TETRA TECH

TO:	NextEra Energy Resources, LLC
FROM:	Tetra Tech
DATE:	4/15/2016
CORRES. NO.:	TTCES-PTLD-2016-029
SUBJECT:	Brady Wind Energy Center Raptor Nest Survey Report

Introduction

Brady Wind, LLC (Brady Wind), a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NextEra), is developing the Brady Wind Energy Center (Project) in Stark County, North Dakota (Figure 1). Brady Wind is committed to environmental due diligence and has contracted Tetra Tech, Inc. (Tetra Tech) to conduct raptor nest surveys in the Project Area and surrounding 10-mile buffer.

Tetra Tech requested locations of documented eagle nests within a 10-mile radius of the Project Area in May 2015 and April 2016 from North Dakota Game and Fish (NDGF). In May 2015, NDGF reported six historic golden eagle nest structures, all located on sandstone buttes. These historic nest structures are approximately 8 to 9 miles northwest of the Project Area (Figure 2), possibly indicating one to two territories based on spacing of the nests. In April of 2016 correspondence with NDGF confirmed that a golden eagle nest located during our spring 2016 aerial nest survey had been reported to NDGF. NDGF also confirmed that they had no new information on eagle nests within 10 miles of the Project Area.

In spring of 2015, Tetra Tech located two bald eagle nests within 10 miles of the Project Area during aerial raptor nest surveys conducted in support of another proposed wind energy facility (now canceled). The nearest of those bald eagle nests is located approximately three 3 miles to the east of the Project Area, in an isolated stand of trees surrounded by agricultural habitat. The other bald eagle nest is located approximately 8.5 miles to the northeast of the Project Area, along the Heart River. Both nests were occupied in April 2015. There were no other known bald or golden eagle nests within a 10-mile radius of the Project Area, prior to Tetra Tech conducting the raptor nest surveys.

The objective of the raptor nest surveys was to document all raptor nests within the Project Area plus a 2-mile buffer, and all eagle nests within a 10-mile buffer of the Project Area. Tetra Tech used standardized protocols for the raptor nest surveys that were designed to be responsive to the level of effort recommended in Tier 3 of the voluntary Land-Based Wind Energy Guidelines (WEG; USFWS 2012) and Stage 2 of the Eagle Conservation Plan Guidance (ECP Guidance; USFWS 2013). This report describes raptor nest surveys conducted in summer and fall 2015 (June and November), winter 2016 (January and February), and spring 2016 (March).

Data Collection

To aid in navigation and data recording, topographic maps and electronic tablets with a built in global positioning system (GPS) were used during the surveys. An optically stabilized camera was used to photograph nests. If a nest was found, the following data were collected:

- **Nest Identification Number:** corresponding with GPS waypoint number.
- **Raptor Species:** Using four-letter American Ornithologists' Union codes (e.g., RTHA = red-tailed hawk, UNKN = unknown species).
- **Adult Present:** On = bird sitting on nest, NEAR = bird near the nest, UNK = Unknown
- **Eggs or Young:** Number of eggs or young observed.
- **Nest Substrate:** Structure in which nest was located (e.g., broadleaf tree, cut bank, transmission pole, etc.).
- **Nest Height:** Height relative to the structure it is on (e.g., on top of transmission pole, 3/4 of height of tree).
- **Nest Status:** To assess nest status, the following criteria were used (Postupalsky 1974, USFWS 2013):
    - **Occupied:** nest containing eggs, young, or an adult sitting on the nest indicating incubation or brooding. Also, a nest not containing eggs or young but showing evidence of use in the survey year such as fresh lining, droppings, feathers on or underneath, or adults near the nest (e.g., in tree) but not sitting on the nest.
    - **Unoccupied:** nest showing no evidence of use and no adults present at the nest.
- **Nest Condition:** To assess nest condition, the following criteria were used (Postupalsky 1974, USFWS 2013):
    - **Excellent:** defined cup or nest bowl with a well-maintained rim; adult or young present.
    - **Good:** nest bowl intact and rim defined; minor repair needed for nest to be used; margins of nest in loose configuration, minor slumping occurring.
    - **Fair:** nest bowl intact and nest not dilapidated; but needs significant repair in order to be used; material is slumping or sliding.
    - **Poor:** loose structure of nest bowl still present; nest walls and side falling out; nest is in need of major repair to be used.
    - **Remnant:** nest bowl not defined; scant material remaining and not usable unless fully rebuilt.

Summer and Fall 2015 Raptor Nest Surveys

The objective of the summer and fall surveys was to document the location of any raptor nest structures within 2 miles of the Project Area to facilitate planning for the avoidance of nest disturbance during construction. Tetra Tech conducted an initial summer ground-based survey on June 10-11, 2015. The survey was conducted from public roadways by a local field biologist equipped with a spotting scope.

A follow-up fall aerial raptor nest survey was conducted on November 17-18, 2015, during the non-breeding season and after trees had dropped their leaves, which increased visibility of raptor nests (Tetra Tech 2015). The aerial survey objective was to locate all raptor nests within the Brady Project Area, plus a 2-mile buffer; however, after detecting several large stick nests (consistent with golden eagle nests) on buttes slightly beyond the 2-mile buffer (see below), the search effort was expanded after the surveyors completed nest searches within the 2-mile buffer. The expanded search effort focused exclusively on buttes to the south and east that were within 10 miles of the Project Area in order to determine whether there were suitable nesting ledges, as observed on local buttes with known golden eagle nests. The aerial survey was conducted from a Bell-206 Jet Ranger helicopter (Double M Helicopters, Mandan, North Dakota) that was flown approximately 200 feet above ground level at an approximate speed of 60 miles per hour. The crew consisted of a Tetra Tech biologist, a local field biologist, and pilot. Surveyors primarily focused on potentially suitable nesting habitat on buttes, and any large trees sufficient to support nesting by large raptors.

Eagle nests and large stick nests

No bald or golden eagle nests were found within the Project Area or the 2-mile buffer surrounding the Project Area during the summer or fall 2015 raptor nest surveys. Beyond the 2-mile buffer surrounding the Project Area, six large unoccupied nests were located during the fall aerial raptor nest survey: a cluster of five nests (2015_11, 2015_12, 2015_13, 2015_14, and 2015_15) located 2.1 to 3.2 miles to the northwest of the Project Area, and a single nest (2015_18) located 5.9 miles to the northwest of the Project Area (Figure 2; Table 1). The nests were all located on the ledges of sandstone buttes, and the nest spacing indicates that there may be one to two territories. These large nests are most likely to be used by large raptor species such as golden eagles or ferruginous hawks, and a golden eagle was subsequently viewed perching in proximity to the cluster of five large unoccupied nests. No additional nests or suitable nesting ledges were found on the buttes visited during the expanded search effort.

Other raptor nests and small stick nests

Other raptor nests detected within the Project Area during the summer and fall raptor nest surveys included five occupied Swainson's hawk nests, one occupied red-tailed hawk nest, and six unoccupied small stick nests within the Project Area (Table 2). Outside the Project Area, but within the 2-mile buffer, Tetra Tech detected two occupied Swainson's hawk nests, two occupied red-tailed hawk nests, and 13 unoccupied small stick nests (species unknown). The unoccupied small stick nests were all located in trees and are most likely used by smaller raptor species (e.g., red-

tailed hawk and Swainson's hawk). Eleven of the small stick nests located within 2 miles of the Project Area in summer were determined in November 2015 to have been destroyed by the wind (Table 2). These nests are not depicted in this report because they are no longer present.

January 2016 Raptor Nest Surveys

Golden eagles have been observed displaying courtship behavior as early as January in North Dakota (K. Shelley, USFWS, personal communication, December 16, 2015). In order to detect any early-season occupancy of eagle territories, Tetra Tech conducted an aerial raptor nest survey on January 25-27, 2016, as recommended by USFWS. The aerial survey consisted of searches for all raptor nests within the Project Area plus a 2-mile buffer, and searches for eagle nests within 10-miles of the Project Area. Surveyors also checked the status of previously documented raptor nests, including all known nests within 2 miles of the Project Area, and known bald and golden eagle nests and large stick nests within 10 miles of the Project Area The same aircraft, crew, and survey approach described for the fall aerial raptor nest surveys was used for the January aerial raptor nest surveys.

Data collected within the Project Area plus the 2-mile buffer included location and status of all stick nests (occupied or unoccupied), and any observations of eagles. Data collected within the remainder of the 10-mile buffer around the Project Area included location and status of any detected eagle nests, potential eagle nests, and any observations of eagles.

Eagle nests and large stick nests

No bald or golden eagle nests were found within the Project Area or the 2-mile buffer during the January nest surveys. Beyond the 2-mile buffer, three of the golden eagle nests reported by NDGF were unoccupied in January 2016 (2015_22, 2015_23, 2015_25; Table 1). These included one (2015_22) that was reported by NDGF as destroyed but surveyors observed a nest in poor condition at the location. Four of the golden eagle nests reported by NDGF were not located (2015_21, 2015_22, 2015_24, and 2015_26; Table 1); Nest 2015_22 and Nest 2015_26, which were reported as destroyed in the dataset provided by NDGF, do appear to be gone. The two groups of large stick nests located on buttes between 2.1 and 5.9 miles from the Project Area (2015_11, 2015_12, 2015_13, 2015_14, 2015_15, and 2015_18; Table 1) were all unoccupied. The two known bald eagle nests located by Tetra Tech in 2015 (2015_19 and 2015_20) were both occupied in January 2016 (Table 1).

Five new large stick nests were found within 10 miles of the Project Area; all five were unoccupied (Table 1). Nest 2016_07 is located on a sandstone pillar in proximity to the golden eagle nests reported by NDGF, approximately 9 miles to the northwest of the Project Area. The other four large stick nests (2016_02, 2016_08, 2016_09, and 2016_10; Table 1) were located in deciduous trees between 3 and 10 miles from the Project Area. Nest 2016_10 is located approximately 800 feet from Nest 2015_20, and is likely an alternate bald eagle nest.

A total of seven bald eagles and 18 golden eagles were incidentally observed within 10 miles of the Project Area during the January raptor nest survey. Eagles of both species were distributed throughout the 10-mile survey area, but outside of the Project Area.

Other raptor nests and small stick nests

There were 17 unoccupied small stick nests within 2 miles of the Project Area; eight within the Project Area and 12 between the Project boundary and the 2-mile buffer (Table 2; Figure 2). Five of these nests were newly documented.

February 2016 Raptor Nest Surveys

An additional aerial raptor nest survey was conducted on 24 February, 2016 to detect any early-season occupancy of eagle territories. The aerial survey consisted of checks of all known and potential bald and golden eagle nests within 10-miles of the Project Area, however small raptor nests were not checked during this survey. The same aircraft, crew, and survey approach described for the previous raptor nest surveys was used for the February aerial raptor nest surveys. Data collected during the survey included the status of any confirmed or potential bald and golden eagle nests, the location and status of new potential eagle nests, and any observations of eagles.

Eagle nests and large stick nests

The two known bald eagle nests located outside the Project Area which were both occupied in January (Nest 2015_19 and Nest 2015_20) were still occupied during the February surveys. An adult was incubating at Nest 2015_19, and an adult was perched nearby at Nest 2015_20. All of the known and potential golden eagle nests located on sandstone buttes to the northwest of the Project were unoccupied.

Two large stick nests located in trees to the south of the Project Area (Nest 2016_09 and Nest 2016_08) were occupied based on the addition of fresh greenery; however, no eagles were observed attending these nests. Two new large stick nests (Nests 2016_12 and 2016_13) were found in the same group of cottonwood trees as Nest 2016_08, and are probably alternate nests. There are often several alternate, inactive nests within an eagle territory. Three eagles (one bald and two golden eagles) were observed incidentally during the survey. All of the eagles were located outside of the Project Area and observed flying individually and at least 0.36 miles from the nearest known large stick nest.

March 2016 Raptor Nest Surveys

Tetra Tech conducted an aerial raptor nest survey on March 29-31, 2016 with the objective of documenting all raptor nests within 2 miles of the Project Area, and all eagle nests within the Project Area plus a 10-mile buffer, following recommendations of the ECP Guidance. Along with searching for all raptor nests within the Project Area plus the associated buffers, surveyors also

checked the status of previously documented raptor nests, including all known nests within 2 miles of the Project Area and known bald and golden eagle nests and large stick nests within 10 miles of the Project Area. The same aircraft, crew, and survey approach described for the previous aerial raptor nest surveys was used for the March aerial raptor nest surveys.

Data collected within the Project Area plus the 2-mile buffer included location and status of all stick nests (occupied or unoccupied) and any observations of eagles. Data collected within the remainder of the 10-mile buffer around the Project Area included location and status of any detected eagle nests, potential eagle nests, and any observations of eagles.

Eagle nests and large stick nests

No occupied eagle nests were located within the Project Area or within the 2-mile buffer around the Project Area. Three occupied golden eagle nests and two occupied bald eagle nests were found between the 2-mile and 10-mile buffer around the Project Area (Figure 2). The nearest nest is a golden eagle nest (Nest 2015_39), located 2.2 miles to the south of the Project Area. This nest is relatively undersized and located near the top of the tree. Surveyors classified this nest as small, and did not consider the nest to be a potential eagle nest when first located during the November 2015 surveys. The nest size and location is more typical of a buteo nest than a typical golden eagle nest. Follow-up ground surveys in April showed nest 2015_39 continued to be occupied.

None of the nests in the vicinity of the golden eagle nest locations provided by NDGF were occupied by golden eagles. Two occupied ferruginous hawk nests were located among these nests; one of the nests (Nest 2015_25) is located in a historical golden eagle nest, the other (Nest_2016_17) which was found in January, is located on top of a sandstone pillar.

Two of the large stick nests located on buttes between 2.1 and 5.9 miles from the Project Area (Nest 2015_13 and Nest 2015_15) were determined to be occupied based on fresh lining material added to the nests between the February and March surveys. However, no raptors were present and the species could not be determined.

There were two large unoccupied stick nests located within the 2-mile buffer around the Project Area (Nest 2015_10 and Nest_2015_38). Both nests are located in trees. Nest 2015_10 is large, but appears to be a ferruginous hawk nest based on the height and size of the nest tree. There were several large unoccupied nests stick nests between the 2 and 10-mile buffer around the Project Area. Nest 2016_14 is occupied by a ferruginous hawk. Nests 2016_12 and 2016_13 appear to be alternate nests within the golden eagle territory of Nest_2016_08. Nest 2016_10 appears to be an alternate nest within the bald eagle territory of nest 2016_20. Nests 2016_15, 2016_16, 2016_21, and 2016_02 are all located in large trees near drainages and these nest structures appear large enough to potentially support eagles.

Other raptor nests and small stick nests

Surveyors located six unoccupied small stick nests within the Project Area during the March 2016 aerial raptor nest surveys (Figure 2). Outside the Project Area, but within the 2-mile buffer, surveyors located six occupied great horned owl nests, one occupied red-tailed hawk nest, and

three unoccupied small stick nests. All of the unoccupied small stick nests were located in trees and are most likely used by smaller raptor species (e.g., red-tailed hawk and great horned owl). During the March 2016 surveys, two of the small stick nests located within 2 miles of the Project Area that were present in January 2016 were determined to have been destroyed by the wind (Table 2). These nests are not depicted in this report because they are no longer present.

Table 1. Eagle Nests and Large Stick Raptor Nests at Brady Wind Energy Center, North Dakota, June 2015 – March 2016.

Nest ID Number	Species	Substrate	Size Category	Status on June 10-11, 2015	Status on November 17-18, 2015	Status on January 25-27, 2016	Status on February 24, 2016	Status on March 29-31, 2016	Distance to Nearest Turbine (miles)**	Nearest Turbine**	Comments
2015_10	Unknown	Tree	Large	Unknown	Unoccupied	Unoccupied	Not checked	Unoccupied	2.0	16	Nest may have been built up recently as nest size was recorded as small in November. Appears to be a ferruginous hawk nest based on the nest height and size of nest tree.
2015_11	Unknown	Cliff	Large	Outside Survey Area	Unoccupied	Unoccupied	Unoccupied	Unoccupied	2.7	4	
2015_12	Unknown	Cliff	Large	Outside Survey Area	Unoccupied	Unoccupied	Unoccupied	Unoccupied	2.8	4	
2015_13	Unknown	Cliff	Large	Outside Survey Area	Unoccupied	Unoccupied	Unoccupied	Occupied	2.7	4	Fresh lining material in the nest, but species undetermined
2015_14	Unknown	Cliff	Large	Outside Survey Area	Unoccupied	Unoccupied	Unoccupied	Unoccupied	3.7	4	
2015_15	Unknown	Cliff	Large	Outside Survey Area	Unoccupied	Unoccupied	Unoccupied	Occupied	3.9	4	Fresh lining material in the nest, but species undetermined
2015_18	Unknown	Cliff	Large	Outside Survey Area	Unoccupied	Unoccupied	Unoccupied	Unoccupied	6.1	5	
2015_19	Bald Eagle	Tree	Large	Outside Survey Area	Outside Survey Area	Occupied	Occupied	Occupied	9.0	80	Adult on nest incubating.
2015_20	Bald Eagle	Tree	Large	Outside Survey Area	Outside Survey Area	Occupied	Occupied	Occupied	3.3	79	Adult on nest incubating.
2015_21	Golden Eagle	Cliff	Large	Outside Survey Area	Outside Survey Area	Not found	Unoccupied	Unoccupied	9.5	1	NDGF Nest GE099.
2015_22	Golden Eagle	Cliff	Large	Outside Survey Area	Outside Survey Area	Gone	Gone	Gone*	8.6	4	NDGF Nest GE100; reported as destroyed by NDGF.
2015_23	Golden Eagle	Cliff	Large	Outside Survey Area	Outside Survey Area	Unoccupied	Unoccupied	Unoccupied	9.5	1	NDGF Nest GE098.
2015_24	Golden Eagle	Cliff	Large	Outside Survey Area	Outside Survey Area	Not found	Unoccupied	Unoccupied	9.3	4	NDGF Nest GE101.
2015_25	Ferruginous Hawk	Cliff	Large	Outside Survey Area	Outside Survey Area	Unoccupied	Unoccupied	Occupied	8.6	4	NDGF Nest GE576: extremely tall nest visible from several miles away.
2015_26	Golden Eagle	Cliff	Large	Outside Survey Area	Outside Survey Area	Gone	Gone	Gone*	9.5	1	NDGF Nest GE097; reported as destroyed by NDGF.
2016_02	Unknown	Tree	Large	Outside Survey Area	Outside Survey Area	Unoccupied	Unoccupied	Unoccupied	13.3	60	Newly documented in January 2016.
2016_07	Ferruginous Hawk	Cliff	Large	Outside Survey Area	Outside Survey Area	Unoccupied	Unoccupied	Occupied	9.2	1	Newly documented in January 2016. Nest on a sandstone pillar.
2016_08	Golden Eagle	Tree	Large	Outside Survey Area	Outside Survey Area	Unoccupied	Occupied	Occupied	8.0	32	Fresh lining material in the nest in February. Adult on nest incubating in March.
2016_09	Golden Eagle	Tree	Large	Outside Survey Area	Outside Survey Area	Unoccupied	Occupied	Occupied	12.3	40	Fresh lining material in the nest in February. Adult on nest incubating in March.
2016_10	Unknown	Tree	Large	Outside Survey Area	Outside Survey Area	Unoccupied	Unoccupied	Unoccupied	3.0	77	Newly documented in January 2016. Located approximately 800 feet from Nest 2015_20; appears to be an alternate bald eagle nest.
2016_13	Unknown	Tree	Large	Outside Survey Area	Outside Survey Area	Unoccupied	Unoccupied	Unoccupied	8	32	Alternate nest in same group of trees as Nest 2016_08.
2016_12	Unknown	Tree	Large	Outside Survey Area	Outside Survey Area	Unoccupied	Unoccupied	Unoccupied	8.0	32	Alternate nest in same group of trees as Nest 2016_08.
2016_15	Unknown	Tree	Large	Outside Survey Area	Outside Survey Area	Not found	Not checked	Unoccupied	10.3	10	

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2016_16	Unknown	Tree	Large	Outside Survey Area	Outside Survey Area	Not found	Not checked	Unoccupied	10.3	10	
2016_17	Ferruginous Hawk	Tree	Large	Outside Survey Area	Outside Survey Area	Not found	Not checked	Occupied	2.5	19	
2016_21	Unknown	Tree	Large	Outside Survey Area	Outside Survey Area	Not found	Unoccupied	Unoccupied	10	80	
2015_38	Unknown	Tree	Large	Outside Survey Area	Unoccupied	Not found	Not checked	Unoccupied	2.5	16	
2015_39	Golden Eagle	Tree	Small	Outside Survey Area	Outside Survey Area	Unoccupied	Not checked	Occupied	2.4	51	Not a typical eagle nest, relatively small and located near the top of the tree; resembles a buteo nest. Hence, the nest was not checked during the one day February survey to check occupancy of known or suspected eagle nests.

*These nests are not included in Figure 2 because they are no longer present.
**The distance to the nearest turbine and nearest turbine number are based on the turbine array dated April 4, 2016.

Table 2. Small Raptor Nests at Brady Wind Energy Center, North Dakota, June 2015 – March 2016.										
Nest ID Number	Species	Substrate	Size Category	Status on June 10-11, 2015	Status on November 17-18, 2015	Status on January 25-27, 2016	Status on February 24, 2016	Status on March 29-31, 2016	Distance to Nearest Turbine (miles)*	Nearest Turbine**
2015_27	Red-tailed Hawk	Tree	Small	Occupied	Gone	Gone	Gone	Gone*	0.8	5
2015_28	Swainson's Hawk	Tree	Small	Occupied	Gone	Gone	Gone	Gone*	0.4	8
2015_29	Unknown	Tree	Small	Unoccupied	Gone	Gone	Gone	Gone*	1.0	33
2015_30	Swainson's Hawk	Tree	Small	Occupied	Gone	Gone	Gone	Gone*	1.1	33
2015_31	Swainson's Hawk	Tree	Small	Occupied	Gone	Gone	Gone	Gone*	0.8	26
2015_32	Swainson's Hawk	Tree	Small	Occupied	Unoccupied	Gone	Gone	Gone*	0.2	23
2015_33	Swainson's Hawk	Tree	Small	Occupied	Gone	Gone	Gone	Gone*	0.4	44
2015_34	Swainson's Hawk	Tree	Small	Occupied	Gone	Gone	Gone	Gone*	0.6	45
2015_35	Swainson's Hawk	Tree	Small	Occupied	Gone	Gone	Gone	Gone*	1.0	65
2015_36	Red-tailed Hawk	Tree	Small	Occupied	Gone	Gone	Gone	Gone*	0.8	80
2015_37	Unknown	Tree	Small	Unoccupied	Gone	Gone	Gone	Gone*	0.8	76
2015_01	Red-tailed Hawk	Tree	Small	Occupied	Unoccupied	Unoccupied	Not checked	Gone*	0.2	70
2015_02	Unknown	Tree	Small	Unknown	Unoccupied	Unoccupied	Not checked	Unoccupied	0.5	85
2015_03	Unknown	Tree	Small	Unknown	Unoccupied	Unoccupied	Not checked	Unoccupied	0.6	73
2015_04	Unknown	Tree	Small	Unknown	Unoccupied	Unoccupied	Not checked	Unoccupied	0.5	73
2015_05	Great Horned Owl	Tree	Small	Unknown	Unoccupied	Unoccupied	Not checked	Occupied	1.6	80
2015_06	Unknown	Tree	Small	Unknown	Unoccupied	Unoccupied	Not checked	Unoccupied	1.7	51

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Nest ID Number	Species	Substrate	Size Category	Status on June 10-11, 2015	Status on November 17-18, 2015	Status on January 25-27, 2016	Status on February 24, 2016	Status on March 29-31, 2016	Distance to Nearest Turbine (miles)*	Nearest Turbine**
2015_07	Unknown	Tree	Small	Unknown	Unoccupied	Unoccupied	Not checked	Unoccupied	1.2	43
2015_08	Unknown	Tree	Small	Unknown	Unoccupied	Not found	Not checked	Gone*	0.6	39
2015_09	Great Horned Owl	Tree	Small	Unknown	Unoccupied	Unoccupied	Not checked	Occupied	1.5	20
2015_16	Unknown	Tree	Small	Unknown	Unoccupied	Unoccupied	Not checked	Unoccupied	0.3	38
2015_17	Unknown	Tree	Small	Unknown	Unoccupied	Unoccupied	Not checked	Unoccupied	0.8	61
2016_01	Great Horned Owl	Tree	Small	Unknown	Unknown	Unoccupied	Not checked	Occupied	1.5	87
2016_03	Unknown	Tree	Small	Unknown	Unknown	Unoccupied	Not checked	Unoccupied	0.1	72
2016_04	Great Horned Owl	Tree	Small	Unknown	Unknown	Unoccupied	Not checked	Occupied	0.9	61
2016_05	Unknown	Tree	Small	Unknown	Unknown	Unoccupied	Not checked	Unoccupied	0.5	81
2016_06	Unknown	Tree	Small	Unknown	Unknown	Unoccupied	Not checked	Unoccupied	1.6	73
2016_18	Red-tailed Hawk	Tree	Small	Unknown	Unknown	Unknown	Unknown	Occupied	1.5	20
2016_20	Great Horned Owl	Tree	Small	Unknown	Unknown	Unknown	Unknown	Occupied	2.5	34
2016_22	Great Horned Owl	Tree	Small	Unknown	Unknown	Unknown	Unknown	Occupied	1.8	73
2016_23	Great Horned Owl	Tree	Small	Unknown	Unknown	Unknown	Not checked	Occupied	1.9	80

*These nests are not included in Figure 2 because they are no longer present.

References

Postupalsky, S. 1974. Raptor reproductive success: some problems with methods, criteria, and terminology. Raptor research report 2: 21-31.

Tetra Tech, Inc. 2015. Fall 2015 Avian Report for the Brady Wind Energy Center, Stark County, North Dakota. Report prepared for NextEra Energy, LLC.

USFWS (United States Fish and Wildlife Service). 2012. Land-based Wind Energy Guidelines. Available online at: http://www.fws.gov/windenergy/docs/WEG_final.pdf

USFWS. 2013. Eagle Conservation Plan Guidance. Module 1 – land-based wind energy, version 2. U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Washington D.C., USA.

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Figure 1

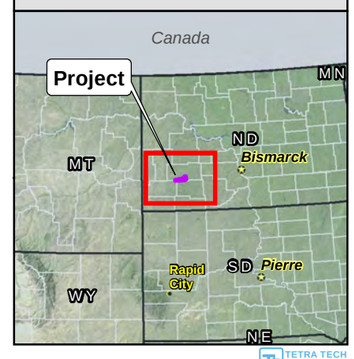
Vicinity Map

NEXTera ENERGY RESOURCES

Brady Wind Energy Center

Stark County, ND

- Proposed Project Area (10-21-2015)
- Proposed Transmission Line (01-14-2016)
- State Boundary
- County Boundary
- Urban area
- Interstate Highway
- Secondary Highway
- Secondary Road
- River/Stream
- Lake/Pond



TETRA TECH

1:500,000 WGS84 UTM Zone 13N

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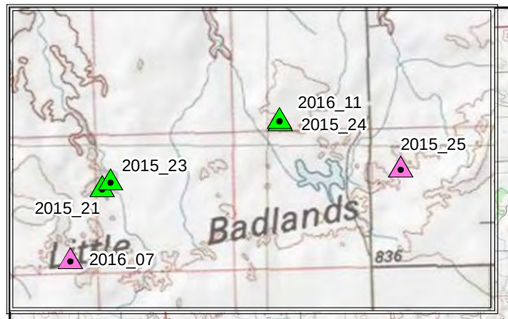

See Inset above for more details

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2016_02

1:215,000 WGS84 UTM Zone 13N

0 0.5 1 2 3 4 5 Miles

Figure 2

March 2016 Raptor Nest Survey Results

Brady Wind Energy Center

Stark County, ND
Last modified: 04-07-2016

- Occupied great horned owl nest
- Occupied ferruginous hawk nest
- Occupied red tailed hawk nest
- Occupied bald eagle nest
- Occupied golden eagle nest
- Occupied large stick nest, species undetermined*
- Unoccupied large stick nest
- Unoccupied small stick nest
- Proposed Turbine (04-04-16)
- Proposed Alternate Turbine (04-04-16)
- Proposed Transmission Line (01-14-2016)
- Proposed Project Area (10-21-2015)
- Survey Area 2-mile Buffer
- Survey Area 10-mile Buffer

*Fresh lining material in the nest.

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