



DRAFT Raptor Nest Survey

Panther Grove Wind Energy Project
Woodford County, Illinois

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1.0 INTRODUCTION

In support of the Panther Grove Wind Energy Project (Project; Figure 1), Stantec Consulting Services Inc. (Stantec) completed a raptor nest survey, utilizing fixed-wing aerial methods, for bald eagle (*Haliaeetus leucocephalus*) and other raptor nests within the project area and a 2-mile buffer surrounding both the project boundary (hereafter referred to as the nest search area), including portions of Livingston and McLean counties, Illinois (Figure 1). This report presents the project description, purpose and objectives, methods, and results of the raptor nest survey. The survey was conducted as part of the pre-construction and planning phase of the Project.

On July 9, 2007, the U.S. Fish and Wildlife Service (USFWS) announced that the bald eagle would be removed in the lower 48 states from the Federal List of Endangered and Threatened Wildlife (72 Fed.Reg. 37346-37372). The rule became effective on August 8, 2007. The bald eagle remains protected under the federal Bald and Golden Eagle Protection Act (BGEPA). There are no additional state protections for the bald eagle in Illinois.

In 2013, the USFWS published the Eagle Conservation Plan Guidance (ECPG) Module 1 – Land-based Wind Energy (Version 2; USFWS 2013), which provides in-depth guidance on conserving bald eagles during siting, constructing, and operating wind energy facilities. While compliance with the ECPG is voluntary, the guidance provides a means of complying with regulatory requirements. In 2020, the USFWS published a memorandum updating the eagle nest survey protocol outlined in the ECPG. The updated protocol recommends that surveys for eagle nests be conducted within the project area, as well as within a 2-mile buffer of the project boundary (Ford 2020).

1.1 PROJECT DESCRIPTION

The proposed Project is approximately 44,977 acres and is located in Woodford County (Figure 1). The project area is located directly north of the city of El Paso and the village of Secor, south of the city of Minonk, east of the village of Benson, and contains the village of Panola. Panther Creek runs through the center, West Branch Panther Creek runs through the southwest quarter, and Little Panther Creek runs through the east central portion of the project area. The project area is dominated by agricultural fields in row crop production and pastureland. Wooded riparian areas, rural and urban residences, and farmsteads are scattered throughout the project area.

1.2 PURPOSE AND OBJECTIVES

The purpose of the survey was to determine the locations of bald eagle and other raptor nests within the nest search area and a 2-mile buffer surrounding the outer-most boundary lines. The objectives of the survey were to:

1. Locate bald eagle and other raptor nests within the nest search area; and
2. Determine species and occupancy of documented nests.

RAPTOR NEST SURVEYPANTHER CREEK WIND ENERGY PROJECT

Introduction

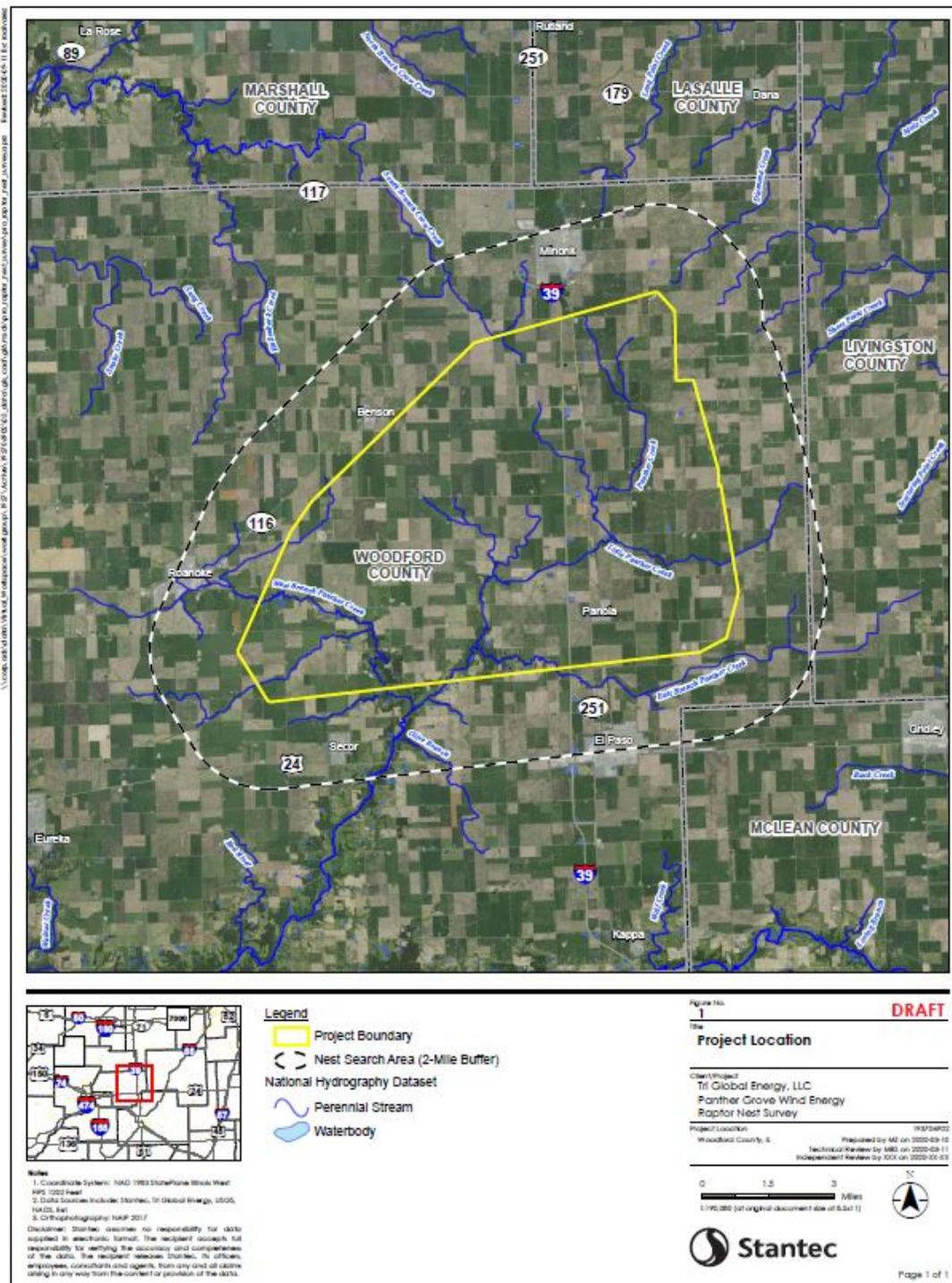


Figure 1. Project Location

2.0 METHODS

A fixed-wing aerial survey was completed on February 27 and 28, 2020. An aerial survey was necessary to complete a thorough survey due to the large size of the nest search area, the presence of rolling hills and riparian areas that were not visible from public roadways, and to accurately determine nest occupancy. The timing of the survey was determined based on the primary nesting period for bald eagles in Illinois and was scheduled to be conducted prior to when the trees in the central portion of Illinois begin producing leaves. In areas where nests are widely scattered and conspicuous, fixed-wing aerial surveys are considered an acceptable survey method (USFWS 2013).

Flight paths followed east/west one-mile transects within the southern half of the nest search area, and riparian corridors in the northern half. Transects were utilized to cover the southern half of the nest search area due to the higher concentration of woodland scattered consistently throughout. Stream corridors were followed in the northern half since woodland was mostly limited to these areas; the majority of landcover in the northern half was agricultural fields and pastureland with limited suitable bald eagle nesting habitat.

The aircraft flew between 69 and 92 miles-per-hour at a height of approximately 500–600 feet (ft) above ground, except where precluded by law (near populated areas and above towers), where a flight height of 800–1,000 ft above ground was used.

The fixed-wing aerial survey was conducted during daylight hours by two Stantec wildlife biologists with experience conducting aerial surveys and detecting and identifying raptor species and nests, following methods recommended in the ECPG (USFWS 2013). Biologists were positioned in the plane to maximize visibility of the ground. Surveyors recorded nest location and status information on an iPad with internal Global Positioning System (GPS) and the ArcGIS application Collector, in addition to hard copy aerial maps.

For each bald eagle or other raptor nest located, surveyors attempted to identify the activity status of the nest, the species using the nest, and the number of eggs or chicks present. Nests were considered “active” if breeding activity was detected at the nest (i.e., eggs, chicks, fledglings, or adults). If no activity was observed at an eagle or other raptor nest, then the nest’s activity status was recorded as “inactive”.

3.0 RESULTS

3.1 BALD EAGLE NESTS

One bald eagle nest was observed during the raptor nest survey (BAEA-1) (Figures 2 and 3, Table 1). The nest was not located within the project area; however, it was located within the 2-mile buffer (Figures 2 and 3, Table 1).

RAPTOR NEST SURVEYPANTHER CREEK WIND ENERGY PROJECT

Results

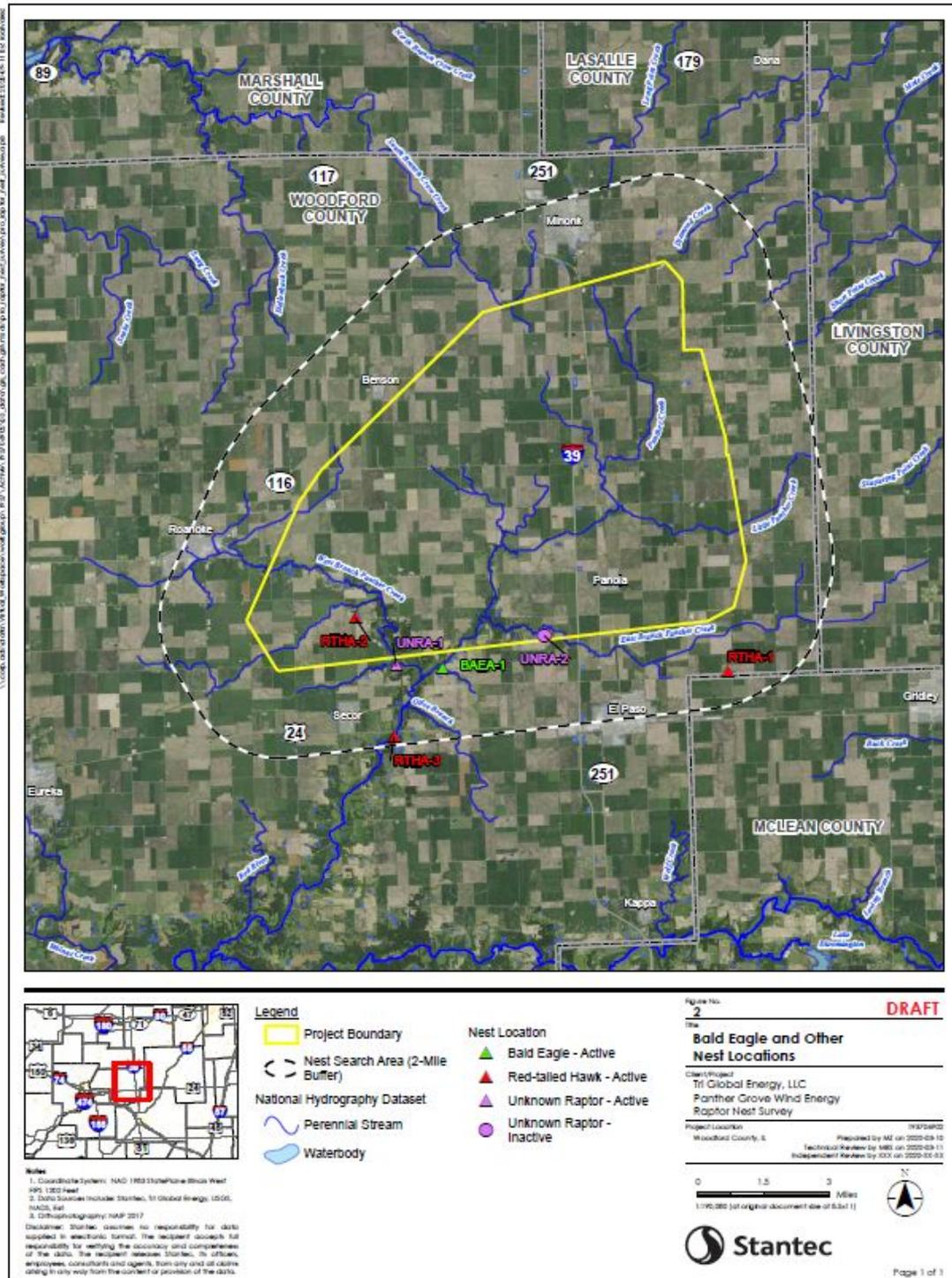


Figure 2. Bald Eagle and Other Nest Locations

RAPTOR NEST SURVEYPANTHER CREEK WIND ENERGY PROJECT

Results

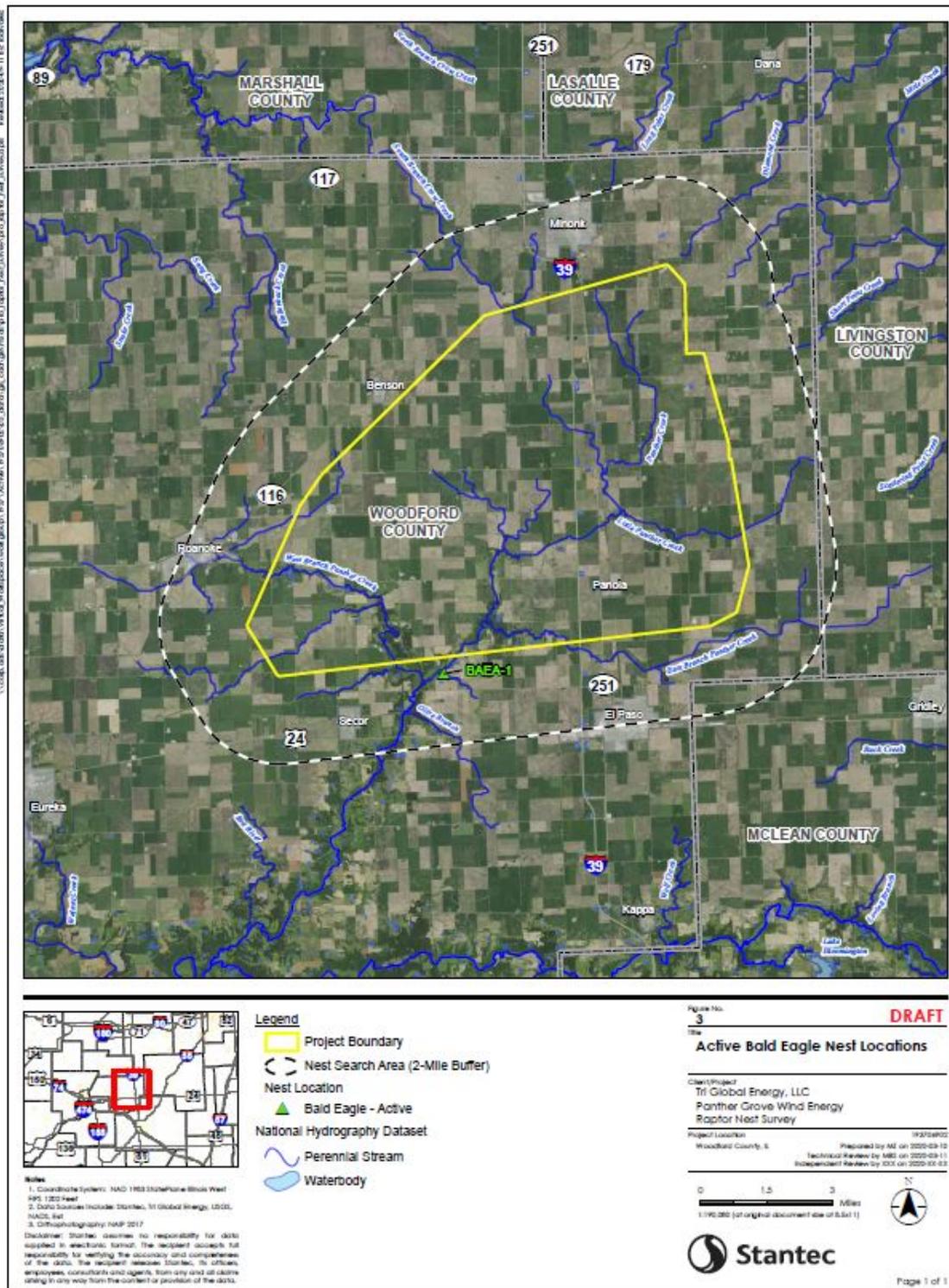


Figure 3. Active Bald Eagle Nest Locations

Results

Table 1. Bald eagle nest activity status, location, and distance to the Panther Grove Wind Energy Project boundary.

Nest ID	Activity Status	Location	Distance to Project Boundary (mi)
BAEA-1	Active	Panther Creek	0.38

At least one adult bald eagle was observed on the nest (BAEA-1), so the nest was classified as active (Figures 2 and 3, Table 1).

3.2 NON-EAGLE NESTS

Five non-eagle raptor nests (RTHA-1 through RTHA-3 and UNRA-1 and UNRA-2) were observed during the raptor nest survey (Figure 2). One active red-tailed hawk (*Buteo jamaicensis*) nest and one inactive non-eagle raptor nest of unknown species were located within the project boundary (RTHA-2 and UNRA-2). The remaining red-tailed hawk nests (RTHA-1, RTHA-3) and non-eagle raptor nest of unknown species (UNRA-1) were located outside the project boundary but within the nest search area. See Figure 2 and Table 2 for details on each nest.

Table 2. Non-eagle nests, species, activity status, and distance to Panther Grove Wind Energy Project boundary.

Nest ID	Species	Activity Status	Distance to Project Boundary (mi)
RTHA-1	Red-tailed hawk	Active	1.24
RTHA-2	Red-tailed hawk	Active	0.00
RTHA-4	Red-tailed hawk	Active	1.82
UNRA-1	Unknown, non-eagle raptor nest	Active	0.20
UNRA-2	Unknown, non-eagle raptor nest	Inactive	0.00

Summary

4.0 SUMMARY

- No bald eagle nests were observed within the Panther Grove project area.
- One bald eagle nest was observed within the nest search area, but outside of the project area. The bald eagle nest was considered active.
- One red-tailed hawk nest and one unidentified, non-eagle nest were observed on the edge of the project area. Two other red-tailed hawk nests and one non-eagle raptor nest of unknown species were located outside the project boundary but within the 2-mile buffer.

5.0 REFERENCES

Ford, J. (2020, April 21). *Eagle surveys* [Memorandum]. Department of the Interior.

USFWS. 2013. Eagle conservation plan guidance, Module 1 – land-based wind energy, Version 2. U.S. Fish and Wildlife Service, Migratory Birds Division.
<<http://www.fws.gov/migratorybirds/PDFs/Eagle%20Conservation%20Plan%20Guidance-Module%201.pdf>> Accessed 26 March 2020.