



## ENVIRONMENTAL & STATISTICAL CONSULTANTS

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### TECHNICAL MEMORANDUM

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**Date:** June 28, 2017  
**To:** Jennie Geiger, Apex Clean Energy Management, LLC  
**From:** Western EcoSystems Technology, Inc.  
**Subject:** Dakota Range I Wind Project – Prairie Grouse Lek Survey Memo

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#### Introduction

In 2016, Western EcoSystems Technology, Inc. completed an aerial-based survey for sharp-tailed grouse and greater prairie-chicken leks for the Dakota Range I Wind Project (Project). The Project boundary was modified since the 2016 surveys to include additional area; therefore, the unsurveyed portion of the Project was evaluated in 2017 using a ground-based methodology. In addition, previously documented leks from 2016 were revisited to evaluate 2017 status (Figure 1).

#### Methods

Surveys were completed three times between April 8 and May 9, 2017, in the areas shown in Figure 1, and two times in a small portion of this area because it was added in late April. The 2017 survey area included the unsurveyed portions of the Project and a 0.5-mile buffer. Public roads were driven by a biologist from 30 minutes prior to sunrise until approximately two hours after sunrise. The biologist stopped for a minimum of five minutes approximately every half-mile (more often in hilly terrain, less in flat) to listen and look for displaying birds. If a lek was located, the observer would then map the location (to the best of their ability from the road) and record the number of males, females, and birds of unknown sex attending the lek. When possible, surveys were completed on relatively calm mornings with little to no rain. Leks documented in 2016 that were outside the 2017 survey area were also visited to evaluate 2017 status.

Leks were classified as “potential” when three or more birds were observed in one location during the morning surveys. Leks were classified as “confirmed” if the biologists observed males engaged in lek attendance behavior (e.g., dancing, calling) more than one time. Leks were classified as “historic” if they were known leks that could not be found during the surveys.

#### Results

One confirmed (Lek 3) and one potential (Lek 4) sharp-tailed grouse lek was documented within the 2017 survey area. Lek 4 was a potential sharp-tailed grouse lek with a maximum of seven birds (3 male, 4 unknown sex) observed during the first survey; however, no males were

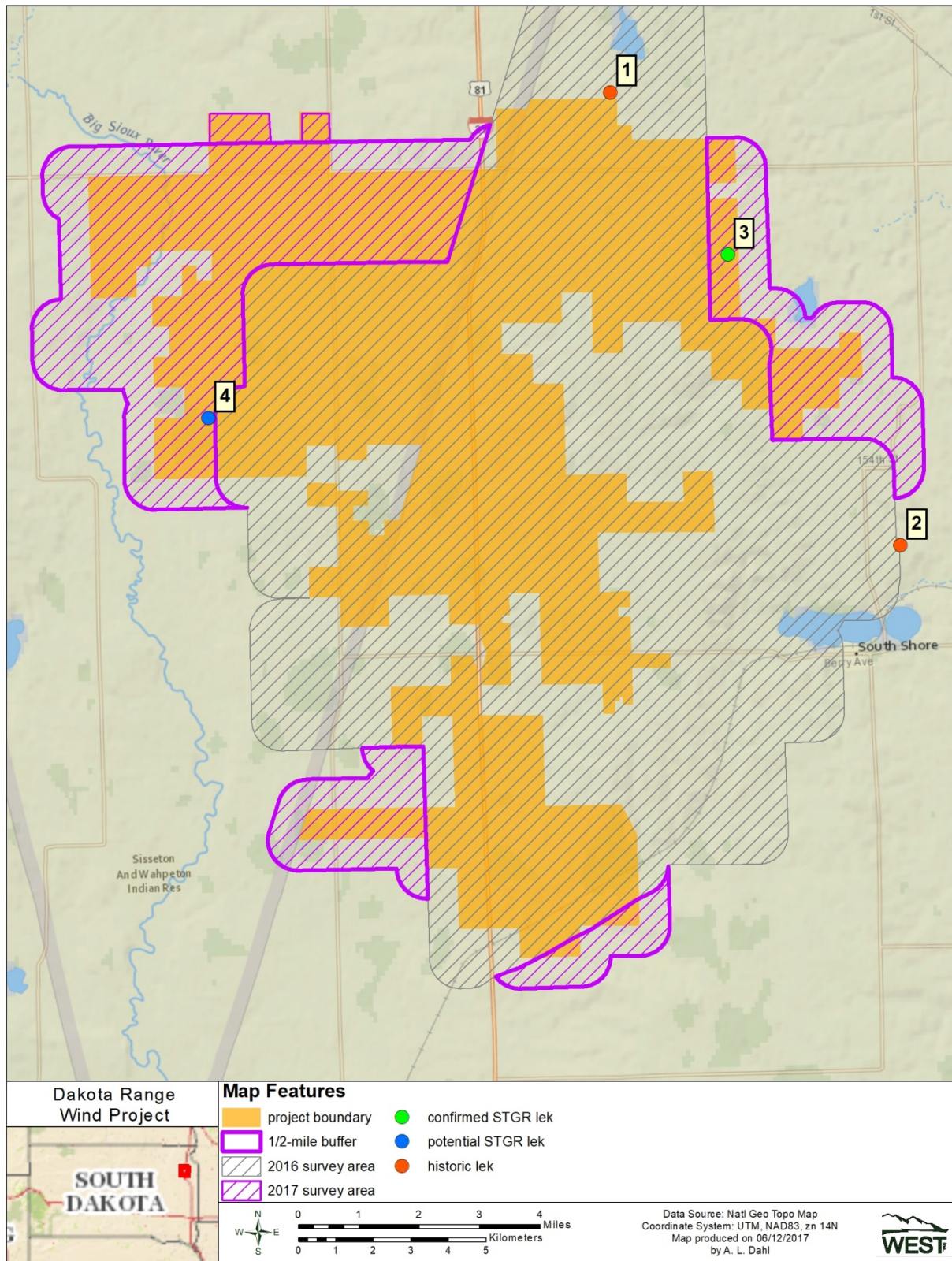
exhibiting courtship behavior. Two previously documented leks (Leks 1 and 2) were not located in 2017 and classified as historic. Survey results are shown in Table 1 and Figure 2.

Lek 3 was the only confirmed lek with a maximum of 15 sharp-tailed grouse observed during the second and third survey.

### **Summary**

Results of the 2016 and 2017 surveys indicate that both sharp-tailed grouse and greater prairie chickens are present at low density in and within 0.5 mile of the Project.





**Figure 1. Location of grouse lek survey areas and lek locations for unsurveyed portions of the Dakota Range Wind Project. Surveys occurred from April 8 to May 9, 2017.**