

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

**IN THE MATTER OF THE APPLICATION OF
CROWNED RIDGE WIND II, LLC FOR A FACILITIES PERMIT TO
CONSTRUCT A 300.6-MEGAWATT WIND FACILITY**

Docket No. EL19-027

**REBUTTAL TESTIMONY
OF SARAH SAPPINGTON**

January 8, 2020

1 **INTRODUCTION AND QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 **A.** My name is Sarah Sappington. I am employed by SWCA Environmental
4 Consultants and am based in the Bismarck, North Dakota office at 116 North 4th
5 Street, Suite 200, Bismarck, North Dakota, 58501.

6 **Q. WHAT IS YOUR JOB AND WHAT ARE YOUR JOB RESPONSIBILITIES?**

7 **A.** I am the Director of the Bismarck SWCA Office. My team is responsible for
8 environmental permitting and regulatory compliance for many industries and states
9 in the Midwest, including the state of South Dakota for renewable energy projects.

10 **Q. ARE YOU THE SAME SARAH SAPPINGTON WHO SUBMITTED**
11 **DIRECT TESTIMONY IN THIS PROCEEDING ON JULY 9, 2019 AND**
12 **SUPPLEMENTAL TESTIMONY ON SEPTEMBER 20, 2019?**

13 **A.** Yes.

14 **Q. HAS THIS TESTIMONY BEEN PREPARED BY YOU OR UNDER YOUR**
15 **DIRECT SUPERVISION?**

16 **A.** Yes.

17 **Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.**

18 **A.** The purpose of my testimony is to address the direct testimony of Staff witnesses
19 David Hessler, Darren Kearney, Hilary Meyer, and Paige Olson on environmental
20 and wildlife issues.

1 Q. STAFF WITNESS HESSLER (PAGE 5, LINES 7-11) CLAIMS THAT CRW
2 II MAY BE ABLE TO FURTHER OPTIMIZE SOUND THROUGH THE
3 USE OF 6 ALTERNATIVE TURBINE LOCATIONS (94, 97, 103, 113, 134,
4 AND ALT6). DO YOU AGREE?

5 A. I have reviewed the alternative turbine locations from an environmental and cultural
6 perspective, the results of which are summarized in Table 1 below. Turbines 103
7 and 113 are located in areas with sensitive cultural sites, and the challenges with
8 constructability of these turbine locations is discussed by witness Mark Thompson.

9
10 **Table 1. Environmental Analysis of Turbines recommended as alternate**
11 **locations by Hessler.**

Turbines recommended as alternate sites to optimize sound	Environmental Constraints Analysis
94	No environmental issues; collection will bore wetland
97	No environmental issues; collection will bore wetland
103	Sensitive cultural sites along collection line and turbine location will be avoided; collection will bore wetland
113	Sensitive cultural sites along collection line and turbine location will be avoided; collection will bore wetland
134	No environmental issues; collection will bore wetland and avoid cultural sites
Alt 6	No environmental issues

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13 Q. STAFF WITNESS HESSLER (PAGE 5) RECOMMENDS THAT THE
14 ALTERNATIVE TURBINES BE USED INSTEAD OF SOME OF THE 21
15 TURBINE LOCATIONS LISTED IN HIS TABLE. DO YOU HAVE ANY
16 PREFERENCE FROM AN ENVIRONMENTAL OR CULTURAL

PERSPECTIVE TO WHICH OF THE 21 TURBINE LOCATIONS ARE REPLACED WITH THE ALTERNATIVE TURBINE LOCATIONS?

A. I have reviewed the 21 turbine locations from an environmental and cultural perspective, the results are summarized in Table 2, below. Overall, I prefer the use of the locations with non environmental or cultural issues as set forth below.

Table 2. Environmental analysis of Turbines recommended for relocation to alternate sites by Hessler.

Contour Map Enlargement Section	Turbines recommended for relocation to alternate sites	Environmental Constraints Analysis
A1	Alt4	No environmental issues
A1	104	No environmental issues
A1	125	No environmental issues
A1	129	No environmental issues; Access road avoids nearby wetland; collection line will bore wetland
A2	98	No environmental issues; construction corridor avoids nearby wetlands; collection line will bore wetland
A2	102	No environmental issues; will avoid nearby wetland and cultural sites; will avoid raptor nest
B1	72	No environmental issues
B1	77	No environmental issues
B1	81	No environmental issues; construction corridor will avoid wetlands and cultural sites
B2	Alt 5	No environmental issues
B2	53	No environmental issues; construction corridor avoids nearby wetlands; collection line will bore wetland
B2	90 (Unit South of 98)	No environmental issues
C1	13	No environmental issues
C2	3	No environmental issues; construction corridor would avoid nearby wetlands; collection line would bore wetland

C2	6	No environmental issues; construction corridor would avoid nearby wetlands
C2	Alt 9	No environmental issues
C2	7 (Unit South of Alt 9)	No environmental issues; construction corridor avoids nearby wetlands
C2	24	No environmental issues
C2	30	No environmental issues
C2	38	No environmental issues
C2	31 (Unit South of 38)	No environmental issues

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It is my understanding that witness Haley reviewed these results and locations to determine how best to address Mr. Hessler’s request that Crowned Ridge Wind further optimize the sound impacts of the project.

Q. STAFF WITNESS KEARNY (PAGES 18-19) PROPOSES A CONDITION TO RELATED TO WHOOPING CRANES. DO YOU AGREE WITH THE PROPOSED CONDITION?

A. No, I do not. As noted in Section 11.3.1.2.6 of the application, “The Project Area is approximately 50 miles east of the 95% core migration corridor (as delineated by Pearse et al. 2018a and 2018b) at its closest, indicating that it is relatively less likely for the species to be present within the Project Area than in areas closer to the migration corridor. According to the United States Fish and Wildlife Service (“USFWS”) Whooping Crane Tracking Project Database, the closest whooping crane observation is from 1973, approximately 23.5 miles northwest of the Project Area.”

As noted in Section 11.3.1.2.6 of the application a “desktop assessment was conducted to identify potentially suitable whooping crane habitat in the Project Area plus a 1-mile buffer. The assessment followed methods outlined in The

1 Watershed Institute’s Potentially Suitable Habitat Assessment for the Whooping
2 Crane (The Watershed Institute 2013). In total, 85 wetlands, totaling 2,419.6 acres,
3 scored 12 or higher. The Watershed Institute considers a habitat score of 12 or
4 higher as potential suitable habitat. Twenty-five of these 85 wetlands, totaling 95.0
5 acres, overlapped the Project Area. These wetlands comprise only 0.2% of the total
6 Project Area.

7 In addition to the desktop methods described above, Crowned Ridge Wind
8 II (“CRW II”) also routinely checks in with both the USFWS and South Dakota
9 Game Fish and Parks, to determine if any new data is available that suggests
10 migratory corridor is different and has expanded farther east indicating higher risk.
11 Whooping crane data was received from the USFWS on May 31, 2018, January 29,
12 2019, and December 16, 2019. Re-projection of the recent USFWS data shows that
13 the closest whooping crane observation is from 1973, approximately 22.4 miles
14 northwest of the Project Area. On December 13, 2019, SDGFP sent a link to a map
15 of whooping crane observations current to 2008, available on the South Dakota
16 Public Utilities Commission website at:
17 <https://puc.sd.gov/commission/dockets/electric/2019/el19026/JTExh4.pdf>.

18 CRW II compared the data in that map to the newest USFWS data and noted
19 no additional whooping crane observations closer to the Project Area.

20 Based on this information, CRW II’s response to Staff Data Request 2-15
21 is still an “appreciate approach,” which involves training operations staff to
22 recognize whooping cranes. As part of that training, CRW II will develop a process
23 flow chart for operational curtailment to be triggered if (1) the migratory corridor

1 expands following due diligence outlined above or (2) if whooping cranes are
2 detected within 2 miles of an operating turbine by trained staff. Operations staff
3 will be trained to identify Whooping Cranes annually and will informally monitor
4 for any detections during the course of regular operations duties. The submittal of
5 this approach will be developed in conjunction with SDGFP staff and part of CRW
6 II's pre-operations filing with the Commission.

7 **Q. STAFF WITNESS MAYER (PAGE 8, LINES 2-4) RECOMMENDS THAT**
8 **IF GRASSLAND OR WETLAND ACRES ARE LOST THAT CRW II**
9 **CARRY OUT REPLACEMENT ACTIVITIES IN CLOSE PROXIMITY TO**
10 **THE PROJECT. PLEASE ADDRESS THIS RECOMMENDATION.**

11 **A.** In Section 11.3.2.5 of the Application, CRW II committed to avoid placing
12 structures, or conducting any activity, on USFWS grassland or USFWS
13 wetland/grassland combination easements. In this same section, CRW II committed
14 to re-vegetate disturbed areas to as close to pre-construction conditions as possible
15 in coordination with the landowner and per applicable permit conditions and
16 requirements.

17 In areas where impacts cannot be avoided, temporary impacts will be
18 minimized through construction BMPs as described in the stormwater pollution
19 prevention plan. Where temporary impacts occur, the land will be returned to pre-
20 construction conditions. Additionally, to avoid the spread of noxious weeds, CRW
21 II will use native vegetation (weed-free) seed mixes to revegetate disturbed areas
22 where feasible and pending landowner preferences. During revegetation efforts in
23 potentially suitable Dakota skipper and Poweshiek skipperling habitat, CRW II will

1 use seed mixes that incorporate vegetation that supports these prairie butterfly
2 species.

3 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

4 **A. Yes.**

STATE OF NORTH DAKOTA)
) ss
COUNTY OF BURLEIGH)

I, Sarah Sappington, being duly sworn on oath, depose and state that I am the witness identified in the foregoing prepared testimony and I am familiar with its contents, and that the facts set forth are true to the best of my knowledge, information and belief.

Sarah Sappington

Sarah Sappington

Subscribed and sworn to before me this 6th day of Jan 2020.

SEAL

Christopher Masse

Notary Public

My Commission Expires Nov. 11, 2020

