

2019 SURVEY REPORT ADDENDUM TO THE
DAKOTA SKIPPER (*HESPERIA DACOTAE*) AND
POWESHIEK SKIPPERLING (*OARISMA
POWESHIEK*) SURVEY REPORT (AUGUST
2018) FOR THE TATANKA RIDGE WIND
PROJECT, DEUEL COUNTY, SOUTH DAKOTA

AUGUST 2019

PREPARED FOR

Tatanka Ridge Wind, LLC

PREPARED BY

SWCA Environmental Consultants

**2019 SURVEY REPORT ADDENDUM TO THE
DAKOTA SKIPPER (HESPERIA DACOTAE) AND POWESHIEK
SKIPPERLING (OARISMA POWESHIEK) SURVEY REPORT
(AUGUST 2018) FOR THE TATANKA RIDGE WIND PROJECT,
DEUEL COUNTY, SOUTH DAKOTA**

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1 INTRODUCTION

Tatanka Ridge Wind, LLC, contracted SWCA Environmental Consultants (SWCA) to conduct a Dakota skipper (*Hesperia dacotae*) and Poweshiek skipperling (*Oarisma poweshiek*) surveys for the western expansion area of the Tatanka Ridge Wind Project (Project) in Deuel County, South Dakota (see map in Appendix A). This report outlines the survey results and is an addendum to the *Dakota skipper (Hesperia dacotae) and Poweshiek skipperling (Oarisma poweshiek) survey report for the Tatanka Ridge Wind Project, Deuel County, South Dakota*, dated August 2018 (SWCA 2018).

The Project is located approximately 5 miles west of the South Dakota/Minnesota border, and directly north of the town of Toronto, South Dakota. In early 2019 the project area was expanded to the west (map in Appendix A) and the nameplate capacity increased from 99 megawatts to up to 155 megawatts. The proposed Project will consist of wind turbines and associated infrastructure such as access roads, electrical collection system, substation, operations and maintenance building, and a permanent meteorological tower.

The Dakota skipper and Poweshiek skipperling are listed as threatened and endangered under the Endangered Species Act, respectively, by the USFWS. These species are not listed under the South Dakota Endangered Species Law. The purpose of the survey was to meet USFWS guidelines (USFWS 2018a) on assessment of the Dakota skipper and Poweshiek skipperling within the expanded project area, where land parcels are leased (2019 survey area). The least status used for the surveys was dated March 28, 2019, and represented the most up-to-date status available to SWCA.

A desktop analysis of the 2019 survey area was conducted to identify undisturbed grassland areas that could be potential habitat for the Dakota skipper and Poweshiek skipperling. Pedestrian qualitative field surveys were conducted within the 2019 survey area leased parcels potential habitat to field-verify suitable habitat for adult Dakota skipper and Poweshiek skipperling. No suitable habitat for the Dakota skipper or Poweshiek skipperling were identified in the 2019 survey area, therefore no adult occupancy surveys were required, or completed. SWCA subcontracted Stantec Consulting Services Inc. (Stantec) to provide field biologists for the field survey. All work was overseen and reviewed by an SWCA senior biologist with a U.S. Fish and Wildlife Service (USFWS) Dakota skipper and Poweshiek skipperling permit and expertise in prairie ecology.

2 METHODS

The surveys were conducted in accordance with the USFWS (2018a) guidelines. Mr. Jake Powell, SWCA Senior Biologist, reviewed and oversaw all desktop and field surveys. Mr. Powell is listed on SWCA's Scientific Recovery Permit for the Dakota skipper and Poweshiek skipperling (permit number TE64070B-1) and is a technical specialist in these species and prairie ecology.

2.1 Desktop Analysis

SWCA completed a desktop analysis for the 2019 survey area to identify those areas that were potential habitat using publicly available spatial datasets and aerial imagery interpretation by an ecologist experienced with Dakota skipper and Poweshiek skipperling habitat. The following publicly available spatial datasets were used to complete the desktop analysis.

- 2017 cropland data layer (National Agricultural Statistics Service 2018)
- 2010 National Gap Analysis Project (GAP) landcover (U.S. Geological Survey 2010)
- National Wetlands Inventory (USFWS 2018b)
- Quantifying Undisturbed (Native) Lands in Eastern South Dakota: 2013 (Bauman et al. 2016)
- 2016 National Agricultural Inventory Project (NAIP) aerial imagery (U.S. Department of Agriculture 2016)
- 2017 ArcGIS Digital Imagery

2.2 Habitat Surveys

The areas identified as potential habitat during the desktop analysis were carried forward for qualitative field surveys to determine the presence/absence of suitable habitat for the Dakota skipper and Poweshiek skipperling. The surveys were completed by SWCA and Stantec (SWCA subcontractor) biologists, familiar with the plant communities and landscapes in eastern South Dakota, to field-verify whether the potential habitat identified during the desktop analysis was suitable or unsuitable habitat for the Dakota skipper and Poweshiek skipperling. The surveys were completed on all potential habitat areas on leased lands (lease status dated March 28, 2019). The habitat surveys were conducted from May 28 through June 2, 2019. Suitable habitat determinations were made based on habitat characteristics outlined in the published literature (Rigney 2013; Royer and Marrone 1992a; Royer and Marrone 1992b; Selby 2013; Skadsen 2003; USFWS 2014, 2016, 2018a).

3 RESULTS AND DISCUSSION

The desktop analysis identified 1,279.3 acres of potential habitat present in the 2019 survey area. The potential habitat is shown on the map in Appendix A. The potential habitat areas, within the leased parcels (lease status dated March 28, 2019) were carried forward for field surveys.

Field surveys of the potential habitat were conducted from May 28 through June 2, 2019. No suitable habitat was identified within the 2019 survey area leased parcels. The unsuitable habitat present in the

2019 survey area has similar plant community attributes as the unsuitable habitat identified in 2018 (SWCA 2018).

Unsuitable habitat areas were primarily dominated by non-native upland species (e.g., smooth brome [*Bromus inermis*], clover [*Trifolium* spp.], orchardgrass [*Dactylis glomerata*], or timothy [*Phleum pratense*]), or in a wetland that did not have requisite Dakota skipper or Poweshiek skipperling plant species. Alfalfa (*Medicago sativa*) was prevalent in many of the unsuitable habitat areas. Canada thistle (*Cirsium arvense*) and musk thistle populations were located throughout the survey area. Figure 1 shows an example of these unsuitable habitat areas.



Figure 1. Representative Unsuitable Habitat

Summary

This is a summary of the results:

- The desktop review resulted in 1,279.3 acres of potential habitat being identified.
- Habitat surveys in the 2019 survey area leased parcels were conducted from May 28 through June 2, 2019.
- No suitable habitat was identified.

- Occupancy surveys were not completed due to the lack of suitable habitat present for the Dakota skipper and Poweshiek skipperling.

4 REFERENCES CITED

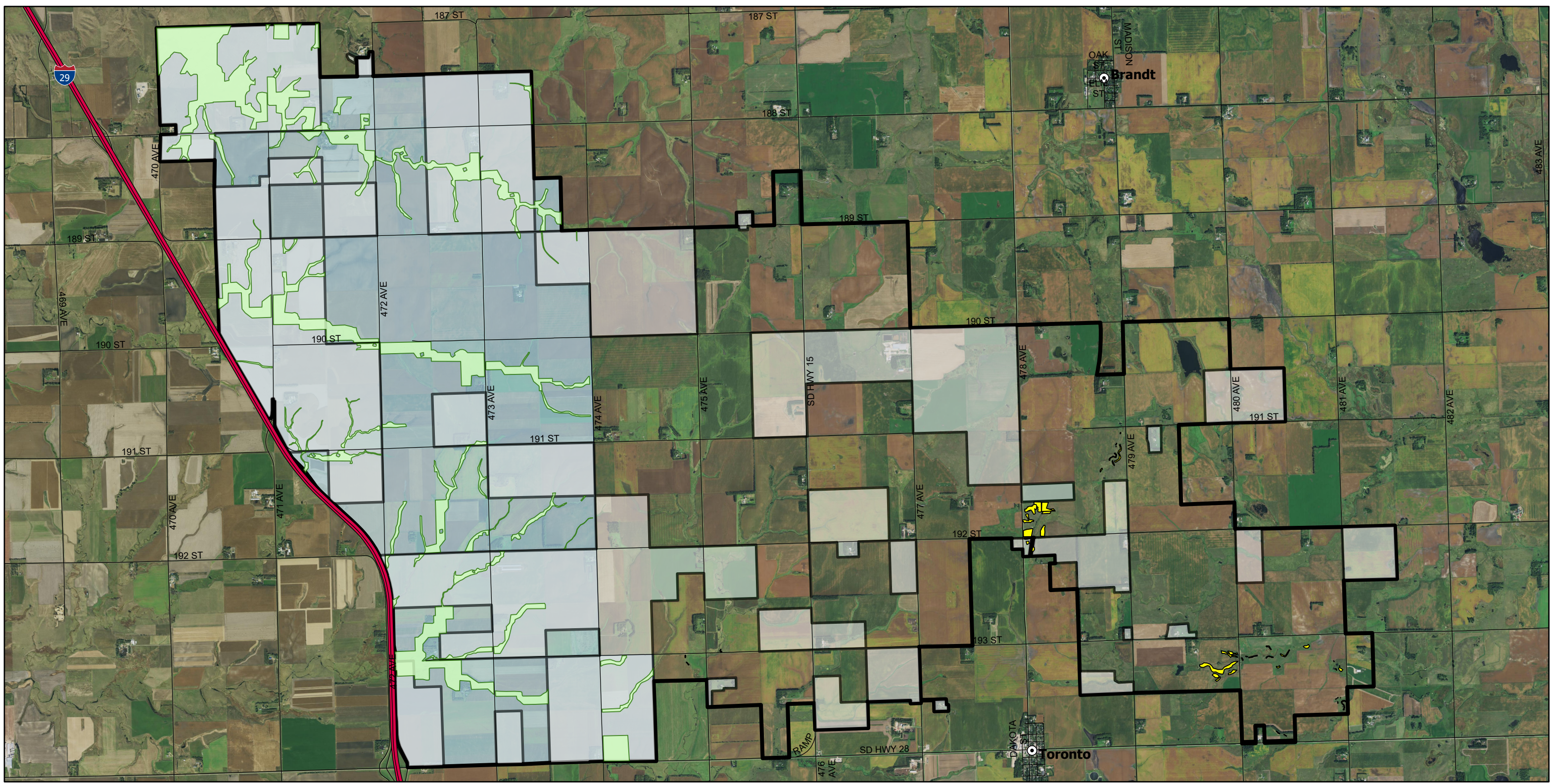
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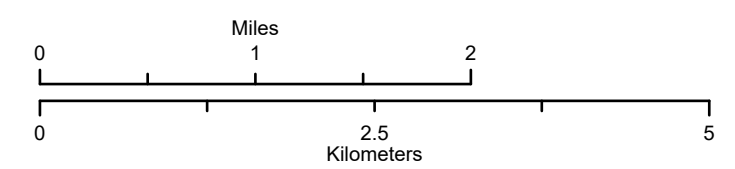
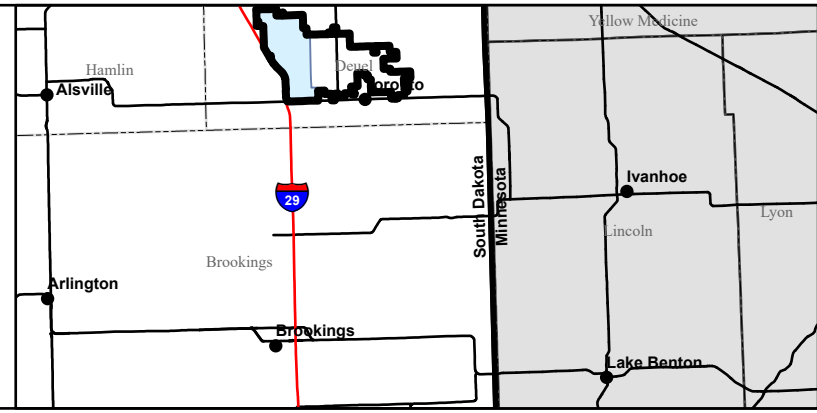
APPENDIX A
Results Map

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Tatanka Ridge Wind Project 2019 Habitat Surveys

- City
- Interstate Highway
- Existing Road
- 2019 Survey Area
- Field-Verified Suitable Habitat 2018-2019
- Desktop Review Potential Habitat
- Project Area
- No Access Parcel Boundary (lease layer dated 3/28/2019)



Basemap: Aerial Imagery
 Source: USDA/FSA Aerial Photography Field Office
 Deuel County, South Dakota

Projection: NAD 1983 UTM Zone 14N

Date: 8/19/2019

