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Conceptual Wetland Mitigation Plan

PREPARED FOR:
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BALL HILL WIND PROJECT

CONCEPTUAL MITIGATION PLAN

OCTOBER 2016



PREPARED BY:



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FISHER ASSOCIATES PROJECT NO. 150001

EXECUTIVE SUMMARY

This Conceptual Mitigation Plan (“Plan”) is proposed to address permanent impacts to wetlands resulting from construction and operation of the Ball Hill Wind Project (“Project”) in the Towns of Villenova and Hanover, Chautauqua County, New York. This Plan has been prepared to support Ball Hill Wind Energy LLC’s (“Ball Hill”) Joint Application for Permit to the United States Army Corps of Engineers (“USACE”) and the New York State Department of Environmental Conservation (“NYSDEC”).

Ball Hill has developed this Plan to include consideration of two wetland mitigation approaches to offset Project impacts: the availability of suitable onsite wetland mitigation opportunities and regional offsite in-lieu fee wetland mitigation opportunities.

Impacts from construction of the Project will result in the permanent fill of a total of 0.87 acre of wetlands under the jurisdiction of the USACE. While the Project will not result in the permanent loss of any NYSDEC Freshwater Wetlands (FWW), approximately 2.82 acres of forested FWW will be permanently converted to shrub-scrub or emergent wetland as a result of the construction of the transmission line.

Consistent with the USACE guidance, mitigation for Project-related impacts to wetlands under its sole jurisdiction will be accomplished through use of an in-lieu fee program. The NYSDEC requires unavoidable impacts to state FWWs to be mitigated “in-kind” and “onsite.” Generally, this requires mitigation to occur contiguous with the FWW that is impacted. Off-site mitigation (mitigation that occurs within a larger project boundary, on adjacent properties, elsewhere in the watershed, or within a larger political, ecological or geographic area), is acceptable in some circumstances, particularly where onsite mitigation is not possible or desirable. For the purposes of this Plan, mitigation for the conversion of forested FWW is being proposed onsite, in areas adjacent to the impacts.

Conceptual planning aspects including wetland functions and values; onsite mitigation opportunities and goals; implementation planning; performance standards and monitoring; and schedule have been considered and are provided in this Plan for review. Ball Hill will develop a final mitigation plan, with consideration given to this Plan, in consultation with the USACE and NYSDEC as part of their respective permit programs.

**CONCEPTUAL MITIGATION PLAN
BALL HILL WIND PROJECT**

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PROJECT INFORMATION SHEET

General

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

Latitude: 42.440000 North
Longitude: -79.128000 West

Project Study Area Size: 665 acres

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

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

Corresponding Information

USGS Quad Map: Silver Creek, Forestville, and Perrysburg
USDA Soils Map: Chautauqua County

Owner/Applicant

Name: Ball Hill Wind Energy, LLC
Address: 11101 West 120th Avenue, Suite 400
Broomfield, CO 80021
Contact: Sean Flannery

Consultant

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1.0 INTRODUCTION

This Conceptual Mitigation Plan (“Plan”) is proposed to address permanent impacts to wetlands resulting from construction and operation of the Ball Hill Wind Project (“Project”) in the Towns of Villenova and Hanover, Chautauqua County, New York. This Plan has been prepared to support Ball Hill Wind Energy LLC’s (“Ball Hill”) Joint Application for Permit to the United States Army Corps of Engineers (“USACE”) and the New York State Department of Environmental Conservation (“NYSDEC”). Fisher Associates (“Fisher”) delineated and evaluated wetlands and waterbodies regulated by the USACE under Sections 401 and 404 of the Clean Water Act (“CWA”) and by NYSDEC under the Article 24, Freshwater Wetlands Act, and Article 15, Protection of Waters Program. Jurisdictional wetland determinations were confirmed by the USACE and NYSDEC during separate site visits on August 24, 2016 and September 14, 2016, respectively. Specific details of the wetland delineation are provided in the Wetland Delineation Report prepared for the Project.

This Plan provides background information on existing conditions in the Project area and the concepts that will be applied to the design of a final mitigation plan. Ball Hill has developed this Plan to include consideration of two wetland mitigation approaches to offset Project impacts: the availability of suitable onsite wetland mitigation opportunities and regional offsite in-lieu fee wetland mitigation opportunities. Ball Hill will develop a final mitigation plan in consultation with the USACE and NYSDEC prior to the Project implementation.

1.1 Project Description

Ball Hill Wind Energy, LLC (Ball Hill), a company owned by Renewable Energy Systems Americas, Inc. (RES), proposes to construct and operate the 100 MW Ball Hill Wind Project (Project) in the towns of Villenova and Hanover, Chautauqua County, New York. The Project consist of 29, 3.45 MW wind turbines, approximately 13 miles of access roads, approximately 15 miles of collection lines, and 5.7 miles of 115-kV electrical transmission line. Construction of the Project is anticipated to begin in 2017.

1.2 Project Impacts

Section 404 of the Clean Water Act authorizes the USACE to issue permits regulating the discharge of dredged or fill materials into the waters of the United States, including wetlands. There is no minimum size for wetlands to be regulated under federal jurisdiction; however, wetlands that do not have a hydrological connection to waters of the United States (isolated wetlands) may not be subject to federal jurisdiction. Under Article 24 of the NYS ECL, NYSDEC regulates Freshwater wetlands (FWW) that exceed 12.4 acres (5 hectares) in size or have unusual local importance. NYS also regulates a 100-foot upland adjacent area surrounding each regulated wetland. The NYSDEC and USACE maintain dual jurisdiction over these areas. The following is a description of the Project related impacts, by jurisdiction.

Wetlands under Federal Jurisdiction

Ball Hill has elected to seek a Preliminary Jurisdictional Determination (PJD) from the USACE for the Project. In seeking a PJD, the applicant requests that the USACE assume jurisdiction over all wetlands regardless of surface water connections to traditionally navigable waterways. As indicated above, the permanent grading activities necessary to construct and operate the Project will result in the permanent loss of 0.87 acres of wetland (see Table 1). This includes 0.44 acre of palustrine emergent (PEM), 0.24 acres of palustrine scrub-shrub (PSS), and 0.19 acre of palustrine forested (PFO) wetland. In addition to the 0.87 acres of permanent fill, approximately 6.54 acres of forested wetland areas will be converted to areas that will be permanently maintained as scrub-shrub or emergent wetlands.

In addition to the permanent wetland loss, approximately 25 acres of wetland may be temporarily impacted during the construction of the Project. These temporary impacts include grading, dredging for installation of underground electric lines, and removal of wetland vegetation. As these impacted areas will be restored after the completion of construction, no additional compensatory mitigation is being proposed.

Wetlands under State Jurisdiction

Construction of the Project will not result in the permanent loss of NYSDEC FWW. However, construction of the transmission line will result in the permanent conversion of 2.82-acres of forested wetland (see Table 1). The areas within the 80-foot wide right-of-way will be maintained in an emergent or scrub-shrub state. In addition to the conversion of forested wetland areas, an additional 1.55 acres of forested 100-foot upland adjacent area will be clear cut and maintained in a scrub-shrub or meadow state.

Table 1. Project Wetland Impacts

Watershed	USACE Permanent Fill	USACE Permanent Forest Conversion	NYSDEC Permanent Fill	NYSDEC Permanent Forest Conversion ¹	NYSDEC 100-ft Adjacent Area Conversion
Conewango	0.47	0.08	0	0	0
Chautauqua-Conneaut	0.40	6.46	0	2.82	1.55
Total	0.87	6.54	0	2.82	1.55

1. NYSDEC Permanent Forest Conversion is a subset of the USACE Permanent Forest Conversion, as these agencies maintain dual jurisdiction of the impacted wetlands.

1.3 Avoidance and Minimization

Ball Hill undertook an intensive, multi-phased siting process to avoid and minimize potential impacts on wetlands. The Project design effort considered siting factors that include topography, location of wetlands and other sensitive resources, availability of sufficient wind resources, proximity to existing roads and transmission lines, locations of residential dwellings, potential impacts from noise, and landowner access agreements. Each factor imposed limitations on the amount of flexibility available during the facility siting process. Once these factors were considered, turbines and ancillary facilities (i.e., roads and collection system) were sited to avoid and/or minimize environmental impacts. Ball Hill made every effort to use previously disturbed areas, such as farmlands and roads, and avoid wetland and stream crossings. Despite an extensive effort to entirely avoid wetland impacts it was not possible to design the Project without some impacts on wetlands while still meeting Project objectives

Multiple wetland studies and delineations were previously completed to determine the extent and quality of wetlands that could potentially be impacted by the Project. Previous wetland studies included a desktop review of existing wetland location information and mapping, reconnaissance-level wetland surveys, and detailed wetland delineations in 2008. Since that time, additional rounds of wetland delineations were conducted in 2011/2012. These previous studies confirm that wetlands under state and federal jurisdiction exist within the Project Site and provide information on the extent and quality of those wetlands. Updated wetland delineations began in 2015 and were completed in 2016. Each phase of the wetland delineations was used to determine changes in the wetlands in the Project Site and refine siting for the Project components to avoid and/or minimize impacts on wetlands while balancing impacts on other resources. The delineated wetland boundaries for the Project were added to facility mapping and used to further refine the location of turbine sites, roads, electrical collection lines, the transmission line and substation, and other ancillary facilities to avoid and minimize impacts on wetlands to the extent practicable.

In addition to the intensive desktop and field review of potential layouts, the Project has undergone a change in the proposed wind turbine generators. The initial Project was designed utilizing 60 1.5MW machines to achieve the Project output of 90MW. Ball Hill is now proposing to use 29 3.45MW machines to achieve a Project output of 100.05 MW.

2.0 MITIGATION GOALS AND OBJECTIVES

Within the federal and state regulatory framework, compensatory mitigation can only be considered after the project proponent demonstrates avoidance and minimization to the extent possible. Following the review and acceptance by agencies regarding the alternatives analysis conducted to demonstrate minimization of impacts, compensatory mitigation must be developed to offset project-related impacts. With respect to the Project, unavoidable permanent wetland impacts will result from a network of interconnecting roads and associated electric connection and transmission lines required to access the Project facilities and connect the Project to the local electric grid.

Based on USACE guidance, mitigation can be completed either financially, in the form of an in-lieu fee, land acquisition for preservation purposes, regional mitigation banking, or in the form of a specific wetland restoration, creation, or enhancement project developed in conjunction with the proposed Project. Depending on agency input and local availability of existing mitigation opportunities, the mitigation may also take the form of a consolidated mitigation plan, combining two or more of the available mitigation options.

The NYSDEC requires unavoidable impacts to state FWWs to be mitigated “in-kind” and “onsite.” Generally, this requires mitigation to occur contiguous with the FWW that is impacted. Off-site mitigation (mitigation that occurs within a larger project boundary, on adjacent properties, elsewhere in the watershed, or within a larger political, ecological or geographic area) is acceptable in some circumstances, particularly where onsite mitigation is not possible or desirable. At this time, NYSDEC does not allow mitigation through the in-lieu fee or mitigation banking programs.

2.1 Mitigation for Wetlands under Federal Jurisdiction

As noted, the Project will result in the loss of 0.87 acres of wetland under federal jurisdiction resulting from the construction of permanent access roads and ancillary facilities. While potential mitigation options likely exist onsite, Ball Hill is proposing to utilize an in-lieu-fee mitigation arrangement to compensate for the lost wetland areas. While onsite mitigation would provide net benefits in the immediate vicinity of the impacted areas, the small acreage of creation likely to be required (approximately 2-acres) would be of limited value to the overall landscape. By proposing to use the in-lieu-fee program, the mitigation for the relatively small impacts resulting from the construction of the Project would be combined with mitigation efforts for impacts elsewhere to create a much larger mitigation site that would ultimately provide significant value within the region.

While the impacts to waters under the jurisdiction of the USACE occur within both the Conewango and the Chautauqua-Conneaut watersheds, Ball Hill is proposing to purchase credits from the in-lieu-fee mitigation program being offered in the Conewango watershed. Currently, there are no in-lieu fee mitigation opportunities within the Chautauqua-Conneaut watershed. Given the relative close proximity of the impacted wetlands to the watershed boundary, within 2-miles of the watershed line, the increased value of the in-lieu-fee mitigation should provide a net benefit.

2.2 Mitigation for Wetlands under NYSDEC Jurisdiction

Pursuant to NYSDEC requirements, Ball Hill is proposing onsite mitigation for the impacts resulting from the conversion of forested areas within FWW SC-12 and SC-13, as well as their associated upland adjacent areas. It is assumed that NYSDEC will require a mitigation ratio of 1:1 for the conversion impacts to both the wetland and upland adjacent areas.

2.2.1 Wetland Functions and Values

The NYSDEC Freshwater Wetlands Act outlines wetland functions and values as benefits which it seeks to preserve, protect and conserve because of the positive outcomes that they provide. These functions and values include:

- Flood and stormwater control;
- Wildlife habitat;

- Water supply;
- Water quality;
- Fisheries;
- Food chains;
- Recreation;
- Open space and aesthetic appreciation; and
- Education and scientific research

The permanent impacts to NYSDEC FWW and adjacent 100-foot adjacent areas will be limited to conversion of forested wetlands and associated forested adjacent areas to emergent or shrub-scrub wetlands. These jurisdictional wetland areas will continue to exist and provide significant function and value contributions. Most functions and values will continue with no or only minor reductions. The current flood and stormwater control, water supply, and fisheries functions are not anticipated to be significantly affected by tree canopy removal and replacement with an emergent or scrub-shrub community. Minor reductions of current functions corresponding to water quality, food chains, recreation, open space and aesthetic appreciation, and education and scientific research may result from the conversion of forested cover types to shrub or emergent communities as the vegetation community composition has some direct or indirect link to these functions. The primary function and value affected by the forested wetland conversion will be an anticipated wildlife habitat shift due to the removal of the overstory tree canopy. This conversion from forest to shrub/emergent cover types will bolster forest edge habitat and preferred habitat for grass and shrub land species, but will result in a long-term shift in wildlife habitat functions from their current forested state.

The final mitigation plan to be developed during the course of the Joint Application for Permit process will address the site-specific cumulative loss of biological function provided by the impacted wetlands, as well as any identified public value. Consistent with the NYSDEC guidance, the goal of the mitigation plan will be to create, enhance, and preserve existing wetland functions, values, and ecological integrity at a specific mitigation area to adequately offset the loss of function and value within jurisdictional wetlands resulting from Project implementation.

2.2.2 Mitigation Area Description

Based on the field surveys and review of mapped NYSDEC FWWs in proximity to the Project, multiple potential mitigation sites were considered. Because of the relatively small total acreage of impact, Ball Hill will plan to consolidate onsite mitigation into a single location to maximize functions and values of the mitigation area. By centralizing the onsite mitigation area into a single location, Ball Hill believes that the overall value of the mitigation area increases in relation to the surrounding landscape. During the course of the permit review process, Ball Hill will continue coordinating with local landowners regarding the acquisition of suitable parcels to implement mitigation, secured by a conservation easement to protect it in perpetuity.

Ball Hill is evaluating the suitability of the area depicted in Figure 2: Proposed Onsite Mitigation Area as the preferred onsite mitigation option ("Preferred Option"). The Preferred Option is hydrologically connected to waters of the United States and contiguous with the delineated boundaries of FWW SC-12 and SC-13. These areas are currently maintained as active and fallow agricultural fields. Based on field surveys, it appears that the hydrology in the area has been manipulated by past agricultural practices including ditching and possible drain tile installation. Despite these practices, hydrophytic plant species were noted within the potential mitigation areas. As such, it is assumed that this area could be restored within minimal site work.

The exact mitigation area size will be finalized through discussions with the USACE and NYSDEC as Project permitting proceeds. The location and details of the final mitigation area are dependent on site conditions and the ability to secure easements or purchase arrangements with the current landowners.

2.3.3 Onsite Mitigation Goals

Goals and objectives of the proposed mitigation project are derived from the lost or impaired functions and values of the onsite wetlands due to Project activities. Mitigation will offset the adverse effects on the benefits of a wetland and compensate for the lost wetland acreage. Ball Hill is proposing to perform onsite mitigation within active and fallow agricultural fields located to the south and east of FWW SC-12 and SC-13, respectively (see Figure 2). The goals of the onsite mitigation approach are to restore, augment, and preserve self-sustaining, functional wetland and upland adjacent area functions and values which have been degraded as a result of historical land use practices including logging and agriculture. The restoration/enhancement will focus on dynamic improvement of the overall holistic functions of the wetland and upland adjacent areas. The specific functional improvement goals include, but are not limited to:

1. Re-establish forested wetland presence and establish a high level of wetland functional diversity;
2. Improve onsite water quality and food chain diversity;
3. Improve nutrient and organic matter cycling;
4. Improve wetland and upland adjacent area terrestrial habitat;
5. Re-establish a diverse forested wetland/upland corridor composed of native species; and
6. Provide protection of the Preferred Option through appropriate legal protections to ensure the continuity of the functional improvement goals once established into perpetuity.

When creating the onsite mitigation concept for this Project, multiple approaches and alternatives were considered. The intensity of active functional improvement used in different areas is directly dependent on the degree of the current resource degradation in those areas. As such, the onsite mitigation approach incorporates a combination of conservation and active enhancement activities which maximize the ecological uplift achieved from implementation of the mitigation project, while minimizing the impacts from construction.

The proposed onsite mitigation project is intended to compensate for lost function and values of wetlands subject to permanent conversion impacts while providing a greater landscape scale benefit by enhancing one contiguous wetland complex. The primary function of the forested component to be permanently converted is wildlife habitat. The conversion of forested wetland due to ROW clearing and maintenance along the transmission line will result in a long-term shift in wildlife habitat functions. The goals and objectives for this proposed mitigation project are to enhance an existing wetland by planting trees, and to preserve in perpetuity the mitigation area via the establishment of a conservation easement. By meeting these goals, wildlife value of the mitigation area will be increased.

3.0 IMPLEMENTATION PLAN

There are several factors in the design and implementation of mitigation plan necessary to ensure success. Proactive planning and purposeful design are fundamental components. The Implementation Plan, to be included in the Final Mitigation Plan, will include specifications for planting, the sequence of operations, final quantification of materials, development of appropriate best management practices (“BMPs”) and additional monitoring and maintenance plans. The wetland mitigation area will be designed to provide function and value equal to, or greater than, that of the forested wetlands that are permanently converted to shrub-scrub or emergent wetlands.

The goal of the Implementation Plan is to identify potential required design factors, as well as any necessary constraints that would interfere with the successful tree planting at the mitigation area. The objectives to attain this goal include: examining current vegetation communities in the mitigation area; examining current hydrologic and soil conditions in the mitigation area; determining the most appropriate species to be planted; determining the most efficient and effective means to accomplish tree planting; and ensuring the development of a diverse native plant community that minimizes interferences by invasive species.

The conceptual design components that will be implemented to offset permanent fill impacts and permanent conversion impacts include:

- Restoration and/or establishment of a wetland area with similar function and value to those lost due to permanent impact achieved through an in-lieu fee fund contribution;
- Tree planting within and in the vicinity of an existing wetland to compensate for function(s) lost by the conversion of forested wetland to non-forested wetland for wetlands that are both NYSDEC and federally jurisdictional; and
- Preservation of existing wetlands within the mitigation area via the establishment of conservation easement(s).

3.1 Restoration Methods

Preliminarily, the restoration methods will include wetland and upland adjacent area restoration throughout the proposed mitigation site. Currently, the majority of the wetland and upland adjacent areas present consist of an actively harvested agricultural fields lacking both tree and shrub layers. Restoration of these degraded areas will consist of converting the existing managed agricultural land to a diverse forested community. Heavy woody stem plantings are proposed to improve the wetland and adjacent area functions by filtering runoff, absorbing nutrients, lowering ambient habitat temperatures through shading, increasing woody and leafy debris organic materials, and providing diversified habitat for both aquatic and terrestrial wildlife species.

Pending the results of a detailed wetland delineation within the final site, wetland presence may also be increased, if needed, through grading alterations to encounter shallow groundwater hydrology and remove man-made ditches that serve to limit the persistence of ground and surface waters. Wetland augmentation areas will be assessed and projected based on planned grading characteristics, site soils properties, and potential hydrologic modifications which could be adjusted or eliminated to facilitate water table elevation rise. These wetlands will be planted with native wetland forest species to establish stability and foster a high level of wetland functional diversity.

Ball Hill does not plan to acquire the land required to implement this mitigation project. Easement agreement(s) will be sought with landowners for proposed onsite mitigation areas. Ball Hill will pursue discussions with landowners within and adjacent to the impacted wetlands regarding development of onsite mitigation and an accompanying conservation easement to protect such area.

3.2 Site Preparation

Once an onsite mitigation area selection has been finalized, additional field reconnaissance will be conducted to further characterize the area and determine preparation needs. Field investigations will include wetland delineations in the mitigation area in order to determine wetland/upland boundaries and to characterize vegetation communities. Additional due diligence investigation efforts will be implemented as appropriate and could include detailed topographic survey, groundwater monitoring, soils assessments, and/or hydrologic modeling.

3.3 Vegetative Establishment

The Implementation Plan will promote the introduction of native trees in the mitigation area that will enhance the natural plant communities and improve wildlife habitat. The species will be selected for enhancement of the mitigation area based on the hydrologic and soil conditions at the mitigation site, the species composition of the impacted wetlands, and species typical of undisturbed natural communities in the area.

Based on the vegetative communities observed within the impacted wetlands, the following species may be chosen for the mitigation area depending on availability and suitability for the chosen site:

- Red Maple (*Acer rubrum*)
- Yellow Birch (*Betula alleghenensis*)

- Silver Maple (*Acer saccharinum*)
- American Elm (*Ulmus americana*)
- Ironwood (*Carpinus caroliniana*)
- Eastern Hemlock (*Tsuga canadensis*)

Species that may be utilized in the upland adjacent area plantings include:

- Sugar Maple (*Acer saccharum*)
- Black Cherry (*Prunus serotina*)
- Basswood (*Tilia americana*)
- Quaking Aspen (*Populus tremuloides*)
- American Beech (*Fagus grandifolia*)
- Tulip Poplar (*Liriodendron tulipifera*)
- Eastern Hemlock (*Tsuga canadensis*)
- Red Pine (*Pinus resinosa*)

In addition to the tree species, several species of shrubs may also be planted in both wetland and upland area to augment and supplement the area while the slower growing tree species are establishing. Species that may be utilized include:

- Northern Spicebush (*Lindera benzoin*)
- Red Osier Dogwood (*Cornus alba*)
- Silky Dogwood (*Cornus amomum*)
- Gray Dogwood (*Cornus recemosa*)

A detailed wetland and buffer area planting plan will be developed to provide specifications as to the numbers of each species planted or their planting density, their location, source of planting material, and establishment methods. The planting plan is anticipated to establish a menu of appropriate species plantings and specify a planting density appropriate to ensure success. The planting plan will be a component of the final mitigation design package and will be made available to the USACE and NYSDEC for review.

3.4 Wetland Restoration

In the event that it is necessary to increase wetland presence onsite through restorative grading alterations, a detailed engineering plan will be provided which will outline proposed wetland restoration methods. The engineering plan would provide detail of existing and proposed site conditions including topography, soils, and hydrology characteristics. Restored wetlands would be planted with native wetland forest species to establish stability and foster a high level of wetland functional diversity. If proposed, the engineering plan will be a component of the final mitigation design package and will be made available to the USACE and NYSDEC for review.

4.0 PERFORMANCE STANDARDS AND MONITORING

Performance standards will be developed to assess the condition and functionality of the mitigation area. The standards will assess the development and survival of the enhanced vegetation communities. Relative success or failure of the vegetation community will be based on a percent survival that will be developed in conjunction with the regulatory agencies and presented in the Final Mitigation Plan.

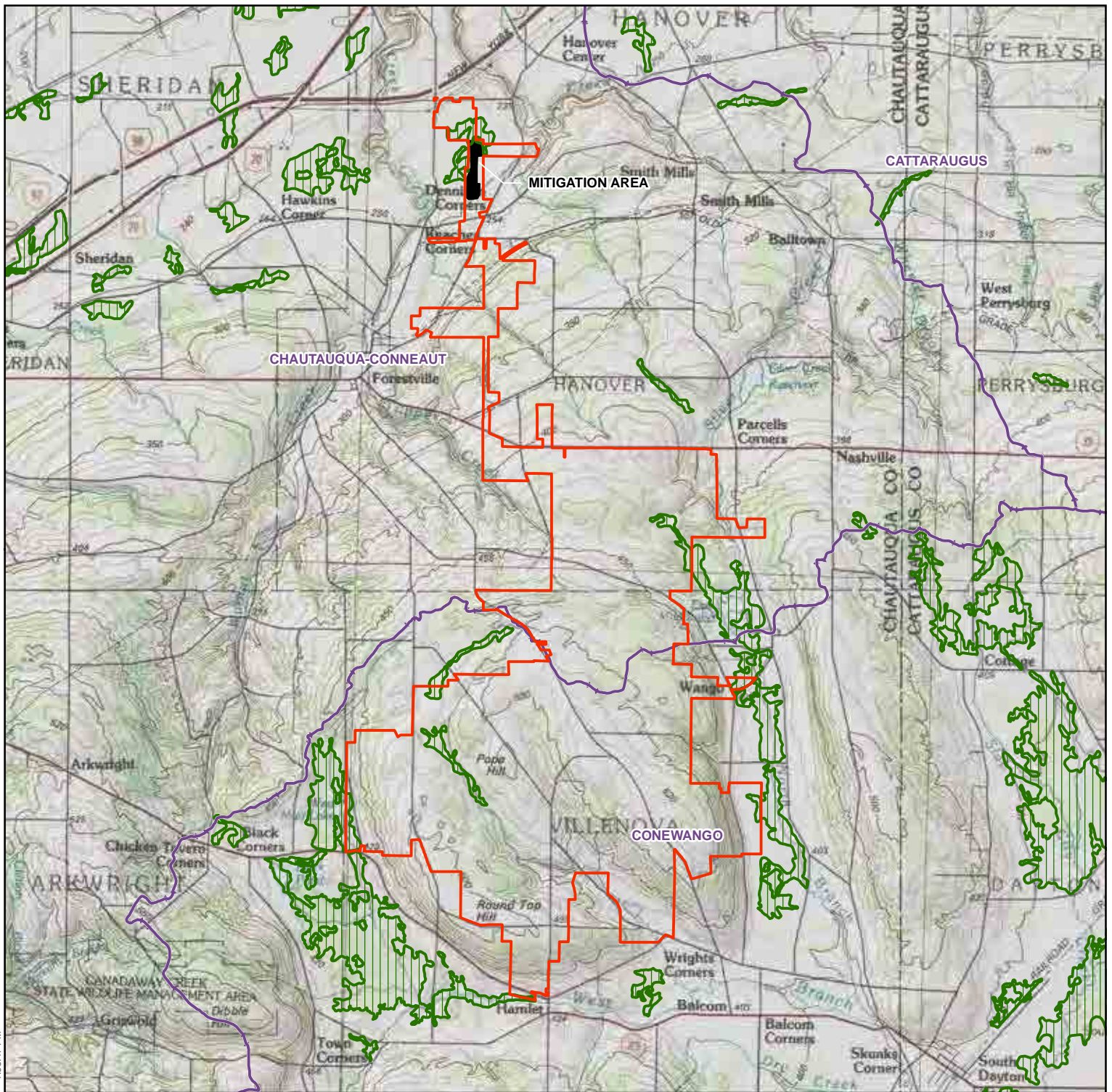
A maintenance and monitoring plan will be developed and implemented to ensure the vitality and functional integrity of the onsite mitigation area. This plan will include elements of vegetative monitoring, invasive species monitoring and control, and faunal monitoring. The goal of the wetland mitigation project is to enhance and preserve wetlands in the onsite mitigation area to mitigate for the wetlands that will be impacted by the Project. A stratified sampling plan will be developed in order to estimate percent cover and relative survival of the planted trees. The duration of monitoring will be developed with the regulatory agencies, but will likely extend over a five-year timeframe.

5.0 SCHEDULE

A Final Mitigation Plan, containing the final location of the proposed mitigation area and the Implementation Plan will be submitted to NYSDEC and the USACE prior to permit issuance. Preconstruction design activities for the onsite mitigation area will be initiated upon approval of a proposed mitigation approach. Planting of the onsite mitigation area is expected to proceed concurrently with the construction of the Project.

Ball Hill will also obtain the appropriate mitigation credits required to offset the anticipated impacts to wetlands under the jurisdiction of the USACE. A credit sale letter will be provided to the USACE prior to construction.

Figures



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

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

Project Study Limits:
665.38 Acres

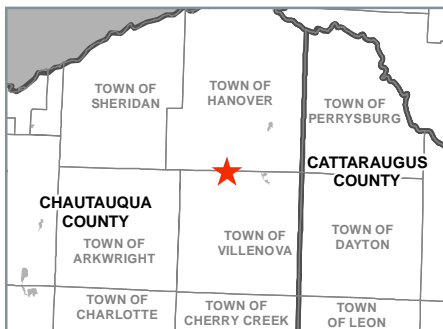
Center of Project Study Limits:
42.440 N, -79.128 W
North American Datum 1983




- Project Boundary
- Potential Mitigation Area
- NYSDEC Wetland
- Watershed Boundary


Data Sources:
United States Geological Survey 24k Topo Quad Map - usgs.gov

Author: AK **Revision Date:** 10/14/2016



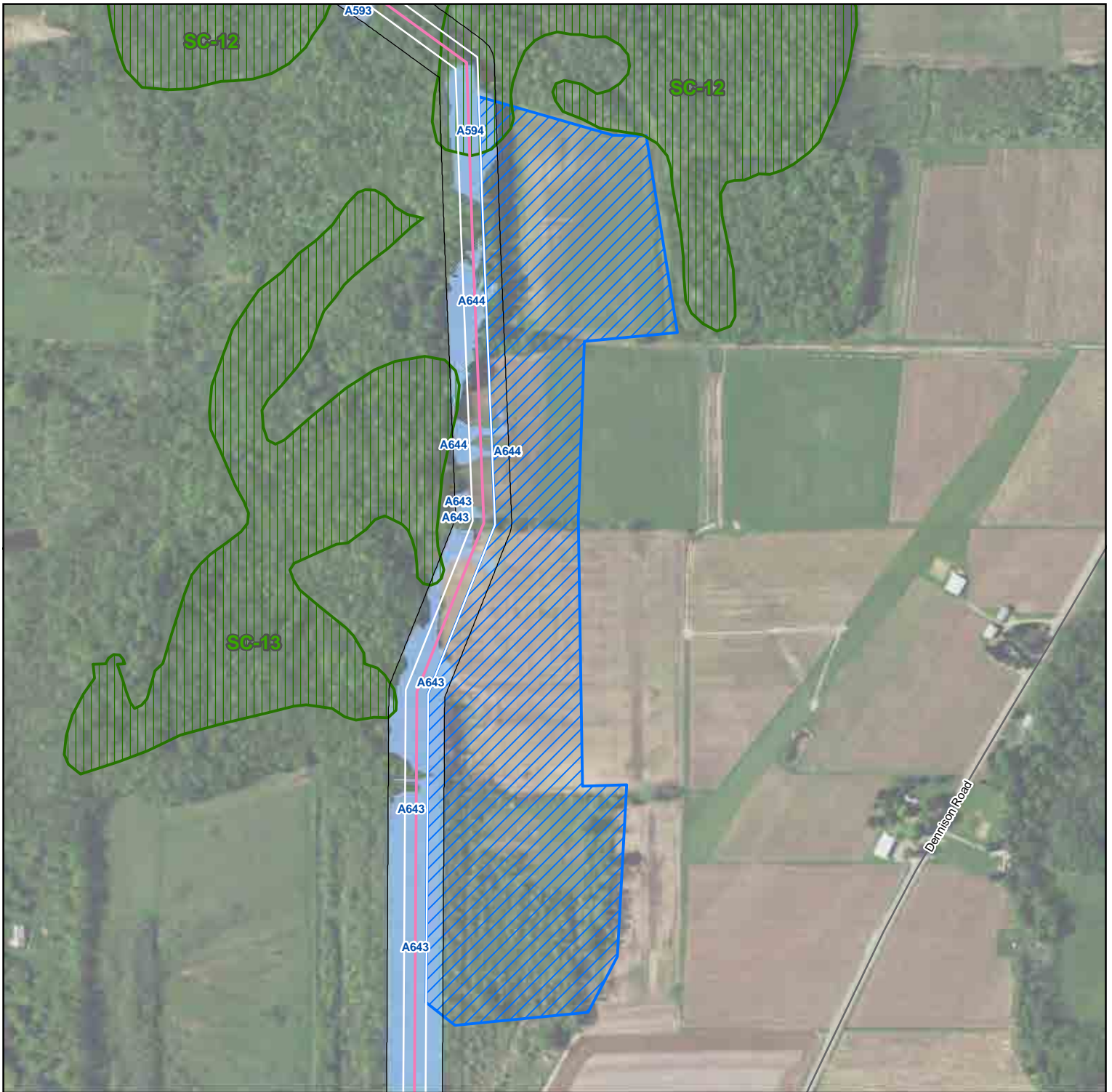


0 0.75 1.5 Miles



BALL HILL WIND ENERGY, LLC.
BILL HILL WIND PROJECT
MITIGATION AREA LOCATION MAP

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Project USGS Quad(s):
Silver Creek, Forestville

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

Project Study Limits:
665.38 Acres

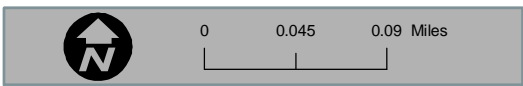
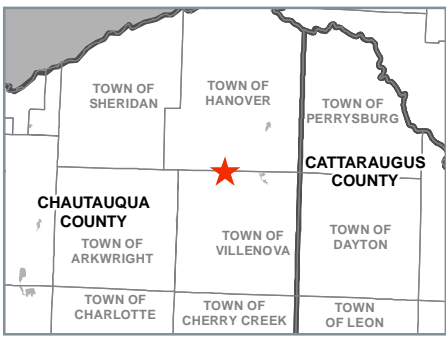
Center of Project Study Limits:
42.440 N, -79.128 W
North American Datum 1983



- Road
- Transmission Line
- Delineated Wetland
- ▨ Potential Mitigation Area
- Right of Way
- ▨ Project Study Limits
- ▨ NYSDEC Wetland

Data Sources:
United States Geological Survey 24k Topo Quad Map - usgs.gov

Author: AK **Revision Date:** 10/14/2016



FISHER ASSOCIATES

**BALL HILL WIND ENERGY, LLC.
BILL HILL WIND PROJECT
PROPOSED ONSITE MITIGATION AREA**