

## **Appendix A**

### PSS Filing Notice

November 16, 2018

Dear Stakeholder,

As you may know, High Bridge Wind, LLC (“High Bridge”) has proposed to construct a major wind electric generating facility with a nameplate capacity of up to 100-megawatts in the Town of Guilford, Chenango County, New York (the “Facility”). To build the Facility, High Bridge must obtain a Certificate of Environmental Compatibility and Public Need from the New York State Board on Electric Generation Siting and the Environment. This process is required under Article 10 of the New York Public Service Law (“Article 10”).

On or about November 30, 2018, High Bridge plans to take the next critical step in the Article 10 process: the filing of a Preliminary Scoping Statement (“PSS”). The PSS will outline the scope and methodology of the many environmental studies the State will require for this Facility. It will also provide an overview of the information to be submitted with the formal Article 10 Application.

The PSS affords stakeholders like you the opportunity at this early stage to review and comment on the proposed studies and information-gathering efforts, which in turn will be used to develop the proposed Facility layout and the Article 10 Application.

Enclosed please find the legal notice of the PSS filing as well as a notice of an Open House that will be hosted by High Bridge on November 28, 2018 at the Guilford Town Hall. The PSS legal notice explains the technical aspects of the Article 10 Scoping Phase and offers potential venues and contacts for obtaining further information. The PSS will be filed electronically on the Siting Board’s website (<http://www.dps.ny.gov/SitingBoard>) and printed copies will be available for public review at the local document repositories identified in the enclosed legal notice.

Persons who wish to become a party to this Article 10 proceeding or those who wish to receive electronic notices, should visit the Siting Board’s website (see above) to sign up for the Party or Service List, respectively.

If you have any questions, concerns, or would like to be added to the Project Notification List, please contact Alec Jarvis, the Director of Development for High Bridge, by phone or email, or stop by the Open House where additional project information will be available.

We look forward to hearing from you.

Sincerely,

Alec Jarvis  
High Bridge Wind, LLC  
Calpine Corporation  
717 Texas Avenue, Suite 1000  
Houston, TX 77002  
[Alec.jarvis@calpine.com](mailto:Alec.jarvis@calpine.com)  
(207) 956-1169

# High Bridge Wind Project

## Chenango County, New York

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### **NOTICE OF SUBMISSION OF PRELIMINARY SCOPING STATEMENT**

High Bridge Wind, LLC (“High Bridge” or “Applicant”) is proposing to construct a major wind electric generating facility up to 100 megawatts (MW) in size in the Town of Guilford, Chenango County, New York (“High Bridge Wind Project” or “Facility”). To construct the Facility, the Applicant must obtain a Certificate of Environmental Compatibility and Public Need from the New York State Board on Electric Generating Siting and the Environment (“Siting Board”) pursuant to Article 10 of the Public Service Law and the Siting Board’s rules (16 NYCRR Part 1000). This notice announces that on or about November 30, 2018, High Bridge will file a Preliminary Scoping Statement (“PSS”), pursuant to 16 NYCRR 1000.5.

#### **What is the PSS?**

The PSS will describe and identify: 1) the environmental setting in the Facility area proposed, 2) the potential environmental and community benefits and impacts from construction and operation of the Facility, and 3) the Facility’s anticipated contribution to the State’s achievement of its renewable energy generation goals. The PSS will also identify and describe the proposed environmental studies the Applicant plans to conduct during the Article 10 process in order to assess potential impacts to:

- Land uses in the Facility area;
- Public health and safety;
- Ecological resources, protected species and habitats, and water resources;
- Communications, transportation, and utilities;
- Cultural, historical, and recreational resources;
- Visual impacts and screening;
- Sound; and
- The statewide electrical system.

Furthermore, the PSS will outline potential measures to minimize Facility impacts, reasonable alternatives to the proposed layout, other required permits/authorizations, and other relevant information to be provided in the Article 10 Application.

#### **High Bridge Wind Project**

The Facility is proposed to include the installation of up to 30 wind turbines, associated electrical collection lines and substation(s), access roads, wind measurement towers, and an Operations and Maintenance building. The Facility would interconnect to the New York State power grid at a 115-kV electrical transmission line currently owned by the New York State Electric and Gas Corporation (“NYSEG”) in an area northeast of Guilford Lake. High Bridge also proposes to install battery storage.

For more information on the proposed Facility, please visit the Siting Board’s website under Case 18-F-0262, or the Applicant’s dedicated project website (<http://www.calpine.com/highbridgewind>). Hard copies of the PSS containing project details can also be found at the local document repositories listed at the end of this notice.

#### **21-Day Public Comment and Response Periods**

The PSS is designed to gather input from the public and interested agencies on the scope and methodology of studies to be conducted in support of a future Article 10 Application. The PSS filing will start a 21-day period where the public—any person, agency or municipality—may comment on the scope and methodology of the studies proposed. Comments on the PSS may be submitted to the Applicant with copy to the Secretary of the Department of Public Service at the addresses provided below.

The Applicant will prepare a summary of the material comments and its reply to those comments within 21 days after the closing of the comment period. The scoping process is overseen and mediated by a Hearing Examiner who will also schedule a pre-application meeting and provide additional notice for it. The pre-application meeting marks the beginning of stipulation negotiations and allows for the discussion and award of intervenor funding.

### **Intervenor Funding**

To facilitate participation by local municipalities and community groups, High Bridge will provide \$35,000 toward an intervenor fund. Funds will be disbursed by the Hearing Examiners to groups seeking assistance with expenses associated with their participation in the Article 10 process during the pre-application review phase. By law, at least 50 percent of these intervenor funds are reserved for impacted municipalities. Once the PSS is filed, the Hearing Examiners will issue a notice that such intervenor funds are available. The notice will describe the kinds of expenditures which are eligible for receipt of those monies and will provide instructions and a schedule for interested groups to apply for pre-application intervenor funds. Once the formal Article 10 Application is submitted, additional application-phase intervenor funding will be made available to facilitate municipal and party participation in the Application and Hearing phase.

### **Contact Information**

To obtain information regarding the project, please contact:

Alec Jarvis  
High Bridge Wind, LLC  
Calpine Corporation  
717 Texas Avenue, Suite 1000  
Houston, TX 77002  
[Alec.jarvis@calpine.com](mailto:Alec.jarvis@calpine.com)  
Toll Free Number: 1-866-681-3312

Contact information for the DPS public information coordinator:

James Denn  
NYS Department of Public Service  
3 Empire State Plaza  
Albany, NY  
(518)474-7080  
[james.denn@dps.ny.gov](mailto:james.denn@dps.ny.gov)

Hard copies of the PSS and related project documents are available for review at the following local document repositories: Guilford Town Hall, 223 Marble Rd., Guilford, NY 13780; Guernsey Memorial Library, 3 Court Street, Norwich, NY 13865; Oxford Memorial Library, 8 Ford Hill, Oxford, NY 13830; and Gilbertsville Free Library, 17 Commercial Street, Gilbertsville, NY 13776.

Digital copies of the PSS and related project documents are available on the Siting Board's Docket for this case, which can be accessed by visiting <http://www.dps.ny.gov/>, going to "Search" on the top of the webpage and then searching using the Case Number 18-F-0262, or by going to the project website maintained by the Applicant at <http://www.calpine.com/highbridgewind>.

### **Requests for Notices**

Any interested member of the public may file a request with the DPS Secretary to receive copies of all notices concerning the project, including but not limited to notices regarding any proposed pre-application stipulation. Written requests should be sent to the DPS Secretary at [secretary@dps.ny.gov](mailto:secretary@dps.ny.gov) or sent by mail to the following address:

Honorable Kathleen H. Burgess  
Secretary to the Commission  
NYS Public Service Commission  
Agency Building 3  
Albany, New York 12223-1350

## Notice of Open House for the High Bridge Wind Project

**High Bridge Wind, LLC** is pleased to invite you to attend an Open House regarding its proposed 100-megawatt wind energy generating facility in the Town of Guilford. The Open House will be held **Wednesday November 28, 2018** from 4 p.m. to 6 p.m. at:

Guilford Town Hall  
223 Marble Road  
Guilford, NY 13780

All members of the public are invited. At this Open House, project representatives will be available to provide information on the proposed project and to answer questions from members of the community.

More information on the High Bridge Wind Project can be found at <http://www.calpine.com/highbridgewind> and on the New York State Siting Board's website (<http://www.dps.ny.gov/SitingBoard>) under Case 18-F-0262. Copies of many materials discussed at this Open House will be available for public review on these websites following the event.

Hope to see you there!



## **Appendix B**

### Tracking Log

## High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
8/9/2017	Guilford Town Hall	Guilford Town Board and local residents	Project introduction	Presented current project development status, leasing efforts, anticipated field studies, overview of Article 10 process and intervenor funding mechanism, and project next steps. 25+ local residents attended with robust and productive Q+A period
2/28/2018	Email	USFWS, NYSDEC, and DOAS	Transmittal of preliminary workplans	Sent preliminary workplans for Eagle Use Survey and Raptor Migration Surveys.
4/3/2018	NYSERDA - Albany Office	NYSERDA	Project introduction	General meeting to discuss Calpine's existing generation facilities and planned developments in NY. Introduced the High Bridge Wind Project and development efforts to date.
4/17/2018	New York State Capital	State legislators with districts intersecting the proposed Facility Area as well as other legislators: Assembly Members - Donna Lupardo, Clifford Crouch, and Philip Palmesano; Senators - Thomas O'Mara, James Seward, Michael Ranzenhofer, Patrick Gallivan, Pamela Helming, Frederick Akshar, and Cathy Young.	Project Introduction	As part of annual ACENY Lobby Day, met with multiple legislators to discuss Calpine development efforts in NY, including the High Bridge Wind Project Article 10 process status and development status.
4/27/2018	Phone Call	USFWS	Survey Coverage Question	Call with USFWS to discuss percentage coverage for eagle point count surveys. Calpine agreed to increase coverage higher than 30%.
5/14/2018	Email	USFWS, NYSDEC, and DOAS	Transmittal of preliminary workplans	Sent and received approval for preliminary workplans for breeding bird surveys.
5/24/2018	Gilbertsville-Mt. Upton Elementary School	Multiple landowners in the Facility Area	Project introduction	Meeting with a group of landowners within the Facility Area to discuss project development status and leasing opportunities.
5/25/2018	Email	USFWS, NYSDEC, and DOAS	Transmittal of revised preliminary workplans	Sent and received approval for revised workplans for Eagle Use Surveys and Raptor Migration Surveys.
5/30/2018	n/a	New York State Office of the Attorney General	Code of conduct consultation	Execution of NYS Code of Conduct. Posted executed copy to <a href="http://www.calpine.com/highbridgewind/public-documents">http://www.calpine.com/highbridgewind/public-documents</a> .

## High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
6/13/2018	Guilford Town Hall	Guilford Town Board and local residents	Project Update/Information Sharing Session	Presented current development status, ongoing field studies, anticipated field studies, overview of Article 10 process and intervenor funding mechanism. 50+ local residents attended with robust and productive Q+A period
6/14/2018	Conference Call	Guilford Town Supervisor	Discuss venue for upcoming public meeting	Call was to coordinate use of the Guilford Town Hall for the pre-PSS public information session tentatively planned for late-summer 2018.
7/11/2018	email	Alec Jarvis, George Seneck - Supervisor for the Town of Guilford	Stakeholder outreach	"George, I wanted to give you a heads up that I am reaching out of the following people to introduce the project. I have a meeting set up with Mr. Wilcox at 10:30 am on Tuesday. Lawrence Wilcox - Chairman of the Board of Supervisors; Director of Planning Shane Butler; Real Property Tax Director Steven Harris; Guilford Highway Department Bob Fleming; Director of Public Works Sean Fry; Chenango County Highway Department Doug Parry. We identified these individuals as stakeholders in our PIP filing and I wanted to introduce myself and the project. Are you able to meet as well next week Monday or Tuesday? - Alec Jarvis"
7/11/2018	email	Alec Jarvis, George Seneck - Supervisor for the Town of Guilford	Re: Stakeholder outreach	"I will be able to meet you either Monday or Tues - Monday I will be at the town office from 10 until 1 or anytime that works for you. Monday eve I have a mtg. at 7:00 in Mt. Upton. Tues I have a meeting in Norwich at 10:00 and can meet at the co. office bldg. or back at the town hall afterwards. I have not recieved the agenda for Tuesday's meeting. I will be in at the town hall tomorrow Friday June 13 if you need anything. Thanks for the heads up, George"
7/12/2018	Phone Call	Senator Akshar's office	Set up a project update meeting with Alec	Was told to email the scheduling office; sent them an email
7/12/2018	Phone Call	Sean Fry, Director of the Chenago County Department of Public Works	Set up a project update meeting with Alec	He was out on a vacation; left a message; he has not called back
7/12/2018	Phone Call	Doug Parry, Deputy Director of Chenago County HWY Department	Set up a project update meeting with Alec	He was out; left a message; he has not called back



High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
7/12/2018	Phone Call	Shane Butler, Director of Planning Chenago County Planning and Development	Set up a project update meeting with Alec	Spoke to his secretary, she said she would see if he could attend and call back
7/12/2018	Phone Call	Bob Fleming, Superintendent of the Guilford Highway Department	Set up a project update meeting with Alec	Was told to call at 6 am, tried calling at that time later in the week, no answer
7/12/2018	Phone Call	Lawrence Wilcox, Chairman of the Board of Supervisors Chenago County	Set up a project update meeting with Alec	Spoke to Mr. Wilcox, he confirmed a meeting with Alec the following Tuesday at 10:30 am and said he would invite Shane Butler and Steven Harris (Real Property Tax Director) to attend the meeting
7/16/2018	Guilford Town Office	Alec Jarvis, George Seneck - Supervisor for the Town of Guilford	in-person project update	Alec met with George to coordinate the use of the Guilford Town Hall for the High Bridge Public Meeting
7/16/2018	landowner's property	Alec Jarvis, landowner Pancoe	in-person project update	site walk of property
7/16/2018		Alec Jarvis, Paul Knowles - landowner	in-person project update	lease status negotiations
7/17/2018	Chenago County	Alec Jarvis, Larry Wilcox - Chairman of the Board of Supervisors for Chenago County, and Shane Butler - Director of Planning for Chenago County, Pat Heaton - EDR	In-person project update	The purpose of the meeting was to introduce the project to the County and provide a high-level overview of the Article 10 process. Shane Butler had some concerns relative to the Norwich and Sidney Airports, which are relatively close to the Facility Area. There is an emergency response helicopter based in Sidney that responds to regional emergencies; Shane asked that we keep that in mind. Also, the Norwich Airport may be considering an extension to one of their runways. Shane wanted to know how cell service would be affected by the wind turbines, and whether or not cell towers would be installed on the turbines. Shane mentioned a rumor that the NYSEG transmission line was going to be expanded - that another tower might be added. He asked if we were planning to coordinate with NYSEG. Alec said that Calpine was in contact with NYSEG and that he expected the High Bridge Wind Project to precede any NYSEG line updates. Lawrence asked if there was a relationship between the PILOT and job creation. Alec stated that the project would likely result in the employment of 3-4 office/management staff and 5-7 maintenance staff. Shane recommended reaching out directly to

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
				<p>Delaware and Otsego Counties. The Chenango County Comprehensive Plan was mentioned, along with the Southern Tier 8 Regional Planning Board (Jen Gregory was specifically mentioned), the Agricultural Farmland Protection Plan, SEDS, and an Economic Development Study. Shane asked that we update his title on the Notification List.</p>
7/18/2018	DPS offices, Albany, New York	<p>In person: Alec Jarvis, representatives from DPS, DEC, DAM, Laura Bomyea (Young-Sommer), Greg Liberman and Dan Zvirzdin (EDR); on the phone: Bill Whitlock, Barbara McBRide, and Jill Van Dalen (Calpine) and Jason Rizert (West</p>	in-person project update	<p>Alec Jarvis introduced the High Bridge Wind Farm and gave a detailed description of the project. EDR provided an outline of where the project is in the Article 10 process and described the PIP outreach that had occurred to date. EDR and West discussed the status of the avian and bat studies for the project, including the submission of draft work plans to the USFWS. DAM asked that Farmland of Statewide Importance and Prime Farmland be provided in future mapping efforts and asked that the project team coordinate with the Chenango County Soil and Water Conservation District to identify the location of drainage tiles. DPS asked about major planned upgrades to the NYSEG interconnection. DPS asked the proximity of the wind farm to the NEXRAD weather radar at the Binghamton airport. DPS asked that a solar energy facility be considered as an alternative. DPS requested that the Stakeholder List in the PSS include all host and adjacent landowners. DPS recommended using Environmental Justice data available through the EPA.</p>

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
7/20/2018	Email exchange	Alec Jarvis, David Dibbell - Member, Airport Steering Committee, cc: Shane Butler, Doug Marchant	Airport Steering Committee concern regarding airspace impacts	<p>From David Dibbell: "Good day sir!</p> <p>We understand from Shane Butler, Director of Planning for Chenango County, that you visited earlier this week in Norwich, NY concerning the High Bridge Wind Project proposed to be located within the Town of Guilford. There is an Airport Steering Committee appointed by Chenango County to provide advice and recommendations concerning the airport, on which Shane participates and I am a member. Doug Marchant is the chairman and is also copied here.</p> <p>The Steering Committee has designated me to make and maintain contact concerning airspace impacts. From the PIP HB.pdf document, I see that the Lt. Warren E. Eaton Airport is listed as a stakeholder, so this is off to a good start.</p> <p>As Shane explained, the Committee has taken note of the proposed location and scope of the wind project, and would like to pay close attention to potential impacts on local and transient VFR flight, instrument approaches and departures, and related concerns. We understand there are review processes involving the FAA and the military, about which we also wish to be kept informed as they happen.</p> <p>We are looking forward to working with Calpine on this, and please let us know of any requests on your part.</p> <p>Sincerely, David Dibbell"</p>
7/23/2018	Email exchange	Alec Jarvis, David Dibbell - Member, Airport Steering Committee, cc: Shane Butler, Doug Marchant	Reply to Airport Steering Committee concern regarding airspace impacts	<p>From Alec Jarvis: "David, Thanks for reaching out. We are reaching out to our airspace consultant to ask a few questions and will plan to reach back out once we have dug into this a bit further. Thanks for your email and we will be in touch. Sincerely, Alec Jarvis"</p>

## High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
7/23/2018	Email exchange	Sarah Bray - Public Relations Consultant for High Bridge, Fred Akshar - Senator Akshar's scheduler	Status of project update meeting	From Fred Akshar: "Hi Sarah, Sorry we couldn't make the meeting happen. The Senator's schedule was booked. The Senator's Chief of Staff is available in the future for updates. Thank you for understanding. The Scheduling Team" From Sarah Bray: "Thank you for getting back to me. Alec Jarvis would like to meet with Senator Akshar's Chief of Staff about the High Bridge Wind Farm and the Bluestone Wind Farm and will make himself available any time for this meeting. Please let me know how your schedule looks in the next couple of weeks. Thank you. Sarah"
7/25/2018	Email exchange	Alec Jarvis, George Seneck - Supervisor for the Town of Guilford	Request Approved for Use of Guilford Town Hall	From George Seneck: "Alex,  The town board approved your request pending receipt of your certificate of insurance. I will post the mtg. on our website and facebook page as soon as I receive your legal notice.  Please let me know if you need anything.  Thanks,  George Seneck"
8/20/2018	phone call	Sarah Bray - Public Relations Consultant for High Bridge, George Seneck - Supervisor for the Town of Guilford	High Bridge Public Open House landowner letter update	Sarah called George to let him know we accidentally left the location of the public meeting off of the landowner letters. Sarah asked what we could do to mitigate that mistake. George told Sarah that we can drop off corrected post cards and a poster/flyer to be posted at his office. George let Sarah know that the Town Clerk would be available 8/21 from 9am to 1pm and then from 4-6:30 pm.
8/21/2018	in person meeting	John Palombaro, George Seneck - Supervisor for the Town of Guilford	High Bridge Public Open House landowner letter update	John printed updated flyers and postcards. He brought the flyer to George to hang in his office. George told John that the best approach would be to place stacks of postcards and flyers at gas stations in Guilford and Mt. Upton. George also let John know that he was

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
				posting the public meeting location on the Guilford Facebook page as well.
8/22/2018	in person meeting	Alec Jarvis, Tom Smith - Oxford, NY NYSDOT Director	in-person project update	Alec and Tom met to discuss the High Bridge Wind Farm project and the project's permitting process for DOT permits related to turbine transport
9/12/2018	phone call	Sarah Bray, Anthony Capozzi - Chief of Staff to Senator Akshar	confirming project meeting with Alec	Sarah spoke with Anthony to confirm Alec's meeting with Senator Akshar on September 27, 2018
9/14/2018	email	Sarah Bray, Anthony Capozzi - Chief of Staff to Senator Akshar	confirming project meeting with Alec	Sarah sent Anthony an email to confirm Alec's meeting with Senator Akshar on September 27, 2018

High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
9/19/2018	phone call and email	Erin Szalkowski, Perry Dewey - District Superintendent at DCMO BOCES	Set up a project update meeting with Alec	<p>Erin left a message for Perry asking to set a meeting with Alec and followed up with this email: Hi Perry,</p> <p>Linda connected us by email earlier this week, and I wanted to reach out to discuss how the Visual Communications Class can participate in creating a logo for the proposed High Bridge Wind Farm. We love that idea and would enjoy working with the DCMO BOCES students.</p> <p>Additionally, Alec – the lead developer for High Bridge – will be in the area on September 27 and 28 and would like to meet with you to give you an update on the project if you are available. He is open the afternoon of the 27th and anytime on the 28th. Please let me know if there is anytime that fits with your schedule, and I will let Alec know.</p> <p>Here is some information about the project:</p> <p>The High Bridge Wind Farm, under development in the town of Guilford, Chenango County, New York, is anticipated to be an approximately 100-megawatt wind energy project comprising 19-24 wind turbines. The Public Involvement Plan, drafted as part of the High Bridge Wind Project's progress through the Article 10 application process, was filed in June of 2018. The High Bridge Wind Farm is owned by Calpine, America's largest generator of electricity from natural gas and renewable geothermal resources with operations in competitive power markets.</p> <p>Warm regards,</p> <p>Erin</p>
9/20/2018	email	Sarah Bray, Catherine Seamon - Special Assistant/District Scheduler for Senator Steward	Set up a project update meeting with Alec	Sarah emailed Senator Steward's office asking for a meeting with Alec Jarvis. Catherine responded that the Senator was unavailable for a meeting at that time.

## High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
9/20/2018	phone call	Erin Szalkowski, Bob Fleming - Superintendent of the Guilford Highway Department	Set up a project update meeting with Alec	Erin called Bob to arrange a meeting with Alec Jarvis. Bob let Erin know his schedule - she checked with Alec, called Bob back and left a message.
9/21/2018	email exchange	Sarah Bray, Sara Bouasay - Chief of Staff for Assemblyman Cliff Crouch	Set up a project update meeting with Alec	Sara Bouasay responded to Sarah Bray's email: Hello Sarah:  I can assist you with your meeting request with Assemblyman Crouch for next week. I spoke with the Assemblyman and he can meet with Alec Jarvis on Friday, September 28th at 10am in his district office (1 Kattelville Road, Suite 1, Binghamton, NY 13901). Please let me know if this date and time works for your schedule, thank you.  Sara
9/25/2018	phone call	Erin Szalkowski, Doug Parry - Deputy Director of the Chenango County HWY Depts	Set up a project update meeting with Alec	Erin called Doug to arrange a meeting with Alec Jarvis. Doug was not available to meet this week but is available to meet October 9 at 8 am. Erin said she would confirm with Alec and call back.
9/26/2018	phone call	Erin Szalkowski, Doug Parry - Deputy Director of the Chenango County HWY Depts	Set up a project update meeting with Alec	Erin called Doug to confirm the meeting with Alec Jarvis on October 9 at 8 am.
9/27/2018	in person meeting	Alec Jarvis, Senator Akshar	in person project update	Alec met with Senator Akshar to give him an update about the project
9/28/2018	in person meeting	Alec Jarvis, Assemblyman Clifford Crouch	in person project update	Alec met with Assemblyman Crouch to give him an update on the project
10/4/2018	phone call	Sarah Bray, Mike Wildenstein - Wildenstein Logging	local business opportunity	Sarah spoke with Mike regarding potential business opportunities related to the construction of the wind farm
10/4/2018	email exchange	Erin Szalkowski, Perry Dewey - District Superintendent at DCMO BOCES	Set up a phone call to discuss the High Bridge Wind Farm	Perry Dewey emailed Erin the following: Hi Erin, I am sorry that I have not gotten to touch base with you yet. My work schedule at the BOCES has been crazy! That said, I thought that I would send you an email with my contact information in it before I tried to call you. We may not connect and I didnt want to not contact you! So, my cell is 607-316-1637, 607-335-1231. I look forward to talking to you.

### High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
10/5/2018	email exchange	Erin Szalkowski, Perry Dewey - District Superintendent at DCMO BOCES	Set up a phone call to discuss the High Bridge Wind Farm	<p>Erin replied to Perry the following: No worries at all – I know how that goes. I was out all day yesterday at a client event.</p> <p>How does your schedule look early next week? I'm available Monday morning except 10-11 central. Tuesday is free after 9:30 am central. If early morning works better for you, I have a one year old, so I am definitely awake.</p> <p>Let me know what's best for you and I will make it work.</p> <p>Regards,</p> <p>Erin</p>
10/8/2018	phone call	Erin Szalkowski, Doug Parry - Deputy Director of the Chenango County HWY Depts	Confirm project meeting with Alec	Erin called Doug to confirm the meeting location and attendees. She spoke with a woman who told her Doug was not in the office on account of Columbus Day
10/9/2018	in person meeting	Alec Jarvis, Randy Reeves	in-person project update	Alec met with Randy Reeves and gave him an overview of the High Bridge Wind Farm project. Doug Parry was unable to attend.
10/17/2018	phone call	Erin Szalkowski, Perry Dewey - Superintendent of DCMO BOCES	discuss using students to help create the High Bridge Wind Farm logo, set up a project meeting with Alec	Erin called Perry to connect on the High Bridge Wind Farm project. She left a message with his administrative assistant
10/18/2018	phone call	Erin Szalkowski, Perry Dewey - Superintendent of DCMO BOCES	discuss using students to help create the High Bridge Wind Farm logo, set up a project meeting with Alec	Erin called Perry to connect on the High Bridge Wind Farm project. She left a message with his administrative assistant
10/24/2018	phone call	Sarah Bray, Alfred Gorick Jr. - Gorick Construction Company	local business opportunity	Sarah spoke with Alfred regarding potential business opportunities related to the construction of the wind farm
10/24/2018	phone call	Sarah Bray, Tim Ruffo - Barney and Dickenson Ready Mix	local business opportunity	Sarah spoke with Tim regarding potential business opportunities related to the construction of the wind farm



## High Bridge Wind Project PIP Tracking Log

Date of Meeting	Location of Meeting	Meeting Attendees	Purpose of Meeting	Meeting Summary
10/25/2018	email	Erin Szalkowski, Alex Larson - Chenango Economic Development Coordinator	set up a project meeting with Alec	Erin emailed Alex to request a meeting the afternoon of November 6th or the morning of November 8th.
10/30/2018	phone call	Erin Szalkowski, Perry Dewey - Superintendent of DCMO BOCES	set up a project meeting with Alec	Perry Dewey returned Erin's call. He told her to call his admin to set up a project update meeting with Alec.
11/1/2018	phone call	Sarah Bray, Perry Dewey - Superintendent of DCMO BOCES	set up a project meeting with Alec	Saray called and spoke with Perry to coordinate a meeting with Alec Jarvis
11/8/2018	in person meeting	Alec Jarvis, Perry Dewey - Superintendent of DCMO BOCES	in person project update	Alec met with Perry to give him a project update and ask about ways to work with BOCES regarding workforce development
11/28/2018	open house	Alec Jarvis, Sarah Bray, Jason Ritzert - WEST, Rob O'Neal - Epsilon Associates, Greg Liberman and Daniel Zvirzdin - EDR, Lisa Oliver - Fisher Associates, James Klickovich - Calpine, John Palombaro - J.S. Land Services, various landowners	open house	The High Bridge Wind Farm held a public open house to provide landowners with project updates and answer questions
12/13/2018	phone call	Alec Jarvis, George Seneck - Supervisor for the Town of Guilford	January meetings	Alec and George had a phone call to discuss upcoming meetings for High Bridge in January 2019
12/13/2018	email	Alec Jarvis, BOCES	workforce development opportunities	Alec reached out to BOCES to discuss setting up a meeting for workforce development opportunities
Ongoing	Multiple Locations	Landowners in the Facility Area	Landowner Lease Agreement Efforts	Meetings are ongoing.

## **Appendix C**

### Certificate of Formation

# Delaware

The First State

Page 1

*I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED ARE TRUE AND CORRECT COPIES OF ALL DOCUMENTS ON FILE OF "HIGH BRIDGE WIND, LLC" AS RECEIVED AND FILED IN THIS OFFICE.*

*THE FOLLOWING DOCUMENTS HAVE BEEN CERTIFIED:*

*CERTIFICATE OF FORMATION, FILED THE TWENTY-FIRST DAY OF FEBRUARY, A.D. 2018, AT 5:21 O`CLOCK P.M.*

*AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID CERTIFICATES ARE THE ONLY CERTIFICATES ON RECORD OF THE AFORESAID LIMITED LIABILITY COMPANY, "HIGH BRIDGE WIND, LLC".*



  
Jeffrey W. Bullock, Secretary of State

6764819 8100H  
SR# 20187899066

Authentication: 204000616  
Date: 11-30-18

You may verify this certificate online at [corp.delaware.gov/authver.shtml](http://corp.delaware.gov/authver.shtml)

CERTIFICATE OF FORMATION  
OF  
LIMITED LIABILITY COMPANY

FIRST. The name of the limited liability company is High Bridge Wind, LLC.

SECOND. The address of its registered office in the State of Delaware is 251 Little Falls Drive, County of New Castle, Wilmington, DE 19808. The name of its Registered Agent at such address is Corporation Service Company.

IN WITNESS WHEREOF, the undersigned have executed this Certificate of Formation of High Bridge Wind, LLC this 21<sup>th</sup> day of February, 2018.

BY: /s/Kelvin Chung  
Authorized Person(s)

NAME: Kelvin Chung  
(Type or Print Name)

## **Appendix D**

### Stakeholder List

Primary Addressee	Attention	Street	City	State	Zipcode
Bainbridge-Guilford School District	Timothy Ryan, Superintendent of School	18 Juliard Street	Bainbridge	NY	13733
Chenango County	Mary Weidman, County Clerk	5 Court Street	Norwich	NY	13815
Chenango County	Lawrence Wilcox, Chairman of the Board of Supervisors, RC Woodford, Clerk of the Board	5 Court Street	Norwich	NY	13815
Chenango County Bureau of Fire and Emergency Management	Matthew Beckwith, Fire Coordinator Car 1	279 County Rd 46	Norwich	NY	13815
Chenango County Department of Public Works	Sean Fry, Director	79 Rexford Street	Norwich	NY	13815
Chenango County Farm Bureau	Bradd Vickers, President	6083 State Hwy 12 N	Norwich	NY	13815
Chenango County Highway Department	Doug Parry, Deputy Director of Highway Department	79 Rexford Street	Norwich	NY	13815
Chenango County Parks and Recreation		5 Court Street	Norwich	NY	13815
Chenango County Planning and Development	Shane H. Butler, Director of Planning	5 Court Street	Norwich	NY	13815
Chenango County Public & Environmental Health	Isaiah Sutton, Director of Environmental Health,	5 Court Street	Norwich	NY	13815
Chenango County Soil & Water Conservation District	Lance Lockwood, District Manager	99 North Borad Street	Norwich	NY	13815
City of Norwich	Christine A. Carnrike, Mayor	One City Plaza	Norwich	NY	13815
Cornell Cooperative Extension Chenango		99 North Broad Street	Norwich	NY	13815- 1386
County of Chenango Industrial Development Agency	Steve Craig, President and CEO	15 South Broad Street	Norwich	NY	13815
Delaware Otsego Audubon Society	Becky Gretton, Program Director	PO Box 544	Oneonta	NY	13820
Empire State Development Corporation	Donna Howell, Southern Tier Regional Director	44 Hawley St., Room 1508	Binghamton	NY	13901
Empire State Development Corporation	Howard Zemsky, President and CEO	625 Broadway	Albany	NY	12245
Enterprise Products Partners L.P.		1100 Louisiana Street	Houston	TX	77002
Gilbertsville-Mount Upton Central School District	Annette Hammond, Superintendent/CSE	693 State Highway 51	Gilbertsville	NY	13776
Guilford Fire Department	Ken Haynes, Fire Chief	289 County Road 37	Guilford	NY	13780
Guilford Highway Department	Robert Fleming, Superintendent	223 Marble Road	Guilford	NY	13780
Lt. Warren E. Eaton Airport		6390 State Highway 12	Norwich	NY	13815

Primary Addressee	Attention	Street	City	State	Zipcode
Maxey, William John		Email: <a href="mailto:wj.maxey@gmail.com">wj.maxey@gmail.com</a>			
National Park Service	Kris Heister, Superintendent	274 River Road	Beach Lake	PA	18405
National Telecommunications and Information Administration	David J. Redl, Assistant Secretary of Communications and Information	1401 Constitution Avenue NW	Washington	DC	20230
New York Agricultural Land Trust	Nancy Hourigan, Board Chair	PO Box 216	Elbridge	NY	13060
New York Independent System Operator	Michael Bemis, Board Chair	10 Krey Boulevard	Rensselaer	NY	12144
New York Public Interest Research Group (NYPIRG) - Binghamton Chapter	State University College University Union	Box 2000	Binghamton	NY	13902
New York State Assembly	Clifford W. Crouch, Assembly Member, District 122	1 Kattelville Road, Suite 1	Binghamton	NY	13901
New York State Attorney General	Barbra Underwood, Acting NYS Attorney General	State Capitol Building	Albany	NY	12224
New York State Department of Agriculture and Markets	Richard Ball, Commissioner	10B Airline Drive	Albany	NY	12235
New York State Department of Environmental Conservation	Basil Seggos, Commissioner	625 Broadway	Albany	NY	12233
New York State Department of Environmental Conservation Region 7	Matt Marko, Regional Director	615 Erie Blvd. West	Syracuse	NY	13204-2400
New York State Department of Health	Howard A. Zucker, Commissioner	Corning Tower, Empire State Plaza	Albany	NY	12237
New York State Department of Public Service	Kathleen Burgess, Secretary to the Commission	Agency Building 3, Empire State Plaza	Albany	NY	12223
New York State Department of Public Service	James Denn, Public Information Officer	Agency Building 3, Empire State Plaza	Albany	NY	12224
New York State Department of Public Service	Lorna Gillings, Outreach Contact	Agency Building 3, Empire State Plaza	Albany	NY	12225
New York State Department of State	Rossana Rosado, Secretary of State	One Commerce Place, 99 Washington Avenue	Albany	NY	12231-0001
New York State Department of Transportation	Robert Sack, Director	50 Wolf Road	Albany	NY	12232
New York State Department of Transportation	Jack Williams, P.E., Regional Director	44 Hawley Street	Binghamton	NY	13901
New York State Division of Homeland Security and Emergency Services	Roger Parrino, Commissioner	1220 Washington Ave	Albany	NY	12226

Primary Addressee	Attention	Street	City	State	Zipcode
New York State Electric and Gas	Carl A. Taylor, President and Chief Executive Officer	P.O. Box 5224	Binghamton	NY	13902-5224
New York State Energy Research and Development Authority (NYSERDA)	Kelly Tyler, Director of Communities and Local Government	17 Columbia Circle	Albany	NY	12203-6399
New York State Governor's Office	Andrew Cuomo, Governor of NY	NY State Capitol Building	Albany	NY	12224
New York State Office of Parks, Recreation and Historic Preservation	Rose Harvey, Commissioner	625 Broadway	Albany	NY	12207
New York State Senate	Frederick J. Akshar II, NYS Senator, 52nd District	1607 State Office Building, 44 Hawley Street	Binghamton	NY	13901
New York State Senate	James Seward, NYS Senator, 51st District	41 South Main Street	Oneonta	NY	13820
Norwich Department of Public Works	George Carnrike Jr., Assistant Superintendent	Hale Street	Norwich	NY	13815
Norwich Fire Department	Tracy Chawgo, Fire Chief	31 East Main Street	Norwich	NY	13815
Norwich Planning and Community Development		One City Plaza	Norwich	NY	13815
Norwich School District	Gerard O'Sullivan, Superintendent	89 Midland Drive	Norwich	NY	13815
Oneida Indian Nation	Raymond Halbritter, Nation Representative for Government-to-Government Consultation	5218 Patrick Road	Verona	NY	13478
Oneida Indian Nation	Stephen J. Selden, Esq., Member of General Council, Designated Environmental/NEPA/Legal Rep.	5218 Patrick Road	Verona	NY	13478
Oneida Nation of Wisconsin	Ed Delgado, Chairman, Designated representative	P. O. Box 365	Oneida	WI	54155-0365
Oneida Nation of Wisconsin	Corina Williams, THPO, Designated Environmental/NEPA/Section 106/Project Rep.	P. O. Box 365	Oneida	WI	54155-0365
Otsego County	Kathy Sinnott Gardner, County Clerk	197 Main Street	Cooperstown	NY	13326
Otsego County	David Bliss, Board of Representatives Chair	197 Main Street	Cooperstown	NY	13326
Otsego County Farm Bureau	Paul Greer, President	PO Box 76	Roseboom	NY	13450
Otsego County Planning Department	Karen Sullivan, Director	197 Main Street	Cooperstown	NY	13326
Oxford Academy & Central School District	Shawn Bissetta, Superintendent	12 Fort Hill Park	Oxford	NY	13830
Sidney Central School District	William Christensen, Superintendent	95 West Main Street	Sidney	NY	13838
Sidney Municipal Airport		199 River St	Sidney	NY	13838



Primary Addressee	Attention	Street	City	State	Zipcode
Sierra Club-Susquehanna Group	Scott Lauffer, Chair	17 Nanticoke Ave	Endicott	NY	13760
Southern Tier East Regional Planning Development Board	Jennifer Gregory, Director	49 Court Street, Suite 222	Binghamton	NY	13901-3274
Susquehanna River Basin Commission	Andrew D. Dehoff, Executive Director	4423 N. Front Street	Harrisburg	PA	17110-1788
The Nature Conservancy - Eastern NY	Rick Werwaiss, Executive Director	195 New Karner Road, Suite 201	Albany	NY	12205
The Wetlands Trust	Jim Curatolo, Director	4729 State Route 414	Burdett	NY	14818
Town of Bainbridge	Town Supervisor, Dolores Nabinger	15 N Main Street	Bainbridge	NY	13733
Town of Butternuts	Town Supervisor, Bruce Giuda	1234 State Highway 51	Gilbertsville	NY	13776
Town of Guilford	George Seneck, Town Supervisor	223 Marble Road	Guilford	NY	13780
Town of Morris	Supervisor, Lynn Joy	P.O. Box 117	Morris	NY	13808
Town of New Berlin	Robert T. Starr, Town Supervisor	P.O. Box 204	New Berlin	NY	13411
Town of Norwich	Town Supervisor, Dave Evans	157 County Road 32A	Norwich	NY	13815
Town of Oxford	Lawrence Wilcox, Supervisor	P.O. Box 271	Oxford	NY	13830
Town of Preston	Peter C. Flanagan, Town Supervisor	299 Preston Center Road	Oxford	NY	13830
Town of Unadilla	Town Supervisor, George DeNys	P.O. Box 455	Unadilla	NY	13849
Tuscarora Environmental Program (Tuscarora Nation)	Neil Patterson, Jr., Director, designated representative for Environment/NEPA	2045 Upper Mountain Road	Sanborn	NY	14132
Tuscarora Indian Nation	Leo Henry, Chief, Government-to-Government Consultation Section 106, and projects	2006 Mt. Hope Road	Vis Lewiston	NY	14092
Unadilla Valley Central School District	Robert J. Mackey, Superintendent	4238 State Highway 8, PO Box F	New Berlin	NY	13411
Unatego Central School District	David Richards, Superintendent of Schools	2641 State Highway 7, P.O. Box 483	Otego	NY	13825
Upper Susquehanna Conservation Alliance	David Stilwell, Chairman	3817 Luker Road	Cortland	NY	13045
US Army Corps of Engineers	Steve Metivier, Chief, NY Application Evaluation Section	1776 Niagara Street	Buffalo	NY	14207
US Congress	Claudia Tenney, Representative, District 22	555 French Road	Utica	NY	13502
US Congress	John Faso, Representative, District 19	PO Box 448	Kinderhook	NY	12106
US Department of Defense Siting Clearinghouse	Steven J. Sample, Mission Evaluation Branch	3400 Defense Pentagon, Room 5C646	Washington	DC	10301
US Federal Aviation Administration	Steve Urlass, Eastern Region Director	1 Aviation Plaza	Jamaica	NY	11434

Primary Addressee	Attention	Street	City	State	Zipcode
US Fish and Wildlife Service: New York Ecological Services Field Office		3817 Luker Road	Cortland	NY	13045
US Senate	Charles E. Schumer, US Senator	15 Henry Street, Room 100AF	Binghamton	NY	13901
US Senate	Kirsten E. Gillibrand, US Senator	100 South Clinton Street, P.O. Box 7378	Syracuse	NY	13261-7378
Village of Gilbertsville	Ken Nolan, Mayor	PO Box 146	Gilbertsville	NY	13776
Village of Oxford	Terry M. Stark, Mayor	20 LaFayette Park, P.O. Box 866	Oxford	NY	13830-0866

## **Appendix E**

United States Fish and Wildlife Service  
Information, Planning, and Consultation System Data

# *IPaC Trust Resources Report*

Generated August 16, 2016 08:10 AM MDT, IPaC v3.0.8

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



# Table of Contents

- IPaC Trust Resources Report ..... [1](#)
- Project Description ..... [1](#)
- Endangered Species ..... [2](#)
- Migratory Birds ..... [3](#)
- Refuges & Hatcheries ..... [5](#)
- Wetlands ..... [6](#)

U.S. Fish & Wildlife Service

# IPaC Trust Resources Report

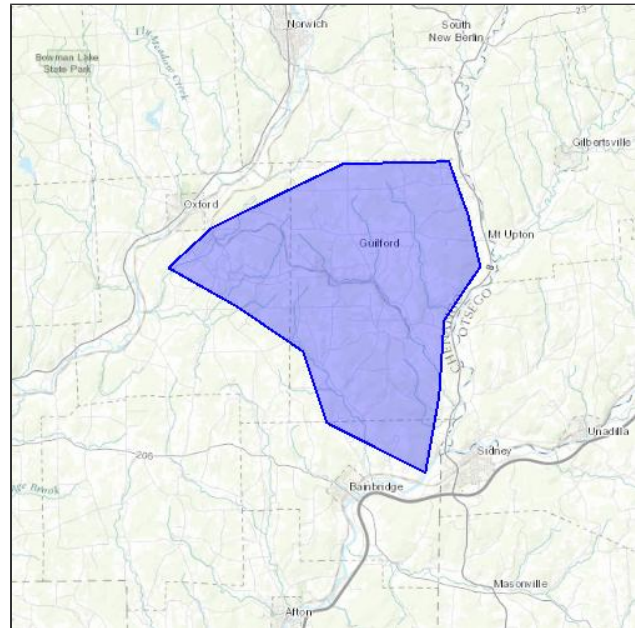


LOCATION

Chenango County, New York

IPAC LINK

<https://ecos.fws.gov/ipac/project/BPUJI-77TVN-FIRDL-5HFXA-YGXGQE>



## U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

**New York Ecological Services Field Office**

3817 Luker Road

Cortland, NY 13045-9349

(607) 753-9334

## Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the [Endangered Species Program](#) of the U.S. Fish & Wildlife Service.

**This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.**

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

**A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.**

The list of species below are those that may occur or could potentially be affected by activities in this location:

### Mammals

**Northern Long-eared Bat** *Myotis septentrionalis*

Threatened

#### CRITICAL HABITAT

**No critical habitat** has been designated for this species.

[http://ecos.fws.gov/tess\\_public/profile/speciesProfile.action?sPCODE=A0JE](http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=A0JE)

### Critical Habitats

**There are no critical habitats in this location**

## Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.<sup>[1]</sup> There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

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1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern  
<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds  
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data  
<http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The following species of migratory birds could potentially be affected by activities in this location:

<b>American Bittern</b> <i>Botaurus lentiginosus</i>	Bird of conservation concern
Season: Breeding <a href="http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0F3">http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0F3</a>	
<b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i>	Bird of conservation concern
Season: Year-round <a href="http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B008">http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B008</a>	
<b>Black-billed Cuckoo</b> <i>Coccyzus erythrophthalmus</i>	Bird of conservation concern
Season: Breeding <a href="http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0H1">http://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0H1</a>	
<b>Blue-winged Warbler</b> <i>Vermivora pinus</i>	Bird of conservation concern
Season: Breeding	
<b>Canada Warbler</b> <i>Wilsonia canadensis</i>	Bird of conservation concern
Season: Breeding	



<b>Cerulean Warbler</b> <i>Dendroica cerulea</i>	Bird of conservation concern
Season: Breeding <a href="http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B09I">http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B09I</a>	
<b>Golden-winged Warbler</b> <i>Vermivora chrysoptera</i>	Bird of conservation concern
Season: Breeding <a href="http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0G4">http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0G4</a>	
<b>Least Bittern</b> <i>Ixobrychus exilis</i>	
Season: Breeding <a href="http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B092">http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B092</a>	
<b>Louisiana Waterthrush</b> <i>Parkesia motacilla</i>	Bird of conservation concern
Season: Breeding	
<b>Olive-sided Flycatcher</b> <i>Contopus cooperi</i>	Bird of conservation concern
Season: Breeding <a href="http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0AN">http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0AN</a>	
<b>Peregrine Falcon</b> <i>Falco peregrinus</i>	Bird of conservation concern
Season: Breeding <a href="http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU">http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU</a>	
<b>Pied-billed Grebe</b> <i>Podilymbus podiceps</i>	Bird of conservation concern
Season: Breeding	
<b>Prairie Warbler</b> <i>Dendroica discolor</i>	Bird of conservation concern
Season: Breeding	
<b>Red-headed Woodpecker</b> <i>Melanerpes erythrocephalus</i>	Bird of conservation concern
Season: Breeding	
<b>Short-eared Owl</b> <i>Asio flammeus</i>	Bird of conservation concern
Season: Wintering <a href="http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD">http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD</a>	
<b>Willow Flycatcher</b> <i>Empidonax traillii</i>	Bird of conservation concern
Season: Breeding <a href="http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F6">http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F6</a>	
<b>Wood Thrush</b> <i>Hylocichla mustelina</i>	Bird of conservation concern
Season: Breeding	

## Wildlife refuges and fish hatcheries

**There are no refuges or fish hatcheries in this location**

# Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

## DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

## DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

## DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

This location overlaps all or part of the following wetlands:

## Freshwater Emergent Wetland

[PEM1/SS1B](#)

[PEM1/SS1C](#)

[PEM1/SS1E](#)

[PEM1A](#)

[PEM1B](#)

[PEM1C](#)

[PEM1Ch](#)  
[PEM1E](#)  
[PEM1Eb](#)  
[PEM1Ed](#)  
[PEM1Eh](#)  
[PEM1F](#)  
[PEM1Fb](#)  
[PEM1Fh](#)  
[PEM1Fx](#)

## Freshwater Forested/shrub Wetland

[PFO1/4C](#)  
[PFO1/4E](#)  
[PFO1/SS1A](#)  
[PFO1/SS1E](#)  
[PFO1A](#)  
[PFO1C](#)  
[PFO1E](#)  
[PFO1Eb](#)  
[PFO4/1E](#)  
[PFO4A](#)  
[PFO4E](#)  
[PFO4Eb](#)  
[PFO5Fb](#)  
[PFO5Fh](#)  
[PSS1/EM1A](#)  
[PSS1/EM1E](#)  
[PSS1/FO1E](#)  
[PSS1A](#)  
[PSS1B](#)  
[PSS1C](#)  
[PSS1E](#)  
[PSS1Eb](#)  
[PSS1Eh](#)  
[PSS1F](#)  
[PSS1Fh](#)  
[PSS3/1E](#)

**PSS4/1E**

**Freshwater Pond**

**PUB/EM1Fh**

**PUBF**

**PUBFb**

**PUBFh**

**PUBFx**

**PUBHb**

**PUBHh**

**PUBHx**

**PUSCh**

**Lake**

**L1UBH**

**L1UBHb**

**L1UBHh**

**Riverine**

**R2UBH**

**R3UBH**

**R4SBC**

**R5UBH**

A full description for each wetland code can be found at the National Wetlands Inventory website: <http://107.20.228.18/decoders/wetlands.aspx>

## **Appendix F**

### Visual Impact Rating Form

# Visual Impact Rating Form

## Project Name

Town, County, State

EDR Project No: 00000

## Rating Panel Information:

Your Name:

Date:



### Existing Photo

## Viewpoint Information:

Viewpoint Number:

Viewpoint Location:

Landscape Similarity Zone:

Viewer Type:

Inventoried Aesthetic Resource:

Latitude:

Longitude:

## Viewpoint Sensitivity:

Scenic Quality: *(Please rate existing scenic quality)*

Low       Moderate       High

Viewer Exposure: *(Please rate frequency and duration of view)*

Continuous       Repeated/Regular  
 Occasional/Brief       Rare

**Viewer Description:** *(Please describe this view in your own words.)*

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### Simulation

## Contrast Rating:

*(Please rate the level of contrast between the proposed structures and the existing view.)*

Component	Score	Description of Contrast
Landform		
Vegetation		
Land Use		
Water		
Sky		
Viewer Activity		
TOTAL		<i>Total all scores above</i>
AVERAGE		<i>Average all scores above</i>

**Contrast Rating  
Score Chart**

0 Insignificant  
 .5  
 1 Minimal  
 1.5  
 2 Moderate  
 2.5  
 3 Appreciable  
 3.5  
 4 Strong

**Viewpoint**

**Variable factors that may have influenced rating (atmospheric conditions, season, etc.):**

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**Perceived effect on scenic quality/viewer enjoyment:**

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## **Appendix G**

### Proposed Map Sizes and Scales

Preliminarily Proposed Map Sizes and Scales for Article 10 Application Printed Maps

Exhibit	Title	Format	Extents	Scale (mi/in)	Scale (ft/in)	Scale (in/in)	Size	# Sheets	16 NYCRR Ref.
3	Layout	PDF	PA	0.4	2,000	24000 *	B	TBD	1001.3 (a) (1) & (4)
3	Study Area	PDF	SA	0.4	2,000	24000 *	B	TBD	1001.3 (a) (5)
3	Towns	PDF	PA	0.4	2,000	24,000	B	TBD	1001.3
3	School Districts	PDF	PA	1	5,280	63,360	B	TBD	1001.3 (b)
3	Fire Districts	PDF	PA	1	5,280	63,360	B	TBD	1001.3 (b)
3	Project Location	PDF	PA	0.4	2,000	24,000	B	TBD	1001.3 (b)
4	Land Use Map	PDF	PA	0.2	1,000	12,000	B	TBD	1001.4 (a)
4	Utility Infrastructure Map	PDF	SA	1	5,280	63,360	B	TBD	1001.4 (b)
4	Land Ownership Map	PDF	PA	0.2	1,000	12,000	B	TBD	1001.4 (c)
4	Zoning Districts (if applicable)	PDF	SA	1	5,280	63,360	B	TBD	1001.4 (d)
4	Proposed Land Uses	PDF	PA	1	5,280	63,360	B	TBD	1001.4 (f)
4	Agricultural Districts	PDF	SA	1	5,280	63,360	B	TBD	1001.4 (g)
4	Utility Infrastructure Map	PDF	SA	1	5,280	63,360	B	TBD	1001.4(h)
4	Recreation and other uses	PDF	SA	1	5,280	63,360	B	TBD	1001.4 (h)
4	Aerial Photographs and Vegetation Clearing Map	PDF	SA	0.2	1,000	12,000	B	TBD	1001.4 (m) & (n)
9	Alternative Sites	PDF	TBD	0.4	2,000	24,000	B	TBD	1001.9 (a)
9	Alternative wind project layout(s)	PDF	TBD	0.02	100	1,200	D2	TBD	1001.9 (c) (4)
11	Overall Site Plan for all facilities	PDF	TBD	0.02	100	1,200	D2	TBD	1001.11 (a)
11	Site Plans (may range from 1" = 30' to 1"-100' scales, where appropriate)	PDF	PA	0.02	100	1,200	D2	TBD	1001.11 (a)
11	Site Plan for Project Substation	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.11 (a)
11	Site Plan for O&M Building	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.11 (a)
11	Site Plan for Batch Plant	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.11 (b)
11	Site Plan for Laydown Yard	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.11 (b)
11	Site Plan for Typical Wind Turbine Assembly Area During Construction	PDF	TBD	0.02	100	1,200	TBD	TBD	
11	Site Plan for POI Switchyard	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.11 (h)
11	Transmission Line Plan and Profile, Route Plan	PDF	TBD	0.04	200	2,400	B	TBD	1001.11 (h)
13	Real Property	PDF	PA	0.2	1,000	12,000	B	TBD	1001.13 (a) & (b)
15	Public Health and Safety	PDF	SA	1	5,280	63,360	B	TBD	1001.15 (f)
18	Security Site Plan	PDF	TBD	0.02	100	1,200	TBD	TBD	1001.18 (a) (1) & (4); (b) (1) & (5)
19	Noise contour map	PDF	PA	0.2	1,000	12,000	D2	TBD	1001.19 (a)
21	Slopes	PDF	PA	1	5,280	63,360	B	TBD	1001.21 (a)
21	Soil Types	PDF	PA	0.4	2,000	24,000	B	TBD	1001.21 (o)
21	Bedrock	PDF	PA	2	10,560	126,720	B	TBD	1001.21 (q)
22	Delineated Wetlands Map	PDF	PA	0.4	2,000	24,000	B	TBD	1001.22 (i)
23	Water Resources - Groundwater	PDF	PA	0.4	2,000	24,000	B	TBD	1001.23 (a) (2)
23	Water Resources - Surface Waters	PDF	PA	0.4	2,000	24,000	B	TBD	1001.23 (b) (1)
23	SWPPP (preliminary)	PDF	PA	0.02	100	1,200	D2	TBD	1001.23 (c) (1) & (2)
24	Viewshed map(s)	PDF	SA 10mi	0.4	2,000	24,000 *	B	TBD	1001.24 (b) (1)
25	Site plan access roads	PDF	TBD	0.02	100	1,200	D2	TBD	1001.25 (a) (2)
26	Microwave Paths - Facilities near paths shown in greater detail	PDF	PA	2.6	13,750	165,000	A	TBD	1001.26 (a) (5)
28	Potential Environmental Justice Area Map	PDF	SA	2	10,560	126,720	B	TBD	1001.28 (a)
35	EMF and residences	PDF	TBD	0.02	100	1,200	D2	TBD	1001.35 (c)

Notes: PA = Project Area, SA= Study Area, Size A = 8.5"x11", Size B = 11"x17", Size C = 18"x24", Size D2= 22"x34", Size D=24"x36"

\* Denotes scale requirements of Part 1001 *Content of an Application*

All maps will be delivered in PDF format with the Article 10 application, and shape files or CAD files can be supplied where requested.

All scales above are proposed based on preliminary analysis and may need to be adjusted based on actual data.

## **Appendix H**

### **Avian Work Plans**

*2018 Breeding Bird Survey Protocol*

*Eagle Use Survey Study Protocol*

*Raptor Migration Survey Protocol*

**2018 Breeding Bird Survey Protocol  
High Bridge Wind Project  
Chenango County, New York**

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**Prepared for:  
Calpine Wind Holdings, LLC**

---

**Prepared by:  
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**May 2018**



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## **INTRODUCTION**

Calpine Wind Holdings, LLC (Calpine) is considering the development of a wind project in Chenango County, New York known as the High Bridge Wind Project (the Project). Calpine has asked Western EcoSystems Technology, Inc. (WEST) to develop a protocol to conduct breeding bird surveys (BBS) at the Project. The New York State Department of Environmental Conservation (NYSDEC) recommends that wind developers follow the NYSDEC Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Project (NYSDEC 2013). The following protocol was developed in accordance with the NYSDEC Guidelines for breeding bird surveys.

## **METHODS**

### **Breeding Bird Surveys**

The objectives of the BBS at the Project are to: 1) determine if state- or federally listed passerine species breed near areas where turbines will be erected, and 2) provide information for a Before-After-Control-Impact (BACI) assessment to compare bird use pre- and post-construction. The focus of the surveys will be on passerines (i.e., songbirds); however, any birds observed or heard will be recorded. The study approach involves a combination of a gradient analysis study design and control areas. Songbird density data and vegetation data will be collected along a continuum out to 300 meters (m; 984 feet [ft]) at proposed turbine locations as well as control transects in areas away from turbine development (Figure 1).

A sample of 9 (~38%) of the proposed turbine locations with land access were selected for the surveys. In addition, five control transects were selected in nearby areas away from proposed turbine locations (greater than 800 m [2,625 ft]) with similar vegetation and land access. Surveys will be a combination of transects and point-count surveys. Each transect will start at the base of the proposed turbine (or start of the control transect) and extend out 300 m with a point-count location at the base of the proposed turbine location and every 50 m (164 ft) along the transect. Survey point will be located at 25 m (82 ft), 75 m (246 ft), 125 m (410 ft), 175 m (574 ft), 225 m (738 ft), and 275 m (902 ft). As the biologist walks along each transect, all birds seen or heard will be recorded (i.e., incidental observations). At each point-count location the biologist will stop and complete a 5 minute survey to record all birds seen or heard. Each transect will be surveyed weekly from May 20 to July 20, 2017.

All surveys will be completed from one half hour before sunrise (i.e., first light) until 1000. Surveys will not be completed in inclement weather that may impair bird observations such as rain or strong winds (greater than 24 kilometers per hour [15 miles per hour]). Data recorded for each survey will include: start and end time of the observation period; and weather information such as temperature, wind speed, wind direction and cloud cover. Species identification, number of individuals of each species, method of observation (visual or auditory), and behavior (nesting, flying, perching, singing, other) will be recorded for each observation. The approximate

distance to each bird will be recorded. Observers will record all birds seen but will focus on birds within 50 m of both sides of each transect.

## **Statistical Analysis of Baseline Data**

### *Data Compilation and Storage*

A database will be established to store, retrieve, and organize field observations. Data from field forms will be keyed into electronic data files using a pre-defined format that should make subsequent data analysis straightforward. All field data forms and electronic data files will be retained for ready control.

### *Quality Assurance/Quality Control (QA/QC)*

QA/QC measures will be implemented at all stages of the study, including field data collection, data entry, data analysis, and report preparation. At the end of each survey day, the observer will be responsible for inspecting his or her data forms for completeness, accuracy, and legibility. Periodically, the study team leader will review data forms to insure completeness and legibility; any problems detected will be corrected. Any changes made to the data forms will be initialed and dated by the person making the change.

Data will be checked thoroughly for data entry errors. Any errors will be corrected by referencing the raw data forms and/or consulting with the observer who collected the data. Any irregular codes detected, or any data suspected as questionable, will be discussed with the observer and study team leader. Any changes made to the raw data will be documented for future control.

### *Statistical Analysis and Products*

A gradient analysis (Morrison et al. 2001) will be used to determine the relationship between density of avian species and distance from turbines. The gradient analysis will assess whether a significant relationship exists between distance from Project turbines and abundance or use of the area by species. The averages of these differences by distance category can be compared against the null hypothesis value of zero using *t*-tests and confidence intervals to test whether a change in density is statistically significant and to identify the distance from the turbines at which it occurred. Further analysis using linear regressions and/or line-distance sampling may be completed. Data will be pooled across transects within similar vegetation types (e.g., closed [forested and shrubland] and open [hayfields and pasture] habitats).

In addition, NYSDEC metrics of interest that will be included in the report:

- The number, location and length of each potential turbine and control transect;
- The overall survey period, date, time, and durations of surveys conducted at each point;
- A description of habitat surrounding each transect;
- The number of species observed overall;
- The total number of individuals of each species observed overall;

- The number of individuals of each species observed at each transect point;
- A summary of the number and behavior of birds seen;
- Which birds were identified visually or via vocalizations;
- The point(s) and transect(s) with the highest and lowest: number of species, species diversity, frequency, and abundance;
- The habitat type(s) with the highest and lowest: number of species, species diversity, frequency, and abundance;
- A description of weather conditions during and immediately prior to survey days;
- A list of all species with dates and point where they were observed;
- The number and identification of the observer(s) conducting each survey;
- A description of any disruptions and/or distractions that occurred during each sampling period that may have precluded an adequate survey;
- A detailed discussion of all methods, results, and recommendations (throughout report);
- One or more tables and graphs, as needed, depicting the above information, as well as all species with the dates and points where they were observed, the locations of proposed or existing turbines and other project components;
- One or more maps, as needed, which displays all observations of all individuals of state and federally listed species, species of concern, species of greatest conservation need (SGCN), and any other species targeted at the site (Results Section and Figure 3). Detailed information on the location, method of detection, behavior, flight paths, and all other relevant data should be clearly shown on the map(s), or otherwise made available in the report; and
- Shapefiles depicting the date, location and behavior of each individual of all state and federally listed species observed on site, and shapefiles of all transects and point locations to be delivered electronically).

## **REFERENCES**

Morrison, M. L., W. L. Kendall., M. D. Strickland, and W. M. Block. 2001. *Wildlife Study Design*. Springer-Verlag, New York. 210 pp.



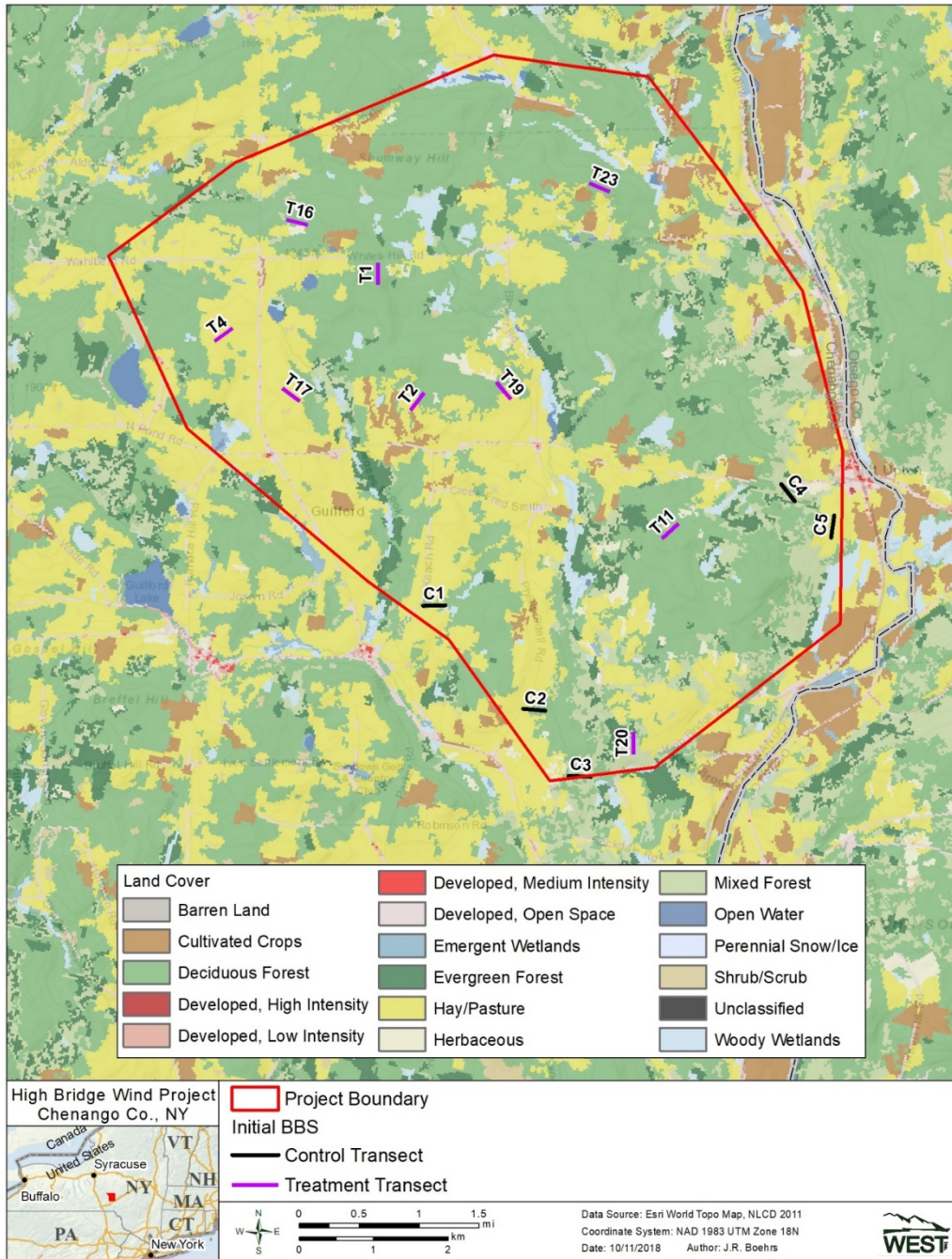


Figure 1. High Bridge Wind Project and location of breeding bird survey transect locations.

**Eagle Use Survey Protocol  
High Bridge Wind Project  
Chenango County, New York**

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**Prepared for:  
Calpine Wind Holdings, LLC**

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**February 2018**



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## INTRODUCTION

Calpine Wind Holdings, LLC (Calpine) is considering the development of a wind project in Chenango County, New York known as the High Bridge Wind Project (the Project or Project area). The final number, size, and location of turbines and associated infrastructure have not been determined. Calpine has asked Western EcoSystems Technology, Inc. (WEST) to develop a protocol to conduct eagle use surveys (EUS) within the Project area. The US Fish and Wildlife Service (USFWS) recommends that wind energy developers follow a tiered approach when assessing risk of development to wildlife (USFWS 2012). The following protocol was developed accordance with the data standards defined by the USFWS in the final eagle rule (USFWS 2016) as appropriate for specifically evaluating risk posed to bald (*Haliaeetus leucocephalus*) and golden (*Aquila chrysaetos*) eagles, and Tier 3 of the USFWS Land-Based Wind Energy Guidelines (WEG: USFWS 2012).

The principle objectives of the EUS for the Project are to 1) estimate the overall rate of use of the Project by bald eagles, golden eagles, other diurnal raptors (defined here as kites, accipiters, buteos, harriers, and falcons), and vultures; and 2) estimate potential impacts to eagles, other diurnal raptors, and vultures that could result from the construction and operation of the proposed Project.

During the first year of EUS, all raptors and vultures will be recorded. After the first year of surveys, WEST will coordinate with the NYSDEC and USFWS to determine if additional data collection on all raptors and vultures is warranted or if only eagle data will need to be collected during the second year of surveys.

## METHODS

### Eagle Use Surveys

The ECPG recommends that enough survey plots be placed to cover at least 30% of a proposed Project area. The current Project area is 61 square kilometers (km<sup>2</sup>; 23.9 square miles [mi<sup>2</sup>]), and each survey plot covers approximately 2 km<sup>2</sup> (0.8 mi<sup>2</sup>). To meet this recommendation, 10 survey plots were established within the Project area in a manner so that the 800-meter (m; 2,625-foot [ft]) buffers of each plot do not, or only minimally, overlap before March 1, 2018. However, based upon conversations with the USFWS (Tom Wittig, USFWS), additional survey points were recommended to increase the percent coverage to help account for turbine array shifts that may happen during the two years of EUS. Therefore, four additional survey points will be added June 1, 2018 and will be included for the remainder of the EUS. The additional points will increase the percent coverage of the Project from approximately 32% to approximately 45%. Survey plot locations will initially be determined with a random start using a Geographic Information System (GIS; ArcGIS 10.3) and placed systematically in the Project area. Survey plots will be micro-sited in the field to maximize safety, visibility, and access to leased parcels.

Eagle use surveys will be conducted for two years from March 1, 2018 to February 28, 2020 per the ECPG. Based upon concerns raised about golden eagle occurrence in this region of New York, we propose the following survey schedule, outlined below:

**Table 1. Season survey dates, frequency, and survey hours for eagle use surveys at the High Bridge Wind Project.**

<b>Season</b>	<b>Date</b>	<b>Survey Frequency</b>	<b>No. Survey Plots</b>	<b>No. of Surveys</b>	<b>Total Surveys (hrs)</b>
Spring Concentration Survey	March 1 - March 31, 2018	Weekly	10	4	40
Spring	April 1 - May 31, 2018	Twice Monthly	10	4	40
Summer	June 1 - August 31, 2018	Twice Monthly	14	6	84
Fall	September 1 - October 14, 2018	Twice Monthly	14	3	42
Fall Concentration Survey	October 15 - December 8, 2018	Weekly	14	8	112
Winter	December 9, 2018 - February 28, 2019	Twice Monthly	14	5	70
Spring Concentration Survey	March 1 - March 28, 2019	Weekly	14	4	56
Spring	April 1 - May 31, 2019	Twice Monthly	14	4	56
Summer	June 1 - August 31, 2019	Twice Monthly	14	6	84
Fall	September 1 - October 14, 2019	Twice Monthly	14	3	42
Fall Concentration Survey	October 15 - December 8, 2019	Weekly	14	8	112
Winter	December 9, 2019 - February 28, 2020	Twice Monthly	14	5	70
<b>Totals</b>				<b>60</b>	<b>808</b>

The initial 10 survey plots were surveyed from March 1 to May 31, 2018. The number of survey plots will increase to 14 on June 1, 2018 and will continue to be surveyed through February 28, 2020. Each plot will be surveyed for 60 minutes during each surveys for a total of 808 hours of on-site EUS over the two years. Plot surveys will be distributed across daylight hours (e.g., morning sunrise to 1100; 1101 to 1600; 1601 to sunrise).

WEST is proposing to have increased spring and fall survey efforts due to concern raised about golden eagle migration in the area. During the spring (March 1 – March 31) and fall (October 15 – December 8) migration periods, the number of visits to all 14 survey plots will be increased from one hour twice monthly to one hour weekly. The three best raptor migration days each week will be selected at the time of monitoring based on WEST’s best judgment of favorable raptor migration days. To determine the three best raptor migration days, criteria such as northerly winds in the fall and southerly winds in the spring, no or light precipitation, and the day

before or days immediately following cold fronts in the fall and warm fronts in the spring will be utilized. During the spring, days with northwesterly winds will be targeted to ensure the best days for golden eagle migration are surveyed as the northwesterly winds are a good predictor of golden eagle movements during the spring. All times of day from sunrise to sunset will be targeted to ensure that favorable raptor migration conditions are sampled during each survey day (i.e, if favorable raptor migration conditions are forecasted for the afternoon but not the morning, afternoon surveys will be completed). No surveys will be conducted on days with heavy precipitation or when visibility is less than 800 m (2,625 ft) from the center of the survey plot.

For the first year of surveys, all eagles, raptors and vultures observed within the 800 m (2,625 ft) survey plot during each survey will be recorded. Eagle observations outside of the 800 m (2,525 ft) radius and above 200 m (656 ft) will be recorded by the field biologist, but these data will be analyzed separately from those collected within the survey plot. All eagle, raptor and vulture observations will be monitored until they leave the observer's field of view. Estimated distance to each observed raptor or vulture will be recorded to the nearest 5 m. Landmarks will be located to aid in estimating distances to each observation. The date, start, and end time of observation period, plot number, species or best possible identification, number of eagles, raptors or vultures in a group, sex and age class (if possible), distance from plot center when first observed (m), closest distance (m), height above ground (m), behavior, and habitat will be recorded.

Flight or movement paths for eagles, raptors and vultures will be mapped and given corresponding unique observation numbers. The map will indicate whether the observation was within or outside the survey plot based on reference points at known distances from the plot center. Recent aerial photographs will be used to aid in recording locations of observations as accurately as possible.

Bird behavior and habitat will be recorded for each observation. For eagle observations, additional behavior and habitat data will be recorded during each one-minute interval the bird is within view, per the ECPG (USFWS 2016). Behavior categories will include:

- Soaring flight,
- Flapping-gliding,
- Hunting,
- Kiting-hovering,
- Stooping/diving at prey,
- Stooping or diving in an antagonistic context with other bird species,
- Perched,
- Mobbed,
- Undulating/territorial flight,
- Auditory, and
- Other (noted in comments).

The initial flight patterns and habitat types (at first observation) will be uniquely identified on the data sheet and subsequent patterns and habitats will also be recorded. The flight direction of observed eagles, raptors and vultures will also be recorded on the data sheet map. Approximate flight height at first observation will be recorded to the nearest 5 m; in addition to the approximate lowest and highest flight heights observed. Any comments or unusual observations will be noted in the comments section. Weather information recorded for each survey point will include temperature, wind speed, wind direction, precipitation, and cloud cover.

Eagles and state or federally listed species observed in the Project outside of scheduled surveys will be recorded on in-transit or incidental wildlife observation data sheets. The data recorded are similar to those described above, including observation number, date, time, species, number of individuals, distance from observer in meters, sex/age class, and habitat. Observations will be recorded in additional detail, mapped on a U.S. Geological Survey quadrangle maps or aerial photographs, and summarized.

### **Statistical Analysis of Baseline Data**

#### *Data Compilation and Storage*

A database will be established to store, retrieve, and organize field observations. Data from field forms will be keyed into electronic data files using a pre-defined format to make subsequent data analysis straightforward. All field data forms, field notebooks, and electronic data files will be retained for ready reference.

#### *Quality Assurance/Quality Control (QA/QC)*

QA/QC measures will be implemented at all stages of the study, including field data collection, data entry, data analysis, and report preparation. At the end of each survey day, the observer will be responsible for inspecting his or her data forms for completeness, accuracy, and legibility. Periodically, the study team leader will review data forms to insure completeness and legibility; any problems detected will be corrected. Any changes made to the data forms will be initialed and dated by the person making the change.

Data will be checked thoroughly for data entry errors. Any errors will be corrected by referencing the raw data forms and/or consulting with the observer who collected the data. Any irregular codes detected, or any data suspected as questionable, will be discussed with the observer and study team leader. Any changes made to the raw data will be documented for future reference.

#### *Statistical Analysis and Products*

Statistics to be generated for the project will include the following that will be presented in a report format:

- Maps of survey locations;
- Eagle flight minutes;
- Eagle flight heights and direction;

- Hours of observation;
- Species list for the EUS and incidental observations;
- Maps of eagle and raptor flight paths;
- Distributions of eagle use within the project area; and
- Calculate the collision risk to golden and bald eagles using the USFWS collision risk model or other peer-reviewed collision risk model.

## **REFERENCES**

New York State Department of Environmental Conservation (NYSDEC). 2016. Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects. Prepared by NYSDEC Division of Fish and Wildlife. June 2016. Available online at: [http://www.dec.ny.gov/docs/wildlife\\_pdf/winguide16.pdf](http://www.dec.ny.gov/docs/wildlife_pdf/winguide16.pdf)

US Fish and Wildlife Service (USFWS). 2012. Final Land-Based Wind Energy Guidelines. March 23, 2012. 82 pp. Available online at: [http://www.fws.gov/cno/pdf/Energy/2012\\_Wind\\_Energy\\_Guidelines\\_final.pdf](http://www.fws.gov/cno/pdf/Energy/2012_Wind_Energy_Guidelines_final.pdf)

US Fish and Wildlife Service (USFWS). 2016. Eagle Permits; Revisions to Regulations for Eagle Incidental Take and Take of Eagle Nests; Proposed Rule. 50 CFR 13 and 22. United States Fish and Wildlife Service, Department of the Interior. 81 Federal Register (FR) 88: 27933 -27976. May 6, 2016. Available online at: <https://www.gpo.gov/fdsys/pkg/FR-2016-05-06/pdf/2016-10542.pdf>



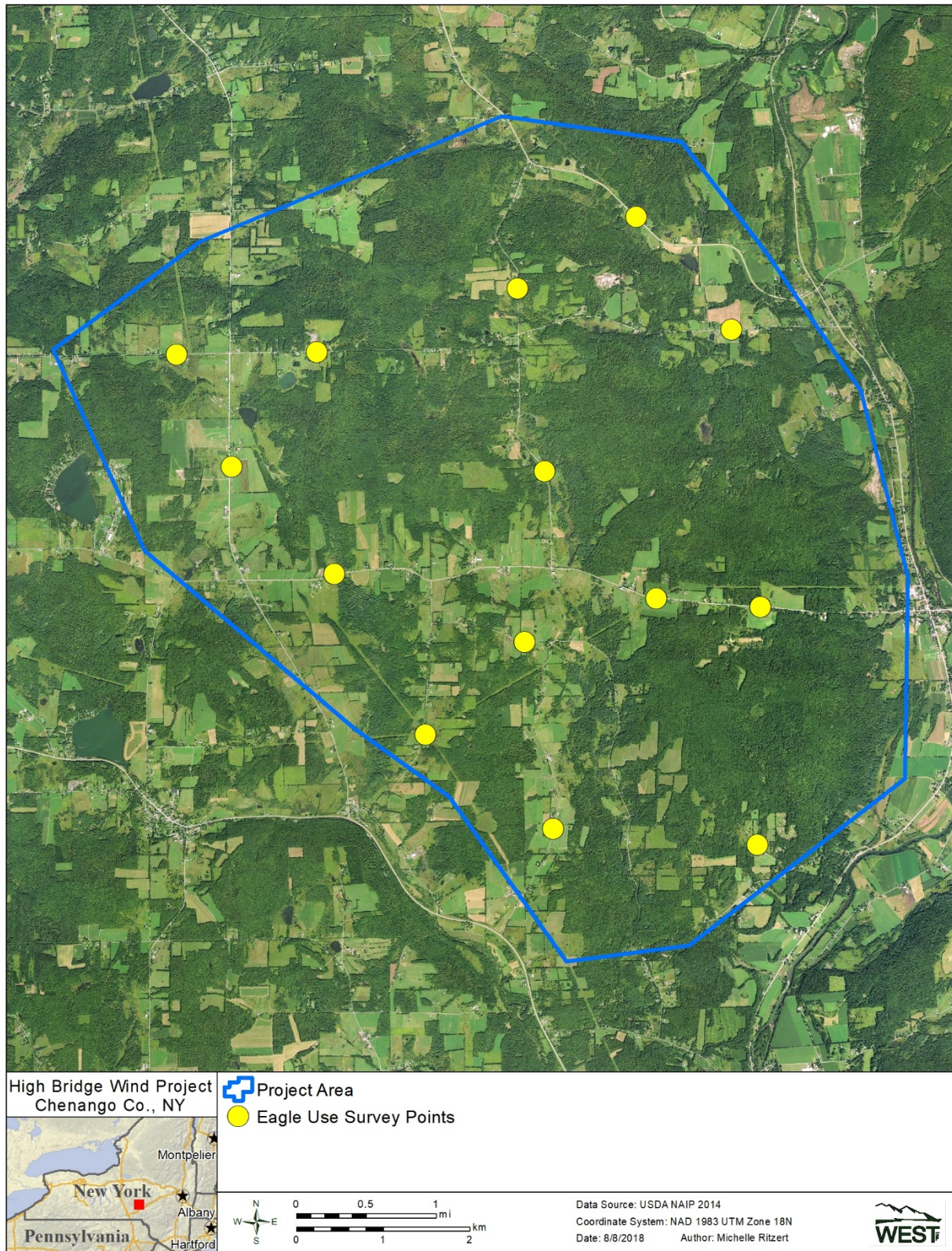


Figure 1. High Bridge Wind Project and location of eagle use survey plots.



# **Raptor Migration Survey Protocol for the High Bridge Wind Project Chenango County, New York**

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**Prepared for:  
Calpine Wind Holdings, LLC**

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**Prepared by:  
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**February 2018**



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Figure 1.High Bridge Wind Project and location of raptor migration survey locations. .... 4

## **INTRODUCTION**

Calpine Wind Holdings, LLC (Calpine) is considering the development of a wind project in Chenango County, New York known as the High Bridge Wind Project (the Project or Project area). The final number, size, and location of turbines and associated infrastructure have not been determined. Calpine has asked Western EcoSystems Technology, Inc. (WEST) to develop a protocol to conduct raptor migration surveys (RMS) at the Project following the New York State Department of Environmental Conservation (NYSDEC) Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects (NYSDEC 2016).

The principle objectives of the RMS are 1) estimate the overall rate of use of the Project area during the fall and spring migration periods by diurnal raptors (defined here as kites, accipiters, hawks, falcons, eagles, and vultures) and vultures; 2) estimate potential impacts to migrating diurnal raptors and vultures from the construction and operation of the proposed Project; and 3) compare overall use rates to New York Hawk Migration Association of North America (HMANA) locations.

## **METHODS**

### **Raptor Migration Surveys**

Raptor migration surveys will consist of counts of raptors at fixed-point locations within the Project area. Surveys will be conducted once per week during the spring (March 1 to May 31, 2018) and fall (August 15 to December 15, 2018) migration periods (NYSDEC 2016). To maximize coverage of the Project area, two survey locations will be placed within the proposed Project area (Figure 1). Each survey location will be surveyed once per week for a total of two survey days per week during the spring and fall migration periods. Surveys will not be conducted on days with heavy rain, snow, fog or excessive cloud cover that would limit visibility. Surveys will begin at 0800 and continue until two hours prior to sunset each survey day. The two best raptor migration days each week will be selected at the time of monitoring based on WEST's best judgment of favorable raptor migration days using criteria such as northerly winds in the fall and southerly winds in the spring, no or light precipitation, and days before or immediately following cold fronts in the fall and warm fronts in the spring. During the spring, days with northwesterly winds will be targeted to ensure the best days for golden eagle migration are surveyed as the northwesterly winds are a good predictor of golden eagle movements during the spring.

All raptors and vultures observed during each survey will be recorded and the estimated distance to each bird observed will be recorded to the nearest meter (three ft). The date, start and end time of the survey, and weather information (i.e., temperature [°F], ceiling height, wind speed, wind direction, precipitation, cloud cover (%), and the timing of any cold or warm fronts passing through) will be recorded for hourly during each survey.

The following data will also be recorded for each observation:

- Species (or best possible identification);
- Time species was observed;
- Number of individuals;
- Sex and age class (if possible);
- Distance from plot center when first observed;
- Closest distance observed;
- Altitude above ground;

The behavior of each bird observed and the habitat in which or over which the bird occurred will be recorded. Behavior categories recognized include perched, soaring, flapping, foraging, gliding, hovering, auditory, and other (noted in comments). Vegetation types within which or over which observations are made will also be recorded. Flight paths and vegetation types (at first observation) will be uniquely identified on the data sheet. The flight direction of observed raptors will also be recorded on the data sheet map. Approximate flight height above ground level (AGL) at first observation will be recorded to the nearest 5 meters (16 feet), in addition to the lowest and highest flight heights observed. Any comments or unusual observations will be noted in the comments section. Locations of raptors will be recorded on the field maps, by observation number. The field maps will be prepared as portions of recent aerial photographs, which include the survey plot.

If large flocks (greater than 50 individuals) of other bird types (i.e., waterfowl, shorebirds, corvids, and passerines) and state or federally listed species are observed during the RMS, data will be recorded in an identical manner as each raptor observation per the NYSDEC guidelines (NYSDEC 2016). State or federally listed species observed outside of scheduled surveys will be recorded on incidental wildlife observation data sheets. Incidental wildlife data recorded are similar to those described above, including observation number, date, time, species, number of individuals, distance from observer, sex/age class, and habitat.

### **Statistical Analysis of Baseline Data**

#### *Data Compilation and Storage*

A database will be established to store, retrieve, and organize field observations. Data from field forms will be keyed into electronic data files using a pre-defined format to make subsequent data analysis straightforward. All field data forms, field notebooks, and electronic data files will be retained for ready reference.

#### *Quality Assurance/Quality Control (QA/QC)*

QA/QC measures will be implemented at all stages of the study, including field data collection, data entry, data analysis, and report preparation. At the end of each survey day, the observer will be responsible for inspecting his or her data forms for completeness, accuracy, and

legibility. Periodically, the study team leader will review data forms to ensure completeness and legibility; any problems detected will be corrected. Any changes made to the data forms will be initialed and dated by the person making the change.

Data will be checked thoroughly for data entry errors. Any errors will be corrected by referencing the raw data forms and/or consulting with the observer who collected the data. Any irregular codes detected, or any data suspected as questionable, will be discussed with the observer and study team leader. Any changes made to the raw data will be documented for future reference.

### *Statistical Analysis and Products*

Statistics and summaries to be generated for the project will include the following:

- Maps of survey locations.
- Species list by study period and survey type;
- Bird species and proportion of flights passing within the air space potentially occupied by the rotor swept area of wind turbines (table);
- Relative use by bird species, bird type, and plot (tables, figures, and maps);
- Locations of federal and state listed species and habitats, other species of concern, and raptor nests (tables and maps);
- Length of time any federal or state listed species is observed;
- Comparisons of raptor and bat use between the Project and other existing or proposed wind-energy facilities and local HawkWatch locations; and
- Maps of flight paths.

## **REFERENCES**

New York State Department of Environmental Conservation (NYSDEC). 2016. Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects. April 2016. Available online at: [http://www.dec.ny.gov/docs/wildlife\\_pdf/winguide16.pdf](http://www.dec.ny.gov/docs/wildlife_pdf/winguide16.pdf).

US Fish and Wildlife Service (USFWS). 2012. Final Land-Based Wind Energy Guidelines. March 23, 2012. 82 pp. Available online at: [http://www.fws.gov/cno/pdf/Energy/2012\\_Wind\\_Energy\\_Guidelines\\_final.pdf](http://www.fws.gov/cno/pdf/Energy/2012_Wind_Energy_Guidelines_final.pdf)

US Fish and Wildlife Service (USFWS). 2016. Eagle Permits; Revisions to Regulations for Eagle Incidental Take and Take of Eagle Nests; Proposed Rule. 50 CFR 13 and 22. United States Fish and Wildlife Service, Department of the Interior. 81 Federal Register (FR) 88: 27933 -27976. May 6, 2016. Available online at: <https://www.gpo.gov/fdsys/pkg/FR-2016-05-06/pdf/2016-10542.pdf>

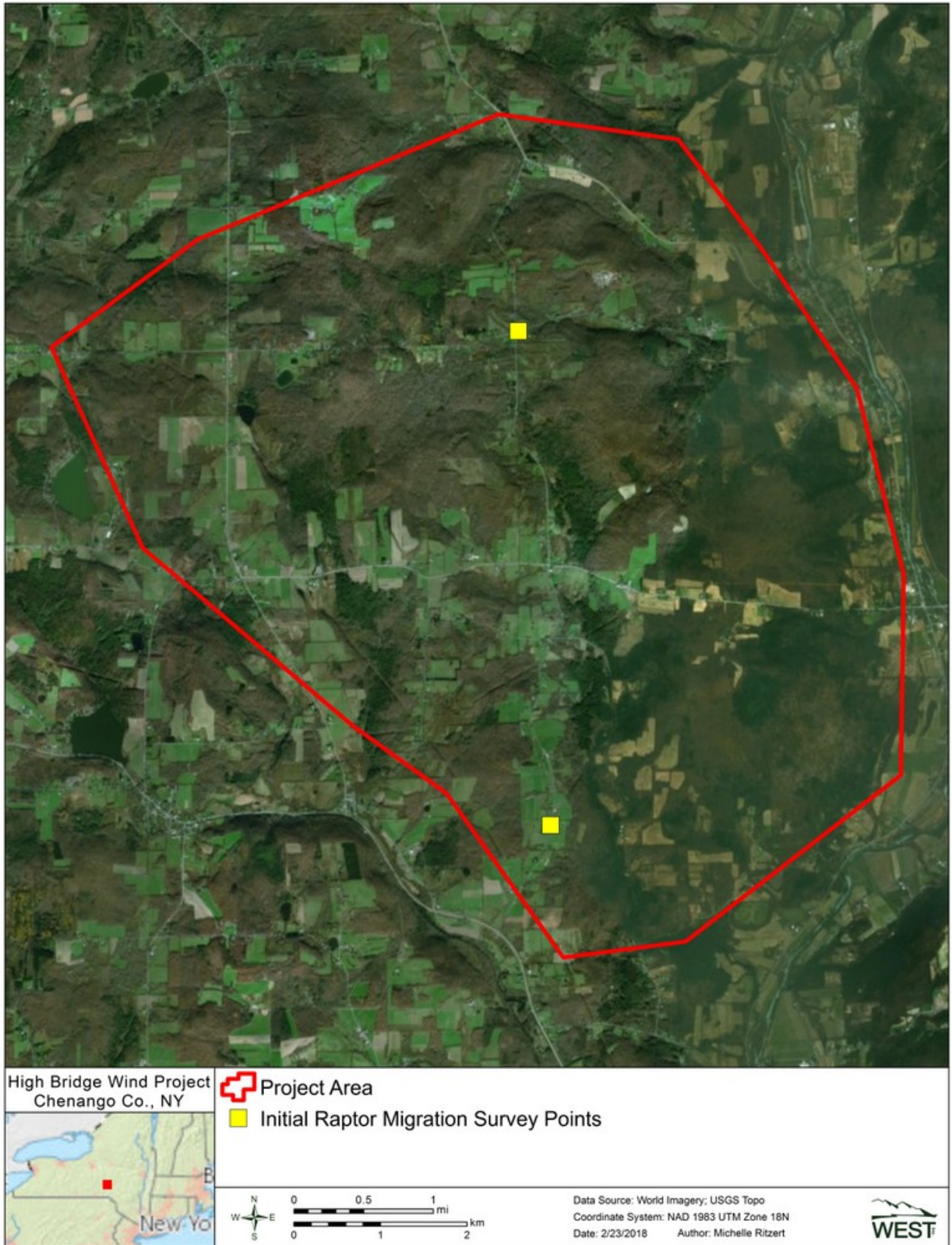


Figure 1. High Bridge Wind Project and location of raptor migration survey locations.