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October 11, 2019

Via Electronic Filing

Hon. Kathleen H. Burgess
Secretary to the Commission
New York State Public Service Commission
Agency Building 3
Albany, NY 12223

Re: Amendment of the Application in Case No. 16-F-0267: Application of Atlantic Wind LLC, for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 for Construction of the Deer River Wind Farm Project

Dear Secretary Burgess:

Atlantic Wind, LLC (“Atlantic Wind” or “Applicant”) submitted an Application for a Certificate of Environmental Compatibility and Public Need under Article 10 of the New York Public Service Law (“Application”) for the Deer River Wind Farm (“DRWF” or “Facility”) on February 8, 2019. The Applicant has since provided two Application Supplements, one to address Application deficiencies on May 28, 2019 (“May 28 Supplement”) and one to provide additional information on the Alternate Collection Line Route on September 6, 2019 (“September 6 Supplement”). Enclosed please find an additional submission which provides further information regarding the Facility and, in some cases, modifies the proposed Facility layout to resolve party issues or concerns.

This submission has been developed as a result of settlement discussions with parties, and in an effort to resolve issues identified in parties’ Issues Statements filed on September 20, 2019. The Applicant understands that, based on the discussions with the parties, certain issues can be resolved, narrowing potential issues for litigation and reducing the need for testimony, hearings and briefing. Chapter 1 of this submission was prepared to augment the September 6 Supplement by providing additional information regarding the Alternate Collection Line, in response to requests raised by at least one party in its September 20 Issues Statement. Chapter 2 of this submission outlines proposed Facility modifications made to address comments and

issues presented by parties to this proceeding. Lastly, Chapter 3 of this submission will include proposed Certificate Conditions further addressing issues raised by the parties.¹

Contents of the Supplement Generally

By letter dated July 3, 2019, Siting Board Chair John Rhodes found that the Deer River Application was compliant with the PSL. In that letter, Chair Rhodes directed that any supplement made to the Application following the completeness determination should be treated as an amendment under the Siting Board's rules, and identified certain specific information to be submitted with any such supplement. Below is the information and analysis required by that directive of the Chair, regarding this additional submission.

A Table of Contents is enclosed which outlines the contents of this submission.² The TOC identifies those previously-filed Application sections which have been revised and updated to reflect the impacts of the proposed Alternate Collector Line, such as tables, figures and plans, as well as any Facility design changes being made to resolve party concerns and avoid resource impacts.³ A detailed description of proposed Facility design changes proposed to resolve party concerns is provided in the attached narrative and depicted on attached figures, as further discussed in Chapter 2.⁴ Consistent with the Hearing Examiners ruling in this proceeding, no new changes are proposed at the Applicant's initiative.

For clarity, the same figure and exhibit numbering and nomenclature has been used where a document submitted with this filing is intended to supersede a prior version filed in the February 2019 Application submission and/or the May 28, 2019 or September 6, 2019 Application Supplements.⁵ In other instances, additional information is provided to supplement existing exhibits, figures, and appendices.

Lastly, the Applicant notes that while the Chair requested that future post-completeness submissions be treated as "amendments" to the Application, the attached submission does not constitute a "revision" under 16 NYCRR § 1000.2(ak) or 1000.13. A revision is defined as a change in the proposed Facility which will likely result in a significant increase in environmental impacts, or a substantial change in the location of the proposed Facility. The amendments contained herein do not add or remove Facility components, or substitute one technology for another.⁶ Moreover, as stated above, these changes are not at the Applicant's initiative, and will not result in increased environmental impacts.⁷ All but one of the proposed changes results in shifts to components of less than 500 feet, which are by definition not "revisions" under 16 NYCRR § 1000.2(ak).

As discussed below and in the attached submission, one change is proposed which does shift a collection line approximately 1,000 feet; this modification was made to avoid specific concerns about an agricultural resource, identified by a party, and agreed to in order to resolve

¹ The Applicant intends to submit Chapter 3 electronically by Tuesday, October 15, 2019. Printed versions will include the complete Supplement, Chapters 1 through 3.

² See July 3, 2019 Chair Rhodes letter, item (a).

³ See July 3, 2019 Chair Rhodes letter, item (b).

⁴ See July 3, 2019 Chair Rhodes letter, item (c).

⁵ See July 3, 2019 Chair Rhodes letter, item (b).

⁶ See July 3, 2019 Chair Rhodes letter, item (f).

⁷ See July 3, 2019 Chair Rhodes letter, item (e).

concerns and avoid litigation. Overall, any Facility design changes made herein do not result in the location of a Facility component or alternative closer to sensitive resources or in a manner which decreases compliance with setbacks or other requirements of local law.⁸ For all of those reasons, this submission does not constitute a “revision” of the Application within the meaning of § 1000.2(ak).

Contents of the Supplement:

Chapter 1, Supplemental Information Regarding Alternate Collection Line

On August 7, 2019, the Examiners in this proceeding convened a Procedural Conference at which the Applicant and Parties agreed to a procedural schedule thereafter issued by the Examiners by Ruling dated August 15, 2019. In that schedule, the Parties agreed that all Developer-driven amendments⁹ to the Application, including submission of supplemental information on the Alternate Collector Line, would be submitted by September 6 (“September 6 Supplement”). Parties’ Issues Statements were then due by September 20.

In its Issues Statement, Department of Public Service Staff identified several areas of information Staff claimed was missing from the September 6 Supplement, and which was necessary to characterize potential impacts of the proposed Alternate Collector Line and the Developer-driven amendments made in that submission. The purpose of Chapter 1 is to provide additional information responsive to those identified concerns.

Chapter 2, Design Modifications to Minimize Impacts and Address Party Comments

As a result of settlement negotiations among parties, as well as to address issues raised by parties in comments or formal Issues Statements, and in an attempt to minimize impacts from the Facility on resources of concern, the Applicant has proposed design modifications to the Facility. These design modifications are outlined and explained in detail in Chapter 2 of this submission. In sum, there are 19 total changes which includes 6 minor turbine shifts (B1, B6, E4, G5, H4, J1), 6 access roads/temporary turn-around moves, and shifts or reduction of collection lines, work areas or areas of disturbance. (See Appendix C). Overall, the effect of these modifications is to reduce environmental and community impacts and avoid resources of concern, in furtherance of the goals of Article 10.¹⁰

For example, the New York State Department of Agriculture and Markets (“NYSDAM”) identified several areas where Facility components could have a negative impact on agricultural resources. In response, the Applicant was able to modify the Facility design, largely by shifting component locations, to address NYSDAM’s concerns. In at least one case, the Applicant was asked to move a proposed collection line out of an agricultural field, resulting in a move of approximately 1,000 feet (see item 15 in Appendix C to this submission). That change will

⁸ See July 3, 2019 Chair Rhodes letter, item (d)

⁹ During the Procedural Conference, the Parties agreed to distinguish between Developer-driven amendments made on the Applicant’s initiative, and amendments to the Facility layout or Application made in an effort to settle issues with other Parties to this proceeding. While the Applicant continues to discuss potential settlement of issues with Parties, the changes proposed in this submission fall into the latter category of amendments made in an effort to settle issues with Parties. To the extent that future settlement discussions result in additional changes to the Facility layout, those changes would be reflected in future submissions to the record as permitted in the schedule.

¹⁰ See July 3, 2019 Chair Rhodes letter, item (e).

reduce impacts to identified agricultural resources, and will not result in significant additional environmental impacts in its new location, as compared with the prior placement. Although the component has been shifted by more than 500 feet, the shift moves the line away from sensitive resources of concern, does not result in noncompliance with setbacks or land use restrictions, was the result of a negotiated solution among parties to avoid potential litigation, and does not warrant substantial additional scrutiny by the Parties. For all of those reasons, the change is not a “revision” within the meaning of 16 NYCRR 1000.2(ak) or 1000.13.

The other changes proposed herein also do not constitute revisions, for the same reasons discussed above, and because they do not involve the relocation of a component more than 500 feet from their proposed location. These changes were also meant to address environmental impacts, settle issues among parties, and do not warrant substantial additional scrutiny. Therefore, they are not revisions.

Chapter 3, Proposed Certificate Conditions

In order to memorialize impact minimization and mitigation measures which will further resolve party issues, the Applicant will be providing Proposed Certificate Conditions for the proposed Facility. The Conditions do not involve modifications of the Facility itself, do not implicate the factors identified in the Chair’s letter, and do not constitute a revision of the Application. The Applicant intends to submit the Proposed Certificate Conditions on Tuesday, October 15.

Please do not hesitate to call me with any questions.

Respectfully submitted,

/s/ Laura K. Bomyea

James A. Muscato, II
Laura K. Bomyea
Young/Sommer LLC
Attorney for Atlantic Wind, LLC

Enclosures
CC: Party List in Case 16-F-0267

Application Supplement

October 11, 2019

Deer River Wind Farm

**Article 10 Certificate
Application**

Case No. 16-F-0267

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Acronyms and Abbreviations

Alternate Collector	Alternate Collector Line Route
Applicant or Atlantic Wind	Atlantic Wind, LLC
Application	Atlantic Wind, LLC Application for a Certificate of Environmental Compatibility and Public Need under Article 10 of the New York Public Service Law, Case No. 16-F-0267
Avangrid Renewables	Avangrid Renewables LLC
DRWF	Deer River Wind Farm
Eastern Collector	Eastern Overhead Collection Line Route
Facility	Consists of all generating facility components; ancillary features located within the Facility Site, including but not limited to an Operations & Maintenance building, meteorological towers, substation(s), and access roads; and interconnections.
Facility Area	The general area of interest identified by the Applicant and depicted on Figure 2-2 of the Application.
Facility Site	The parcels proposed to host the Facility components, which are identified in the Application.
ft	feet
ft ²	square feet
GIS	Geographic Information Systems
ISCP	Invasive Species Control Plan

kV/m	kilovolt per meter
May 28 Supplement	Deer River Wind Farm Application Supplement to address Application deficiencies on May 28, 2019
mg	milligauss
MW	megawatts
NLCD	National Land Cover Database
NNIS	Non-native invasive species
NYCRR	New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYS DPS	New York State Department of Public Service
NYSHPO	New York State Historic Preservation Office
NYSPSC	New York State Public Service Commission
Panamerican	Panamerican Consultants, Inc.
Project	Deer River Wind Farm
ROW	Right-of-way
September 6 Supplement	Deer River Wind Farm Application Supplement to provide additional information on the Alternate Collection Line Route on September 6, 2019
SGCN	Species of Greatest Conservation Need

SSC	Species of Special Concern
Stantec	Stantec Consulting Services Inc.
Study Area	The area evaluated for specific resource identification and/or resource impact assessment. The size of this area was appropriate for the target resource and took into account the project setting, the significance of resource or impact being identified or evaluated, and the specific survey distances included in 16 NYCRR Part 1001. As appropriate, the Study Area for each type of survey or resource impact assessment is provided in their respective sections within this Supplement.
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

INTRODUCTION

Atlantic Wind, LLC (Applicant) submitted an Application for a Certificate of Environmental Compatibility and Public Need under Article 10 of the New York Public Service Law (Application) for the Deer River Wind Farm (DRWF, Facility) on February 8, 2019. The Applicant has since provided two Application Supplements, one to address Application deficiencies on May 28, 2019 (May 28 Supplement) and one to provide additional information on the Alternate Collector Line Route on September 6, 2019 (September 6 Supplement). As a result of settlement discussions with parties, and issues identified in Issues Statements filed on September 20, 2019, the Applicant has prepared this submission to provide additional information and, in some cases, to modify the proposed Facility layout to resolve party issues or concerns. This document is intended to augment the supplement provided on September 6 by providing additional information regarding the Alternate Collector Line, to address comments and issues presented by parties to this proceeding, and to provide proposed Certificate Conditions. Accordingly, this document consists of three chapters:

Chapter I. Supplemental Information Regarding Alternate Collector Line

Chapter II. Design Modifications to Minimize Impacts and Address Party Comments

Chapter III. Proposed Certificate Conditions

Chapter I. Supplemental Information Regarding Alternate Collector Line

Supplement Update Overview

The September 6 Supplement provided additional information on the Alternate Collector Line Route (Alternate Collector) initially presented in the Application as an alternative in Exhibit 9 and Figure 9-1. As indicated in Exhibit 9(2)(iv), the Applicant initially did not select the Alternate Collector due to a lack of sufficient land control and potential impacts to water and wetland resources. Subsequent to the Application, the Applicant has optimized the layout of the Alternate Collector to avoid state designated forestland, address land control and minimize impacts to aquatic resources along the corridor.

The State of New York's Department of Public Service (NYSDPS) Staff submitted a Statement of Issues on September 20, 2019. Issue 1. Application Amendment indicated "*The Applicant must also provide additional analysis and reporting of required Exhibits necessary to support the characterization of resources, probable impacts, and appropriate controls and mitigation measures for the Alternate Collector.*" This section describes the additional information provided herein to augment the September 6 Supplement.

Alternate Collector Description

The Alternate Collector would electrically connect the southern turbine arrays of the project facility to the northern turbine arrays (Figure 1). The Alternate Collector is a 2.9-mile long electrical collection line that extends southward from Hubbard Road (east of Corey Road), crossing Route 194, following the west side of Murrock Road, then terminating at Turbine E5. The Alternate Collector will consist of approximately 0.3 miles of overhead collection line and 2.7 miles of buried collection line. The right of way (ROW) would be cleared, up to 50 feet [ft] wide, and result in approximately 17.5 acres of total disturbance (17.5 acres temporary; <0.01 acres permanent). Preliminary Design Drawings for the proposed Alternate Collector are provided in Appendix A to the September 6 Supplement. If selected, use of the Alternate Collector would result in removal of the approximately 3.3 miles of the originally proposed eastern overhead electrical collection line route (Eastern Collector), replacing the overhead portion of electrical collection line from B13 southward to the underground junction with G5 and H4. If the Alternate Collector is constructed, the overall project would have 6.6 miles of overhead collector, a reduction of 3.3 miles.

Justification for Alternate Collector Route

This original collection alignment to connect the southern (E, F, G, H, and J turbine series) and northern turbines (B, C, and D turbine series) presented in the Application consists of approximately 3.3 miles of the overhead electrical collection line between turbine B13 and the underground junction between turbines G5 and H4 (Eastern Collector Route). This route is sited over a perennial stream (Lacey Creek; New York State Department of Environmental Conservation [NYSDEC] Class C) to the west of Mile Square Road in the Town of Harrisburg before continuing north and crossing another perennial stream (Deer River; NYSDEC Class C). This collection alignment requires an overhead crossing of the Deer River where it is characterized by a deep stream valley, over 100 ft deep on each side.

The Alternate Collector is collocated with Murrock Road and has a single underground road crossing of County Route 194, whereas the Eastern Collector has overhead road crossings at four local roads: Miles Square Road, Hart Road, River Road and Grant Road. In terms of residences, generally, the Alternate Collector has few dwellings proximal to the route, and the majority of those dwellings are nearest the underground portion of the route. The Eastern Collector is proximal to clusters of dwellings to the north and south, and those dwellings are proximal to overhead line. Based on NLCD, the Alternate Collector does not cross and therefore would have no impact to cultivated cropland.

Impacts to ecological resources, agricultural land and residential areas from the installation of collection lines have been avoided and/or minimized during the routing and siting of the Alternate Collector. The Alternate Collector is sited parallel to an existing road to reduce overall impacts to undeveloped areas. Stream crossings of perennial streams S091 and S093, both tributaries of Gulf Creek (NYSDEC Class C), will utilize a jack and bore technique to eliminate stream impacts and reduce impacts associated floodplain wetlands (W313, W316, and W325). These crossing are designed to occur adjacent to the existing road corridor crossings. Additionally, overhead

poles carrying collection lines will be utilized to span wetlands with large crossings (i.e., wetland W080) to avoid direct impacts. Therefore, the Alternate Collector utilizes the crossing methodology best suited to minimize specific wetland and stream impact scenarios. Impacts to wetlands and streams specifically are shown in Attachment 1 Figures 1–21 in Appendix B to the September 6 Supplement.

Description of September 6 Supplement

The following information listed by Exhibit was provided in the September 6 Supplement.

- Exhibit 4 –Land Use
 - Revised Tables 4-6, 4-8
- Exhibit 11 – Preliminary Design Drawings
 - Preliminary site plans (Appendix A to the September 6 Supplement)
- Exhibit 20 – Cultural Resources
 - Description of Phase 1B Field Investigation results
- Exhibit 21 – Geology, Seismology, and Soils
 - Revised Tables 21-1 and 21-2
- Exhibit 22 – Terrestrial Ecology and Wetlands
 - *Deer River Wind Farm Alternate Collection Route Wetland and Stream Delineation Report and Function and Value Assessment* (Appendix B to the September 6 Supplement)
 - Wetland and Stream Impact Drawings (Appendix B to the September 6 Supplement)
 - Table 1. Baseline non-native invasive species (NNIS) survey results, DRWF alternate collector.
 - Revised Tables 22-2 and 22-10
 - Revised Table 22-9 (Attachment 7 in Appendix B to the September 6 Supplement)
- Exhibit 23 – Water Resources and Aquatic Ecology
 - Revised Tables 23-5 and 23-6 (Attachments 8 and 9, respectively, in Appendix B to the September 6 Supplement)
- Exhibit 34 - Electric Interconnection
 - Electrical plans (Appendix C to the September 6 Supplement)

Description of Supplement

The Applicant has prepared Chapter I of this Supplement to augment the September 6 Supplement and address comments and issues, specific to the Alternate Collector, presented by parties to this proceeding. Exhibit materials necessitating updates are addressed by including only sections/subsections containing changes in the updated exhibit, including figures and/or tables. Exhibit materials that did not require updates are listed below. For the purposes of quantitative analysis, an assumed corridor width of 50 feet (ft) was used for the underground portions of the Alternate Collector; 70 ft was used for quantitative analyses in the Application. This change in width resulted in some values for the Original Layout plus Alternate Collector being smaller than those for the Eastern Collector.

No Changes

No changes were made to the following Exhibits as a result of analysis of the Alternate Collector either because the results remained unchanged or the Exhibit was not applicable:

- Exhibit 1 – General Requirements
- Exhibit 5 – Electric System Effects
- Exhibit 6 – Wind Power Facilities
- Exhibit 7 – Natural Gas Power Facilities
- Exhibit 8 – Electric System Production Effects
- Exhibit 9 – Alternatives
- Exhibit 10 – Consistency with Energy Planning Objectives
- Exhibit 12 - Construction
- Exhibit 14 – Cost of Facilities
- Exhibit 15 – Public Health and Safety
- Exhibit 16 – Pollution Control Facilities
- Exhibit 17 – Air Emissions
- Exhibit 18 – Safety and Security
- Exhibit 19 – Noise and Vibration
- Exhibit 25 – Effect on Transportation
- Exhibit 26 – Effect on Communication
- Exhibit 27 – Socioeconomic Effects
- Exhibit 28 – Environmental Justice
- Exhibit 30 – Nuclear Facilities
- Exhibit 31 – Local Laws and Ordinances
- Exhibit 32 – State Laws and Regulations
- Exhibit 33 – Other Applications and Filings

Updates

Changes were made to the following Exhibits and or figures as a result of analysis of the Alternate Collector. The corresponding section/subsection in the Application is identified.

- Exhibit 2 – Overview and Public Involvement Summary
- Exhibit 3 – Location of Facilities
- Exhibit 4 – Land Use
- Exhibit 13 – Real Property
- Exhibit 20 – Cultural Resources
- Exhibit 21 – Geology, Seismology, and Soils
- Exhibit 22 – Terrestrial Ecology and Wetlands
- Exhibit 23 – Water Resources and Aquatic Ecology
- Exhibit 24 – Visual Impacts
- Exhibit 29 – Site Restoration and Decommissioning
- Exhibit 34 – Electric Interconnection
- Exhibit 35 – Electric and Magnetic Fields

Exhibit 2 – Overview and Public Involvement Summary

The Applicant has continued to engage stakeholders following submission of the Application and of the September 6 Supplement by conducting an open house session from 5:00 to 7:00 PM on Wednesday October 2 at the Pinckney Town Hall, 307 State Route 177, Barnes Corners, New York. As required under the Applicant's Public Involvement Program (PIP) Plan, the Applicant mailed notice of the open house on September 20, 2019 and published advertisements for the Open House in the *Watertown Daily Times* (Sept. 22) and the *Journal and Republican* (Sept. 25).

Exhibit 3 – Location of Facilities

Revised Figure 3-3, was prepared to show the Alternate Collector in relation to municipal and taxing jurisdictions.

Exhibit 4 – Land Use

Revised Figure 4-4, was prepared to show the entire alternate collection line. Revised Figure 4-9, was prepared to show the aerial photography for the Alternate Collector and 1-mile buffer.

Exhibit 13 – Real Property

The Applicant prepared a set of 13 maps depicting tax parcels of the Alternate Collector (Revised Figure 13-1) including: (i) the tax parcel IDs for land parcels that are part of the Facility and the Facility footprint; (ii) zoning for the parcels that are part of the Facility; (iii) necessary access and utility easements for the Facility; and (iv) public roads planned for use as access to the Alternate Collector. Data for this map were obtained from the Lewis and Jefferson County Geographic Information System (GIS) (parcels) along with the United States Census Bureau (TIGER/line files) and the New York State GIS Clearinghouse.

The Applicant has or can obtain access to parcels needed for the Alternate Collector. Specifically, the Applicant has entered into or is negotiating property rights to construct and operate the underground and overhead collection lines for the life of the project through Wind Energy Lease options, land leases, and easement agreements.

Exhibit 20 – Cultural Resources

Panamerican Consultants, Inc. (Panamerican) conducted Phase IB cultural resources field investigations for the Alternate Collector in August 2019. No precontact artifacts or features were found during the Phase IB investigation. No State or National Register-Listed or -Eligible archaeological resources were identified within the area of potential effect (APE) during the survey. Therefore, no further investigations are recommended for the proposed DRWF. The final

report was submitted to the New York State Historic Preservation Office (SHPO) on October 9, 2019¹ and is attached to this supplement as Appendix A.

Exhibit 21 – Geology, Seismology, and Soils

(p) Characteristics of Each Soil Type and Suitability for Construction

The September 6 Supplement provided updated Exhibit 21 tables (Table 21-1. Soil map units within the Facility and Table 21-2. Anticipated impacts to soils) to assess soil types and associated impacts regarding the Alternate Collector. Based on the negligible differences in the Application and September 6 Supplement versions of Tables 21-1 and 21-2, no changes in the suitability for construction are anticipated as a result of the Alternate Collector. This is consistent with the preliminary geotechnical report completed by Mott MacDonald, which states that the Facility Area, which includes the Alternate Collector, is suitable from a geotechnical perspective for features proposed by the Project. Please refer to Exhibit 21 and Appendix 21-A (Geotechnical Report) of the Application for further details regarding soil type and suitability for construction.

Exhibit 22 – Terrestrial Ecology and Wetlands

(a) Plant Communities

The plant communities observed during the 2019 wetland and stream field delineations of the Alternate Collector did not identify any new plant communities when compared with those documented within the greater Facility Site and reported in the Application. Exhibit 22(a) of the Application includes descriptions of the dominant plant communities observed within the Facility Site; predominantly pasture/hay fields and forested areas. Wetland communities observed along the Alternate Collector were the same as those observed within the Study Area of the Application. Please refer to the *Deer River Wind Farm Alternate Collection Route Wetland and Stream Delineation Report and Function and Value Assessment* (September 6 Supplement: Appendix B) and Exhibit 22(j) for wetland community descriptions. No state or federal listed rare, threatened, or endangered plant communities/species were observed during the 2019 field investigations of the Alternate Collector.

(b) Impact to Plant Communities

Facility construction will have temporary and permanent impacts to plant communities. Construction activities will involve clearing vegetation for equipment staging and Facility component installation. Permanent impacts include conversion of vegetation to build

¹ Stantec received a message from SHPO's Cultural Resource Information System (CRIS) system on October 9, 2019 indicating submission of 464GQ2IATTEH (*Phase IB Cultural Resources Investigation Addendum of Two MDS Locations for the Proposed Deer River Wind Farm along Murrock Road, Town of Pinckney, Lewis County, New York*) has been accepted for project 17PR05791 and its new submission number is 17PR05791.016.

facilities. Estimates of vegetation impacts were based on preliminary design drawings and calculated in ArcGIS. An update of Exhibit 22: Table 22-2 (Vegetation Impacts) was prepared and submitted with the September 6 Supplement which included the Original layout plus the Alternate Collector. To isolate the impacts of the Alternate Collector to plant communities, as defined by National Land Cover Database (NLCD) cover types, further analysis was conducted for this supplement (Table 1). The Alternate Collector would result in approximately 17.5 acres of temporary impact and <0.01 acres of permanent disturbance, including clearing and minor fill in the location of proposed pole structures. The Alternate Collector would revegetate following construction.

Table 1. Alternate Collector vegetation impacts

Cover Type	Permanent Impact (acres)	Temporary Impact (acres)	Total Impact (acres)
Cultivated Crops	0.00	0.0	0.0
Deciduous Forest	<0.01	7.7	7.7
Developed, Low Intensity	0.00	0.0	0.0
Developed, Open Space	0.00	0.1	0.1
Emergent Herbaceous Wetlands	<0.01	0.5	0.5
Evergreen Forest	0.00	0.9	0.9
Grassland/Herbaceous	0.00	0.5	0.5
Mixed Forest	0.00	0.0	0.0
Pasture/Hay	0.00	5.2	5.2
Shrub/Scrub	0.00	0.1	0.1
Woody Wetlands	0.00	2.5	2.5
Total	<0.01	17.5	17.5

(d) Vegetation, Wildlife and Wildlife Habitats

This section describes wildlife habitats in the Alternate Collector that support general wildlife and that could potentially support federally or state-listed threatened and endangered species, state species of special concern (SSC), and state species of greatest conservation need (SGCN).

(1) Wildlife Habitat Descriptions

The plant communities that occur within the Alternate Collector (described in Section 22(a)) provide a variety of habitat conditions for wildlife. The dominant cover types, as in the Facility Area, are forest and grassland. Common wildlife species are generalists and tend to occur in all the available habitats, i.e., agriculture, forest, wetlands, shrub/scrub, and developed. Generalists mammal species include white-tailed deer (*Odocoileus virginianus*), eastern coyote (*Canis latrans*), foxes (*Vulpes vulpes*, *Urocyon cinereoargenteus*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), eastern gray squirrel (*Sciurus carolinensis*) and mice (*Peromyscus*

leucopus, *P. maniculatus*). Birds likely to occur across the available habitats in this rural landscape include American robin (*Turdus migratorius*), blue jay (*Cyanocitta cristata*), and American crow. The common garter snake (*Thamnophis sirtalis*) is likely to occur in any of the habitat types.

(i) Significant Natural Communities

The four significant natural communities documented in NYNHP's March 23, 2016 letter to the Applicant (provided in Appendix 22-F of the Application) in the general vicinity of the Facility Area are not near the Alternate Collector.

(ii) Forests

The Alternate Collector contains approximately 8.5 acres of forest habitat composed of deciduous forest, evergreen forest, and mixed forest. Forest specialists in the Facility Area include fisher (*Martes pennanti*), squirrels (*Sciurus vulgaris*, *Tamias striatus*, *Glaucomys volans*, *G. sabrinus*), red-eyed vireo (*Vireo olivaceus*), ovenbird (*Seiurus aurocapilla*), black-throated green warbler (*Setophaga virens*), and black-throated blue warbler (*S. caerulescens*). Some species of salamanders and frogs use the upland forests as well for part of their lives.

Forest edges provide habitat heterogeneity in the form of trees, dense shrubs, and forbs and grasses. Forest edges are important for breeding and foraging wildlife due the variety of plant species and habitat complexity.

(iii) Wetlands

Wetlands include forested, shrub/scrub, and emergent wetlands. Wetland community descriptions and additional information regarding wetlands at the Alternate Collector can be found in the *Deer River Wind Farm Alternate Collection Route Wetland and Stream Delineation Report and Function and Value Assessment* (September 6 Supplement: Appendix B). Many amphibians depend on forested wetlands for breeding, and some will use them for all their lifetime requirements. Amphibians dependent on vernal pools include the spotted salamander and wood frog.

(iv) Grassland

For the purposes of discussing habitats for obligate grassland species, grassland habitats may include pasture/hay fields and grassland/herbaceous cover types. The Alternate Collector contains 5.7 acres of pasture/hay fields and grassland/herbaceous habitat. Wildlife species dependent upon grassy openings are specialists and include red-winged blackbird (*Agelaius phoeniceus*), bobolink (*Dolichonyx oryzivorus*), savannah sparrow (*Passerculus sandwichensis*), barn swallow (*Hirundo rustica*), woodchuck (*Marmota monax*), and meadow vole

(*Microtus pennsylvanicus*). No grassland fields adjacent to the Alternate Collector are 25 acres or greater.

(v) Shrub/Scrub

Shrub/scrub occurs in association with successional old fields. The Alternate Collector contains 0.1 acres of shrub/scrub. This habitat provides diversity through the combination of herbaceous openings with thick shrub interspersions providing cover and a variety of food sources. Wildlife dependent on shrub/scrub include many shrub-nesting birds, such as red-winged blackbird, common yellowthroat (*Geothlypis trichas*), and song sparrow (*Melospiza melodia*). Shrub/scrub habitat provides rich foraging habitat for fruit-feeders, such as cedar waxwing (*Bombycilla cedrorum*) and nest predators, such as foxes, raccoons, and crows.

(vi) Cropland

The Alternate Collector does not contain cultivated cropland.

(vii) Developed

The Alternate Collector contains roughly [0.1 acre] of developed cover. The developed classification includes areas with some degree of constructed materials, including buildings, impervious surfaces, and vegetation predominately in the form of lawn grasses and horticultural plantings. Developed settings create low quality habitat due to the low diversity of native vegetation and high frequency of human intrusion. Wildlife typical of developed settings include the generalist species, such as American robin, gray squirrel, and white-footed mouse. Many other species of wildlife can occur in developed habitats, but the specialists are not likely to remain.

(viii) Open Water

See the *Deer River Wind Farm Alternate Collection Route Wetland and Stream Delineation Report and Function and Value Assessment* (September 6 Supplement: Appendix B) for additional information regarding streams and in the Alternate Collector.

Open water resources provide cover, food, and water for an array of wildlife, and most species are dependent on these resources throughout their lives. Broadly speaking, open water resources are the principal habitats for fish, aquatic invertebrates, amphibians, waterbirds (waterfowl, wading birds, etc.), and aquatic and semi-aquatic mammals.

(2) Avian and Bat Surveys

Stantec Consulting Services Inc. (Stantec) conducted pre-construction avian and bat surveys in 2016 and 2017. Surveys were designed in consultation with the NYSDEC and US Fish and Wildlife Service (USFWS). The approved work plans for the surveys are provided in Appendix 22-C of the Application. The pre-construction avian and bat study work resulted in agreed upon stipulations between many of the parties in this proceeding, including NYSDEC and NYSDPS. The final reports are provided in Appendix 22-D of the Application. Results are summarized in Exhibit 22(d)(2).

(i) Avian Surveys

Avian surveys conducted in the Facility Area and proximal to the Alternate Collector included breeding bird, fall migrating bird, migrating raptors and upland sandpiper (*Bartramia longicauda*) surveys.

Breeding Birds

The nearest breeding bird survey (BBS) transect to the Alternate Collector is Transect C01. Transect C01 followed the same path as a central spine of the Alternate Collector, just south of Route 194 and was surveyed in June 2016. Methods for BBS are described in Exhibit 22(d)(2)(i) of the Application. Table 1 includes birds observed during BBS surveys conducted at survey points along Transect C01. No federally or state-listed endangered, threatened, or species of species concern were observed during BBS proximal to the Alternate Collector.

Fall Migrating Birds

The closest fall migrating bird survey transect to the Alternate Collector is Transect DR3 approximately 1.5 miles to the west. Transect DR3 was surveyed from August–October 2016. Methods for fall migrating bird surveys are described in Exhibit 22(d)(2)(i) of the Application. Table 1 includes birds observed during fall migrating bird surveys conducted at survey points along Transect DR3. No federally or state-listed endangered or threatened species were observed during fall migratory bird surveys conducted proximal to the Alternate Collector. One state special concern species, sharp-shinned hawk (*Accipiter striatus*), was observed on October 4, 2016 flying over the wetland north of Route 194, approximately 1 mile due south of where the Alternate Collector ties into the collection at Hubbard Road. Based on the timing, this bird was likely a migrant.

Table 2. Bird species observed during 2016 breeding bird surveys and fall migrating bird surveys at the Deer River Wind Farm proximal to the Alternate Collector.

Species Common Name	Scientific Name	Survey Type
American crow	<i>Corvus brachyrhynchos</i>	BBS and Fall Migrating Bird Survey
American goldfinch	<i>Spinus tristis</i>	BBS and Fall Migrating Bird Survey
American robin	<i>Turdus migratorius</i>	BBS and Fall Migrating Bird Survey

Species Common Name	Scientific Name	Survey Type
belted kingfisher	<i>Megaceryle alcyon</i>	Fall Migrating Bird Survey
black-capped chickadee	<i>Poecile atricapillus</i>	BBS and Fall Migrating Bird Survey
black-throated blue warbler	<i>Setophaga caerulescens</i>	Fall Migrating Bird Survey
blue jay	<i>Cyanocitta cristata</i>	BBS and Fall Migrating Bird Survey
bobolink	<i>Dolichonyx oryzivorus</i>	BBS
Canada goose	<i>Branta canadensis</i>	Fall Migrating Bird Survey
chestnut-sided warbler	<i>Setophaga pensylvanica</i>	BBS and Fall Migrating Bird Survey
chipping sparrow	<i>Spizella passerina</i>	BBS
common raven	<i>Corvus corax</i>	BBS and Fall Migrating Bird Survey
common yellowthroat	<i>Geothlypis trichas</i>	BBS and Fall Migrating Bird Survey
dark-eyed junco	<i>Junco hyemalis</i>	BBS and Fall Migrating Bird Survey
eastern phoebe	<i>Sayornis phoebe</i>	BBS
eastern towhee	<i>Pipilo erythrophthalmus</i>	Fall Migrating Bird Survey
eastern wood-pewee	<i>Contopus virens</i>	Fall Migrating Bird Survey
field sparrow	<i>Spizella pusilla</i>	BBS
golden-crowned kinglet	<i>Regulus satrapa</i>	BBS and Fall Migrating Bird Survey
gray catbird	<i>Dumetella carolinensis</i>	BBS and Fall Migrating Bird Survey
great blue heron	<i>Ardea herodias</i>	Fall Migrating Bird Survey
great crested flycatcher	<i>Myiarchus crinitus</i>	Fall Migrating Bird Survey
hairy woodpecker	<i>Picoides villosus</i>	BBS
hermit thrush	<i>Catharus guttatus</i>	BBS
house wren	<i>Troglodytes aedon</i>	Fall Migrating Bird Survey
indigo bunting	<i>Passerina cyanea</i>	Fall Migrating Bird Survey
least flycatcher	<i>Empidonax minimus</i>	Fall Migrating Bird Survey
Lincoln's sparrow	<i>Melospiza lincolni</i>	Fall Migrating Bird Survey
magnolia warbler	<i>Setophaga magnolia</i>	BBS
mallard	<i>Anas platyrhynchos</i>	Fall Migrating Bird Survey
mourning dove	<i>Zenaida macroura</i>	BBS
northern flicker	<i>Colaptes auratus</i>	BBS and Fall Migrating Bird Survey
olive-sided flycatcher	<i>Contopus cooperi</i>	Fall Migrating Bird Survey
red-breasted nuthatch	<i>Sitta canadensis</i>	Fall Migrating Bird Survey
red-eyed vireo	<i>Vireo olivaceus</i>	BBS
red-winged blackbird	<i>Agelaius phoeniceus</i>	BBS
ruby-crowned kinglet	<i>Regulus calendula</i>	Fall Migrating Bird Survey
savannah sparrow	<i>Passerculus sandwichensis</i>	BBS and Fall Migrating Bird Survey
scarlet tanager	<i>Piranga olivacea</i>	BBS
sharp-shinned hawk	<i>Accipiter striatus</i>	Fall Migrating Bird Survey
song sparrow	<i>Melospiza melodia</i>	BBS and Fall Migrating Bird Survey

Species Common Name	Scientific Name	Survey Type
swamp sparrow	<i>Melospiza georgiana</i>	Fall Migrating Bird Survey
tree swallow	<i>Tachycineta bicolor</i>	Fall Migrating Bird Survey
turkey vulture	<i>Cathartes aura</i>	Fall Migrating Bird Survey
unidentified bird	Not applicable	Fall Migrating Bird Survey
veery	<i>Catharus fuscescens</i>	BBS
white-breasted nuthatch	<i>Sitta carolinensis</i>	BBS
white-crowned sparrow	<i>Zonotrichia leucophrys</i>	Fall Migrating Bird Survey
white-throated sparrow	<i>Zonotrichia albicollis</i>	BBS and Fall Migrating Bird Survey
winter wren	<i>Troglodytes hiemalis</i>	BBS
yellow-billed cuckoo	<i>Coccyzus americanus</i>	BBS
yellow-rumped warbler	<i>Setophaga coronata</i>	Fall Migrating Bird Survey

Migrating Raptors

The spring and fall 2016 raptor migration survey was conducted from the meteorological tower south of Route 117, east of Arnold Road, and west of Inglehart Road. Methods for raptor migration surveys are described in Exhibit 22(d)(2)(i) of the Application. In September 2016, 12 turkey vultures (*Cathartes aura*) were observed flying over or in close proximity to the Alternate Collector.

Upland Sandpiper Surveys

The closest upland sandpiper survey point to the Alternate Collector was Point 2 at approximately 1.6 miles northwest of the Alternate Collector. Methods for upland sandpiper surveys are described in Exhibit 22(d)(2)(i) of the Application. No upland sandpipers were observed at this location or at any upland sandpiper survey points.

(ii) Bat Surveys

Stantec conducted an acoustic bat survey to determine the presence or probable absence of federally threatened and state-listed endangered northern long-eared bat (*Myotis septentrionalis*) and federally endangered Indiana bat (*Myotis sodalis*) at the DRWF during the summer maternity season of 2016. The survey design and automated analysis methods were based on the US Fish and Wildlife Service's (USFWS) 2016 Range-wide Indiana Bat Summer Survey Guidelines and telephone conversations with the New York State Department of Conservation and USFWS staff. Methods for the acoustic bat survey are described in Exhibit 22(d)(2)(ii) of the Application. Based on the acoustic survey protocol and automated analysis, survey results suggest potential presence of both listed bat species proximal to the Alternate Collector.

(f) Impacts to Vegetation, Wildlife, Wildlife Habitats, and Listed Species

(1) Impacts to Vegetation

Impacts to vegetation are described in Section 1 above.

(2) Construction Impacts to Wildlife and Wildlife Habitats

Construction activities include operation of vehicles and heavy equipment, mobilizing, staging, and installing Facility components, vegetation removal, and ground disturbance. Each of these elements has the potential to affect wildlife and wildlife habitat through incidental injury or mortality, sedimentation in waterbodies, habitat disturbance and loss, and displacement from habitats.

(i) Incidental Injury or Mortality

Incidental injury and mortality will be limited to sedentary and slow-moving animals that are unable to quickly escape from active construction. Sedentary and slow-moving animals include some rodents, reptiles, amphibians, and invertebrates. Tree clearing will take place between November 1 and April 1, which is outside of the breeding period for birds and bats. This time-of-year window will avoid impacts to bird eggs and young and non-volant juvenile bats. More mobile species and mature individuals will be able to move away from active construction. Vehicle-related mortality may increase temporarily due to increased traffic volume during construction.

(ii) Sedimentation

Earth-moving activities may result in sediment releases to waterbodies. These impacts could occur down slope of areas subject to ground disturbance. Siltation and sedimentation of water bodies can adversely impact water quality and have physiologic and behavioral effects on aquatic organisms. In this case, sedimentation effects are possible but unlikely. As discussed in Exhibit 23(c) of the Application, the Applicant must obtain and comply with the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity, which requires development and implementation of a comprehensive stormwater pollution prevention plan (SWPPP). The measures required by the SPDES General Permit will avoid and minimize the incidence of sedimentation and the resulting impact on aquatic resources.

(iii) Habitat Disturbance and Loss

Alternate Collector construction will affect approximately 17 acres of terrestrial wildlife habitat, of which 16 acres will be temporary and 1 acre will be permanent.

(iv) Displacement

Displacement as a result of construction activities will be temporary and occur at the local level.

Wildlife species most likely to be disturbed/displaced by Facility construction include grassland birds, such as bobolink, red-winged blackbird, and savannah sparrow, and forest birds, such as warblers, vireos, and thrushes. In this region of New York State, peak breeding time for birds common to agricultural, grassland, and forest habitat occurs in May and June. Construction activities that begin before this time are likely to displace most breeding birds. Conversely, as birds invest more in production, i.e., reaching the egg or chick stages, they are less likely to abandon their nests. Reactions will vary among species and individuals. Birds in the region are exposed to timber harvesting activities throughout the year and would be accustomed to similar types of disturbances.

(v) Summary

Impacts from construction activities are not expected to be significant as hundreds of acres of suitable, native habitat will remain undisturbed within and adjacent to the Alternate Collector. Most of the Alternate Collector is buried, resulting in temporary impacts to relatively small portions of habitat.

(3) Operational Impacts to Wildlife and Wildlife Habitats

Operational impacts to wildlife and wildlife habitats are not expected at the Alternate Collector. Route maintenance of the collector line may temporarily disturb resident individuals at localized locations for short periods and time.

(4) Impacts from Use of Biocides

The Applicant does not intend to use biocides regularly during site preparation, construction, maintenance, or operations. However, it may be necessary to implement chemical methods to control and/or eradicate invasive plants during any phase of the Facility. The Facility's preliminary Invasive Species Control Plan (ISCP) is provided in the Application (Appendix A of the Invasive Species Baseline Report [Appendix 22-B]). The ISCP provides details on potential application of herbicides to control invasive plants.

The Applicant will limit herbicide application to the extent practicable and will comply with all state and federal regulations as explained in the ISCP. The need for and types of chemical control of invasive species will be carefully evaluated, particularly in sensitive areas, such as wetlands, streams, and vernal pools.

Some wildlife will be exposed to herbicides. However, because herbicides are mostly designed to target biochemical processes in plants, such as photosynthesis, they

typically are not acutely toxic to animals. Some herbicides can have subtle, but significant, physiological effects on animals, including developmental effects.

In addition, herbicides can indirectly affect wildlife by altering vegetative cover, structure, and species composition. This is often a positive effect if native vegetation is restored to a previously infested site.

Any use of chemical herbicides will first be carefully evaluated to assess costs and benefits to wildlife.

(5) Impacts to Wildlife Travel Corridors and Wildlife Habitat

Wildlife travel corridors have not been identified in the Alternate Collector.

(6) Impacts to Threatened, Endangered, and Special Concern Species

Table 22-8 in Exhibit 22 of the Application provides the list of special status species with potential to occur in the Facility Area, a brief description of the species' habitat requirements, any on-site observations, and likelihood to sustain impacts. Impacts from Alternate Collector construction activities are not expected to affect threatened, endangered or special concern species or their habitats.

(i) Delineated Wetland Boundaries

The wetland and stream delineations conducted in support of the Application were conducted during the months of September and October 2017 and June, July, and September 2018. Stantec conducted wetland and watercourse delineations within 500 ft of the Alternate Collector limit of disturbance (Study Area), an area approximately 364 acres, during July and August 2019. For all field delineations, wetland boundaries were determined using the technical criteria described in the U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regional Supplement (Version 2.0). The results of the 2019 Alternate Collector delineation effort, including figures showing delineated wetland boundaries, were presented in the September 6 Supplement: *Deer River Wind Farm Alternate Collection Route Wetland and Stream Delineation Report and Function and Value Assessment* (September 6 Supplement: Appendix B).

(m) Wetland Impacts

Impacts to wetlands have been based a corridor width of 50 ft for the underground portions of the Alternate Collector, based on preliminary design drawings. The only additional permanent wetland impacts associated with the Alternate Collector are two overhead collection poles in W080 (47 square feet [ft²]). One typographic error in the temporary wetland impacts table (September 6 Supplement: Appendix B) was noted subsequent to the September 6 Supplement. The temporary impact for wetland W173 was listed in the

September 6 Supplement as 482,003 ft² when the correct temporary impact figure was reflected in the May 28 Supplement, 48,310 ft². For all other wetland impact calculations, please refer to the *Deer River Wind Farm Alternate Collection Route Wetland and Stream Delineation Report and Function and Value Assessment* (September 6 Supplement: Appendix B). With respect to NYSDEC regulated wetlands, Stantec field-verified wetland delineation lines with NYSDEC staff, specifically Chris Balk, Region 6 Habitat Manager, on October 29 and 30, 2018. Stantec participated in a follow-up meeting regarding jurisdictional wetlands on August 29, 2019 with NYSDEC, specifically Chris Balk and Fred Monk, Region 6 Natural Resource Manager. At this meeting and in subsequent phone conversations, NYSDEC indicated the wetlands that will be state-regulated. Table 3 presents the wetlands that will be state-regulated, per NYSDEC consultation.

Table 3. Summary of NYSDEC state-regulated wetlands within the Facility Site

Wetland ID	NYSDEC ID	Dominant Wetland Type ¹	Page No. Design Drawings	HUC8 Watershed
W037	BC-22	PUB	C-303B	Ontario (Salmon-Sandy)
W038	BC-22	PSS	C-303B, C-304A	Ontario (Salmon-Sandy)
W049	BC-21	PSS	C-304B	Ontario (Salmon-Sandy)
W063	BC-21	PFO	C-205	Ontario (Salmon-Sandy)
W080	BC-20	PSS	C-305B	Ontario (Salmon-Sandy)
W106	BC-19	PFO/PEM	C-306B, C-307A	Ontario (Salmon-Sandy)
W108	BC-18	PEM	C-209	Ontario (Salmon-Sandy)
W112	NE-4	PSS	C-209	Ontario (Salmon-Sandy)
W114	NE-2	PFO	C-308A, C-213	Black River
W120	NE-1	PFO	C-214	Ontario (Salmon-Sandy)
W122	NE-1	PFO	C-214, C-215	Ontario (Salmon-Sandy)
W128	NE-4	PSS	C-211	Black River
W130	NE-2	PFO	C-210	Black River
W134	NE-5	PFO/PSS	C-210	Black River
W136	NE-2	PSS	C-308A, C-309A	Black River
W258	BC-12	PEM	C-314B, C-228	Black River
W261	BC-12	PSS	C-315A	Ontario (Salmon-Sandy)
W276	BC-10	PSS	C-315B, C-229, C-316	Ontario (Salmon-Sandy)
W289	BC-26	PEM	C-231	Ontario (Salmon-Sandy)

¹ Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoes. 1979. Classification of Wetlands and Deepwater Habitats of the United States. PFO = Forested; PSS = Scrub-shrub; PEM = Emergent; PUB = Open water

The Applicant is currently reevaluating wetland impacts with respect to the proposed design changes detailed in Chapter II of this supplement. Final wetland impact calculations will be prepared prior to wetland permitting and mitigation efforts.

(n) Measures to Avoid/Mitigation Wetland Impacts

The Applicant is committed to avoidance and minimization measures to reduce or eliminate wetland and stream impacts. The two streams crossings along the Alternate Collector (S091, S093) will be accomplished through directional boring (i.e., jack and bore) to eliminate stream impacts and reduce adjacent floodplain wetland impacts. The Alternate Collector was sited in uplands, to the extent practicable, to minimize impacts to wetlands, including the state-regulated wetland, W080 (NYSDEC wetland BC-20; Class 2). As stated above, the wetland impacts will ultimately decrease due to the elimination of one collection route. Please refer to Exhibit 22(n) of the Application for further information regarding wetland avoidance, minimization, and mitigation.

Exhibit 23 – Water Resources and Aquatic Ecology

(a) Groundwater

Based on NYSDEC data on New York State water wells (NYSDEC 2018), there are no water well records along the Alternate Collector. Please refer to the May 28 Supplement for groundwater related figures: Figure 23-1: Depth to Bedrock and Water Table and Figure 23-2: Groundwater Aquifer and Water Wells.

(b) Surface Waters

(2) Description of Surface Waters

The wetland and stream delineations conducted in support of the Application were conducted during the months of September and October 2017 and June, July, and September 2018. Stantec conducted wetland and watercourse delineations within the Alternate Collector Study Area during July and August 2019. The results of the 2019 delineation effort for the Alternate Collector were presented in the September 6 Supplement (September 6 Supplement: Appendix B: *Deer River Wind Farm Alternate Collection Route Wetland and Stream Delineation Report and Function and Value Assessment*).

Three NYSDEC mapped streams crossed the Alternate Collector Study Area and are listed in below Table 4.

Table 4. NYSDEC mapped streams occurring within the Alternate Collector Study Area

Stream Name	Field ID	NYSDEC Class ¹	Water Index Number ²	Part-Item Number
Shingle Gulf Creek	S088	C	Ont 44-19	847-121
Tributary of Gulf Creek	S091 ³	C	Ont 44-16-8	847-117
Tributary of Gulf Creek	S093 ³	C	Ont 44-16-3	847-117

¹ NYSDEC. 2019. NYSDEC Environmental Resource Mapper. <http://www.dec.ny.gov/gis/erm/>

² Waterbody Inventory/Priority Waterbodies List (WI/PWL) NYSDEC, Division of Water.

³ No impacts are anticipated from Alternate Collector crossing based on directional boring technology.

Streams were evenly distributed throughout the Alternate Collector and types ranged from wide, slow moving perennial streams to narrow, intermittent streams that only flow during portions of the year with high groundwater table conditions. The width of delineated streams was between 2 and 16 ft wide with variable substrates. A total of six streams were delineated during the 2019 Alternate Collector delineation effort. For details of the six delineated streams, refer to Attachment 2: Stream Summary Table of the *Deer River Wind Farm Alternate Collection Route Wetland and Stream Delineation Report and Function and Value Assessment* (September 6 Supplement: Appendix B).

(4) Impacts to Surface Waters

No stream impacts associated with the Alternate Collector are anticipated as direction boring (i.e., jack and bore) will be utilized for the two stream crossings (S091 and S093) along the Alternate Collector. No updates to NYSDEC protected stream impacts occur as a result of the Alternate Collector. For details regarding stream impacts and the Alternate Collector, refer to Attachment 8: Updated Impacts to streams, *Deer River Wind Farm Alternate Collection Route Wetland and Stream Delineation Report and Function and Value Assessment* (September 6 Supplement: Appendix B). The Applicants Inadvertent Return Plan was submitted with the May 28 Supplement as Appendix X.

One wetland containing open waters was observed within the Alternate Collector Study Area, wetland W080, a state-regulated (NYSDEC wetland BC-20, Class 2) wetland dominated by emergent and scrub-shrub communities which contains an open water component near the Alternate Collector crossing. The Applicant has eliminated impacts to open water components of this wetland by utilizing an overhead span crossing, see Attachment 9: Updated Impacts to wetlands containing open waters, *Deer River Wind Farm Alternate Collection Route Wetland and Stream Delineation Report and Function and Value Assessment* (September 6 Supplement: Appendix B).

Exhibit 24 – Visual Impacts

(a) Visual Impact Assessment

(3) Visibility of Above-ground Interconnections and Roadways

Appendix 24-A of the Application, the Visual Impact Assessment, included an assessment of proposed overhead collection lines including viewshed analysis (topographic viewshed analysis and an analysis that factored in the screening effects of vegetation). However, the portion of the Alternate Collector that is overhead is only 0.3 miles. Therefore, no additional visual analysis was conducted. Use of the Alternate Collector would eliminate 3.3 miles of overhead collector to

the east, including one of the two overhead crossings of the Deer River, thereby reducing overall visual impacts from the Facility's collection system.

Exhibit 29 – Site Restoration and Decommissioning

In their September 20 Issues Statement, NYSDPS states that the Applicant assumes landowners will wish to leave access roads in place. This is a mischaracterization of the language in the Preliminary Decommissioning Plan submitted as Appendix 29-A of the Application, which states that all access roads will be removed and reclaimed unless the landowner requests otherwise.

No modifications to decommissioning cost estimates as presented in Table 1 of the Preliminary Decommissioning Plan submitted as Appendix 29-A of the Application are required for the Alternate Collector.

Exhibit 34 – Electric Interconnection

The electrical plans for the Alternate Collector presented in Appendix C of the September 6 Supplement presented an incorrect alignment. This has been corrected and an updated set of electrical plans has been included in this supplement as Appendix B.

Exhibit 35 – Electric and Magnetic Fields

As presented in the January 2019 EMF Study submitted as Appendix 35-A of the Application, all electric and magnetic field levels for the underground and overhead cables are within the Interim Standard values of 1.6 kilovolts per meter (kV/m) for electric fields and 200 milligauss (mG) for magnetic fields set forth by the State of New York Public Service Commission. Please refer to the EMF Study (Application: Appendix 35-A) for further details as the underground and overhead cable technology proposed for the Alternate Collector is the same as that previously modeled.

Chapter II. Design Modifications to Minimize Impacts and Address Party Comments

- Since the Application was deemed complete, the Applicant has solicited input and heard concerns from Parties and members of the public regarding the proposed Facility. Following the August 7 Procedural Conference, Applicant engaged in more specific discussions with Parties regarding potential concerns and issues for litigation, and worked to identify specific Project infrastructure locations of concern to these Parties. Specifically: The Applicant heard preliminary concerns from NYS Department of Agriculture and Markets (NYSDAM), NYS Department of Public Service (NYSDPS), the NYS Department of Environmental Conservation (NYSDEC), and the Tug Hill Alliance for Rural Preservation (THARP) following the procedural conference for the Project on August 7, 2019 at the Harrisburg Town Hall in Copenhagen, NY.
- The Applicant met with a member of NYSDAM to review potential impacts of specific Project infrastructure on agricultural land on August 20, 2019 at the Applicant's office in Lowville, NY.
- The Applicant's environmental consultant (Stantec) met with staff from Region 6 of the NYSDEC with NYSDEC to review potential impacts of specific Project infrastructure on wetlands on August 29, 2019 at NYSDEC Region 6 Headquarters in Watertown, NY (August 29 Meeting).
- The Applicant, their environmental consultant and counsel met with staff from the Central Office of NYSDEC and counsel, Region 6 of the NYSDEC, NYSDAM, NYSDPS, and representatives from the Towns of Pinckney and Harrisburg and THARP for a *Settlement Discussion on Technical Environmental Matters* (September 4 Meeting) on September 4, 2019 at NYSDEC's Central Office in Albany, NY. Specific Project infrastructure locations relative to agricultural resources and regulated natural resources were discussed.
- Subsequent to these events, Parties submitted Statements of Issues to the Applicant related to potential impacts on September 19 and 20, 2019.

Per the suggestion of NYSDEC counsel during the (September 4 Meeting), the Applicant prepared a table listing each Project component of concern as identified by the agencies, the requested modification, and a description of the resulting design modification. Accompanying each design modification is a screenshot illustrating the change. The table and screenshots are included as Appendix C to this submittal. In all cases, the Applicant believes these changes will reduce the overall impacts of the Facility, in a manner which is responsive to Party and community concerns, and which results in a stronger proposal.

In addition to some of the concerns discussed above, in some cases the Applicant conducted additional investigations in order to address a Party concern, and in an attempt to help resolve such concerns. For example, NYSDEC raised a concern related to potential impacts to northern harrier habitat (*Circus hudsonius*) at the Project after the Procedural Conference for the DRWF on August 7, 2019, and subsequently provided Atlantic Wind, LLC (the Applicant) the locations of known occupied habitat for northern harrier on August 13, 2019. This issue was discussed at the September 4 Meeting. Accordingly, NYSDEC included potential take of northern harrier habitat in

their Issues Statement submitted to the Applicant on September 19, 2019 (1. Listed Species; DEC Regulatory Authority: ECL Article 11 and 6 NYCRR Part 182). As a follow up to the discussion at the September 4 Meeting and in response to Part 1. of NYSDEC's Issues Statement submitted to the Applicant (1. Listed Species; DEC Regulatory Authority: ECL Article 11 and 6 NYCRR Part 182), Stantec conducted an additional assessment of potential habitat suitable for northern harrier at Turbine G1. Results of that assessment are included in a separate memo as Appendix D to this submittal.

Further, a Party raised a concern related to potential visual impacts to the Inman Gulf Trail resulting from construction of proposed Turbine D1. This issue was discussed at the August 29 Meeting and the September 4 Meeting. As a follow to those discussions, Stantec conducted additional assessment to determine potential visibility of Turbine D1 from publicly accessible points along a designated trail in the Tug Hill State Forest. Results of that assessment are included in a separate memo as Appendix E to this submittal.

Ultimately, this submission represents efforts by the Applicant to resolve issues raised by Parties, and to avoid, minimize and/or mitigate impacts of the proposed Facility to the maximum extent practicable. Conversations with Parties are ongoing, and the Applicant may identify future modifications to the proposed Facility to address party concerns and avoid litigation of issues in the coming months. As discussed at the August 7 Procedural Conference, the Applicant will make efforts to ensure that submission of any additional Facility modifications made to address Party concerns are sensitive to deadlines established for submission of testimony in this proceeding.

Chapter III. Proposed Certificate Conditions

The Applicant's proposed Certificate Conditions will be included as Appendix F to this submittal, to be filed on or about Tuesday, October 15, 2019.

LITERATURE CITED

New York State Department of Environmental Conservation (NYSDEC). 2018. Natural Resources and Environmental Protection Maps – Water Wells. www.dec.ny.gov/pubs/103459.html.

NYSDEC. 2019. NYSDEC Environmental Resource Mapper. <http://www.dec.ny.gov/gis/erm/>