silt loam, 35 to 50 percent slopes
CpD	Churchville silt loam, 25 to 40 percent slopes	SoA	Scio silt loam, 0 to 3 percent slopes
CsA	Collamer silt loam, 3 to 8 percent slopes	SoB	Scio silt loam, 3 to 8 percent slopes
CsC	Collamer silt loam, 8 to 15 percent slopes	Sw	Swormville silt loam
CvB	Colonia loamy fine sand, 3 to 8 percent slopes	Te	Teel silt loam
DaA	Dalton silt loam, 0 to 3 percent slopes	Tg	Tioga silt loam
DaB	Dalton silt loam, 3 to 8 percent slopes	ToB	Towerville silt loam, 3 to 8 percent slopes
DaC	Dalton silt loam, 8 to 15 percent slopes	ToC	Towerville silt loam, 8 to 15 percent slopes
DkD	Dunkirk silt loam, 15 to 25 percent slopes	ToD	Towerville silt loam, 15 to 25 percent slopes
DkE	Dunkirk silt loam, 25 to 45 percent slopes	ToE	Towerville silt loam, 25 to 35 percent slopes
EIA	Einora fine sandy loam, 0 to 3 percent slopes	ToF	Towerville silt loam, 35 to 50 percent slopes
ERA	Erie silt loam, 0 to 3 percent slopes	Ud	Udorthens, landfill
ERB	Erie silt loam, 3 to 8 percent slopes	Uj	Udorthens, loamy-skeletal
ERD	Erie silt loam, 8 to 15 percent slopes	UnA	Unadilla silt loam, 0 to 3 percent slopes
Fo	Fluvacuents-Diffuents complex, frequently flooded	UnB	Unadilla silt loam, 3 to 8 percent slopes
FmA	Fremont silt loam, 0 to 3 percent slopes	VaB	Valois gravelly silt loam, 3 to 8 percent slopes
FmB	Fremont silt loam, 3 to 8 percent slopes	VaC	Valois gravelly silt loam, 8 to 15 percent slopes
FmC	Fremont silt loam, 8 to 15 percent slopes	VaD	Valois gravelly silt loam, 15 to 25 percent slopes
FmD	Fremont silt loam, 15 to 25 percent slopes	VaE	Valois gravelly silt loam, 25 to 35 percent slopes
Ga	Gaitsville silt loam	VaF	Valois gravelly silt loam, 35 to 50 percent slopes
He	Halsey mucky silt loam	VcC	Valois gravelly silt loam, rolling
He	Hamlin silt loam	VcA	Volusia channery silt loam, 0 to 3 percent slopes
HnB	Hinesburg fine sandy loam, 3 to 8 percent slopes	VcB	Volusia channery silt loam, 3 to 8 percent slopes
HnC	Hinesburg fine sandy loam, 8 to 15 percent slopes	VcC	Volusia channery silt loam, 8 to 15 percent slopes
		W	Water
		Wa	Wakville silt loam
		Wy	Wayland silt loam

- Arkwright Summit Wind Farm Project Site/WOZ (11-25-08)
- All hydric
- Partially hydric
- Unknown

Figure 3-5
 Detailed Soil Types
 Arkwright Summit Wind Farm

Source:
 USDA-NRCS, 2008
 Aerials: NYS GIS Clearinghouse, 2004
 Clough Harbor & Associates LLP 2008



Data provided by NYSDEC indicates that the wetlands within the Project Area are Class I and Class II wetlands. Through the siting process, these wetlands have been avoided by Arkwright Summit in the development of this Project. According to NYSDEC, Class I wetlands provide the highest function and greatest benefit of all NYSDEC-classified wetlands and are afforded the greatest amount of protection. Impacts on Class I wetlands are permitted, but only if it is determined that the proposed activity satisfies a compelling economic or social need that clearly and substantially outweighs the loss of or detriment to the benefit(s) of the Class I wetland. Class II wetlands provide important wetland benefits, the loss of which is acceptable only in very limited circumstances. Impacts on Class II wetlands are permitted, but only if it is determined that the proposed activity satisfies a pressing economic or social need that clearly outweighs the loss of or detriment to the benefit(s) of the Class II wetland.

3.2.2 Review of Existing Stream Information

USGS 7.5-Minute Series topographic maps (see Figure 3-2) were reviewed to determine the location and names of streams in the Project Area. NYSDEC Stream Classification data was reviewed to determine the presence of streams protected by New York State under ECL Article 15 (see Figure 3-4). In addition, state 303(d) and 305(b) databases were reviewed to determine the water quality of waterbodies in the Project Area.

Watersheds and Water Quality

The Project Area is located within the Chautauqua-Conneaut and Conewango watersheds. The watershed boundary locations in relation to the Project Area are depicted in Figure 3-4. The Chautauqua-Conneaut watershed drains generally north along Walnut Creek to Silver Creek and west along Canadaway Creek before emptying into Lake Erie. The Conewango watershed generally flows east along West Branch Conewango Creek and Conewango Creek to the Alleghany River. The Alleghany River drains to the Ohio River and ultimately to the Mississippi River. The Chautauqua-Conneaut and Conewango watersheds have been designated as Category II watersheds by the New York Unified Watershed Assessment Program. Category II watersheds are defined as those currently meeting water quality goals (NYSDEC 1998). No waterbodies within the Project Area are listed on the New York State Section 303(d) List of Impaired Waters, and no impaired waters or priority listed waters are located within the Project Area (NYSDEC 2008b).

NYSDEC Stream Classification

NYSDEC stream classification data were reviewed to determine whether streams in the Project Area are protected by New York State under Article 15 of the ECL. NYSDEC uses a stream classification system in order to identify the value and uses of watercourses in the state. A protected stream is any stream or particular portion of a stream for which any of the following classifications or standards have been adopted by the department or any of its predecessors: AA, AA(t), A, A(t), B, B(t), or C(t). Streams designated as (t) (trout) also include those more

3. Project Area Description

specifically designated as (ts) (trout spawning). Class D streams are the lowest level of classification and are not subject to protection under the NYSDEC Protection of Waters program. Disturbance to the bed or banks of protected streams requires a permit under Article 15 of the New York ECL. The streams in the Project Area are depicted in Figure 3-4.

The watercourses mapped within the Project Area are identified as Class C, Class C(t), Class B, and Class AA. Class C streams support fishing and fish propagation and primary- and secondary-contact recreation. Some of the Class C streams within the Project Area are further designated Class C(t), which are capable of sustaining trout populations, and are considered “protected streams” and given special protection by NYSDEC. Class B streams support primary and secondary contact recreation and fishing. Class AA streams are a water supply used for drinking, culinary or food processing purposes, primary and secondary contact recreation, and fishing. Both Class AA and Class B streams are also considered “protected streams,” requiring permitting under Article 15.

The majority of the Project Area lies within the Chautauqua-Conneaut watershed and drains to Lake Erie through Canadaway Creek and its tributaries and Walnut Creek and its tributaries. Lower and Little Canadaway Creek flow west through the Project Area and are both Class B streams. Tributaries of the Lower Canadaway Creek are Class B streams, while tributaries to the Little Canadaway Creek are Class C(t) and Class C streams. Canadaway Creek flows west through the Project Area and the north to Lake Erie. Upper Walnut Creek (Class C(t)) drains the northeastern portion of the Project Area and flows north, eventually draining to Lake Erie. Tributaries of the Upper Walnut Creek include Class C, C(t), and AA streams.

The southeastern portion of the Project Area lies within the Conewango watershed and drains to West Branch Conewango Creek. West Branch Conewango Creek drains to the east to Conewango Creek, the Alleghany River, the Ohio River, and ultimately to the Mississippi River. West Branch Conewango Creek and its tributaries are classified as NYSDEC Classes C(t) and C.

4

Methodology

Siting

Arkwright Summit Wind Farm undertook a multi-phased siting approach in order to minimize impacts to wetlands and waterbodies to the extent practicable. A wetland study was conducted to determine the extent and quality of wetlands with the potential to be impacted by the Project. The wetlands study consisted of a desktop review of existing wetland location information and mapping, reconnaissance level wetland surveys, and detailed wetland delineations. Each phase of the wetland study was used to refine siting for the Project facilities to minimize impacts on wetlands while balancing impacts on other resources.

During the initial siting of the Project, a desktop wetland and waterbody analysis was conducted in order to avoid impacts. Once this desktop review was completed, an initial layout of turbine locations and access roads for the Project was designed. This initial layout was presented in the Draft Environmental Impact Statement (DEIS) for the Arkwright Summit Wind Farm (formerly New Grange Wind Farm). The DEIS was submitted to the Town of Arkwright as the designated Lead Agency under SEQR. A field determination of the wetlands and waterbodies was then conducted within a survey corridor defined by this initial layout. Based on data collected during the initial delineation effort, the layout was further modified to minimize impacts to wetlands and waterbodies, while still meeting Project requirements. As design changes to the layout were evaluated, additional field surveys were completed in order to confirm the engineering viability of the redesign. This process was repeated several times to assure that wetland and stream impacts were avoided and minimized to the extent possible.

Surveys

Surveys for wetland and waterbody resources were generally conducted using a 250-foot-wide corridor centered on linear facilities (including access roads and associated electric collection lines connecting the individual turbines) and a circular area with a 250-foot radius surrounding each turbine. In some areas surveys were restricted or expanded (i.e., restricted because of property access or expanded to ensure that regulated buffers adjacent to NYSDEC wetlands were identified) to accommodate site-specific conditions.

Wetland mapping included in Appendix F depict the Survey Corridor in which the surveys were conducted. The 250-foot-wide survey area around access roads and collection lines and 250-foot radius surrounding each turbine allowed for an assessment of adjacent ecological communities and provided flexibility for minor shifts in layout of these facilities.

Field surveys were conducted during spring 2008 through fall 2008 to:

- Delineate wetland boundaries and characterize wetland functions and values, to obtain sufficient data about individual wetlands within the Survey Corridor to allow for a complete assessment of potential Project-related impacts;
- Characterize all waterbodies that occur within the Survey Corridor; and
- Classify the vegetation cover types into distinctive upland, wetland, and aquatic ecological communities.

The field teams used established delineation procedures as outlined in the USACE *Wetland Delineation Manual* (Environmental Laboratory 1987) for the routine method with onsite inspection and the NYSDEC *Freshwater Wetlands Delineation Manual* (1995) for the routine delineation procedure. The specific procedures used to evaluate the soils, vegetation, and hydrology at each potential wetland location is described below.

4.1 Soils

Soils were examined by using a tile spade shovel, or “sharpshooter,” to a depth of 41 centimeters (cm) (16 inches) or to point of refusal. Wherever disturbance of the soils, caused by past excavation or fill activity, was evident the soil characterization was performed in adjacent, undisturbed areas within the potential wetland. Soils were characterized at a depth immediately below the A-horizon or at 30 cm (12 inches), whichever was shallower. Soil colors were identified using a Munsell Soil Color Chart (Munsell 2000), and other characteristics such as the presence of mottles and soil texture were recorded. Hydric characteristics such as organic soil layers, gleying, mottling, and oxidized rhizospheres were noted where they occurred. The soils were evaluated within the wetland boundaries. Additional soil samples were taken outside of the wetland boundaries in instances where vegetation and hydrologic indicators were inconclusive.

4.2 Hydrology

The *Wetlands Delineation Manual* (Environmental Laboratory 1987) provides guidelines for determining the presence of wetland hydrology. In general, the criteria for wetland hydrology are met if the area is inundated or saturated at the soil surface during the growing season for a time sufficient to develop hydric soils and support hydrophytic vegetation. In some instances, it is necessary to use other field characteristics to identify wetland hydrology. These characteristics may include water staining, sediment deposits, drainage patterns, or drift lines. Hydro-

logic characteristics, as well as the depth of surface water or depth to soil saturation, were recorded for each wetland area.

4.3 Vegetation

To determine the presence of hydrophytic vegetation, the dominant species in each major vegetative stratum (i.e., tree, shrub/sapling, herbaceous, and woody vine) were identified and recorded. Each plant was then described using a wetland indicator status (i.e., obligate wetland, facultative wetland, facultative, facultative upland, or upland) from USFWS's *National List of Vascular Plant Species that Occur in Wetlands: 1988 National Summary* (USFWS 1988). A prevalence of dominant species that are facultative, facultative wetland, and obligate wetland indicates the presence of hydrophytic vegetation.

4.4 Delineation

If the soils, hydrology, and vegetation at a survey point indicated that it was within a wetland, the boundary of the wetland was determined, and it was flagged with wetland delineation tape. The approximate boundary was recorded on site maps, and the flagged boundary was surveyed using a global positioning system (GPS) unit. The electronic files generated from the GPS survey were then downloaded and integrated into the existing alignment drawings to identify where the delineated wetlands and the proposed Project overlapped. Photographs were taken at each wetland, stream, and turbine site, and other points of interest within the Survey Corridor. Wetlands were described using wetland delineation sheets. Additional datasheets were taken in field areas that were considered questionable to document the reasons for not delineating as wetlands. GPS locations were recorded at all datasheet locations and photo locations.

5

Results

Based on the field investigations conducted by E & E between May and October 2008, 171 wetlands were delineated within the Survey Corridor. Sixty-two streams were identified within the Survey Corridor during the field investigation. In addition, numerous other geographic features, including drains and ponds, were delineated within the Survey Corridor and are depicted on the wetland mapping. These features have been identified in order to characterize the hydrology of the Survey Corridor, and in many cases to document the hydrologic connection or lack of connection between delineated wetlands and traditional navigable waters.

Wetland delineation maps (see Appendix F) depict the wetland boundaries, the locations of all streams, and the photo locations noted within the Survey Corridor during the field delineations. Appendices A through E include the wetland and stream datasheets, and the photographic exhibits for the wetlands and waterbodies identified in the Survey Corridor. Table 5-1 summarizes the acreage of wetland cover by type in each cluster. Table 5-2 summarizes the characteristics of each wetland delineated in the Survey Corridor. Table 5-3 summarizes the characteristics of each stream delineated in the Survey Corridor.

Table 5-1 Acreage of Wetland Cover by Type in each Cluster

Cluster	PEM	PEM/ PSS	PEM/ PFO	PEM/PSS/PFO	PSS	PFO	Pond
Southeast	6.35	0.58	0.26				
South Central	1.59		0.22				0.13
Northeast	7.06	0.91	1.55	0.54			0.51
Northwest	6.43	2.91	0.68	3.58	0.39	1.51	0.63
Collection Line	1.79		0.78		2.59		0.11
Total by Type	23.22	4.40	3.49	4.12	2.98	1.51	1.38

5.1 Wetlands

One hundred and seventy-one wetlands were delineated within the Survey Corridor of the Project, totaling approximately 41.10 acres. Depending on their nexus to waters of the U.S., any of these delineated wetlands could be federally jurisdictional. One wetland (W46) is assumed to fall under jurisdiction of NYSDEC based on its overall acreage. This wetland is located in the northwest portion of

the Project Site. Small portions of the wetland extend into the Survey Corridor and surround an existing logging road. Arkwright Summit sited facilities to avoid the majority of this wetland. No delineated wetlands are part of, or are in close proximity to, previously mapped NYSDEC wetlands. Final JDs regarding the applicability of Article 24 regulations will be made by NYSDEC subsequent to field review.

5.1.1 NYSDEC Wetlands

Mapped NYSDEC jurisdictional wetlands and associated upland buffers areas were avoided during siting of the Project. No wetlands delineated in association with the Project are within 50 meters of NYSDEC mapped wetlands. One delineated wetland (W46) is over 12.4 acres in size and is presumed to fall under jurisdiction of NYSDEC, even though it was not previously mapped by NYSDEC. While only 1.9 acres lie within the extent of the Survey Corridor, the wetland continues outside the extent of the Survey Corridor, covering an area of at least 25.5 acres. NYSDEC will make a final determination of state jurisdiction over wetlands following review of the Project.

5.1.2 Wetland Habitat

Several wetland community types exist within the Survey Corridor. During surveys, wetland community type was recorded using the Cowardin classification system (Cowardin et al. 1979). The classification assigned to each wetland at the time of the field surveys is included in the Summary of Wetland Characteristics included as Table 5-2. In order to provide a better assessment of wetland habitat within the Survey Corridor, the survey information was reviewed subsequent to the completion of field work, and descriptions of the wetland communities were written based on the classification system presented in Edinger et al. (2002). Based on field observations and the classification system presented in Edinger et al., five general palustrine and lacustrine wetland communities were identified in the Survey Corridor: deep emergent marsh, shallow emergent marsh, shrub swamps, red maple hardwood swamp, and artificial ponds. A detailed description of vegetation associated with each community type, as observed during field surveys, is provided below. These descriptions are listed by the Cowardin classification used during field surveys for the specific wetland type.

Palustrine Emergent Wetland

Wetlands classified under the Cowardin system as palustrine emergent wetlands (PEM) are dominated by herbaceous vegetation with little or no woody plant material present (Cowardin et al. 1979). These are further described using the classification system presented in Edinger et al. (2002) as either Deep Emergent Marshes or Shallow Emergent Marshes.

Deep Emergent Marshes (PEM)

Rank: (G5) (S5)

Status: Secure

Description: According to Edinger et al. (2002), these marshes occur on mineral soil or fine-grained organic soils and have less than 50 percent canopy cover. These marshes have standing water that fluctuates seasonally but is persistent with substrate that is almost always inundated.

Distribution: Deep emergent marshes with persistent inundation were scattered throughout the Survey Corridor. These wetlands are listed as PEM in the wetland summary table (Table 5-2) and a notation is included in the comment column indicating that inundation is persistent or permanent.

Vegetation:

- **Overstory:** Trees found in surrounding forest communities sometimes occur around the perimeter of the wetland but are not included in the deep emergent marsh component of these wetlands. None of the deep emergent marshes delineated was surrounded by trees.
- **Understory/Shrub Layer:** Hydrophytic understory or shrub species that were found to occur around the perimeter of the delineated deep emergent wetlands include American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanica*), northern arrowwood (*Viburnum recognitum*) and willow species (*Salix* spp.).
- **Herbaceous Layer:** Emergent hydrophytes found in deep emergent marshes included jewelweed (*Impatiens capensis*), larger blue flag (*Iris versicolor*), sedges (*Carex* spp.), rice cutgrass (*Leersia oryzoides*), spikerush (*Eleocharis* spp.), duckweed (*Lemna valdiviana*), reed canary grass (*Phalaris arundinacea*), and cattail (*Typha latifolia*).

Shallow Emergent Marshes (PEM)

Rank: (G5) (S5)

Status: Secure

Description: These marshes have less than 50 percent cover and occur on saturated mineral soils or deep muck soils. They are rarely inundated, but almost always saturated, and are more well drained than deep emergent marshes. Standing water may disappear completely after the wet season.

Distribution: Shallow emergent marshes occur throughout the Survey Corridor in scrub-shrub and successional fields and in openings in forested areas. Wetlands listed as PEM in Table 5-2 are shallow emergent marshes unless there is an indication of persistent or permanent inundation.

Vegetation:

- **Overstory:** Tree species may occur around the perimeter of the wetland but do not occur within the wetland boundary.
- **Understory/Shrub Layer:** If present, shrubs or saplings occur in isolated patches or individuals and include northern arrowwood, meadow-sweet (*Spiraea latifolia*), and willow.
- **Herbaceous Layer:** Herbaceous species in these wetlands vary throughout the Survey Corridor with the following species commonly appearing as dominants or co-dominants: sensitive fern (*Onoclea sensibilis*), jewelweed, rough stemmed goldenrod (*Solidago rugosa*), soft rush (*Juncus effuses*), sedges, giant goldenrod (*Solidago gigantea*), false hellebore (*Veratrum viride*), woolgrass (*Scirpus cyperinus*), horsetail (*Equestrium* spp.), cinnamon fern (*Osmunda cinnamomea*) and mannagrasses (*glyceria* sp.).

Palustrine Scrub-Shrub Wetland

Palustrine scrub-shrub wetlands (PSS) are dominated by woody vegetation (i.e., trees or shrubs) less than 6 meters (20 feet) tall. Wetlands classified under the Cowardin system as PSS wetlands are further described using the classification system presented in Edinger et al. (2002) as scrub-shrub swamps.

Scrub-shrub Swamps (PSS)

Rank: (G5) (S5)

Status: Secure

Description: These wetlands occur on mineral soil or muck and are variable in structure and distribution. They can be found near ponds and/or stream sides, in transitional areas between forest and open land, and in isolated depressional areas.

Distribution: Scrub shrub wetlands are found intermittently in the Survey Corridor as portions of larger wetlands that typically also have an emergent or forested component.

Vegetation:

- **Overstory:** Tree species may occur around the perimeter of the wetland but do not occur within the boundary of a scrub-shrub wetland.
- **Understory/Shrub Layers:** The shrub species found in the Survey Corridor as dominants or co-dominants include northern arrowwood, willow, spicebush (*Lindera benzoin*), red osier dogwood (*Cornus sericea*), and meadow-sweet.

- **Herbaceous Layers:** Herbaceous and emergent species are less dominant than shrub species and include mannagrasses, soft rush, rice cutgrass, and rough stemmed goldenrod.

Palustrine Forested Wetland

Within the Project Area, palustrine forested wetlands (PFO) are dominated by deciduous tree species, which lose their leaves during the cold season or by a mix of broad-leaved deciduous and needle-leaved evergreen trees. These are further described using the classification system presented in Edinger et al. (2002) as either red maple-hardwood swamps or hemlock-hardwood swamps.

Red Maple-hardwood Swamps (Palustrine Broad Leaved Deciduous Forested Wetland)

Rank: (G5) (S4) (S5)

Status: Secure

Description: This is a hardwood swamp that occurs in poorly drained depressions, normally underlain by inorganic soils. Red maple is either dominant or co-dominant in these swamps in the Survey Corridor.

Distribution: Most forested wetland communities found within the Survey Corridor are red maple-hardwood swamps. These communities occur in beech-maple, successional northern hardwood forests throughout the Survey Corridor. PFO wetlands in Table 5-2 are red maple-hardwood swamps unless there is a comment indicating that they are dominated by hemlock.

Vegetation:

- **Overstory:** Red maple (*Acer rubrum*) is usually the dominant species. Other co-dominants and common overstory trees include green ash and American elm.
- **Understory/Shrub Layers:** The shrub layer, when present, is dominated by saplings of overstory species, northern arrowwood and willow.
- **Herbaceous Layers:** Dominant species include jewelweed, sensitive fern, and fringe sedge. Other common species include false hellebore, mannagrasses, and other sedges (*Carex* spp.).

Artificial Ponds (Palustrine Open Water)

Wetlands classified under the Cowardin system as palustrine open water (POW) are included in the artificial pond classification presented in Edinger et al. (2002).

Rank: (G5) (S5)

Status: Secure

Description: These man-made ponds are constructed in farm fields, residential areas, or recreational properties for agricultural, recreational, or aesthetic purposes. They could potentially be stocked with fish and contain little or no aquatic vegetation.

Distribution: Artificial ponds occur intermittently within the Survey Corridor.

Vegetation.

- **Overstory:** There is no overstory vegetation.
- **Understory/Shrub Layers:** There is no understory/shrub vegetation.
- **Herbaceous Layers:** Many of these ponds were stocked with aquatic plants, predominantly cattail.

5.1.3 Wetland Functions and Values

This section provides a listing of the general functions and values of the wetlands in the Survey Corridor based on the USACE *Highway Methodology Workbook for Wetland Functions and Values: A Descriptive Approach* (1999). The 13 functions and values that are considered are listed below.

1. Ground Water Recharge/Discharge
2. Floodflow Alteration
3. Fish and Shellfish Habitat
4. Sediment/Toxicant/Pathogen Retention
5. Nutrient Removal/Retention/Transformation
6. Production Export
7. Sediment/Shoreline Stabilization
8. Wildlife Habitat
9. Recreation
10. Educational/Scientific Value
11. Uniqueness/Heritage
12. Visual Quality/Aesthetics
13. Threatened or Endangered Species Habitat

Evaluation of Wetland Functions

Groundwater Recharge/Discharge. This function considers the potential for a wetland to serve as a groundwater recharge/discharge area. The Project Area is characterized by rolling topography comprised predominantly of glaciated till and silty soils, and it encompasses two primary watersheds. The majority of the wetlands delineated in the Survey Corridor have a direct surface hydrologic connection to these watersheds. Many of these wetlands are found on hillsides and receive water from groundwater discharges (seeps) or from drained agricultural fields. Although these wetlands are hydrologically connected to traditional navigable waterways, they are also effective in holding surface water runoff for groundwater recharge. Wetlands having no apparent surface hydrologic connection occur as small natural depressions in agricultural fields and in forested areas, in some cases resulting from impacted soils rutted by logging operations. These wetlands are all areas of groundwater recharge.

Floodflow Alteration. This function considers the effectiveness of a wetland in reducing flood damage by water retention for prolonged periods following precipitation events. Floodflow alteration is a primary function of those wetlands associated with watercourses and their tributaries. All wetlands found within the Survey Corridor serve this function to some degree by attenuating runoff; however, this is a secondary function for smaller wetlands located higher in the watershed.

Fish and Shellfish Habitat. This function considers the effectiveness of seasonal watercourses or permanent waterbodies associated with wetlands for fish habitat. Some wetlands delineated within the Survey Corridor had a direct hydrologic connection to stream corridors classified as trout streams by NYSDEC. Although the wetlands are not trout habitat, they contribute to the stream resource. The wetlands adjacent to stream channels play an important role in the dynamics of the stream itself. They provide a floodplain for the channel during high flows and the vegetation provides roughness to slow down water velocities allowing sediment to settle out of suspension. The sediment retention function of the wetland adjacent to the stream is important to prevent the degradation of spawning habitat. These wetlands may also play a role in maintaining a cool, constant water temperature in the watercourse. Groundwater slowly and regularly discharges into the channel from these wetlands. Where present, overhead vegetation shades the open channel and is the basis of the food chain for the stream below. Insect and other invertebrate production is linked to the vegetation found in the vicinity of these streams. Wetlands and stream associations are listed in Table 5-2. NYSDEC stream classifications are listed in Table 5-3.

Sediment/Toxicant/Pathogen Retention. This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland as a trap for sediment, toxicants, or pathogens in runoff from surrounding uplands or upstream-eroding wetland areas. Numerous wetlands within the Survey Corridor

receive runoff from natural or man-made drainages in adjacent agricultural fields or from seeps or surface runoff on slopes and perform this function very effectively.

Nutrient Removal/Retention/Transformation. This function considers the effectiveness of the wetland as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands, and the ability of the wetland to process these nutrients into other forms or trophic levels. Many of the wetlands found adjacent to agricultural fields or in watercourses perform this function very effectively.

Production Export. This function evaluates the effectiveness of the wetland to produce food or usable products for man or other living organisms. While most of the wetlands delineated provide some level of food for wildlife, the majority of the wetlands are small and do not provide a significant export. The greatest export production within the Project Area is provided by large wetlands, with diverse communities or vegetation, associated with streams. These wetlands are located outside of the Survey Corridor.

Sediment/Shoreline Stabilization. This function considers the effectiveness of a wetland to stabilize stream banks and shorelines against erosion. This is an important function of wetlands within the Survey Corridor that are associated with watercourses.

Wildlife Habitat. This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with a wetland and/or the wetland edge. The majority of the Survey Corridor is comprised of old field/shrub, forested communities, and agricultural land. Wetlands, in association with these upland communities, serve as habitat for a broad range of amphibians, small mammals (e.g., mice, moles, and voles), songbirds, and larger mammals (e.g., beaver, coyote, and white-tailed deer).

Recreation. This value considers the suitability of the wetland and associated watercourses to provide recreational opportunities. Deer hunting is a primary recreational activity conducted in this area. These values are primarily associated with the streams or surrounding upland habitats rather than with the wetlands.

Educational/Scientific Value. This value considers the suitability of the wetland as a site for an “outdoor classroom” or as a location for scientific study or research. The wetlands are located on private property that is not within or near any educational facility nor are there any wetlands of unique scientific value within the Survey Corridor.

Uniqueness/Heritage. This value considers the effectiveness of the wetland or associated waterbodies to provide certain special values. The wetlands in the Survey Corridor are generally small or moderate in size, are predominantly emergent and scrub-shrub wetlands, generally are not associated with open water com-

ponents, and are located in a rural community not subjected to development pressure. These wetlands offer no unique viewing opportunities or other cultural values.

Visual Quality/Aesthetics. This value considers the visual and aesthetic quality or usefulness of the wetland. The wetlands in the Survey Corridor offer no unique viewing opportunities.

Threatened or Endangered Species Habitat. All endangered species issues related to this Project are addressed in the DEIS. Endangered or threatened plant and wildlife species are not known to occur within the wetlands of the Project Area and were not observed during this field review. The wetlands and uplands in the Survey Corridor were dominated by plant communities typical of this region of New York.

5.2 Waterbodies

Table 5-3 provides a description of each perennial or intermittent stream that was identified within the Survey Corridor during field surveys. The streams range from well-defined stream channels to poorly defined headwater channels. The locations of these streams are depicted in relation to Project facilities on the mapping included for each sector in Appendix F.

In addition, numerous other geographic features were delineated within the Survey Corridor and are depicted on the wetland mapping as drains and ponds. Drains include features that appear to be man-made ditches through upland soils (typically for agricultural use), small swales, and natural drains which lack a defined bed and bank and are not federally or state jurisdictional streams. These features have been identified in order to characterize the hydrology of the Survey Corridor and in many cases to document the hydrologic connection or lack of connection between delineated wetlands and traditional navigable waters.

5.2.1 Streams

Sixty-two streams were identified in the Survey Corridor. The majority of streams in the Survey Corridor are class C, C(t), B, and D streams. Four streams within the Survey Corridor are class AA (S118, S69, S569, and S509/509a). Fifteen streams within the Survey Corridor are class B (S513, S55, S137, S55a, S60a, S60, S1004, S28, S65, S141, S27, S1017, S1019, S1021, and S1015). Fourteen of these streams are protected Class C(t) streams (S21, S18, S18a, S1002, S1003, S530, S548, S560, S565, S83, S123, S127, S512, and S133). The remainder of the streams are non-protected Class C and Class D streams.

5.2.2 Surface Water Use

Surface water features in the Survey Corridor are utilized for recreational, wildlife, and agricultural uses.

Perennial streams that have been classified for fishing in the vicinity of the Survey Corridor may provide fishing opportunities for the public. According to NYSDEC, public fishing right easements are accessible at various locations along the Canadaway Creek and West Branch Conewango Creek, both of which lie outside of the Project Site (NYSDEC 2008a). Most of the streams within the Survey Corridor are tributaries to one of these two waterbodies. Table 5-3 details which streams within the Survey Corridor are tributaries of these systems.

All of the streams within the Survey Corridor may be used to some extent by wildlife and livestock as a source of drinking water. Although regulated as protected streams, most of the streams overlapping the Project Site are intermittent in nature, or comprise headwater drainages within the watershed. As such, water availability is intermittent and may be present only during periods of continuous or heavy precipitation or during the snowmelt period in the spring. Furthermore, because the ephemeral nature of the streams in the Project Area, the conditions in these streams are usually unsuitable for fish species. Amphibians and macro-invertebrates have greater flexibility in adapting to intermittent stream flow and are likely to inhabit streams in the Project Site when water is present. Perennial Class C streams S1500, S1000, S1001, S13, S1503, S1501, S1006, S1007, S90, S1010, S78, and the Class C(t) streams previously listed are suitable for supporting fish species.

Natural and man-made ponds are scattered throughout the Survey Corridor. Ponds vary in size, but are typically less than 1 acre with depths ranging from 2 to 10 feet. Natural ponds exist in both forests and fields and in some cases result from beaver activity. Man-made ponds used for agricultural purposes are located in farm fields, and recreational ponds are located in open or forested residential areas and private camping areas. Wildlife may also utilize these resources.

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Eastings ¹	Northings ¹	Additional Comments	Documentation	Appendix F Map Frame
Southeast Cluster											
Access Road Group 1 (Turbines 2R, 3, 4)											
W116	PEM	153,098	1,0596		42.350138	-79.187286	649301.251108	4690244.103080	W116 is a moderately sized PEM wetland in a mixed forest that has formed in the road channel of a snow mobile trail. Soils are saturated and W116 is intermittently inundated. Wetland vegetation is confined to disturbed areas. Inflow is from up-gradient areas. Outflow is to the east in discrete/confined surface flow to S1000. Wetland flow is culverted under a snow mobile trail. W116 has low vegetation diversity and overall low value due to the disturbance in the area.	Wetland datasheet, P409, P410	SE-2, SE-3
W501	PEM	127,893	0.0178		42.352361	-79.185642	649431.365405	4690493.897200	W501 is a large PEM wetland starting at the edge of a field and continuing west into an <i>Acer saccharum</i> forest. There is a field to the north and forest in all other directions. W501 is at a minor depressional area at the base of a hill. It is level to the southeast but drops again outside of the survey corridor. Drainage is discrete and confined surface flow to D501 runs parallel to the northeast side of the field. The drain leads to an unnamed tributary to West Branch Conewango Creek. The wetland has moderate to high vegetative diversity and moderate wildlife diversity.	Wetland datasheet, P502	SE-2, SE-3
W500	PEM	127,893	0.2116		42.353017	-79.188137	649224.278000	4690562.362450	W500 is a small depressional PEM wetland at the top of a hill in a mixed, open forest. There are several pools ranging from 1" to 6" in depth. Inflow is from D500 to the southeast. There is no visible outflow. Surrounding areas include forest to the south, west, and north and 20 feet of forest and then a mowed field to the east. The wetland has low to moderate vegetative diversity and moderate wildlife value. There are tadpoles present.	Wetland datasheet, P500	SE-2
W500a	PEM	127,893	0.0721		42.352827	-79.187347	649289.778094	4690542.642200	The wetland is a very small PEM. W500a is connected to W500 through drain D500 which flows when water levels are higher. There are no apparent drains. It has low value due to size constraints and functionality. Vegetation is similar to W500.	Wetland datasheet, P501	SE-2
Access Road Group 2 (Turbines 5R, 90R, 91R, 92R)											
W2	PEM	220,288	0.5877		42.356178	-79.197323	648460.307468	4690897.264710	W2 is a PEM wetland associated with a farm pond draining south to drain D2. Outflow is discrete and confined with surface flow to the southeast to S1000. The wetland has moderate vegetative diversity, low to moderate water quality/water retention, and moderate wildlife habitat.	Wetland datasheet, P11	SE-6
W3	PEM	220,288	0.1090		42.356202	-79.199805	648255.839449	4690895.651420	W3 is a small isolated depressional PEM wetland in a forest located south of a fallow field. There are no apparent drains. It has moderate water quality/water retention, moderate wildlife utilization, and low to moderate vegetative diversity.	Wetland datasheet, P12	SE-5, SE-6
W4	PEM/PSS	132,967	0.1980		42.356851	-79.201180	648141.006462	4690965.301770	W4 is a medium sized, side slope wetland draining northwest is discrete and confined with surface flow. The wetland ends before the bottom of the slope. W4 drains west into D4 which flows to Canadaway Creek. It provides moderate ecological values and functionality. Noted amphibious life (frog).	Wetland datasheet, P13	SE-5

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Eastings ¹	Northings ¹	Additional Comments	Documentation	Appendix F Map Frame
W5	PEM	WS212	132.967	0.0461		42.354127	-79.203294	647973.335872	4690659.101840	W5 is a small PEM wetland in a forest that drains in a discrete and confined surface flow to the west to D5. Topographic maps indicate a connection to Canadaway Creek. W5 has a clay confining layer approximately 11" below the surface. Soil is saturated to the surface. There is evidence of recent inundation. W5 has moderate value and function due to its small size.	Wetland datasheet, P22	SE-5
W6	PEM	WS223	72.073	0.0878		42.353590	-79.203210	647981.542066	4690599.640490	W6 is a small PEM wetland in a forest that drains via discrete and confined surface flow to the west to D6 to Canadaway Creek. It has a deep A horizon with super saturated soils below 4". The wetland has moderate value and function due to its small size.	Wetland datasheet, P23	SE-5
Access Road Group 4 (Turbines 9R, 10)												
W503	PEM	WS150	356.223	0.0569		42.379049	-79.190574	648962.083679	4693448.738280	W503 is a small PEM wetland in a forest. It is a seep area with very little inflow from seeps. Outflow is discrete and confined surface flow to three drains that flow east towards Hwy. 83. The wetland is on ~20° slope. Vegetative diversity is low to moderate. Wildlife value is low. There is hardwood forest in all directions.	Wetland datasheet, P527	SE-12, SE-13
W115	PEM	WS162	208.080	0.0218		42.378168	-79.190630	648959.557973	4693350.745510	W115 is a small side slope PEM wetland within a forest. Inflow is from the northeast. Topographic mapping indicates drainage to the south to an unnamed tributary to West Branch Conewango Creek. W115 has low vegetation diversity and low value due to the small size.	Wetland datasheet, P398	SE-12
W556	PEM	WS162	208.080	0.0205		42.378696	-79.193707	648704.981430	4693404.023030	W556 is a PEM wetland in a forest of <i>Acer saccharum</i> and <i>Fraxinus pennsylvanica</i> . Inflow is from up-gradient areas. No visible outflow was observed. Diversity is moderate. Wildlife value is low. Wetland value for W556 is low because of size.	Wetland datasheet, P714	SE-13
W114	PEM	WS180	377.287	0.2875		42.378570	-79.195431	648563.321384	4693386.956080	W114 is a moderately sized depressional PEM wetland in a forest. The area has been disturbed by ruts from logging roads. Inflow is from up-gradient areas and discrete & confined with surface flow from the north. The wetland continues south out of the survey corridor. Topography indicates outflow to the south southwest to an unnamed tributary to a West Branch Conewango Creek. The wetland has low vegetative diversity. W114 is of moderate value and provides moderate wildlife habitat.	Wetland datasheet, P397	SE-13
W113	PEM	WS150	356.223	0.0070		42.379725	-79.197729	648371.435642	4693511.218810	W113 is a small depressional PEM wetland in a rutted area within a forest. Inflow is from up-gradient surrounding areas. There is no apparent outflow. Therefore, this wetland is considered to be isolated. The wetland has low vegetative diversity and low overall value due to its small size.	Wetland datasheet, P392	SE-14
W13	PEM	WS180	377.287	0.3775		42.380293	-79.200968	648103.386640	4693568.689940	W13 serves as the headwaters to S13. W13 is a large PEM wetland that drains southeast via discrete and confined surface flow to the southeast. The area has been impacted by logging. Logging roads cross S13 and therefore serve as drains into S13. The wetland has moderate to high water quality/water retention due to connection to S13. S13 flows southeast to an unnamed tributary to West Branch Conewango Creek. The wetland has moderate to high values and functions. Efforts should be made to minimize the number of stream crossings by access roads and transmission lines.	Wetland datasheet, P52, P53	SE-14, SE-15

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Eastings ¹	Northings ¹	Additional Comments	Documentation	Appendix F Map Frame
W12	PEM	WS148	168.034	1.2743		42.381332	-79.203867	647862.272569	4693678.972200	W12 is a large, depressional PEM wetland draining to the northeast in overland sheet flow to an unnamed tributary to West Branch Conewango Creek. Natural drainage has been skewed by logging roads. The topography is hummocky in wooded areas. Inflow is overland sheet flow from W11 to W12. The wetland has moderate to high vegetative diversity, moderate wildlife habitat/utilization, and moderate water quality/water retention.	Wetland datasheet, P51	SE-15
Access Road Group 17 (Turbines 11, 12, 14)												
W10	PEM	WS151	297.100	0.0885		42.381718	-79.206975	647605.551109	4693716.434240	W10 is a small PEM wetland with small depressional areas. It drains to a small, man-made pond to the north. Topography indicates probable drainage out of pond to the north to an unnamed tributary to Black Pond and then West Branch Conewango Creek. The wetland has moderate vegetative diversity and low to moderate water quality/water retention due to change in hydrology from man-made pond.	Wetland datasheet, P45	SE-16
W555	PEM	WS151	297.100	0.0746		42.380916	-79.210522	647315.425020	4693621.224730	W555 is a small pit and mound PEM wetland in a forested area. The upland mounds are dominated by <i>Acer saccharum</i> , <i>Crataegus</i> sp., and <i>Fraxinus pennsylvanica</i> . The data point area is dominated by <i>Onoclea sensibilis</i> , <i>Carex</i> sp., and <i>Fraxinus pennsylvanica</i> saplings. Outflow is to the north-northwest to S8a via discrete and confined surface flow. Inflow is from up-gradient areas. W555 is a low to moderate value wetland due to its small size. It has low vegetative diversity and low wildlife value.	Wetland datasheet, P705	SE-16
W554(2)	PEM	WS151	297.100	0.8113		42.417985	-79.253298	643709.243653	4697664.123950	W554(2) is a large PEM wetland in a forested area. The surrounding area is a mixed forest with <i>Acer saccharum</i> , <i>Fraxinus pennsylvanica</i> , and <i>Pinus strobus</i> . Inflow is from up-gradient areas. Outflow is to D554 which flows north to a roadside ditch. Diversity is moderate. Wildlife value is moderate. W554(2) continues east and south outside the corridor.	Wetland datasheet, P704	SE-16
W9	PEM	WS151	297.100	0.5844		42.380460	-79.211984	647196.118236	4693568.112540	W9 is a small depressional PEM wetland that drains via discrete and confined surface flow to D9, flows through a culvert under a road, and then into S8 which flows into Black Pond and then an unnamed tributary to West Branch Conewango Creek. Much of the surface area is inundated. Inflow is from drains to the south. The wetland has moderate value and functionality due to small size and low vegetative diversity.	Wetland datasheet, P36	SE-16, SE-17
W8	PEM	WS151	297.100	0.3752		42.380872	-79.213121	647101.534308	4693611.867920	W8 is a medium PEM linear wetland with drainage to the east with areas of inundation. The soil has a sulfidic odor. The wetland drains into D8 via discrete and confined surface flow and then into S8 which flows into Black Pond and then an unnamed tributary to West Branch Conewango Creek. Bubbles rose to surface of water in soil pit. Soils have a high organic compound. The wetland has moderate functions and values.	Wetland datasheet, P35	SE-16, SE-17

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Eastings ¹	Northings ¹	Additional Comments	Documentation	Appendix F Map Frame
W7	PEM/PSS	WS151	297.100	0.2837		42.381030	-79.214428	646993.543839	4693627.126730	W7 is a medium sized PEM/PSS wetland draining to the east to D7 which drains into W8. W8 drains to S8 which flows into Black Pond and then an unnamed tributary to West Branch Conewango Creek. There is indication of past logging impacts. Soil contains gravel up to 5" across. The wetland is open ended to the north of survey corridor. The topography is hummocky with upland trees and shrubs on hummocks. The wetland has moderate function and values.	Wetland datasheet, P34	SE-17
W14	PEM	WS151	297.100	0.1821		42.384848	-79.216566	646808.684015	4694047.437180	W14 is a small linear drainage PEM wetland draining in discrete and confined surface flow to a stream that originates on the east end of W14. Topographic mapping indicates that W14 is at the headwaters for an unnamed tributary to Black Pond which flows into West Branch Conewango Creek. Inflow is from culvert to the west near the road. Dumping has occurred near the culvert. A small left nevt was observed. The wetland has moderate functions and values.	Wetland datasheet, P61, P60	SE-18, SC-1
Southeast Cluster Collection Line												
W70	PEM/PFO	WS187	148.598	0.2633		42.366845	-79.184034	649529.433436	4692104.998840	W70 is a small to medium PEM/PFO wetland on the east side of Hwy 85. Surrounding areas include fields to the north and south, Hwy. 85 to the west, and the wetland continuing to the east. The wetland is on a 20° to 70° slope. Inflow is from seeps and road runoff. Outflow is discrete and confined surface flow and overland sheet flow to a stream to the east out of the survey corridor. The wetland has moderate vegetative diversity and low wildlife value due to proximity to the road.	Wetland datasheet, P231	SE-9, SE-10
W71	PEM/PSS	WS187	148.598	0.1029		42.371186	-79.184348	649493.245737	4692586.512890	W71 is a small to moderate PEM/PSS wetland between Hwy. 85 and corn field. Surrounding areas include an active agricultural field adjacent to the east and south, Hwy. 85 to the west, and an open area to the north. Wetland is relatively flat with 20° to 70° slopes to the north and west. Inflow is from surrounding up-gradient open areas and road runoff. Outflow is discrete and confined surface flow and overland sheet flow to a drain outside of the survey corridor. The wetland has moderate vegetative diversity and low quality due to surrounding landscape.	Wetland datasheet, P233	SE-10
South Central Cluster Access Road Group 5 (Turbines 15, 18BR, 16, 18AR)												
W117	PEM	WS133	93.544	0.0346		42.389530	-79.219687	646540.839411	4694561.900480	W117 is a small depressional PEM wetland in an <i>Acer saccharum</i> forest. Inflow is from an up-gradient surrounding area and runoff from a logging road to the southwest. Outflow is intermittent discrete and confined surface flow via D117 to the northwest to S1005, an unnamed tributary to Walnut Creek. W117 has low vegetation diversity with moderate overall value. It provides moderate wildlife habitat and pretreatment of water flowing into S1005.	Wetland datasheet, P425	SC-2, SC-3

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W118	PEM	WS133	93.544	0.0441		42.390439	-79.218496	646636.742334	4694664.851920	W118 is a small PEM riparian wetland along S118. Fill has been placed in S118 to facilitate passing of a logging road. This road has dammed the stream, creating W118. Inflow is from S118 to the northwest and southwest. Outflow is discrete and confined surface flow to the southeast into S118. W118 has low vegetative diversity and low overall value due to the extent of disturbance; however, it does provide groundwater recharge opportunities. S118 is the same as previously surveyed S1005a.	Wetland datasheet, P427, P428	SC-2
W69	PEM/PFO	WS133	93.544	0.0821		42.392525	-79.216888	646764.271313	4694899.259440	W69 is a moderately sized riparian PEM/PFO wetland in a valley within a hardwood forest comprised of <i>Acer saccharum</i> , <i>Fraxinus pennsylvanica</i> , <i>Fagus grandifolia</i> , and <i>Tsuga canadensis</i> . Surrounding areas are at slopes of up to 75°. Inflow is from up-gradient slopes and seeps. Outflow is to S69 which flow through W69 to the northwest. The wetland has moderate to high vegetative diversity and moderate to high wildlife value.	Wetland datasheet, P229, P230	SC-2
W568	PEM	WS138	104.267	0.3126		42.386773	-79.221798	646373.473397	4694252.150950	W568 is a moderately sized PSS/PEM wetland along side what appears to be the headwaters of S509. W568 is a PSS-dominated wetland, with more PEM wetland areas near the stream. Dominant species are <i>Viburnum recognitum</i> and <i>Cornus stolonifera</i> (<i>Polygonum sagittatum</i> and <i>Leersia oryzoides</i> are dominant in some sections of the inundated stream, though not near the data point). Upland forest surrounding the wetland includes <i>Prunus serotina</i> , <i>Acer saccharum</i> , <i>Acer rubrum</i> , <i>Ulmus americana</i> , and <i>Pinus strobus</i> . Inflow to the wetland is via groundwater seepage and overland flow from the east and west. Outflow is to the north via confined drainage in S509. The wetland has moderate groundwater recharge/discharge, and wildlife habitat function and values. Also, due to location near state wildlife management land, it has high uniqueness function and value.	Wetland datasheet, P744, P745	SC-3, SC-14
W569	PEM	WS138	104.267	0.1630		42.386042	-79.224212	646176.471873	4694166.786430	W569 is a small PEM riparian wetland completely within the banks of S569. The community is dominated by <i>Solidago sp.</i> and <i>Eupatoriadelphus maculatus</i> . Upland forest outside of the wetland is comprised of <i>Fraxinus pennsylvanica</i> , <i>Acer rubrum</i> , <i>Fagus grandifolia</i> , and <i>Prunus serotina</i> . The wetland has moderate vegetative diversity. Inflow is through overland flow from the east and west and groundwater discharge. Outflow is into S569 to the north. The wetland has high flood flow alteration and wildlife habitat and moderate groundwater discharge function and value. The wetland continues along W569 to the north, and includes PO569 to the south.	Wetland datasheet, P748	SC-3, SC-14
PO569	Pond	WS138	104.267		0.0312					PO569 is a small man-made pond within a cleared area. The south side of the pond borders a forest. Numerous species of aquatic vegetation were noted. The pond is up to 2' deep.		SC-14
W508	PEM	WS125	47.035	0.0201		42.394850	-79.222860	646267.316664	4695147.185550	W508 is a very small (approximately 25' x 5') depressional PEM wetland in a mixed forest. Inflow is from nearby slopes and groundwater. There is no apparent outflow. The wetland has low to moderate vegetative diversity and low wildlife value.	Wetland datasheet, P554	SC-4, SC-10

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Stream Reach		Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
		Watershed	Drainage Area (acres)									
Access Road Group 6 (Turbine 21)												
W22	PEM	WS154	420.923	0.1517		42.392912	-79.237200	645091.495097	4694907.366030	W22 is a moderately sized PEM riparian wetland associated with S21. Inflow is from S21 and pastures to the north and south. Outflow is discrete and confined surface flow to S21. S21 is an unmapped portion of the headwaters to Clinton Brook. The wetland has moderated vegetative diversity and wildlife habitat.	Wetland datasheet, P107, P108	SC-5
W20	PEM	WS124	231.993	0.2839		42.397126	-79.240392	644819.053233	4695369.832960	W20 is a moderately sized depressional PEM wetland in a pasture with inflow from hillside runoff to the east. W20 drains in discrete and confined surface flow to the west towards W21 and S21. S21 is an unmapped portion at the headwaters of Clinton Brook. The wetland has low to moderate wildlife habitat and vegetative diversity.	Wetland datasheet, P97, P98	SC-6, SC-7
Access Road Group 7 (Turbines 19, 57)												
PO1510	Pond	WS124	231.993	0.0676		42.397692	-79.234151	645331.423063	4695443.397320	PO1510 has very little vegetation but a dense newt population.	P540	SC-8
W566	PEM	WS121	75.161	0.2517		42.396165	-79.227091	645916.007881	4695285.957690	W566 is a linear depressional PEM wetland surrounding a drain, pond, and stream in a cow pasture. The stream has been dammed to create the pond to provide water for the cattle. The entire area has been disturbed by the cattle. Inflow is from up-gradient areas via overland sheet flow and drain D566 from the northwest. Outflow is discrete and confined surface flow to the southeast to stream S566. This is a low value wetland due to the cattle impacts. It has moderate vegetative diversity. It provides stormwater retention and nutrient filtration of runoff from the adjacent pasture. Stream S566 flows into previously mapped stream, S509, an unnamed tributary to Walnut Creek.	Wetland datasheet, P734, P735	SC-9
PO566	Pond	WS121	75.161	0.0285		42.396355	-79.227322	645896.602958	4695306.606930	PO566 is a man-made pond in a cow pasture. D566 flows into the pond, which has been created by a dam. Outflow is to S566, an unnamed tributary to Walnut Creek.	P734	SC-9
W567	PEM	WS121	75.161	0.000		42.396710	-79.226171	645990.436900	4695347.959300	This datasheet was taken in an area where W567 extends into the survey corridor briefly. There is no vegetation; therefore, it is not mapped as a wetland. W567 continues to the north and east outside of the survey corridor. W567 is a PEM wetland in a mixed forest.	Wetland datasheet, P738	SC-9
Access Road Group 8 (Turbines 22)												
W18	PEM/PFO	WS124	231.993	0.1415		42.402153	-79.239108	644913.207400	4695930.219400	W18 is a moderately sized riparian PEM/PFO wetland that has been heavily impacted by cattle grazing. The wetland drains in discrete and confined surface flow into S18, an unnamed tributary to Ball Gulf. The wetland has low to moderate wildlife habitat and vegetative diversity.	Wetland datasheet, P85, P86	SC-7, SC-11
W557	PEM	WS87	106.757	0.3332		42.403866	-79.240858	644765.178155	4696117.535900	W557 is a large PEM wetland in a forested area. Inflow is from up-gradient field runoff and groundwater. Outflow to north outside of the corridor to unnamed tributary to Ball Gulf. W557 continues north outside the corridor and is a mapped NWI wetland. Surrounding area is farm fields. Most of the area is not in a forest. Diversity is moderate. There are more vegetative species not near soil pit. Wildlife value is moderate. Evidence of a raccoon population was observed. W557 value is high because of size and NWI status. Landowner stays ducks and deer are often present.	Wetland datasheet, P715	SC-11, SC-12

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
Northeast Cluster											
Access Road Group 10 (Turbines 27A, 28R, 27)											
W531	PEM/PSS	WS99	214.998	0.3458	42.407186	-79.207407	647510.327074	4696543.741170	W531 is a moderate to large PEM/PSS wetland. Water inflow is from up-gradient (east-sloping hillside) runoff. Water outflow is to the southeast via drains D531 and D531a. Outflow is into groundwater, and there is no ponded water or evident outflow. However, there is a mapped stream on the other side of Creek Road, approximately 75 feet away. Wetland W531 is a low value wetland with moderate vegetative diversity.	Wetland datasheet, P606	NE-1
W532	PEM/PSS	WS99	214.998	0.1300	42.407835	-79.210497	647254.514441	4696610.450400	W532 is a small PEM/PSS wetland in an active pasture. There is a forest on the south, east, and west sides. Approximately 40% of the wetland is a <i>Rosa multiflora</i> hedge. There is an inundated area within W532 that turns into D532, which flows southwest via discrete and confined surface flow directly into an unnamed stream located outside the survey corridor. W532 is of moderate value, with low to moderate wildlife habitat value and low vegetative diversity.	Wetland datasheet, P607	NE-1
W533	PEM/PSS	WS99	214.998	0.2449	42.408143	-79.211523	647169.330983	4696642.800010	W533 is a moderately sized PEM/PSS wetland located in an active cow/horse pasture. The surrounding area is primarily cow pasture, but there is <i>Tsuga canadensis</i> and <i>Acer saccharum</i> forest to the southwest. W533 is in a slightly depressional area, and is located partially on 20° slopes. Water inflow is from up-gradient areas and a spring. Water outflow is discrete and confined surface flow into drains. This wetland is not flagged and extends outside the survey corridor. Diversity is high; wildlife value is moderate.	Wetland datasheet, P608, P609	NE-1, NE-2
W534	PEM/PSS	WS77	215.500	0.0807	42.408530	-79.212451	647092.054961	4696684.179210	W534 is a small PEM/PSS wetland located in a depressional area. The wetland is a PEM/PSS with trees on the surrounding edges, leading uphill to a pasture on the south, east, and west. Outside the corridor to the north is a forested area that the wetland flows into. Water inflow is from an underground seep. Water drains via confined surface flow to the north (outside the survey corridor). Wetland W534 has low to moderate vegetative diversity and wildlife habitat value.	Wetland datasheet, P610	NE-1, NE-2
W535	PEM	WS99	214.998	0.1023	42.407610	-79.215129	646873.888614	4696577.450080	W535 is a small PEM wetland located in a depression in a field. Water inflow is from up-gradient hillsides to the east and west, and outflow is to the south via discrete and confined surface flow to stream S536. W535 is of low value, with low to moderate wildlife habitat value and moderate vegetative diversity.	Wetland datasheet, P611	NE-2, NE-4
W544	PEM	WS86	294.395	0.0076	42.408434	-79.219691	646496.542586	4696660.973870	W544 is a very small PEM wetland in an old road. It is located in a depressional area, with surrounding 5-degree slopes. The surrounding area is a forest of <i>Acer saccharum</i> , <i>Tsuga canadensis</i> , and <i>Fagus grandifolia</i> . There is no water outflow from wetland W544. Vegetative diversity is low, and wildlife habitat value is very low.	Wetland datasheet, P650	NE-3
PO1519	Pond	WS86	294.395	0.0125	42.408424	-79.219614	646502.842504	4696660.088690	PO1519 is a small inundated area of an old road. Water depths are up to 12". There is no associated wetland.	P651	NE-3

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W543a	PEM/PSS	294.395	0.0306		42.407948	-79.219803	646488.436588	4696606.855240	W543a is moderately sized, isolated PEM/PSS wetland surrounding by a <i>Tsuga canadensis</i> , <i>Fagus grandifolia</i> , and <i>Acer saccharum</i> forest. The wetland is located in a depression area with surrounding slopes of up to 20°. Water inflow is from up-gradient areas. Water outflow is via drain D543 to wetland W543, and there is no outflow beyond wetland W543. Vegetative diversity and wildlife habitat value are moderate.	Wetland datasheet, P644, P645	NE-3
W543	PEM/PSS	215.500	0.0795		42.407788	-79.219030	646552.408473	4696590.460330	W543 is a small, isolated, inundated depressional PEM/PSS wetland in a <i>Tsuga canadensis</i> and <i>Fagus grandifolia</i> forest. Inflow is from up-gradient slopes of 15° and from W543a via D543. There is no apparent outflow. Vegetative diversity is low and wildlife habitat value is moderate. There are some tadpoles in the water of inundated areas.	Wetland datasheet, P643	NE-3
W542	PEM	215.500	0.0101		42.407851	-79.218616	646586.341982	4696598.181100	W542 is a small isolated PEM wetland in logging runs/part of an old road in a forested area. There is no inflow or outflow. There is inundation within logging runs. The wetland has low vegetative diversity and low to moderate wildlife habitat value due to surrounding area.	Wetland datasheet, P642	NE-3
W536	PEM	214.998	0.4265		42.406866	-79.215874	646814.269366	4696493.462480	W536 is a large PEM wetland associated with the headwaters of stream S536. The waters of stream S536 flow to the northeast. Wetland W536 is a depressional wetland located between two up-gradient edges. Water inflow is from the up-gradient land, and water outflow is to the northeast via discrete and confined surface flow to stream S536. Wetland W536 has moderate to high wildlife habitat value and moderate to high vegetative diversity. The wetland continues out of the corridor at the north and southeast ends.	Wetland datasheet, P612, P613	NW-2, NE-4
W530	PEM	42.822	0.2108		42.404628	-79.213661	647001.587624	4696248.794710	W530 is a large PEM wetland in a forested area of <i>Fraxinus pennsylvanica</i> , <i>Acer saccharum</i> , <i>Fagus grandifolia</i> , and <i>Tsuga canadensis</i> . The wetland is characterized by pit and mound topography. Water inflow is from up-gradient areas. Outflow is discrete and confined surface flow to the southeast to S530, which flows out of the corridor into a saturated/inundated logging road, and then continues into a larger stream. The stream runs almost the entire length of the wetland. Wetland W530 is of moderate to high value with moderate to high wildlife habitat value and moderate to high vegetative diversity. Many frogs, toads and dragonflies were observed throughout the wetland.	Wetland datasheet, P618, P619	NE-2, NE-4
W546	PEM	42.822	0.0075		42.405054	-79.215298	646865.889998	4696293.272670	W546 is a moderately size PEM wetland within a forested area. Water inflow is from an up-gradient slope to the north and from a small seep. Outflow is discrete and confined surface flow to the south via drain D546 into stream S1513 outside the survey corridor. Most of the wetland is on a slope of about 35°. The wetland is of low to moderate value, with low vegetative diversity and low to moderate wildlife habitat value due to surrounding forest.	Wetland datasheet, P653, P654	NE-4

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W558	PEM	147.066	0.6695		42.413518	-79.235897	645151.216422	4697197.742420	W558 is a moderately sized linear depressional PEM wetland in a forested area. There are two areas mapped that are connected by a roadside ditch on the east side of Center Road. Inflow is from up-gradient areas to the west and north. Outflow is to the south via the roadside ditch. Topographic mapping indicates flow to an unnamed tributary to Walnut Creek. W558 has moderate vegetative diversity. It is of low quality due to its close proximity to Center Road.	Wetland datasheet, P716	NE-5, NW-1
PO1001	Pond	294.395	0.0638		42.414519	-79.234846	645235.363819	4697310.653100			NE-5
PO1002	Pond	294.395	0.0026		42.414305	-79.234080	645298.905127	4697288.274230			NE-5
W559	PEM	294.395	0.0355		42.412180	-79.231534	645513.315996	4697056.580130	W559 is a small PEM wetland between forested area of <i>Acer saccharum</i> and an open area. There is a road in the middle of the W559. Inflow is from up-gradient areas. There is no visible outflow. Diversity is moderate with <i>Fraxinus pennsylvanica</i> , <i>Solidago rigosa</i> , and <i>Juncus effluvis</i> present but not next to the data point. Wildlife value is moderate because of numerous frogs in the inundated area. Wetland value is low to moderate due to size and wildlife.	Wetland datasheet, P717	NE-5, NE-6
W537	PEM/PSS/PFO	147.066	0.2174		42.410697	-79.236000	645149.208551	4696884.277540	W537 is a PEM/PSS/PFO wetland associated with an old road. Water inflow is from up-gradient areas. Associated drains D537 and D537a are from a roadside ditch and continue through the wetland, leading outside the survey corridor. There are inundated depressional areas in the wetland. Wetland W537 is a high value wetland, with high wildlife habitat value and vegetative diversity.	Wetland datasheet, P627, P628	NE-6
W539	PEM	294.395	0.0782		42.410993	-79.228938	645729.654454	4696929.207670	W539 is a small PEM wetland in a hardwood forest (<i>Acer saccharum</i>). The surrounding area has slopes of up to 35°. Water inflow is from up-gradient runoff, and outflow is into a larger wetland located outside the survey corridor. Vegetative diversity is moderate. Wildlife habitat value is low.	Wetland datasheet, P635, P636	NE-6
W108	PEM	294.395	0.1422		42.410296	-79.228390	645776.334694	4696852.811110	W108 is a moderately sized PEM wetland in a forest, comprised of two polygons connected by D108a, which drains southeast. Inflow is via discrete runoff from the west. Outflow is to the northeast via D108 to W109, and to the southeast via discrete and confined runoff to S548. W108 exhibits low vegetative diversity and moderate wildlife habitat.	Wetland datasheet, P359, P360	NE-6
W538	PEM	294.395	0.2311		42.410868	-79.227906	645814.897163	4696917.129610	The surveyed area is a small portion of a larger wetland located outside of the survey corridor. W538 is a small PEM partially on a 15° slope within a forest of <i>Acer saccharum</i> , <i>Carpinus caroliniana</i> , and <i>Prunus serotina</i> . Water inflow is from up-gradient areas, and outflow is to a large wetland to the north. Vegetative diversity is moderate, and wildlife habitat value is low.	Wetland datasheet, P628, P633, P634	NE-6, NE-7
W109	PEM/PSS/PFO	294.395	0.2488		42.410302	-79.227202	645874.145247	4696855.515210	W109 is a moderately sized PEM/PSS/PFO wetland. There is a large depressional area of inundation in northern portion of W109. Inflow is via D108a from the northwest. Outflow is discrete and confined surface flow via D109 flowing northeast, ending about 100 ft from W109. There is also outflow via D109a flowing east into a wetland outside of survey corridor. Based on topographic review, W109 drains southeast to S548 or one of its tributaries outside of the survey corridor. W109 exhibits moderate vegetative diversity and moderate wildlife value.	Wetland datasheet, P364, P365	NE-6, NE-7

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Eastings ¹	Northings ¹	Additional Comments	Documentation	Appendix F Map Frame
W110	PEM/PSS/ PFO	WS86	294.395	0.0737		42.410300	-79.226320	645946.704520	4696856.804280	W110 is a moderately sized PEM/PSS/PFO wetland that is dominated by hydrophytic vegetation, with upland species interspersed. W110 slopes to the southeast with inflow from northwest via discrete runoff and outflow via discrete and confined runoff to the southeast. Some areas of inundation occur in depressions. W110 occurs in a large, sloping <i>Acer rubrum</i> swamp area, but due to the prevalence of upland vegetation intermixed with wetland vegetation in many places, only a portion of this area was flagged as wetland. W110 drains to W111 and then to W112, ultimately reaching S548 to the east, and then to Walnut Creek. The wetland exhibits moderate to high vegetative diversity and moderate wildlife value.	Wetland datasheet, P366, P367	NE-6, NE-7
W111	PEM	WS86	294.395	0.0740		42.410117	-79.225550	646010.478400	4696837.763000	W111 is a small PEM logging road wetland in heavily logged, open forest. The wetland receives channelized inflow from W110 via D111, as well as discrete inflow from surrounding up-gradient areas to the west. Outflow is discrete and confined surface flow to D111 which flows through W111 to W112, draining east to S548, and ultimately to Walnut Creek. The wetland exhibits low vegetative diversity and low wildlife value.	Wetland datasheet, P368, P369	NE-7
W112	PEM	WS86	294.395	0.1090		42.410230	-79.225272	646033.076500	4696850.792100	W112 is a small to moderately PEM wetland within logged, open forest. The wetland receives inflow via D111 from W111 to the west and via discrete runoff over moderately east sloping topography. Outflow is discrete and confined surface flow via D112 and D112a to the east. Topography suggests W112 eventually drains to S548 to the east, and ultimately to Walnut Creek. The wetland has moderate vegetative diversity and low wildlife value.	Wetland datasheet, P370	NE-7
W549a/ 549b	PEM	WS86	294.395	0.2507		42.391331	-79.224465	646143.397912	4694753.629580	W549a is a moderately sized pit and mound PEM wetland in a forested area of <i>Ulmus americana</i> , <i>Fraxinus pennsylvanica</i> , and <i>Acer saccharum</i> . Water inflow is from up-gradient hillsides and drains. Water drains easterly via discrete and confined surface flow to multiple drains and then to stream S548. Wetland W549b is a moderate value wetland with moderate vegetative diversity and wildlife habitat value. W549a is a very small PEM wetland that drains to W548a. It has very low vegetative diversity and very low wildlife value.	Wetland datasheet, P662, P663, P661	NE-7
W548/ 548a	PEM	WS86	294.395	0.2328		42.409869	-79.223157	646207.958117	4696814.371890	W548 is a small, riparian PEM wetland located next to a stream. Inflow is from up-gradient areas and from drain D548 and stream S548. Outflow is to the south via discrete and confined surface flow to stream S548. The wetland is of moderate to high quality with high water quality and moderate wildlife habitat value. The wetland extends outside the corridor at the north and south ends. This wetland is in a logged area with many fallen trees throughout, some of which support large grapevines and stream detritus. W548a is very small and drains east into W548.	Wetland datasheet, P660, P656, P657	NE-7

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Eastings ¹	Northings ¹	Additional Comments	Documentation	Appendix F Map Frame
W547	PEM	WS86	294.395	0.0878		42.409944	-79.222349	646274.284279	4697160.631180	W547 is a large, narrow depressional PEM wetland in an open area. Surrounding areas consist of <i>Conium maculatum</i> , <i>Acer saccharum</i> , and <i>Fagus grandifolia</i> on 5° slopes. Water inflow is from up-gradient areas. Water outflow is discrete surface flow via D547 to S548. W547 has moderate vegetative diversity and moderate to low wildlife habitat value.	Wetland datasheet, P655	NE-3, NE-7
W561	PEM	WS86	294.395	0.1164		42.413063	-79.228057	645797.405483	4697160.631180	W561 is a small linear drainage PEM wetland running along drain D560a. It is surrounded by an <i>Acer saccharum</i> forest. Drains D560a and D560b run through wetland W561 and then downhill into stream S560. Inflow is runoff from up-gradient areas and drains to the west. Outflow is discrete and confined surface flow via drains to the east. Wetland W561 has moderate vegetative diversity. W561 provides storm water retention and wildlife habitat; frogs and evidence of deer and raccoons observed. W561 is a moderate quality wetland.	Wetland datasheet, P724	NE-6
W562	PEM	WS86	294.395	0.0959		42.413428	-79.228269	645779.099352	4697200.786270	W562 is a small linear drainage PEM wetland. It is surrounded by a mixed forest area of <i>Fagus grandifolia</i> and <i>Acer saccharum</i> . Inflow is from up-gradient areas to the north and west. There is no apparent outflow. However, it probably drains down a logging road to the south to stream S560. Therefore, it is considered to be adjacent with surface connection. W562 provides storm water retention, has low vegetative diversity, and is of low value due to its small size.	Wetland datasheet, P725	NE-6
W560	PEM	WS86	294.395	0.1100		42.412925	-79.226506	645925.292478	4697147.921840	W560 is a moderately sized PEM wetland along a stream and drain. The surrounding area is a hardwood forest of mostly <i>Acer saccharum</i> . Inflow is from up-gradient areas. Outflow is to the stream and drain. Diversity is moderate. Wildlife value is moderate. Wetland value of W560 is moderate because of its size and wildlife value.	Wetland datasheet, P722	NE-6, NE-7, NE-8
W563	PEM	WS77	215.500	0.0427		42.413586	-79.225858	645977.061879	4697222.451710	W563 is a small depressional PEM wetland in <i>Acer saccharum</i> and <i>Fagus grandifolia</i> forest. Inflow is from up-gradient areas. There is no visible outflow. Vegetative diversity is low. Wildlife value is low because of size and diversity.	Wetland datasheet, P730	NE-8
W564	PEM	WS86	294.395	0.0512		42.414055	-79.226408	645930.721845	4697273.585970	W564 is a small depressional PEM wetland in a mixed forest of <i>Fagus grandifolia</i> , <i>Betula alleghaniensis</i> and <i>Tsuga canadensis</i> . Inflow is from up-gradient areas. There is no visible outflow. The wetland has moderate vegetative diversity and low wildlife value. Overall wetland value is low because of its small size.	Wetland datasheet, P731	NE-6, NE-8
W565	PEM	WS77	215.500	0.4800		42.415681	-79.224535	646081.072214	4697457.404490	W565 is a medium to large PEM wetland in a forested area that extends outside of the corridor on the northwest end. It is a riparian zone along the stream in a mixed forest. Inflow is from up-gradient and seeps. Outflow is to S565 to Walnut Creek to the southeast. Diversity is moderate. Wildlife value is low to moderate; toads and deer tracks were observed. There are breaks in the wetland along the stream where there are no riparian zones. Wetland value is moderate because of size and stream.	Wetland datasheet, P743	NE-8, NE-9

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Eastings ¹	Northings ¹	Additional Comments	Documentation	Appendix F Map Frame
W94	PEM	WS77	215.500	0.1554		42.417064	-79.226698	645899.944458	4697607.272670	W94 is a small PEM within forested area. W94 is in a depressional area and abuts S93. Inflow is from northern and southern slopes and from the west via stream flow. Outflow is discrete and confined surface flow to the east/southeast to S93. W94 exhibits low vegetative diversity and low wildlife value.	Wetland datasheet, P313, P314	NE-8, NE-9
W95	PEM/PFO	WS59	94.525	0.0121		42.418045	-79.225528	645993.910238	4697718.179600	W95 is a very large linear PEM wetland with minor forest component on the west side. W95 is a depressional area surrounded by forest. Outflow is discrete and confined surface flow to the east to S96. Inflow is from surrounding forest area. W95 exhibits moderate vegetative diversity and wildlife values.	Wetland datasheet, P315, P316	NE-9
Access Road Group 13 (Turbines 34, 32, 36, 31)												
W83	PEM/PFO	WS62	99.815	0.1058		42.419253	-79.213275	646999.223017	4697873.429430	W83 is a large PEM wetland with a <i>Salix nigra</i> PFO component included near the periphery of the delineated wetland. This wetland is riparian to S83, which flows from west to east. The wetland is between a north-sloping forested area and a south-sloping field. Inflow to the wetland is from S83 and from overland sheet flow from the surrounding hillsides to the north and south. Outflow is via S83 to the east as it flows under Livermore Road. The vegetative diversity is moderate to high, with moderate wildlife value and moderate stream recharge value.	Wetland datasheet, P275, P276, P277	NE-10
W86	PEM	WS62	99.815	0.0227		42.419505	-79.215384	646825.124722	4697897.795750	W86 is a small, low value PEM wetland with low to moderate diversity on a hillside sloping to the south. At least 30% of the vegetation is upland, but the soils and hydrology are evident. The southern boundary is a <i>Rosa multiflora</i> hedge. Inflow is from overland sheet flow from the field to the north. Outflow is by overland sheet flow down the south-sloping hillside to S83.	Wetland datasheet, P284, P285	NE-10
W90	PEM/PFO	WS59	94.525	0.0689		42.420321	-79.217325	646663.488234	4697985.004040	W90 is a small to medium sized PEM/PFO riparian wetland to S90. Inflow and outflow is via S90. S90 flows through a culvert, under a logging road at the Access Road centerline. W90 is divided by the access road into two separate polygons that are hydrologically connected by S90. The wetland has moderate vegetative diversity and low wildlife value.	Wetland datasheet, P297, P298	NE-10, NE-11
W128	PEM	WS59	94.525	0.2857		42.421434	-79.218700	646547.763084	4698106.276230	W128 is a medium PEM wetland in a forest of <i>Acer saccharum</i> . Throughout W128, there are areas with very little vegetation. Most of the trees are on hummocks. Inflow is from up-gradient and groundwater. Outflow is to the southeast to D128 to an unnamed tributary to Walnut Creek. A currently unused field is on the northeast side of W128. Vegetation diversity is moderate. Wildlife value is moderate. Water retention and nutrient sink values are low to moderate. The overall wetland value of W128 is low to moderate.	Wetland datasheet, P2004, P2005	NE-11
W88	PEM	WS56	222.753	0.0477		42.421670	-79.219605	646472.764337	4698130.968110	W88 is a small PEM wetland in an <i>Acer saccharum</i> forest. There are three upland trees on hummocks in the wetland. There is low wildlife value and moderate to high vegetative value. Inflow is discrete from W87 to the south and from the surrounding north slopes. Outflow is to the north via D88 to an unnamed stream outside of the survey corridor.	Wetland datasheet, P292, P293, P294	NE-11

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W87	PEM	WS56	222.753	0.0154		42.421498	-79.219606	646473.091270	4698111.815040	W87 is a small PEM wetland in an <i>Acer saccharum</i> forest. There are low vegetative and low wildlife values. The wetland receives discrete inflow from the northern sloping forest. Outflow is discrete surface flow to the north to W88.	Wetland datasheet, P290, P291	NE-11
W123	PEM	WS59	94.525	0.0282		42.420290	-79.219679	646469.928846	4697977.537160	W123 is a small PEM wetland along a stream in a forest of <i>Acer saccharinum</i> , <i>Fagus grandifolia</i> and <i>Tsuga canadensis</i> . Inflow is from up-gradient areas. Outflow is to S123 to an unnamed tributary to Walnut Creek. Diversity is low to moderate. Wildlife value is low to moderate; the wood frog was observed. W123 is a sediment and nutrient sink. Wetland value is low to moderate because of the stream running through it and its size.	Wetland datasheet, P488, P489	NE-11
W124	PEM	WS59	94.525	0.0532		42.418986	-79.219640	646476.142183	4697832.816000	W124 is a small PEM wetland within a forest of <i>Acer saccharum</i> and <i>Fraxinus pennsylvanica</i> . Inflow is from up-gradient areas. W124 drains D124 to S123 to an unnamed tributary to Walnut Creek. W124 has a moderate value for wildlife; small amphibians were observed utilizing W124. Portions of W124 appear to hold water throughout the year. W124 provides moderate water storage and quality. W124 has low vegetation diversity. W124 is a sidehill seep. W124 is valued as low to moderate because of size, moderate water retention, and water quality.	Wetland datasheet, P491	NE-11
W125	PEM	WS59	94.525	0.0234		42.418814	-79.218944	646533.856064	4697814.965510	W125 is a small PEM wetland in a small clearing in an <i>Acer saccharum</i> forest. Diversity is low; wildlife value is low. Inflow is from up-gradient areas. There is no visible outflow. W125 has many tapped <i>Acer saccharum</i> trees. The wetland value is low because of size and lack of diversity. W125 may have some groundwater recharge and nutrient sink value.	Wetland datasheet, P492	NE-11
W99	PEM/PFO	WS62	99.815	0.1960		42.418478	-79.218261	646590.789591	4697778.775680	W99 is a medium PEM wetland with a forest component on the southwest side. W99 is within a forested area. Inflow is from the west via S98. Outflow is confined surface flow to the southeast via S99. The wetland has moderate vegetative diversity and wildlife value.	Wetland datasheet, P324, P325	NE-11
W98	PEM/PFO	WS62	99.815	0.4751		42.418129	-79.220086	646441.473050	4697736.840780	W98 is a large PEM/PFO along hillside drainage in a forested area. The wetland is divided in two places by two separate logging roads. It is very narrow and linear in places where well-defined drainage channels occur. It has a moderate to steep northeastern slope. W98 receives inflow from hillside runoff from southwest. W98 drains to the northeast via S98 and then to Walnut Creek. The wetland has low vegetative diversity and moderate wildlife value.	Wetland datasheet, P330, P331	NE-11, NE-12
W126	PEM	WS62	99.815	0.0438		42.417455	-79.218850	646544.697249	4697664.122300	W126 is a small PEM wetland in a forest of <i>Acer saccharum</i> , <i>Fagus grandifolia</i> and <i>Tsuga Canadensis</i> . Inflow is from up-gradient areas and groundwater. Outflow is to a drain outside of the corridor. Diversity and wildlife values are low. Nutrient sink and water values are very low. W126 wetland value is low because of size and above-mentioned factors.	Wetland datasheet, P497	NE-11, NE-12

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W127	PEM	WS62	99.815	0.4626		42.416873	-79.220432	646415.906866	4697596.803880	W127 is a medium to large PEM wetland along a stream. The surrounding forest is largely <i>Acer saccharum</i> and <i>Tsuga canadensis</i> . Inflow is from up-gradient areas and seeps. Outflow is to S127 to an unnamed tributary to Walnut Creek. The diversity value is low. The wildlife value is low to moderate. Water retention and water quality values are low to moderate. The nutrient sink value is low to moderate. The overall value of W127 is low to moderate.	Wetland datasheet, P2003	NE-12
W100	PEM/PFO	WS62	99.815	0.0755		42.416797	-79.221097	646361.355431	4697587.266720	W100 is small to moderate PEM/PFO hillside drainage. <i>Acer saccharum</i> occur within the wetland on its west side. W100 is very close to W98 but is separated by upland vegetation. Although W98 and W100 could be considered part of the same wetland complex, they are mapped separately for descriptive purposes. W100 consists of three separate polygons joined by D100. The western polygon narrows into D100 (flowing southeast), which widens again into the central polygon. An existing logging road separates the central polygon from the southeast polygon. D100 is culverted under this road, and continues through the southeast polygon and out if the survey corridor. The wetland has low vegetative diversity and moderate wildlife value.	Wetland datasheet, P336, P337, P338, P339	NE-12
W101	PEM/PFO	WS62	99.815	0.0904		42.416467	-79.221421	646335.454535	4697550.038910	W101 is a small PEM/PFO wetland in a forested area. The western extent contains <i>Acer saccharum</i> . The eastern extent is primarily <i>Impatiens capensis</i> . W101 receives inflow via discrete hillside runoff from the west. Outflow is discrete and confined surface flow to the east via D101 to W100, which drains to S99. The wetland has low vegetative diversity and low wildlife value.	Wetland datasheet, P340, P341	NE-12
W122	PEM	WS62	99.815	0.0368		42.415979	-79.222247	646268.682013	4697494.367700	W122 is a small PEM wetland in a depressional area in a forest of <i>Betula alleghaniensis</i> , <i>Acer rubrum</i> and <i>Tsuga canadensis</i> . Inflow is from up-gradient areas and there is no visible outflow. Diversity is moderate and wildlife value is low. Groundwater recharge is present, but wetland value is low because of size.	Wetland datasheet, P474	NE-12
W119	PEM	WS77	215.500	0.0625		42.415701	-79.223241	646187.506602	4697461.804130	W119 is a small isolated PEM wetland within a forest of <i>Tsuga canadensis</i> , <i>Fagus grandifolia</i> and <i>Acer saccharum</i> . It is presumed to be isolated due to no apparent connections. Inflow is from up-gradient areas and there is no visible outflow. W119 has very low vegetation cover (approximately 15%) with much of the ground cover comprised of duff. W119 has low water storage and groundwater recharge values. Wildlife utilization is moderate as W119 could support small amphibians. A spring peeper and evidence of deer were observed. There is no sign of long periods of inundation.	Wetland datasheet, P475	NE-8, NE-9

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W102	PEM/PFO	WS62	99.815	0.0219		42.414931	-79.219989	646456.880381	4697381.923950	W102 is a moderate to large PEM/PFO wetland. W102 is crossed by an existing logging road at the Access Road centerline. W102 is comprised of two polygons connected via D102, which flows northeast. The wetland receives inflow from hillside discrete and confined runoff. Outflow is to the east via discrete and confined runoff to an unmapped stream to the east (out of corridor). W102 is located on vast east sloping hillside, at the base of which likely contains perennial streams, as the entire surrounding forest is filled with drainages/headwater streams. The wetland has low to moderate vegetative diversity and moderate wildlife value.	Wetland datasheet, P343, P344, P345	NE-12
W103	PEM/PFO	WS71	176.939	0.3244		42.414888	-79.219037	646535.285839	4697378.808440	W103 is a large PEM in forest, with minor forest component. The wetland consists of three separate segments connected by drains D103 and D103a which flow northeast out of the survey corridor, to an additional wetland area, and then to an unmapped stream. Inflow is via discrete and confined runoff from the west. The wetland has low vegetative diversity and moderate wildlife value.	Wetland datasheet, P346, P347, P348, P349	NE-12
W121	PEM	WS77	215.500	0.0006		42.414094	-79.220423	646423.133182	4697288.253710	W121 is a small PEM wetland in a forest. Inflow is from up-gradient and from seeps. Outflow is to an unnamed tributary (S120) to Walnut Creek. Diversity and wildlife values are low. Wetland value is low because of its size and lack of recharge or sediment retention.	Wetland datasheet, P469	NE-12
Access Road Group 15 (Turbines 39A, 39R)												
W82	PEM	WS49	177.776	0.5475		42.425851	-79.220319	646404.341000	4698593.946000	W82 is a large sized PEM wetland within the forest, with inflow from drainage from the northwest. There are low vegetative and wildlife values. Outflow is discrete and confined surface flow to D82.	Wetland datasheet	NE-13, NE-14
W81	PEM	WS46	182.659	0.3938		42.428872	-79.220742	646362.489187	4698928.730640	W81 is a medium sized PEM wetland in a field surrounded by forest to the west and east. W81 drains east in discrete and confined surface flow to S81, an unnamed tributary to Walnut Creek. The wetland has moderate vegetative diversity and low wildlife value.	Wetland datasheet, P267	NE-14
W79	PEM/PFO	WS46	182.659	0.1845		42.430526	-79.221854	646267.140516	4699110.402690	W79 is a medium sized riparian PEM/PFO wetland within forest and along S78. Inflow is from S78. Outflow is discrete surface flow to the east to S78. Slopes to the west are 45° to 60°. The wetland has moderate vegetative diversity and moderate to high wildlife values.	Wetland datasheet, P258	NE-14
W78	PEM	WS46	182.659	0.0016		42.430175	-79.223630	646121.909560	4699068.423260	W78 is a small riparian PEM wetland within a forest. S78 flows through W78 from the southeast to the northwest. Outflow is discrete surface flow to S78. S78 turns at the northern portion of W78 and flows northeast. It has moderate vegetative diversity and moderate wildlife values.	Wetland datasheet, P256	NE-14, NE-15
W77	PEM	WS46	182.659	0.6466		42.430560	-79.225989	645926.970232	4699107.028890	W77 is a medium sized depressional PEM wetland in a cattle pasture. It has a drain (D77) that leads into the pasture and ends without connecting to another water body. Thus, W77 is isolated. The wetland has low to moderate vegetative diversity and low wildlife value.	Wetland datasheet	NE-15
W76	PEM	WS40	146.994	0.2309		42.431992	-79.234216	645246.859079	4699251.986650	W76 is a small PEM wetland within a cattle pasture. The wetland drains in discrete and confined surface flow to a parcel to the north. Surrounding areas consist of cattle pastures and hay fields. The wetland appears to extend into the parcel to the north but not delineated due to lack of access. W76 has low vegetative and wildlife values.	Wetland datasheet, P243	NE-17

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Eastings ¹	Northings ¹	Additional Comments	Documentation	Appendix F Map Frame
W158/ W158b	PEM	WS86	294.395	0.4292		42.415189	-79.235438	645185.153000	4697384.067100	W158 is an inundated PEM wetland adjacent to PO1004. Outflow is to PO1004 which drains to the east. Topographic mapping indicates a connection to S560. Inflow is from runoff and groundwater. W158 is inundated up to 10" in most areas. It is moderately sized and of moderate quality. It provides wildlife habitat and floodwater retention.	Wetland datasheet, P2164	NE-5
PO1004	Pond	WS86	294.395	0.4357		42.415000	-79.234000	645067.016000	4697266.590000	PO1004 is a man-made pond with a narrow (2-6') wetland fringe of <i>Typha latifolia</i> and <i>Phalaris arundinacea</i> . The pond is horseshoe in shape and the perimeter is maintained for recreational use. PO1004 is dammed and drained to the east in discrete and confined surface flow to an unnamed tributary to Walnut Creek. Inflow is from W158.	P2162, P2163	NE-5
Laydown Yard												
No wetlands												
Northwest Cluster												
Access Road Group 18 (Turbines 40R, 41)												
W511	PSS	WS92	147.066	0.1216		42.414672	-79.237783	644993.347016	4697322.629600	W511 consists of two inundated PSS depressional areas connected by two culverts under an access road that divides the wetland. Inflow is from higher elevation fields surrounding and groundwater. Outflow is discrete and confined surface flow and overland sheet flow to drain that connects to a wetland and then to a stream (all outside of corridor). Surrounding area is mowed fields with hardwood forest 50'-200' away. The wetland has high vegetative diversity and moderate to high wildlife value. Tadpoles and fawn were spotted along with multiple birds nesting. Rain occurred in the 24 hours prior to observation.	Wetland datasheet, P565, P566	NW-1
W512a/ 514/516 (W512a)	PEM/PSS	WS78	195.896	1.6848		42.414988	-79.242369	644615.275112	4697349.862850	W512a is a moderately sized PEM wetland partially in a hardwood forest. Surrounding areas include hardwood forest to the north, northwest, and northeast and un-mowed field to south, southwest, and southeast. Inflow is from a drain. Outflow is discrete and confined surface flow to D512 that flows to the south. The wetland has moderate vegetative diversity and moderate wildlife value. Some small PEM depressions in the field are connected. There is flowing water in drain and wetland. There has been rain in previous 24 hours. Additional field surveys connected W512a to W514 and W516. The acreage provided is their combined area.	Wetland datasheet, P574	NW-1, NW-2
W512a/ 514/516 (W514)	PEM/PSS	WS78	195.896	See above		42.415170	-79.240049	644805.774178	4697374.029410	W514 is moderate to large PSS/PEM wetland. Inflow is from up-gradient areas and groundwater. There is no visible outflow. Surrounding areas include hardwood forest to the north, east, and west and yard and forest to south. There is a trash pile abutting the wetland to the south. The wetland has moderate vegetative diversity and wildlife value. Additional field surveys connected W512a to W514 and W516. The acreage provided for W512a is their combined area.	Wetland datasheet, P577, P578	NW-1, NW-2

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W512a/514/516 (W516)	PEM	WS78	195.896	See above		42.414893	-79.241631	644676.209253	4697340.594700	W516 is a moderately sized PEM wetland partially in a field. The wetland joins W514 and W512a outside of corridor. Surrounding areas include hardwood forest to the north, northeast, and northwest and unmowed field to the south, southeast, and southwest. The area is partially in a depression. Inflow is from W514 to the east. Outflow is discrete and confined surface flow to W512a and into a field. The wetland has moderate vegetative diversity and wildlife value. Additional field surveys connected W512a to W514 and W516. The acreage provided for W512a is their combined area.	Wetland datasheet, P580	NW-1, NW-2
W515	PEM	WS78	195.896	0.0179		42.414720	-79.241293	644704.469578	4697321.961410	W515 is a very small depressional PEM wetland in a field. Inflow is from surrounding up-gradient fields (at 10° slope). There is no apparent outflow. The wetland has moderate vegetative diversity and low wildlife value.	Wetland datasheet, P579	NW-1
W512	PEM/PSS	WS78	195.896	0.6275		42.414586	-79.239079	644886.970874	4697310.831460	W512 consists of two depressional areas connected by a drain. The eastern portion is PEM wetland and western portion is PSS wetland. Surrounding areas include fields/yard to north and east and hardwood forest to the west and south. To the west after forest edge of PSS, there is a very large PEM that goes from forest to mapped pond in field. Pond has outflow to a stream. The field area is very wet (retains water). The wet field has <i>Juncus sp.</i> , <i>Solidago sp.</i> , <i>Viola sp.</i> , and mosses as dominant species and some <i>Phalaris arundinacea</i> . Inflow is from up-gradient surrounding areas. W512 flows west, through a field, into POS12. The wetland has moderate vegetative diversity and moderate wildlife habitat. Some frogs are present. Sampling was completed within 24 hours of rain event.	Wetland datasheet, P568, P569	NW-1, NW-2
POS12	Pond	WS78	195.896	0.4037		42.414182	-79.241870	644658.181792	4697261.258130	POS12 is in an open field and connected to W512.	P569, P567	NW-1, NW-2
W512b	PEM/PSS/PFO	WS78	195.896	0.1963		42.414064	-79.242729	644587.814325	4697246.727000	W512b is a large PEM/PSS/PFO riparian wetland along S512. The wetland is predominantly PEM. The vegetation changes throughout wetland (30% <i>Veratum viride</i> at W512b-16; 10% <i>Rumex orbiculatus</i> at W512b-17). Hawthorn is present on banks towards west end of the wetland. The wetland originates at drain from POS12 and continues to flow west. Inflow is from pond, seeps, assorted drains, and runoff from hillsides. Surrounding areas include unmowed field to the north, east, and south and hardwood forest to the west. The wetland has high vegetative diversity and moderate wildlife value. Some tadpoles were observed in pools.	Wetland datasheet, P575	NW-2
W517	PEM	WS78	195.896	0.0731		42.414622	-79.242404	644613.238301	4697309.246960	W517 is a small PEM depressional wetland in a field. It does not appear to hold water for much of the year. Surrounding area is 15° slope in a fallow agricultural field. Inflow is from up-gradient area. There is no apparent outflow. The wetland has moderate vegetative diversity and low wildlife value.	Wetland datasheet, P581	NW-2

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Eastings ¹	Northings ¹	Additional Comments	Documentation	Appendix F Map Frame
W518	PEM	WS78	195.896	0.0408		42.414774	-79.243038	644560.759093	4697324.981830	W518 is a small PEM wetland in slight depressional area in a field. Surrounding areas include hardwood forest to the north and un-mowed field to the east, south, and west. There is some partially plowed area to the south. Inflow is from slight up-gradient areas. There is no apparent outflow. The wetland has high vegetative diversity and low wildlife value.	Wetland datasheet, P582	NW-2
W519	PEM	WS78	195.896	0.1480		42.414872	-79.243412	644529.745900	4697335.220500	W519 is a PEM wetland in a depression in an agricultural field that was recently filled. Surrounding areas include hardwood forest to the north and west. S512 lies to the south. S512 is not associated with this wetland. Inflow is from up-gradient surrounding areas. W519 does not have any apparent outflow. The wetland has moderate to high vegetative diversity and low wildlife value. Area is very rutted with many ruts full of standing water (up to 4").	Wetland datasheet, P583	NW-2
W130	PEM	WS78	195.896	0.0214		42.415601	-79.244722	644420.299488	4697414.022220	W130 is a small to medium PEM wetland in a forest of <i>Fagus grandifolia</i> and <i>Acer saccharum</i> . W130 is slightly depressional. Inflow is from up-gradient and groundwater. Outflow is to D130 to S513 to an unnamed tributary to Ball Gulf. The southern portion of the wetland has been impacted by a four-wheeler trail. Diversity is moderate to high; toads, deer tracks, and duckweed were observed. Values for wildlife, sediment retention, and hydrologic value are moderate. The overall value of W130 is low to moderate.	Wetland datasheet, P2008	NW-2
W513	PEM	WS78	195.896	0.1153		42.414979	-79.246334	644289.118142	4697342.128460	W513 is moderately sized PEM wetland along S513. Wetland is a distance from the W512 association, resulting in a new name (W513). W513 has low vegetative diversity and moderate wildlife value (deer tracks and 2 fawns seen). Wetland is in valley with surrounding slopes at ~35°. Wetland is in a hardwood forest of primarily <i>Acer saccharum</i> . Inflow is from surrounding slopes. Outflow is discrete and confined surface flow to S513.	Wetland datasheet	NW-2, NW-3, NW-4
W513a	PEM	WS78	195.896	0.0568		42.415957	-79.246381	644282.928703	4697450.683030	W513a is a small PEM wetland in a gas line right-of-way (ROW). The area is slightly depressional with surrounding areas at 15° slope. Surrounding areas include the ROW to the northeast and southwest and a hardwood forest of <i>Acer saccharum</i> , <i>Populus tremula</i> , and <i>Prunus sp.</i> in all other directions. Inflow is from surrounding up-gradient areas. Outflow is confined surface flow to W513 and S513 via D513. The wetland has moderate vegetative diversity and low wildlife value.	Wetland datasheet, P587	NW-2, NW-4
W522	PFO	WS76	72.097	1.1526		42.416644	-79.246728	644252.864359	4697526.423580	W522 is a large PFO wetland in a hardwood forest that extends across corridor. Inflow is from surrounding areas. There is no apparent outflow. The area has very little change in elevation (~6' overall). Topography includes pits and hummocks throughout the wetland. The wetland has high vegetative diversity and moderate wildlife habitat. Toads and a snake were observed.	Wetland datasheet, P162, P163	NW-2, NW-4

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach		Area of Wetland		Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
			Drainage Area (acres)	Watershed (acres)	Corridor (acres)	Area of Pond within the Survey Corridor (acres)							
W91	PEM/PSS	WS86	294.395	46R, 50R, 52AR, 52BR, 47R, 49AR, 51R, 49	0.0966		42.418002	-79.236007	645131.840060	4697695.450720	W91 is a large, diverse PEM wetland with some <i>Salix</i> and <i>Viburnum</i> shrubs along the eastern periphery. Inflow is from a roadside culvert to the south. Outflow is confined surface flow to the northeast (to groundwater) and to the north within a roadside ditch that likely goes to Walnut or Scott Creek. Topographic map review does not clearly show a hydrologic connection. Property owner appears to be filling wetland. As a result, upland and transitional vegetation is encroaching.	Wetland datasheet, P300, P301, P302, P303	NW-5, NW-16
W54	PEM/PSS	WS63	368.574	46R, 50R, 52AR, 52BR, 47R, 49AR, 51R, 49	0.1753		42.418821	-79.236608	645080.502024	4697785.339280	W54 is a slightly depressional, small to moderately sized PEM/PSS wetland on the north side of the Access Road. Center Road borders W54 on the east. Surrounding areas include forest and yard to the south, north, and west. Inflow is from a drain. Outflow is discrete and confined surface flow to the north to a roadside ditch that leads to W46 and S46. The wetland has moderate vegetative diversity and moderate wildlife value.	Wetland datasheet, P183	NW-5, NW-16
W53	PEM	WS63	368.574	46R, 50R, 52AR, 52BR, 47R, 49AR, 51R, 49	0.1172		42.418660	-79.238392	644934.102942	4697764.461650	W53 is a moderate PEM wetland that extends out of project area. Within the corridor, the wetland is a vegetated 30-40' wide depressional swale. Surrounding areas include a logging road to the southwest and hardwood forests in all other directions. Inflow is from up-gradient (15° slope) surrounding area and a drain that flows through a culvert under the road. D53 leads from the north side of the road into W53. The wetland has high vegetative diversity and moderate to high wildlife value.	Wetland datasheet, P182	NW-5
W52	PEM/PSS/PFO	WS63	368.574	46R, 50R, 52AR, 52BR, 47R, 49AR, 51R, 49	0.6790		42.419372	-79.240443	644763.718439	4697839.978840	W52 is a moderately sized PEM/PFO/PSS wetland in depressional and valley areas. Inflow is from surrounding up-gradient areas. Outflow is discrete and confined surface flow to drains that flow to the north and then to W46. The area that is not part of gas transmission lines or a road is upland open forest. The area has been disturbed by a logging road running southeast to northwest and gas line right-of-way running southwest to northeast. Part of the gas line has fill soil but 95% <i>Phalaris arundinacea</i> growth. A culvert connects two sides of wetland where the road crosses. The wetland has high vegetative diversity and low wildlife value because it is mostly in a gas transmission line right-of-way.	Wetland datasheet, P181	NW-5, NW-6
W46	PEM/PSS/PFO	WS63	368.574	46R, 50R, 52AR, 52BR, 47R, 49AR, 51R, 49	1.9335		42.422593	-79.242680	644572.195271	4698193.863860	W46 is a very large PEM/PSS/PFO wetland. The PFO portion is on a 10° slope. The PSS and PEM portions are on flat ground. Inflow is from up-gradient and groundwater. Outflow is discrete and confined surface flow to S46 which runs throughout the wetland. Some plants are primarily found in one part of PEM/PSS and not another. Some plant species are found throughout. The wetland has very high vegetative diversity and high wildlife value. It connects to W46a. Many frogs, some toads, and many deer tracks were observed. This wetland should be avoided. It is likely to fall under jurisdiction of the NYSDEC.	Wetland datasheet, P156, P157, P161	NW-5, NW-6

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Eastings ¹	Northings ¹	Additional Comments	Documentation	Appendix F Map Frame
W51	PEM/PSS	WS63	368.574	0.3294		42.419710	-79.241950	644638.951800	4697874.974600	W51 is a small depressional PEM/PSS wetland on the south side of an existing road. Surrounding areas include a logging road to the north and hardwood forest to the east, south, and west. Inflow is from up-gradient wooded areas. Outflow is confined surface flow to D51 which drains to W46. The wetland appears to have originally been part of W46 before a logging road was put in. The wetland has moderate vegetative diversity and low values due to size and disturbance from road.	Wetland datasheet, P180	NW-6
W136	PEM	WS63	368.574	0.0598		42.419433	-79.244001	644470.829464	4697840.768350	W136 is a small PEM wetland in an <i>Acer rubrum</i> forest. Inflow is from up-gradient. Outflow is north to W46 to an unnamed tributary (S46) to Dutch Hollow. Diversity is moderate; wildlife value is low; hydrologic value is low (groundwater recharge). Overall wetland value for W136 is low.	Wetland datasheet, P2029	NW-6
W50	PEM/PSS/PFO	WS63	368.574	0.7733		42.419776	-79.245308	644362.481290	4697876.606370	W50 is a large PEM/PSS/PFO wetland. Surrounding areas include hardwood forest to the north, south, and east and an open plowed area for logging to the northeast. The open cleared area has very saturated disturbed soils. There are some ponded areas in the PFO portion. Some reed canary grass is growing in the plowed area but most has been cleared away. A logging road passes through part of the west side of W50. Inflow is from up-gradient of 10° slope and some groundwater. Minor outflow is discrete and confined surface flow to a drain on the west side of logging road 1. The remaining area has no outflow. The wetland has moderate to high vegetative diversity and moderate wildlife value. Many reptiles and amphibians were observed.	Wetland datasheet, P172, P173, P174	NW-6
W135	PFO	WS63	368.574	0.3581		42.418792	-79.244922	644396.507927	4697767.941750	W135 is a small to medium PFO wetland near the meteorological tower location. W135 has some small pits and mounds. The surrounding area is an <i>Acer rubrum</i> forest. Inflow is from up-gradient. Outflow is to the northwest to D135 to W50 to S55 to an unnamed tributary to Dutch Hollow. W135 has moderate plant diversity and acts as a water retention and nutrient sink for water draining off surrounding uplands. Wildlife utilization value is moderate.	Wetland datasheet, P2028	NW-6
W131	PSS	WS67	113.172	0.2715		42.417538	-79.246687	644254.203177	4697625.711890	W131 is a medium PSS wetland in a depressional area. Outflow is via D131 to W49. W131 has moderate values due to shrub succession, providing wildlife habitat for amphibians, birds, and small mammals. W131 acts as a nutrient sink with water storage. Overall, W131 has a moderate value.	Wetland datasheet, P2017	NW-4, NW-6
W137	PEM	WS63	368.574	0.2738		42.422091	-79.250129	643960.541217	4698125.441500	W137 is a small to medium PEM wetland along streams in a forest of <i>Acer saccharum</i> and <i>Tsuga canadensis</i> . Forest road divides parts of W137. Inflow is from up-gradient. Outflow is to S60 and S137 to an unnamed tributary to Dutch Hollow. Plant diversity and wildlife values are low to moderate. Hydrologic value is moderate (nutrient sink, water quality). Overall wetland value is low to moderate.	Wetland datasheet, P2040	NW-7

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W58	PEM	WS63	368.574	0.0483		42.421337	-79.251305	643865.539554	4698039.685160	W58 is a small depressional PEM wetland alongside D58 in a hardwood forest (<i>Fagus grandifolia</i> , <i>Acer saccharum</i> , and some small <i>Tsuga canadensis</i>). Wetland was probably created by downed logs in D58 pooling the water. The wetland is in a valley with slopes ranging from 15° to 30°. Inflow is from up-gradient areas and a few small seeps. Outflow is confined surface flow in a drain to S59. Water flowing in the drain is slow moving due to partial damming by logs. The wetland has moderate vegetative diversity, low to moderate wildlife value, and moderate water retreatment value.	Wetland datasheet, P193	NW-7
W60	PEM	WS63	368.574	0.2351		42.422053	-79.251638	643836.524500	4698118.659600	W60 is a moderately sized riparian PEM wetland alongside S60 in a mixed forest comprised of <i>Tsuga canadensis</i> , <i>Betula alleghaniensis</i> , <i>Fagus grandifolia</i> , and <i>Acer saccharum</i> . The area exhibits pit and mound topography. Slope of the surrounding upland area is 30° to 50°. Inflow is from up-gradient areas and seeps. Outflow is discrete and confined surface flow and overland sheet flow to drains and stream. The wetland has high vegetative diversity and moderate wildlife value. It also has moderate to high quality due to direct connection with S60.	Wetland datasheet, P199	NW-7, NW-8
W138	PEM	WS63	368.574	0.2359		42.423232	-79.251627	643834.692360	4698249.615120	W138 is a medium PEM wetland in a forest that extends outside the corridor. Surrounding area is dominated by <i>Tsuga canadensis</i> . Inflow is from up-gradient. Outflow is to an unnamed tributary (S60) to Dutch Hollow. Plant diversity is moderate. Wildlife value is low to moderate. Hydrologic value is moderate to high (nutrient sink, water quality, sediment sink). Overall wetland value is moderate.	Wetland datasheet, P2045	NW-7, NW-8
W156	PEM	WS63	368.574	0.1635		42.423541	-79.251413	643851.629024	4698284.308930	W156 is a small PEM wetland in a <i>Tsuga canadensis</i> and <i>Acer saccharum</i> forest. Inflow is from up-gradient areas and groundwater. Outflow is to the north outside of the survey corridor but topographic mapping indicates connection to S60, an unnamed tributary to Dutch Hollow. Plant diversity is moderate to high. Wildlife value is moderate. Hydrologic value is moderate (sediment sink, nutrient sink, water quality). Overall wetland value is moderate.	Wetland datasheet, P2122	NW-7
W61/61a	PEM	WS63	368.574	0.1055		42.422749	-79.253498	643681.862383	4698192.763180	W61 is a small riparian PEM wetland in a <i>Tsuga canadensis</i> forest. The wetland is in a depressional area with surrounding slopes of 45°. Inflow is from groundwater and up-gradient areas. Outflow is discrete and confined surface flow to S60. The wetland has moderate vegetative diversity and low to moderate wildlife value. W61a (also PEM wetland) continues up the slope to a large partially open forest. It is 80% <i>Carex sp.</i> Logging roads go through the wetland. W61a also has small amounts of cinnamon fern at the northwestern end and more saturated soils.	Wetland datasheet	NW-8
W62	PEM	WS63	368.574	0.1171		42.422788	-79.255440	643522.035998	4698193.836610	W62 is a large depressional PEM wetland surrounded by hardwood forest. Part of wetland (~15%) has very little vegetation and only has <i>Equisetum arvense</i> , <i>Oxoclea sensibilis</i> , and <i>Carex crinita</i> . These species are also found in the majority of the wetland with the remaining species. Inflow is from a drain to the north and up-gradient runoff. Outflow is confined surface flow to drain that flows south to S60. The wetland has very high vegetative diversity and moderate to high wildlife value.	Wetland datasheet, P205	NW-8

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W63	PEM/PFO	WS63	368.574	0.1005		42.424019	-79.255569	643508.570515	4698330.386670	W63 is a small depressional PEM/PFO wetland in a mixed forest of <i>Tsuga canadensis</i> and <i>Acer rubrum</i> . Surrounding slopes are 30°. Inflow is from groundwater and up-gradient areas. Outflow is discrete and confined surface flow to the south via D62a into W62. The wetland continues out of the survey corridor. The wetland has moderate vegetative diversity and low to moderate wildlife value.	Wetland datasheet, P206	NW-8
W66	PEM	WS58	914.016	0.0460		42.425263	-79.257320	643361.717718	4698465.564600	W66 is a small linear PEM wetland with numerous upland hummocks throughout. The surrounding forest is <i>Fagus grandifolia</i> , <i>Acer saccharum</i> , and <i>Tsuga canadensis</i> . There are many fallen branches and trees in wetland. Inflow is from up-gradient (~25°) areas. There is no apparent outflow. The wetland has moderate vegetative diversity and moderate wildlife value.	Wetland datasheet, P218	NW-8, NW-9
W67	PEM	WS58	914.016	0.1807		42.426954	-79.258852	643231.838359	4698650.698590	W67 is a moderate to large PEM wetland. Approximately 50% of area is vegetated with mostly <i>Impatiens capensis</i> , <i>Oxyclea sensibilis</i> , and <i>Carex crinita</i> . The other 50% has more diverse vegetation. Inflow is from seeps, a pond at the eastern end of the wetland, and up-gradient surrounding areas. The wetland is in a hardwood forest (75% <i>Acer saccharum</i>) with a 10° to 30° slope. Outflow is confined surface flow to the north via D67. The wetland has high vegetative diversity and moderate to high wildlife value. Frogs and tadpoles were observed in the pond. Animal tracks were observed throughout the rest of the area.	Wetland datasheet, P219	NW-9
W140	PEM	WS58	914.016	0.0419		42.426654	-79.259473	643181.397902	4698616.336040	W140 is a small PEM wetland in an <i>Acer saccharum</i> forest. W140 is mostly unvegetated. Inflow is from up-gradient and seeps. Outflow is to D67 to an unnamed tributary of Dutch Hollow. Plant diversity, wildlife value and hydrologic value (water quality) is low. The overall value of W140 is low.	Wetland datasheet, P2054	NW-9
W550	PEM	WS58	914.016	0.0406		42.432337	-79.261396	643010.319104	4699244.119110	W550 is a small PEM wetland with inflow from up-gradient surface water runoff from the southwest. Outflow is to the northeast via discrete surface flow that ultimately reaches an unnamed tributary to Dutch Hollow to the northeast. The wetland is of moderate functionality and value. It provides moderate wildlife habitat and moderate groundwater recharge/discharge value.	Wetland datasheet, P671	NW-15
W551	PEM	WS58	914.016	0.0287		42.432499	-79.260595	643075.837829	4699263.433500	W551 is a small PEM wetland located in a slight depressional area of a reverting field. Inflow is from up-gradient surface water runoff. Outflow is discrete surface flow to the north to an unnamed tributary of Dutch Hollow. The wetland provides moderate wildlife habitat and moderate groundwater recharge/discharge functionality and value.	Wetland datasheet, P672	NW-15
W552	PEM	WS58	914.016	0.1151		42.432357	-79.260314	643099.268168	4699248.148620	W552 is a broad, wet swale PEM wetland. Inflow is from southern up-gradient areas via surface water runoff. Outflow is discrete surface flow to an unnamed tributary to Dutch Hollow. The wetland has low vegetative diversity. It provides moderate wildlife habitat and groundwater recharge/discharge functionality and values.	Wetland datasheet, P673	NW-10, NW-15

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W64	PEM	W558	914.016	0.2921		42.427916	-79.256014	643463.108861	4698762.260260	W64 is a small to moderately sized depressional PEM wetland within a forested area. It originates in a depressional area in a <i>Tsuga canadensis</i> forest (slopes up to 30°) then flows west into a <i>Acer saccharum</i> forest. The area has been impacted by logging roads. Inflow is from up-gradient areas, seeps, and groundwater. Drainage is discrete and confined surface flow to the west to S27 via D64. Part of wetland is on a 20° slope. The wetland has moderate vegetative diversity and low to moderate wildlife value due to impacts from logging road.	Wetland datasheet, P210	NW-9, NW-10, NW-11
W28	PEM	W558	914.016	0.1163		42.428708	-79.254086	643619.884254	4698853.463480	W28 is a medium sized, depressional, side-slope PEM wetland abutting S27. W28 also drains in discrete and confine surface flow to S27 by D28 to the north. D28 is an old farm road. S27 is an unnamed tributary to Dutch Hollow. The wetland has low value/function due to impacts from cattle grazing. There is standing water in cattle impact areas.	Wetland datasheet, P121	NW-10, NW-11, NW-12
W139	PEM	W558	914.016	0.2011		42.425674	-79.255172	643537.514533	4698514.746680	W139 is a medium PEM wetland that extends outside of the corridor. Surrounding area is a forest of <i>Tsuga canadensis</i> , <i>Betula alleghaniensis</i> and <i>Acer rubrum</i> . Inflow is from up-gradient areas. Outflow is to an unnamed tributary (S65) to Dutch Hollow. Plant diversity is low to moderate. Wildlife value is low to moderate; green frogs and dusky salamander observed. Hydrologic value is moderate (sediment sink, nutrient sink, water quality). Overall wetland value is moderate.	Wetland datasheet, P2059	NW-8, NW-11
W157	PEM/PFO	W558	914.016	0.5778		42.424662	-79.254214	643618.576200	4698403.976700	W157 is a linear PEM wetland in a forest draining to the east. To the east, W157 becomes a PFO. Vegetation diversity is moderate to high. W157 has moderate value for hydrology through pre-treatment. There is moderately valued habitat for amphibians, small mammals and birds. W157 has a four-wheeler trail crossing near the data point.	Wetland datasheet, P2131	NW-8
W142	PEM	W558	914.016	0.1435		42.427524	-79.254544	643584.898702	4698721.259420	W142 is a small to medium PEM wetland in a forested area. W142 is depressional. Surrounding area is a forest of <i>Tsuga canadensis</i> , <i>Acer saccharum</i> and <i>Fraxinus pennsylvanica</i> . Inflow is from up-gradient areas. Outflow is to D142 which drains west to an unnamed tributary (S28) to Dutch Hollow. Plant diversity is low to moderate. Wildlife value is low. Hydrologic value is low to moderate (water quality, sediment sink). Overall value of W142 is low to moderate based on disturbance due to logging and size.	Wetland datasheet, P2058	NW-11, NW-12
W141	PEM	W558	914.016	0.1125		42.427664	-79.253836	643642.859630	4698738.004800	W141 is a small to medium depressional PEM wetland in a valley. The surrounding area is a forest of <i>Acer saccharum</i> and <i>Tsuga canadensis</i> . There are cut trees in area and some fallen trees within W141. Inflow is from up-gradient areas. Outflow is to S141 to W28 to an unnamed tributary (S27) to Dutch Hollow. Diversity is moderate. Wildlife value is low to moderate. Hydrologic value is moderate (water quality, sediment sink, nutrient sink). W141 has been impacted at southern end by an existing road. The overall wetland value for W141 is moderate.	Wetland datasheet, P2055	NW-11, NW-12
W147	PEM	W558	914.016	0.2862		42.428875	-79.252512	643748.998851	4698874.721560	W147 is a small PEM wetland in a deeply trampled cow pasture. Inflow is from up-gradient. Outflow is to S27 seasonally via overland sheet flow and groundwater. Plant diversity is high. Wildlife value is low. Hydrologic value is low (groundwater recharge, nutrient sink for cow pasture). Overall value of W147 is low due to cattle impact.	Wetland datasheet, P2076	NW-11, NW-12

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland within the Survey Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W143	PEM	WSS8	914.016	0.0788		42.427900	-79.251066	643870.186968	4698768.889580	W143 is a small to medium depositional PEM wetland in a valley surrounded by a forest of <i>Tsuga canadensis</i> and <i>Acer rubrum</i> . The surrounding area has been logged, and there are many cut trees in W143. Inflow is from up-gradient areas. Outflow is west to an unnamed tributary (S27) to Dutch Hollow. Plant diversity is moderate to high. Wildlife value is moderate (green frogs observed). Hydrologic value is moderate (sediment sink, nutrient sink, water quality). Overall value of W143 is moderate.	Wetland datasheet, P2064	NW-11, NW-12
W42	PEM	WS42	140.076	0.4823		42.427809	-79.249173	644026.110748	4698761.989850	W42 is small PEM wetland that drains to the northeast. The area is depositional with up to 20° slopes surrounding. The wetland continues outside of survey corridor into a moderately sized wetland. The surrounding area is open forest with red maple, <i>Acer saccharum</i> , <i>Tsuga canadensis</i> , and <i>Rubus</i> species. Inflow is from up-gradient surrounding areas. Outflow is discrete and confined surface flow to a drain to the north. Topographic mapping indicates flow into an unnamed tributary to Scott Creek. The wetland has moderate vegetative diversity, appears to be inundated most of the year, and is probably utilized by wildlife.	Wetland datasheet, P151	NW-12, NW-13
W144	PEM	WS42	140.076	0.3872		42.427398	-79.246853	644217.893336	4698720.312700	W144 is a medium PEM wetland in a valley in a forest of <i>Tsuga canadensis</i> and <i>Acer saccharum</i> . Inflow is from up-gradient areas. Outflow is to an unnamed tributary (S41) to Scott Creek. Plant diversity is moderate to high. Wildlife value and hydrologic value (water storage and water quality) are moderate. The overall wetland quality of W144 is moderate. Little logging has occurred in area. There are a few fallen trees in the wetland.	Wetland datasheet, P144	NW-13
W41	PEM	WSS8	914.016	0.3074		42.427173	-79.249737	643981.188316	4698690.444950	W41 is a large PEM wetland in a depression along S41 with some impacts from logging activities. The surrounding forest is <i>Tsuga canadensis</i> , <i>Acer saccharum</i> , and <i>Fagus grandifolia</i> . Inflow is from S41, numerous seeps, and runoff from up-gradient areas. Outflow is discrete and confined surface flow to S41, an unnamed tributary to Dutch Hollow. The wetland has moderate to high vegetative diversity and high wildlife value. There was evidence of deer, salamanders, newts, and may fly larvae.	Wetland datasheet, P145, P146	NW-12, NW-13
W43	PEM	WSS8	914.016	0.1972		42.426428	-79.249329	644016.452454	4698608.423350	W43 is a small to moderate depositional PEM wetland in <i>Tsuga canadensis</i> and <i>Fagus grandifolia</i> forest. The surrounding area has up to 15° slope. Inflow is from up-gradient areas. The wetland has been disturbed by logging impacts in the northern area with many ruts and a road in the southern end. Outflow is discrete and confined surface flow to the south to W37 via D43. The wetland has low vegetative diversity and low habitat value.	Wetland datasheet, P152	NW-12, NW-13
W37	PEM	WSS8	914.016	0.0109		42.425520	-79.248911	644052.921756	4698508.249660	W37 is a large PEM wetland in a forested area with a pit and mound topography. Inflow is from D37. Outflow is overland sheet flow to the west to S27, an unnamed tributary to Dutch Hollow. The wetland has moderate value, moderate to high wildlife habitat, and moderate to high vegetative diversity.	Wetland datasheet, P136	NW-13

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W40	PEM	WS58	914.016	0.0218		42.426206	-79.247981	644127.817612	4698586.046100	W40 is a small depressional PEM wetland within forested pit and mound topography. Water inflow is from surrounding up-gradient areas and groundwater. The wetland drains in overland sheet flow to the west to W37. The wetland has low vegetative diversity, low to moderate value, and moderate wildlife habitat.	Wetland datasheet, P143	NW-13
W38	PEM	WS58	914.016	0.0286		42.425936	-79.247459	644171.397367	4698556.976000	W38 is a small moderate value inundated pond-like PEM wetland within a forest. There is a small pool in the middle with 6-10" of water. Water inflow is off surrounding up-gradient land. The wetland has moderate wildlife habitat and low vegetative diversity.	Wetland datasheet, P141	NW-13
W39	PEM	WS58	914.016	0.0550		42.425904	-79.246937	644214.400496	4698554.255970	W39 is a small moderate value inundated depressional PEM wetland within forested pit and mound topography. Water inflow is from surrounding up-gradient land. There is no apparent drainage. The wetland has moderate wildlife habitat and low vegetative diversity.	Wetland datasheet, P142	NW-13
W146	PEM	WS43	168.944	0.1784		42.427475	-79.245367	644339.993702	4698731.431740	W146 is a small to medium PEM wetland in a valley of a forest of <i>Acer saccharum</i> and <i>Tsuga canadensis</i> . Inflow is from up-gradient. There is no visible outflow. Plant diversity is low. Wildlife value is low to moderate. Hydrologic value is low to moderate (sediment sink, nutrient sink, groundwater recharge). W146 has been impacted by logging activities. Overall value of W146 is low to moderate.	Wetland datasheet, P2075	NW-13
W145	PEM	WS43	168.944	0.0649		42.427802	-79.244400	644418.804129	4698769.312530	W145 is a small PEM wetland in a forest of <i>Acer saccharum</i> and <i>Tsuga canadensis</i> . Inflow is from up-gradient areas and groundwater. Outflow is to the northeast to D145 to a stream outside the corridor that is an unnamed tributary to Scott Creek. Plant diversity is moderate to high. Wildlife value is low. Hydrologic value is low (water quality). Due to its small size and the aforementioned values, the overall value of W145 is low.	Wetland datasheet, P2074	NW-13
W23	PEM	WS42	140.076	0.8179		42.429352	-79.251316	643846.268774	4698929.685720	W23 is a large side slope PEM wetland in a cow pasture. Drainage is discrete and confined surface flow to the north to D23 which ultimately flows into an unnamed tributary to Scott Creek. Inflow is from woods to the south and the pasture. The wetland has low qualities all around due to impacts from cattle grazing. It has low vegetative diversity due to planted pasture grasses.	Wetland datasheet, P113, P114	NW-11, NW-12, NW-14
W25	PEM	WS33	165.904	0.1271		42.429589	-79.252347	643760.961075	4698954.310130	W25 is a medium sized depressional PEM wetland in a cow pasture. Inflow is from the pasture and overland sheet flow from a wetland uphill to the south (outside of corridor). Drainage is overland sheet flow to a small drain to the northeast that dissipates into field. Topographic mapping indicates drainage to an unnamed tributary to Scott Creek. The wetland has low value/function due to impacts from cattle grazing. Soil contains 4-5" rocks.	Wetland datasheet, P116	NW-11, NW-12
W24	PEM	WS33	165.904	0.0676		42.430099	-79.252291	643764.408221	4699010.997100	W24 is a small depressional PEM wetland in a cow pasture. There are no defined drains. Topography indicates flow to the west and then north in overland sheet flow to W23. W23 ultimately drains to an unnamed tributary to Scott Creek. The wetland has low quality/functionality due to small size and cattle grazing. There is standing water in areas disrupted by cattle due to heavy rain the previous day.	Wetland datasheet, P115	NW-11, NW-12

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W29	PEM	WS42	140.076	0.0842		42.431877	-79.251307	643841.227812	4699210.070080	W29 is a small PEM wetland created by a road downstream (to the north) of D23. Wetland abuts D29. Inflow is from D29. Outflow is to D29 to the north. D29 ultimately drains into an unnamed tributary to Scott Creek. The wetland has low quality and function. Trash (old tires) in W29 and D29.	Wetland datasheet, P122	NW-14
PO1000	Pond	WS42	140.076		0.2250	42.4322784	-79.251419	643829.941636	4699310.617600	PO1000 is a small man-made farm pond.	P123	NW-14
W30	PEM	WS42	140.076	0.0889		42.434828	-79.251511	643817.704600	4699537.399000	W30 is a small PEM wetland along D29 at the intersection with a roadside ditch. The wetland was created by slowing of the drain as it flows north into roadway. Outflow is to D29 to the north and on to a roadside ditch. It ultimately drains to an unnamed tributary to Scott Creek. The wetland has low value and function due to its proximity to roadway.	Wetland datasheet, P2148	NW-14
Collection Line												
W47	PEM/PFO	WS67	113.172	0.0443		42.417485	-79.249151	644051.518600	4697615.702450	W47 is a PEM/PFO wetland in depressional areas and extending over one slight ridge. Surrounding area has up to 35° slope. Surrounding areas include hardwood forest (<i>Acer saccharum</i> , <i>Prunus serotina</i>). Inflow is from up-gradient areas. Outflow is to the north to D47 to a wetland outside of the survey corridor and to D47a to W48. The wetland has high vegetative diversity and moderate wildlife value. Deer tracks were observed.	Wetland datasheet, P168	NW-4
W553	PEM	WS67	113.172	0.0570		42.418408	-79.253330	643705.642500	4697711.023500	W553 is a small PEM wetland associated with a wet depressional swale in an active hay field. W553 extends into the wooded area to the northeast. Inflow is from the northeast via surface water runoff. Outflow is to the west via the swale. The outflow appears to revert to groundwater before reaching the stream. Therefore, W553 is considered to be adjacent without surface connection. W553 has moderate vegetative diversity. W553 provides high groundwater recharge value.	Wetland datasheet	CL-1
W554	PEM	WS67	113.172	0.0521		42.417985	-79.253298	643709.243653	4697664.123950	W554 is a small PEM wetland associated with a depressional area in an active hay field. Inflow is from the east via surface water runoff. There are no apparent outflows. The outflow reverts to groundwater and the wetland is isolated. The wetland has low vegetative diversity and value. The wetland provides moderate groundwater recharge value.	Wetland datasheet, P679	CL-1
W149	PEM	WS67	113.172	0.0240		42.416727	-79.254371	643623.798808	4697522.699060	W149 is a small PEM wetland in a pasture next to a road to a campsite. Inflow is from up-gradient areas. Outflow is not visible (to groundwater). Diversity, wildlife, hydrologic (groundwater recharge) values are all low. Overall value for W149 is low.	Wetland datasheet, P2078	CL-1
PO1003	Pond	WS67	113.172		0.1149	42.416710	-79.255055	643567.521364	4697519.700910	PO1003 is in a field to the west of W149. The trees on the banks are <i>Populus deltoides</i> and <i>Salix nigra</i> . There is some aquatic vegetation growing in the pond but little to no herbaceous vegetation. There are steep slopes down from the pond on the north, west, and south sides. There is no visible outflow.	P2079	CL-1

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W150	PEM	WS83	113.172	0.1330		42.412970	-79.262081	642997.940827	4697092.412380	W150 is a small to medium PEM wetland in a forest of <i>Tsuga canadensis</i> and <i>Acer saccharum</i> . Inflow is from up-gradient areas and groundwater. Outflow is to the west of the ROW. W150 has two areas that are connected by D150. Plant diversity and wildlife value is low. Hydrologic value is low to moderate (sediment sink, nutrient sink). Overall value of W150 is low.	Wetland datasheet, P2084	CL-3
W151	PEM	WS83	236.565	0.0618		42.411964	-79.262190	642991.259614	4696980.519040	W151 is a small PEM wetland in a forest of <i>Acer saccharum</i> and <i>Tsuga canadensis</i> . Inflow is from surface runoff and groundwater seep. Outflow is to the northwest via D151. Plant diversity is moderate. Wildlife value is low to moderate. Hydrologic value is low to moderate (nutrient sink, water quality). Overall value of W151 is low to moderate.	Wetland datasheet, P2085	CL-4
W152	PEM	WS83	236.565	1.0329		42.410231	-79.264181	642831.398217	4696784.789250	W152 is a medium to large PEM wetland in a forest of <i>Acer saccharum</i> and <i>Fraxinus pennsylvanica</i> just north of Hwy. 83. Inflow is from up-gradient and groundwater. Outflow is to northwest via two drains located to the north of the Corridor. Plant diversity and wildlife values are moderate. Hydrologic value is moderate (sediment sink, nutrient sink). Overall value of W152 is moderate.	Wetland datasheet, P2090	CL-4, CL-5
W148	PEM	WS83	236.565	0.2027		42.409060	-79.265655	642712.760940	4696632.249320	W148 is a medium sized PEM wetland in a forest of <i>Gleditsia triacanthos</i> and <i>Acer saccharum</i> on Route 83. Inflow is from up-gradient areas, road runoff, and groundwater. Outflow is to roadside drain to a tributary to Dutch Hollow. Plant diversity is moderate. Wildlife value is low due to adjacent highway. Hydrologic value is moderate (sediment sink, nutrient sink); hydrology is altered by road. Overall value of W148 is low to moderate because of proximity to road.	Wetland datasheet, P2077	CL-4, CL-5
W133	PEM	WS90	80.881	0.0940		42.405958	-79.266927	642615.086477	4696305.634600	W133 is a small depressional PEM wetland in a fallow pasture. Dominant pasture species is <i>Phalaris arundinacea</i> . Inflow from up-gradient. Outflow is to S133 to Ball Gulf. Plant diversity of W133 is high. Wildlife value and hydrologic value is low. There is some sediment retention and nutrient sink. The soil data point was dug at the bottom of the depression and created the beginning of a stream. The overall wetland value is low due to agricultural uses and ditching.	Wetland datasheet, P2019	CL-5, CL-6
W134	PEM/PFO	WS134	242.477	0.7375		#####	42.404065	#####	4696088.892310	W134 is a medium PFO wetland in a forest of <i>Acer saccharum</i> , <i>Fagus grandifolia</i> and <i>Tsuga canadensis</i> . The area is depressional. Inflow is from up-gradient. Outflow is to an unnamed tributary to Ball Gulf on the south side of Ball Road. W134 has fingers. Plant diversity is moderate to high. Wildlife value is moderate (birds, red squirrel, deer tracks and wood frogs observed). Hydrologic value is moderate (water retention, nutrient sink). Overall wetland value is moderate; 24 points total.	Wetland datasheet	CL-7
W153	PEM	WS104	113.483	0.1346		42.405579	-79.290890	640643.968108	4696223.619900	W153 is a small linear PEM wetland between a corn field and pasture. Inflow is from up-gradient areas and groundwater. Outflow is to unnamed tributary to Canadaway Creek. Diversity and wildlife value are moderate. Hydrologic value is moderate (filtering of runoff from adjacent agricultural fields, nutrient sink, sediment sink). Overall value of W153 is moderate.	Wetland datasheet, P2091	CL-11

Table 5-2. Summary of Delineated Wetland Characteristics, Arkwright Summit Wind Farm

Wetland ID	Wetland Community Type	Watershed	Stream Reach Drainage Area (acres)	Area of Wetland Corridor (acres)	Area of Pond within the Survey Corridor (acres)	Latitude ¹	Longitude ¹	Easting ¹	Northing ¹	Additional Comments	Documentation	Appendix F Map Frame
W154	PSS	WS79	214.423	0.4954		42.407416	-79.295809	640235.065614	4696419.461160	W154 is a large PSS wetland in an <i>Acer saccharum</i> forest. Inflow is from up-gradient areas and groundwater. Outflow to the west is to an unnamed tributary to Dutch Hollow. Plant diversity is high. Wildlife value is moderate to high. Hydrologic value is moderate to high (sediment sink, nutrient sink, water quality). Overall wetland value is moderate to high. W154 continues west outside of corridor.	Wetland datasheet, P2092	CL-12
W155	PSS	WS79	214.423	2.0904		42.408276	-79.296349	640188.739145	4696514.081950	W155 is large PSS wetland. The surrounding area is upland forest, yards and <i>Salix sp.</i> and <i>Populus sp.</i> planted stands. W155 continues outside to the west of the corridor. Inflow is from up-gradient areas and groundwater. Outflow is to an unnamed tributary to Canadaway Creek. There are trails and roads throughout area and outflow. Plant diversity is high. Wildlife value is moderate to high because of size and food sources. Hydrologic value is moderate to high (sediment sink, nutrient sink, water quality). Area is disturbed at edge of trailer park. Overall wetland value is moderate to high.	Wetland datasheet, P2093, P2094	CL-12, CL-13

Note:

¹ Wetland coordinates refer to the datasheet location. Pond coordinates are for GPS point "1" at each pond location.

Table 5-3 Summary of Delineated Stream Characteristics, Arkwright Summit Wind Farm

Location ID	Stream Name	Bank Height (feet)	Width of Water (feet)	Bank to Bank Width (feet)	Substrate	Flow Type ¹	Flow Type	NYSDEC Classification	Connection	Watershed	Drainage Area (Acres)	Latitude ²	Longitude ²	Easting ²	Northing ²	Comments	Documentation	Appendix F Map Frame
Southeast Cluster																		
Access Road Group 1 (Turbines 2R, 3, 4)																		
SI1500	Unnamed tributary to West Branch Coneywango Creek	0-3	2-3	2-4	Gravel, silt/clay	Perennial	P-RPW	C	West Branch Coneywango Creek	WS246	179.356	42.350013	-79.182192	649721.089085	4690239.223970	SI1500 is in a deep valley in a hardwood forest. The stream may have previously been an old logging road. Water is clear. Inflow is from the north-northwest and from hillsides.	Stream datasheet, P511	SE-2
Access Road Group 2 (Turbines 5R, 90R, 91R, 92R)																		
SI1000	Unnamed tributary to West Branch Coneywango Creek	3-6+	4	30	Gravel, sand	Perennial	P-RPW	C	West Branch Coneywango Creek	WS210	116.667	42.356932	-79.189800	649078.051631	4690994.148280	SI1000 is a perennial stream located just west of Rutenbur Road.	Stream datasheet, P1, P2, P3	SE-1, SE-7
SI1000a/1000b/1000c	Unnamed tributary to West Branch Coneywango Creek	6+	1	15	Gravel, sand	Intermittent	S-RPW	D ³	West Branch Coneywango Creek	WS210	116.667	42.357438	-79.189800	649076.881570	4691050.355430	SI1000a flows southeast into SI1000 which flows northeast. Water is flowing through steep banks cut into the hillside. SI1000c and SI1000b flow into SI1000a.	Stream datasheet, P415, P416	SE-1, SE-7, SE-8
SI1	Unnamed tributary to West Branch Coneywango Creek	3-6	0	12	Gravel, sand	Ephemeral	Non-RPW	D ³	West Branch Coneywango Creek	WS210	116.667	42.356914	-79.190901	648987.426289	4690990.263070	SI1 is an ephemeral stream/drain flowing east to SI1000, an unnamed tributary to West Branch Coneywango Creek. It has a steep gully-like topography. Multiple downed trees are crossing the stream channel.	Stream datasheet, P28	SE-1, SE-7
SI1001	Unnamed tributary to West Branch Coneywango Creek	6+	3	40	Gravel, sand	Perennial	P-RPW	C	West Branch Coneywango Creek	WS240	220.288	42.351404	-79.196723	648520.918863	4690368.148360	SI1001 becomes SI1000 downstream. The stream has probably been manipulated based on the proximity to the road. There is a 15 x 100' batch of <i>Polygonum cuspidatum</i> along the east side of the bank next to the roadway.	Stream datasheet, P28	SE-4
Access Road Group 4 (Turbines 9R, 10)																		
SI13	Unnamed tributary to West Branch Coneywango Creek	0-6	2	30	Gravel, sand, silt/clay	Perennial	P-RPW	C	West Branch Coneywango Creek	WS180	377.287	42.379088	-79.199482	648228.590649	4693437.425560	SI13 is a small meandering stream flowing through and draining W13. W13 continues on the floodplain of SI13. The stream has been impacted by logging activities. It flows southeast. The stream has moderate to high hydrologic value.	Stream datasheet, P53, P54	SE-14
Access Road Group 17 (Turbines 11, 12, 14)																		
SI8	Unnamed tributary to West Branch Coneywango Creek	0-3	2	4	Gravel, sand	Intermittent	S-RPW	D ³	West Branch Coneywango Creek	WS151	297.100	42.380936	-79.211291	647252.073294	4693622.166030	SI8 is a small stream with low banks. Water is currently flowing but the stream appears to be intermittent.	Stream datasheet, P37	SE-16

Table 5-3 Summary of Delineated Stream Characteristics, Arkwright Summit Wind Farm

Location ID	Stream Name	Bank Height (feet)		Bank Width (feet)		Substrate	Flow Type ¹	Flow Type ²	NYSDEC Classification	Connection	Watershed	Stream Drainage Area (Acres)			Comments	Documentation	Appendix F Map Frame		
		Stream	Reach	Drainage	Area (Acres)							Longitude ²	Latitude ²	Easting ²				Northing ²	
SSa	Unnamed tributary to West Branch Conewango Creek	3-6	2	30	30	Gravel, sand	Intermittent	S-RPW	D ³	West Branch Conewango Creek	WS151	297.100	42.381188	-79.210953	647279.295384	4693650.689370	SSa is a small stream channel in larger banks. Water is present in pools but not flowing. The stream originates at wetlands outside of the survey corridor. SSa flows into S8.	Stream datasheet, P38	SE-16
Southeast Cluster Collection Line																			
S1503	Unnamed tributary to West Branch Conewango Creek	0-3	2-10	3-14	3-14	Gravel, silt/clay	Perennial	P-RPW	C	West Branch Conewango Creek	WS210	116.667	42.358424	-79.188041	649219.430601	4691162.902870	S1503 runs through an unused field to the south and west and a recently planted field to the north and east. Stream is mapped as an unnamed tributary to West Branch Conewango Creek. The banks are mostly gravel and cobble. There is almost no wetland vegetation. The water is clear. Wildlife value is moderate to low. There are some shrubby areas along edges but no evidence of anything else using stream. S1503 is a continuation of S1000.	Stream datasheet, P512, P513	SE-1, SE-8
S1501	Unnamed tributary to West Branch Conewango Creek	0-6	4-12	6-14	6-14	Bedrock, gravel	Perennial	P-RPW	C	West Branch Conewango Creek	WS197	263.397	42.361512	-79.189001	649133.047424	4691504.134430	S1501 runs along Cassadaga Hamlet Road in a valley between the hillside and the road. There is some litter in the stream bed. The stream moves quickly with clear water. There are some shrubby areas further downstream. Habitat value is moderate to low. There are few riparian species. The stream narrows downstream to 1.5 feet and then goes into a culvert at the intersection of Rt. 83 and Rt. 72. The stream then continues in a deep valley. The stream abuts a field instead of a forest before the road.	Stream datasheet, P514, P515	SE-8
S1006	Unnamed tributary to West Branch Conewango Creek	0-3	1	1-2	1-2	Silt/clay	Perennial	P-RPW	C	West Branch Conewango Creek	WS187	148.598	42.369029	-79.183919	649533.727571	4692347.770550	S1006 is a small stream separating two fields. It has very steep banks and lots of vegetation. The stream starts at a culvert under a road. S1006 has low vegetative diversity and low wildlife value.	Stream datasheet, P232	SE-10
S1013	Unnamed tributary to West Branch Conewango Creek	0-6	1	40	40	Gravel, sand	Intermittent	S-RPW	C	West Branch Conewango Creek	WS187	148.598	42.368848	-79.184797	649461.892952	4692326.051740	S1013 is a small stream flowing down a steep slope in a forest. It is culverted under Farrington Hollow Road. It is mapped as S1006 on the other side of the road.		

Table 5-3 Summary of Delineated Stream Characteristics, Arkwright Summit Wind Farm

Location ID	Stream Name	Bank Height (feet)	Width of Water (feet)	Bank to Bank Width (feet)	Substrate	Flow Type ¹	Flow Type	NYSDEC Classification	Connection	Watershed	Stream Reach Drainage			Comments	Documentation	Appendix F Map Frame	
											Area (Acres)	Longitude ²	Latitude ²				Eastings ²
S1007	Unnamed tributary to West Branch Conewango Creek	3-6	N/A (no flow)	12	Gravel	Intermittent	S-RPW	C	West Branch Conewango Creek	WS180	377.287	-79.184708	649462.157115	4692656.989670	S1007 is a moderate size stream flowing east under Hwy 85. Currently there is no water in the stream. Riprap has been placed along the banks. The banks are completely vegetated. S1007 has moderate vegetative diversity and low wildlife value.	Stream datasheet, P234	SE-11
South Central Cluster																	
Access Road Group 5 (Turbines 15, 18BR, 16, 18AR)																	
S118	Unnamed tributary to Walnut Creek	3-6+	3	50	Gravel	Perennial	P-RPW	AA	Walnut Creek	WS133	93.544	-79.218271	646655.730724	4694644.117160	S118 is a small meandering perennial stream. A road and fill have been placed across S118 causing water to pool upstream of the road. This feature has created W118. S118 is the same as previously surveyed S1005a.	Stream datasheet, P426	SC-2, SC-3
S69	Unnamed tributary to Walnut Creek	0-3	1-3	2-6	Gravel, silt/clay	Perennial	P-RPW	AA	Walnut Creek	WS133	93.544	-79.216869	646765.949100	4694891.748000	S69 runs through hardwood forest (<i>Acer saccharum</i> , <i>Fraxinus pennsylvanica</i>) in a valley. Water is clear and fast moving. Some seeps flow into stream. The area has moderate vegetative diversity and moderate wildlife value.	Stream datasheet, P229, P230	SC-2
S69a	Unnamed tributary to Walnut Creek	0-6	1-2	30	Gravel, sand, silt/clay	Intermittent	S-RPW	D ³	Walnut Creek	WS133	93.544	-79.217659	646702.011023	4694839.531470	S69a flows northeast into S69. It is a small intermittent stream flowing down a gentle slope.	Stream datasheet, P433	SC-2
S569	Unnamed tributary to Walnut Creek	0-6	<1	2-3	Gravel, sand, silt/clay	Perennial	P-RPW	AA	Walnut Creek	WS138	104.267	-79.224228	646174.901053	4694180.567910	S569 is a relatively straight perennial relatively permanent water that flows north out of the survey corridor into S509 and unnamed tributary to Walnut Creek. The stream has a muddy/silty bed (1 to 2 feet wide) with flowing water 1 to 2 inches deep. Habitats include cobble, leaf packs, woody debris, and some overhanging vegetation. Inflow is through a culvert to the south that drains PO569. The stream continues outside the survey corridor to the north and the south.	Stream datasheet, P746, P747	SC-3, SC-14
S1014	Unnamed tributary to Walnut Creek	0-3	2	3	Silt/clay	Ephemeral	Non-RPW	D ³	Walnut Creek	WS125	47.035	-79.222419	646311.030552	4694792.742250	S1014 is a small ephemeral stream flowing to the northeast. The water depth is less than 1 inch and appears to flow only during the wettest times of the year. There was no wildlife utilization observed.	Stream datasheet, P442	SC-4

Table 5-3 Summary of Delineated Stream Characteristics, Arkwright Summit Wind Farm

Location ID	Stream Name	Bank Height (feet)	Width of Water (feet)	Bank to Bank Width (feet)	Substrate	Flow Type ¹	Flow Type	NYSDEC Classification	Connection	Watershed	Stream Drainage			Comments	Documentation	Appendix F Map Frame		
											Area (Acres)	Latitude ²	Longitude ²				Easting ²	Northing ²
S509/S09a	Unnamed tributary to Walnut Creek	0-3	1-10	1-20	Bedrock, gravel, cobbles	Perennial	P-RPW	AA	Walnut Creek	WSI25	47.035	42.393957	-79.222635	646287.909269	4695048.576540	S509 and S509a run through a deep valley in a mixed forest. Water moves quickly. The datasheet was completed where two branches of the stream meet. There are small riparian zones within the corridor. Some forest debris is built up in small areas. Wildlife value is moderate.	Stream datasheet, P556, P555	SC-4, SC-10
Access Road Group 6 (Turbine 21)																		
S21	Clinton Brook	0-3	3	8	Gravel	Perennial	P-RPW	C(T)	Clinton Brook, Tributary to Canadaway Creek	WSI54	420.923	42.395169	-79.241390	644741.397004	4695150.792470	S21 is a perennial stream flowing to the northwest from W22 to W21. It is mapped as Clinton brook.	Stream datasheet, P105, P106	SC-5, SC-6
Access Road Group 7 (Turbines 19, 57)																		
S566	Unnamed tributary to Walnut Creek	0-3	1-2	6-8	Silt/clay	Intermittent	S-RPW	D ³	Walnut Creek	WSI21	75.161	42.396131	-79.227068	645917.999559	4695282.163900	S566 is a small stream draining from a farm pond to the northwest. The stream has been dammed to produce the pond which is probably used for drinking water for the cattle. There are cattle tracks throughout the riparian area. Wetland W566 surrounds stream S566. The stream flows southeast to a mapped but unnamed tributary to Walnut Creek. The stream was previously mapped as S509.	Stream datasheet, P736, P737	SC-9
Access Road Group 8 (Turbines 22)																		
S18	Unnamed tributary to Ball Gulf	0-3	2	6	Silt/clay	Perennial	P-RPW	C(T)	Ball Gulf, Tributary to Canadaway Creek	WSI24	231.993	42.402853	-79.239128	644909.940207	4696007.972480	S18 has a lot of algal growth which is probably from nutrient loading. W18 is a riparian wetland along S18.	Stream datasheet, P85, P86	SC-11
S18a	Unnamed tributary to Ball Gulf	0-3	4-8	4-8	Silt/clay, vegetation	Perennial	P-RPW	C(T)	Ball Gulf, Tributary to Canadaway Creek	WSI24	231.993	42.404089	-79.238184	644984.765538	4696146.815210	S18a is a perennial stream flowing through a cow pasture. The stream bed is matted down vegetative matter. It does not have a strongly defined bank due to the flat topography. S18a is a continuation of previously mapped S18. It flows north and west into Ball Gulf and then Canadaway Creek.	Stream datasheet, P455, P456	SC-11
S1002	Unnamed tributary to Ball Gulf	6+	5	75	Bedrock, gravel	Perennial	P-RPW	C(T)	Ball Gulf, Tributary to Canadaway Creek	WS87	106.757	42.406066	-79.245706	644361.181277	4696353.558940	S1002 is a perennial stream flowing west into a steep ravine.	Stream datasheet, P93, P94	SC-12, SC-13

Table 5-3 Summary of Delineated Stream Characteristics, Arkwright Summit Wind Farm

Location ID	Stream Name	Bank Height (feet)	Width of Water (feet)	Bank to Bank Width (feet)	Substrate	Flow Type ¹	Flow Type	NYSDEC Classification	Connection	Watershed	Stream Reach Drainage			Comments	Documentation	Appendix F Map Frame		
											Area (Acres)	Longitude ²	Eastings ²				Northings ²	
S1003	Unnamed tributary to Ball Gulf	0-3	4	5	Gravel	Perennial	P-RPW	C(T)	Ball Gulf, Tributary to Canadaway Creek	WSS1	72.073	42.407428	-79.247839	644182.515102	4696501.083720	S1003 is a perennial stream flowing west into S1002.	Stream datasheet, P95, P96	SC-13
Northeast Cluster																		
Access Road Group 10 (Turbines 27A, 28R, 27)																		
SS36	Unnamed tributary to Walnut Creek	6+	1-2	4	Gravel	Intermittent	S-RPW	D ³	Walnut Creek	WS99	214.998	42.407855	-79.213080	647041.893079	4696608.126540	SS36 is a small stream in valley. It flows out of W536.	Stream datasheet	NE-1, NE-2, NE-4
SS30	Unnamed tributary to Walnut Creek	0-3	1-3	4	Gravel, silt/clay	Perennial	P-RPW	C(T)	Walnut Creek	WS94	42.822	42.405222	-79.214536	646928.229273	4696313.285870	SS30 is small and runs through a mixed forest of <i>Tsuga canadensis</i> , <i>Fagus grandifolia</i> , <i>Fraxinus pennsylvanica</i> , <i>Acer saccharum</i> , and <i>Hamamelis virginiana</i> . There are many fallen trees in SS30. The surrounding area has a diverse topography characterized by many pits and mounds. There is a large riparian area, extending the full length of the stream. SS30 flows into a larger stream that is located outside the corridor. SS30 at some points flows under piles of leaves and logs for approximately 15 feet.	Stream datasheet, P620, P621	NE-4
Access Road Group 11 (Turbines 30, 30A, 33)																		
SS48	Unnamed tributary to Walnut Creek	0-3	6	7	Gravel	Perennial	P-RPW	C(T)	Walnut Creek	WS86	294.395	42.410178	-79.223357	646190.785662	4696848.322960	The waters of SS48 are fast moving and clear. The stream runs the width of the corridor with wetlands along the banks. It has been raining since the previous evening, so the stream is spread across a larger area than during normal flow.	Stream datasheet, P656, P658, P659	NE-3, NE-7
SS60	Unnamed tributary to Walnut Creek	0-3	2	20	Gravel, silt/clay	Perennial	P-RPW	C(T)	Walnut Creek	WS86	294.395	42.412843	-79.226494	645926.513968	4697138.848740	SS60 has moderately moving water that is clear. Stream is braided downstream. Drain DS60 flows into the stream near data point. Riparian zone.	Stream datasheet, P723	NE-6, NE-7, NE-8
SS65/565a	Unnamed tributary to Walnut Creek	0-6	3	30	Cobble, gravel	Perennial	P-RPW	C(T)	Walnut Creek	WS77	215.500	42.415659	-79.224483	646085.379628	4697455.051140	SS65 is the headwaters to an unnamed, mapped tributary to Walnut Creek. There is an existing logging road crossing the stream at the centerline of the proposed access road and collection line. The stream is 3 feet wide with little flow currently. There are several drains and wetlands intersecting the stream at various points along the survey corridor. Stream S565 connects to stream S93. S565a flows into S565 at the southern edge of the survey corridor. S565a is a short tributary flowing through W565.	Stream datasheet, P732, P733	NE-8, NE-9

Table 5-3 Summary of Delineated Stream Characteristics, Arkwright Summit Wind Farm

Location ID	Stream Name	Bank Height (feet)		Bank Width (feet)		Substrate	Flow Type ¹	Flow Type ²	NYSDEC Classification	Connection	Watershed	Stream Reach Drainage Area (Acres)			Comments	Documentation	Appendix F Map Frame		
		0-3	1-3	1-2	2-6							Longitude ²	Latitude ²	Easting ²				Northing ²	
S93	Unnamed tributary to Walnut Creek	0-3	1-3	1-2	2-6	Cobble, silt/clay	Intermittent	S-RPW	D ³	Walnut Creek	WS86	294.395	42.417628	-79.227668	645818.812819	4697668.255690	S93 is a forested stream that is abutted by W93 near its headwaters. S93 crosses access road centerline.	Stream datasheet, P307A, P308, P313, P314	NE-8, NE-9
Access Road Group 13 (Turbines 34, 32, 36, 31)																			
S83	Unnamed tributary to Walnut Creek	0-3	1-2	1-2	1-2	Gravel, silt/clay	Perennial	P-RPW	C(T)	Walnut Creek	WS62	99.815	42.419258	-79.213310	646996.564393	4697873.995160	S83 flows east with inflow from abutting wetland W83. Upstream of W83, S83 is forested as it flows through W85. S83 is culverted under access road centerline where it begins at Livermore Road. Stream data could not be taken at Access Road centerline due to hazardous cliff and impenetrable mass of <i>Rubus sp.</i> and <i>Rosa multiflora</i> . Data taken as close to centerline as possible.	Stream datasheet, P273, P274	NE-10
S90	Unnamed tributary to Walnut Creek	0-3	1-2	1-2	1-2	Gravel, silt/clay	Perennial	P-RPW	C	Walnut Creek	WS59	94.525	42.420143	-79.217636	646638.360762	4697964.719730	S90 is a forested stream flowing northeast, abutting W90. The access road centerline crosses at existing logging road, under which S90 is culverted.	Stream datasheet, P299	NE-10, NE-11
S123	Unnamed tributary to Walnut Creek	0-6+	4	30	30	Cobble, gravel	Perennial	P-RPW	C(T)	Walnut Creek	WS59	94.525	42.419411	-79.218754	646548.031210	4697881.538610	S123 is in a deep valley. There is very little riparian edge downstream of wetland. Water is clear and fast moving. S123 flows to Walnut Creek.	Stream datasheet, P490	NE-11
S98	Unnamed tributary to Walnut Creek	0-3	0.5-3	1-4	35	Gravel, silt/clay	Ephemeral	N-RPW	D ³	Walnut Creek	WS62	99.815	42.418067	-79.219427	646495.779275	4697731.169590	S98 is a minor stream flowing east from W98 to W99, surrounded by forested slopes to the north and south. It begins as D98, which enters the southern portion of W98, and becomes more channelized and stream-like in the northern side of W98, providing outflow from W98 and inflow to W99.	Stream datasheet, P328, P329	NE-11, NE-12
S127	Unnamed tributary to Walnut Creek	0-3	1	35	35	Silt/clay	Perennial	P-RPW	C(T)	Walnut Creek	WS62	99.815	42.416956	-79.220000	646451.256574	4697606.745720	S127 flows to unnamed tributary to Walnut Creek. S127 is a small stream with clean, slow-moving water. A wide riparian zone ends approximately 15' east of data point. S127 is in a forest of <i>Acer saccharum</i> and <i>Tsuga canadensis</i> .	Stream datasheet, P2002	NE-12
Access Road Group 15 (Turbines 39A, 39R)																			
S81	Unnamed tributary to Walnut Creek	0-3	2-4	2-4	2-4	Gravel, silt/clay	Intermittent	S-RPW	D ³	Walnut Creek	WS46	182.659	42.428999	-79.220453	646385.957106	4698943.322310	S81 is a minor stream that appears to flow to the southeast. Currently there is no perceptible flow. S81 is abutted by W81.	Stream datasheet, P266	NE-14

Table 5-3 Summary of Delineated Stream Characteristics, Arkwright Summit Wind Farm

Location ID	Stream Name	Bank Height (feet)	Width of Water (feet)	Bank to Bank Width (feet)	Substrate	Flow Type ¹	Flow Type	NYSDEC Classification	Connection	Watershed	Stream Drainage Area (Acres)	Latitude ²	Longitude ²	Easting ²	Northing ²	Comments	Documentation	Appendix F Map Frame
S1010	Unnamed tributary to Walnut Creek	0-6+	2	3-5	Gravel, silt/clay	Perennial	P-RPW	C	Walnut Creek	WS46	182.659	-79.220120	646412.252384	4698996.089210	S1010 is a minor stream flowing east with a steep right bank. Topographic maps indicate flow into S78.	Stream datasheet, P260, P261	NE-14	
S78	Unnamed tributary to Walnut Creek	0-6+	2-4	4-5	Gravel, silt/clay	Perennial	P-RPW	C	Walnut Creek	WS30	95.914	-79.223654	646119.851421	4699071.971110	S78 is a perennial stream flowing east that is mapped as an unnamed tributary to Walnut Creek.	Stream datasheet, P257, P256	NE-14, NE-15	
S1009	Unnamed tributary to Walnut Creek	3-6	2-3	4-5	Gravel, silt/clay	Intermittent	S-RPW	D ³	Walnut Creek	WS40	146.994	-79.226134	645913.132371	4699195.398990	S1009 is an intermittent stream flowing to the east. It is surrounded by pasture.	Stream datasheet, P249, P250	NE-15	
S1008	Unnamed tributary to Walnut Creek	0-3	4	6	Gravel, silt/clay	Intermittent	S-RPW	D ³	Walnut Creek	WS40	146.994	-79.231322	645485.222115	4699241.313730	S1008 is an intermittent stream flowing to the north. The stream is surrounded by pasture with 100 foot buffer of natural area.	Stream datasheet, P244	NE-16, NE-17	
Operation and Maintenance Building																		
No streams																		
Laydown Yard																		
No streams																		
Northwest Cluster																		
Access Road Group 18 (Turbines 40R, 41)																		
SS12	Ball Gulf	0-3	2-4	2-6	Bedrock, sand, silt/clay	Perennial	P-RPW	C(T)	Ball Gulf, Tributary to Canadaway Creek	WS78	195.896	-79.244092	644474.809564	4697287.049220	SS12 flows west from PO512 and has riparian zone until approximately 15' from data point. The surrounding area is at 10° incline. The area has moderate vegetative diversity and wildlife habitat. Deer tracks are present.	Stream datasheet, P575, P576	NW-2, NW-3, NW-4	
SS13	Unnamed tributary to Dutch Hollow	0-3	1-2	1-2.5	Gravel, sand, silt/clay	Perennial	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS78	195.896	-79.246377	644285.497839	4697343.081690	SS13 flows into SS12 but is named SS13 for clarity. There is a small PEM wetland associated. The streams flow from north to south. The riparian area has low vegetative diversity and low wildlife value. Some deer tracks were seen.	Stream datasheet	NW-2, NW-3, NW-4	
Access Road Group 16 (Turbines 42A, 46R, 50R, 52AR, 52BR, 47R, 49AR, 51R, 49)																		
SS5	Unnamed tributary to Dutch Hollow	0-3	1-10	2-12	Gravel	Perennial	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS63	368.574	-79.248757	644077.426440	4697932.201660	SS5 runs through a mixed forest that is being logged. There are many fallen trees and branches in stream. The stream bed is rocky. The riparian zone is mostly <i>Carex crinita</i> . The water is fast moving. The area has low to moderate wildlife value due to logging.	Stream datasheet, P184, P185	NW-7	
S137	Unnamed tributary to Dutch Hollow	0-3	3	15	Cobble, gravel	Perennial	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS63	368.574	-79.249844	643983.480956	4698150.730220	S137 intersects with S60 and flows across logging road. S137 flows to Dutch Hollow.	Stream datasheet, P2038, P2039	NW-7	

Table 5-3 Summary of Delineated Stream Characteristics, Arkwright Summit Wind Farm

Location ID	Stream Name	Bank Height (feet)	Bank Width of Water (feet)	Bank to Bank Width (feet)	Substrate	Flow Type ¹	Flow Type	NYSDEC Classification	Connection	Watershed	Stream Reach Drainage Area (Acres)				Comments	Documentation	Appendix F Map Frame	
											Latitude ²	Longitude ²	Easting ²	Northing ²				
S55a	Unnamed tributary to Dutch Hollow	0-3	3-6	6-12	Gravel, sand, silt/clay	Perennial	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS63	368.574	42.422576	-79.249584	644004.502900	4698180.285900	S55a is a perennial stream flowing southwest. It is mapped as Dutch Hollow, a tributary to Canadaway Creek.	Stream datasheet	NW-7
S60a	Unnamed tributary to Dutch Hollow	0-3	2-16	4-18	Gravel, silt/clay	Perennial	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS63	368.574	42.422137	-79.250784	643906.517300	4698129.413800	S60a is a rocky stream that flows through a mixed forest (<i>Acer saccharum</i> , <i>Tsuga canadensis</i> , and <i>Fagus grandifolia</i>). There are some built up areas around fallen trees. S60a flows into S60. The area has moderate wildlife value.	Stream datasheet	NW-7
S60	Unnamed tributary to Dutch Hollow	0-3	6-12	7-15	Gravel, silt/clay	Perennial	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS63	368.574	42.422159	-79.252069	643800.750100	4698129.762000	S60 is connected to S46 on maps. It is a moderate size stream in a mixed forest. The stream bed is rocky with sediment on the top of the rocks. Water is moving at slow to moderate speeds. W60 lies within the riparian area. The area has moderate to high wildlife value. There are pools up to 15" deep and sharper meanders are found farther upstream. Many drains flow into S60.	Stream datasheet, P200	NW-7, NW-8
S1004	Unnamed tributary to Dutch Hollow	0-3	0.5-2	3-5	Gravel, silt/clay	Intermittent	S-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS58	914.016	42.429185	-79.259703	643156.753942	4698897.013210	S1004 runs through a forest (<i>Acer saccharum</i> and <i>Crataegus</i> sp.) approximately 30' from a field. There is little water in the stream. It has steep banks and no riparian zone. The area has no vegetative diversity and low wildlife value.	Stream datasheet, P220, P221	NW-9, NW-10
S28	Unnamed tributary to Dutch Hollow	6+	1-2	7	Gravel, sand	Perennial	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS58	914.016	42.428417	-79.255161	643532.101786	4698819.350570	S28 runs through 8 ft wide swale between hillsides. Some branches and trees have fallen in the stream. S28 connects to S27. The stream flow through a forest of <i>Tsuga canadensis</i> , <i>Fagus grandifolia</i> , and <i>Acer saccharum</i> . The area has low vegetative diversity and low to moderate wildlife value.	Stream datasheet, P208, P209	NW-10, NW-11, NW-12
S65	Unnamed tributary to Dutch Hollow	6+	1-2	2-4	Sand, silt/clay	Perennial	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS58	914.016	42.427645	-79.256939	643387.596713	4698730.604060	S65 runs through a mixed forest (<i>Acer saccharum</i> , <i>Fagus grandifolia</i> , and <i>Tsuga canadensis</i>). Banks are very steep. Inflow is from seeps on hillsides. Many trees and branches have fallen into the stream. The area has low vegetative diversity and moderate wildlife value.	Stream datasheet, P211, P212	NW-9, NW-10, NW-11

Table 5-3 Summary of Delineated Stream Characteristics, Arkwright Summit Wind Farm

Location ID	Stream Name	Bank Height (feet)	Width of Water (feet)	Bank to Bank Width (feet)	Substrate	Flow Type ¹	Flow Type ²	NYSDEC Classification	Connection	Watershed	Stream Reach Drainage				Comments	Documentation	Appendix F Map Frame	
											Area (Acres)	Latitude ²	Longitude ²	Easting ²				Northing ²
S141	Unnamed tributary to Dutch Hollow	3-6+	2	14	Gravel, clay	Intermittent	S-RPW	B	Dutch Hollow, Tributary to Canadaway	WS58	914.016	42.427918	-79.254134	643617.773500	4698765.666530	Rained for previous 2 days. S141 flows from W141 to W28 in an incised channel. S141 flows through a <i>Tsuga canadensis</i> forest.	Stream datasheet, P2056, P2057	NW-11, NW-12
S27	Unnamed tributary to Dutch Hollow	0-6+	4	40	Gravel, sand	Perennial	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS58	914.016	42.428896	-79.253709	643650.507600	4698875.007600	S27 is a small stream with consistent flow moving west. The stream crosses under a farm road through a culvert at centerline. The small culvert has created wetland (W27) just upstream by limiting water flow. Water drops out of culvert in a small waterfall downstream. Riparian area has been disturbed by cattle.	Stream datasheet, P120	NW-10, NW-11, NW-12
S41	Unnamed tributary to Dutch Hollow	0-3	1-2	2-8	Silt/clay, leaf litter, plant debris, organic matter	Intermittent	S-RPW	D ³	Dutch Hollow, Tributary to Canadaway Creek	WS42	140.076	42.427095	-79.248483	644084.544201	4698683.896450	S41 is small and mostly straight. It runs through a <i>Tsuga canadensis</i> and <i>Fagus grandifolia</i> forest. A road and culvert cross at centerline. The area has low vegetative diversity and moderate wildlife value. Many trees and branches have fallen into/across the stream. There are some small seeps leading into stream close to wetland.	Stream datasheet, P144	NW-12, NW-13
Collection Line																		
S1017	Unnamed tributary to Dutch Hollow	6+	2	25	Gravel	Perennial	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS67	113.172	42.416621	-79.256387	643458.175881	4697507.414090	S1017 is full of trash and used as a dump (siding, tires, 50 gallon drums, parts of vehicles). The banks are 12-15' tall. Water cannot be seen in many places because of the trash. S1017 is in a very overgrown area. Downstream banks are 50-60' tall. S1017 flows out of an unmapped pond. Trash is not present downstream.	Stream datasheet, P2080, P2081	CL-1, CL-2
S1018	Unnamed tributary to Dutch Hollow	3-6	2	50	Cobble, silt/clay	Intermittent	S-RPW	D ³	Dutch Hollow, Tributary to Canadaway Creek	WS63	368.574	42.416646	-79.261156	643065.679794	4697502.196190	It rained intermittently for the past 3 days. S1018 forms where 2 drains meet. The banks are not steep. The drains have wetland vegetation.	Stream datasheet	CL-2, CL-3
S1019	Unnamed tributary to Dutch Hollow	6+	8	25	Cobble, gravel, sand	Perennial	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS63	368.574	42.413827	-79.262307	642977.397507	4697187.252470	S1019 is a perennial stream flowing west in a deep ravine. S1019 has murky water, most likely a result of the rain throughout the previous 3 days. There are some old 50 gallon drums present, but otherwise does not appear to be disturbed. S1019 has some moderate meanders and is then relatively straight for about 100' before it bends again.	Stream datasheet, P2082, P2083	CL-3

Table 5-3 Summary of Delineated Stream Characteristics, Arkwright Summit Wind Farm

Location ID	Stream Name	Bank Height (feet)	Width of Water (feet)	Bank to Bank Width (feet)	Substrate	Flow Type ¹	Flow Type ¹	S-RPW	NYSDEC Classification	Connection	Watershed	Stream Reach Drainage				Comments	Documentation	Appendix F Map Frame	
												Area (Acres)	Latitude ²	Longitude ²	Easting ²				Northing ²
S1020	Unnamed tributary to Dutch Hollow	6+	1	20	Cobble, gravel	Intermittent	D ³	S-RPW	D ³	Dutch Hollow, Tributary to Canadaway Creek	WS83	236.565	42.411675	-79.262319	642981.356572	4696948.206780	S1020 is in a deeply incised channel. Erosion is severe in some areas. S1020 is in a forest of <i>Tsuga canadensis</i> and <i>Fagus grandifolia</i> . S1020 flows west to S1021.	Stream datasheet, P2086, P2087	CL-4
S1021	Dutch Hollow	6+	4	45	Cobble, gravel	Perennial	B	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS83	236.565	42.411224	-79.262264	642986.888350	4696898.221370	There are many seeps entering S1021. S1021 slopes at about 100%, but not greater than 100%. Rained periodically over the previous 3 days. S1020 flows outside the corridor. S1021 is in a forest of <i>Acer saccharum</i> and <i>Betula alleghaniensis</i> .	Stream datasheet, P2088, P2089	CL-4
S133	Unnamed tributary to Ball Gulf	6+	7	50	Cobble, gravel	Perennial	C(T)	P-RPW	C(T)	Ball Gulf, Tributary to Canadaway Creek	WS90	80.881	42.405364	-79.266737	642632.052544	4696240.000630	S133 starts as a created channel outside of the forest in W133. Within the forest, S133 is a natural channel. S133 is in a valley with a riparian corridor approximately 30° adjacent to steeper slopes of the banks. The water of S133 is clear and fast-moving.	Stream datasheet, P2020, P2021	CL-5, CL-6
S1015	Unnamed tributary to Dutch Hollow	3-6	2	10	Sand, silt	Perennial	B	P-RPW	B	Dutch Hollow, Tributary to Canadaway Creek	WS97	146.755	42.402803	-79.283786	641234.832236	4695927.127320	S1015 is a small perennial stream between two fields. The stream begins in a forest outside of the corridor. There is a high amount of runoff from the field that drains into S1015.	Stream datasheet, P2024, P2025	CL-9
S1016	Unnamed tributary to Canadaway Creek	3-6	1	6	Silt/clay	Intermittent	D ³	S-RPW	D ³	Canadaway Creek	WS104	113.483	42.402826	-79.287063	640965.067769	4695924.245080	S1016 is a small intermittent stream in a field from a hedge row between two fields. S1016 is mostly overgrown. A moderate to high amount of runoff from the field goes into S1016.	Stream datasheet, P2026, P2027	CL-10, CL-11

Notes:

- ¹ Stream flow classifications are based on the following definitions:
 Perennial Relatively Permanent Water (P-RPW) - The stream flow is evident throughout the year, in most years.
 Seasonal Relatively Permanent Water (S-RPW) - The stream channel contains flowing water for at least three months but does not flow throughout the year, in most years.
 Non-RPW - The stream channel contains flowing water for less than three months of the year, in most years.
- ² Stream coordinates refer to the datasheet location.
- ³ NYCRR Chapter X states that unmapped, non-continuous flowing streams are Class D.

6

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A

Southeast Cluster

Provided separately.

Appendix not included within the Arkwright Summit Wind Farm Supplemental Environmental Impact Statement due to large number of data sheets and photos. This appendix is available from the Applicant upon request.

B

South Central Cluster

Provided separately.

Appendix not included within the Arkwright Summit Wind Farm Supplemental Environmental Impact Statement due to large number of data sheets and photos. This appendix is available from the Applicant upon request.

C

Northeast Cluster

Provided separately.

Appendix not included within the Arkwright Summit Wind Farm Supplemental Environmental Impact Statement due to large number of data sheets and photos. This appendix is available from the Applicant upon request.

D

Northwest Cluster

Provided separately.

Appendix not included within the Arkwright Summit Wind Farm Supplemental Environmental Impact Statement due to large number of data sheets and photos. This appendix is available from the Applicant upon request.

E

Collection Line

Provided separately.

Appendix not included within the Arkwright Summit Wind Farm Supplemental Environmental Impact Statement due to large number of data sheets and photos. This appendix is available from the Applicant upon request.

F

Existing Conditions Maps

Provided separately.

Appendix not included within the Arkwright Summit Wind Farm Supplemental Environmental Impact Statement due to large number of data sheets and photos. This appendix is available from the Applicant upon request.