



TO: NextEra Energy Resources, LLC
FROM: Tetra Tech
DATE: 4/18/2016
SUBJECT: Oliver III Wind Energy Center Grouse Lek Survey Report

Introduction

Oliver III Wind, LLC (Oliver III Wind), a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NextEra) is developing the Oliver III Wind Energy Center (Project) located in Morton and Oliver counties, North Dakota (Figure 1). Oliver III Wind is committed to environmental due diligence and has contracted Tetra Tech, Inc. (Tetra Tech) to conduct sharp-tailed grouse lek surveys in the proposed Project Area and 1-mile buffer (Figure 1).

Sharp-tailed grouse are identified as Species of Conservation Priority in North Dakota's State Wildlife Action Plan (Wildlife Action Plan). Species covered by the Wildlife Action Plan are categorized into three levels according to their conservation need. Sharp-tailed grouse are considered Level II Species, which are those species having a moderate level of conservation priority or a high level of conservation priority but a substantial level of non-state wildlife grant funding is available to them. Sharp-tailed grouse have experienced population declines linked to landscape level land use changes, primarily due to habitat loss through the conversion of grasslands to cropland. State and federal wildlife agencies have regularly expressed concern about the locations of wind turbines with respect to prairie grouse leks (communal male displaying grounds).

At NextEra's request, Tetra Tech requested the location of any known sharp-tailed grouse leks from the North Dakota Game and Fish Department (NDGF) on January 11, 2016. NDGF responded on February 3, 2016 stating that there are no documented leks in the Project Area or vicinity, but noted that the area has not been surveyed by NDGF. NDGF recommended that they help design the survey protocol. Tetra Tech provided the proposed protocol to NDGF on February 8, 2016, and received feedback from NDGF on March 9, 2016. NDGF supplied their standard protocol and suggested that Tetra Tech modify the survey protocol provided to NDGF so that listening stops be made every 0.5 mile rather than every 1 mile in all areas with grassland habitat. Tetra Tech modified the protocol to comply with NDGF by placing listening stops at 0.5 mile intervals in all areas with grassland habitat.

The objective of the grouse lek surveys was to document all sharp-tailed grouse leks within the Project Area and 1-mile buffer. Tetra Tech protocols for the grouse lek surveys were designed to be responsive to the level of effort recommended in Tier 3 of the voluntary U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines (WEG; USFWS 2012).

Methods

Prior to the field surveys, Tetra Tech prepared a desktop habitat assessment using the National Land Cover Database and aerial imagery. Open areas with grassland habitat were classified as suitable lek habitat. Preliminary listening stations were delineated along public roads within suitable lek habitat within 1 mile of the Project Area. The preliminary listening stations were then field-verified for suitable habitat and accessibility during the setup of the 2015 fall avian point-count surveys. The initial survey route was developed with listening stations mapped 1 mile apart along accessible public roads adjacent to suitable habitat; however, per the request of NDGF, the spacing of the listening stations was reduced to 0.5 miles apart shortly before the surveys began, resulting in 44 additional listening stations. The habitat suitability and access to the additional listening stations was verified by the field biologist during the first day of the lek surveys.

Ground surveys were conducted along public access roads in suitable habitat within 1 mile of the Project Area between April 8 and 14, 2016. Surveys were conducted from one-half hour before sunrise to two hours after sunrise to coincide with peak lekking activity. During the surveys, observers stopped at listening stations located 0.5-mile apart for a minimum of 3 minutes during which time the observer systematically scanned and listened for displaying sharp-tailed grouse. Observed leks were mapped and numbers of males and females were counted if possible. The lek surveys were not conducted when winds exceeded 20 mph or if there was any type of precipitation event.

Results

A total of 81 listening stations were surveyed during the lek surveys. Eight sharp-tailed grouse leks were documented in or within 1 mile of the Project Area during the surveys (Figure 1). The number of grouse observed at each lek ranged from 4 to 17 individuals. A total of 87 birds (73 males and 14 females) were recorded at these leks, although this is a minimum count as not all birds were visible from the road.

References

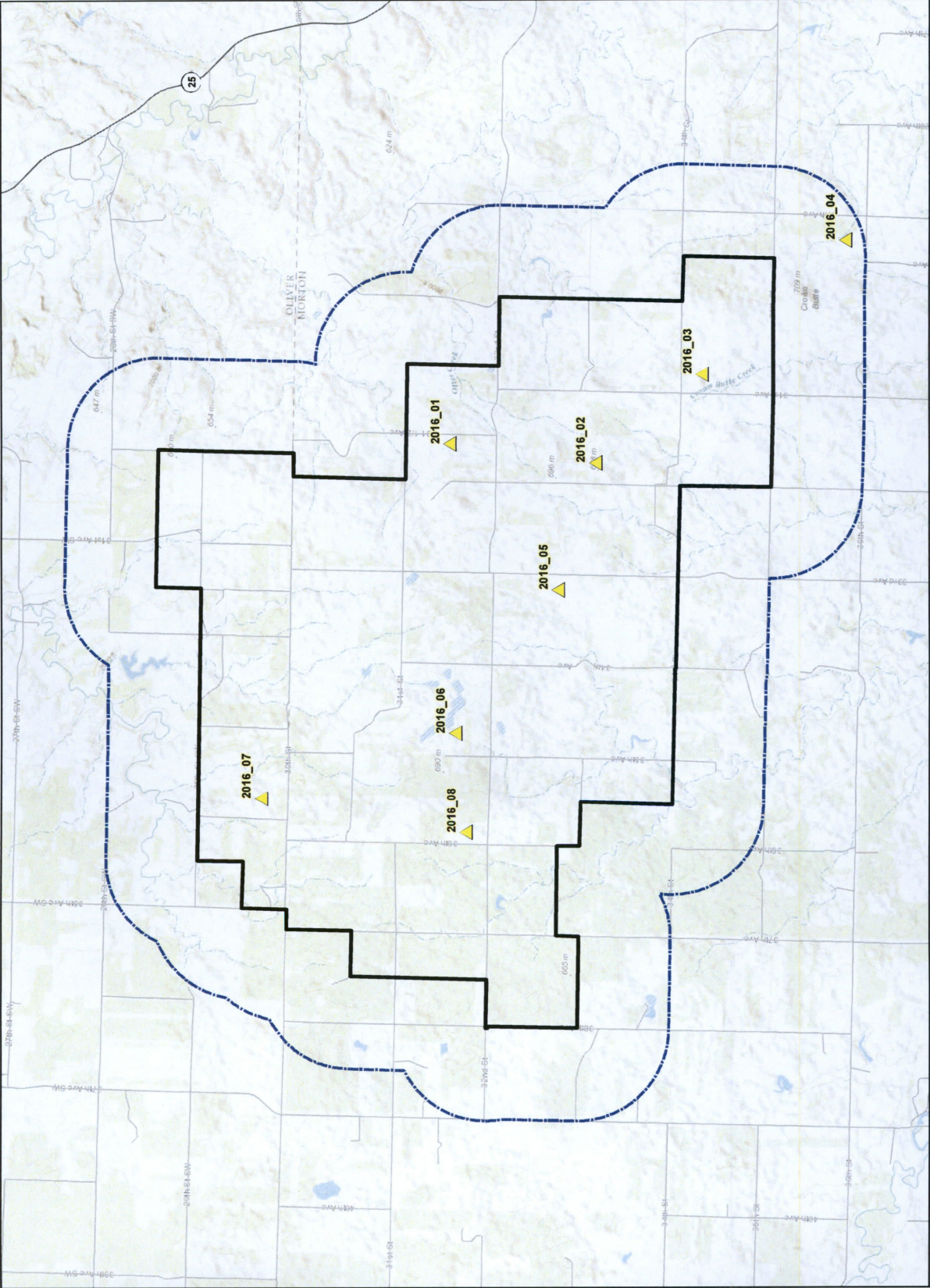
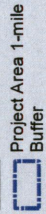
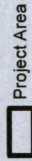
USFWS (United States Fish and Wildlife Service). 2012. Land-based Wind Energy Guidelines. Available online at: http://www.fws.gov/windenergy/docs/WEG_final.pdf

Figure 1

Lek Survey Results



Oliver III Wind Energy Center
Oliver and Morton Counties, ND
April 2016



1:65,000 WGS84 UTM Zone 13N



Miles