BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF WILD SPRINGS SOLAR, LLC FOR AN ENERGY FACILITY PERMIT FOR THE WILD SPRINGS SOLAR PROJECT

SD PUC DOCKET EL 20-018

SUPPLEMENTAL DIRECT TESTIMONY OF TODD MATTSON
ON BEHALF OF WILD SPRINGS SOLAR, LLC

August 25, 2020

I. INTRODUCTION

Q. Please state your name.

A. My name is Todd Mattson.

Q. On May 15, 2020, did you provide Direct Testimony on behalf of Wild Springs Solar, LLC for the Wild Springs Solar Project ("Project")?

A. Yes.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your Supplemental Direct Testimony?

A. The purpose of my Supplemental Direct Testimony is to provide an update on the following:

- grassland breeding bird surveys conducted for the Project in May and June 2020; and
- a swift fox den suitability survey conducted for the Project in June 2020.

III. GRASSLAND BREEDING BIRD SURVEY

Q. Please describe the methodology used to conduct the grassland breeding bird surveys.

A. The grassland breeding bird surveys utilized a point-count methodology to gather information on species presence, distribution, and relative abundance within and immediately adjacent to the Project area. Forty three sampling locations for point-count surveys were identified in grassland or cultivated cropland habitats. Each survey point was visited on three occasions for a 7-minute survey during the breeding season from May 26th to June 24th. During the surveys, information regarding the birds observed was recorded, including species, number, status (e.g., birds of conservation concern ("BCC"), species of habitat fragmentation

concern (“SHFC”), and species of greatest conservation need (“SGCN”)), and breeding behavior. Additionally, incidental observations of non-grassland and grassland bird species were recorded.

Q. What were the results of the surveys?

A. Over the course of these surveys, a total of twenty-eight unique bird species were observed, with the greatest number of unique bird species observed in the reference points outside of the Project area (19 species) and the lowest number observed at the survey points in cultivated croplands (16 species). Species diversity documented during this survey is consistent with public records of species diversity in the region. The higher bird diversity outside of the Project area appears to be driven by the presence of water features (ponds) that were avoided during development of the Project layout.

Based on the surveys, the grassland bird community within and immediately adjacent to the Project area is typical of the region and includes a diverse assemblage of grassland bird species. Of the twenty-eight avian species identified, a total of eighteen grassland bird species were observed, as well as one unidentified sparrow. The most common species observations were of western meadowlark, red-winged blackbird, savannah sparrow, and brown-headed cowbird. No federally or state-listed threatened or endangered grassland bird species were recorded during the surveys; however, one state-listed grassland species (burrowing owl) was observed incidentally. Most of the grassland species observed are considered common and do not have special protections in South Dakota. Four grassland species observed during these surveys are designated as BCC: burrowing owl, lark bunting, marbled godwit, and upland sandpiper (USFWS, 2008). Burrowing owl, lark bunting, and marbled godwit are also listed as species of greatest conservation need in South Dakota (SDGFP, 2014). Additionally, lark bunting, marbled godwit, savannah sparrow, upland sandpiper, and western meadowlark are designated as species of habitat fragmentation concern in South Dakota (Bakker, 2020). Burrowing owl (four incidental

observations) and marbled godwit (one observation) were observed in low abundance and are unlikely to nest in areas directly disturbed by Project construction, while upland sandpiper (63 observations) and lark bunting (65 observations) were more abundant and these species could nest in grassland habitats within the Project area. The four sensitive grassland species observed (burrowing owl, upland sandpiper, lark bunting, and marbled godwit) have all been documented consistently throughout Pennington County and records of these species are not unique to the Project area (eBird 2020).

Q. Will additional avian surveys be conducted?

A. Yes. As discussed in my Direct Testimony, after the Project goes into operation, two breeding bird surveys will be completed within the Project site and adjacent reference areas for comparison (two years and four years after construction). Comparing the results of the pre- and post-construction surveys will enable an assessment of the wildlife habitat value and function within an operating solar facility. Given the vegetation restoration and management practices proposed, we hypothesize that many of the birds observed during the initial surveys will continue to be found in the Project area during operations.

IV. SWIFT FOX DEN SUITABILITY SURVEY

Q. Why was a swift fox den suitability survey conducted?

A. The swift fox, a state-listed threatened species, has some potential to occur in the general Project area. As explained in Section 9.3.3.4 of the Energy Facility Permit Application, Wild Springs has committed to mitigation measures to avoid impacts to swift fox natal dens (e.g., collapsing larger burrows outside of the denning season and/or monitoring larger burrows during the natal denning season), depending on the timing of construction. Therefore, for construction planning purposes, Wild Springs had a swift fox den suitability survey conducted to determine whether swift fox dens may be present in the Project area. By identifying

potential dens or areas of the Project that might include dens, Wild Springs is better able to plan for and complete the mitigation measures described above.

Q. Please describe the methodology used to conduct the survey.

A. The survey was conducted by biologists that gathered aerial imagery taken from an unmanned aerial system (a drone), which flew over the entire Project area. Aerial photographs taken of the Project area were reviewed closely and all mammal burrows were digitally mapped.

Q. What were the results of the survey?

A. A total of 887 mammal burrows were mapped and digitized as part of this survey throughout the Project area (although within the general Project area, these burrows have mostly been avoided during development of the layout of the solar arrays). Swift fox use burrows with openings that typically measure at least 7-8 inches wide and 8-9 inches tall – burrows that are larger than a typical black-tailed prairie dog burrow. Based on the data collected, all of the burrows appear to be of the size used by black-tailed prairie dogs. None of the burrows present in the Project area appear large enough to be suitable as swift fox dens.

Q. Will additional swift fox den suitability surveys be conducted?

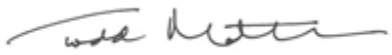
A. Yes. Wild Springs plans to conduct a second survey closer to construction to confirm the results of the initial survey, and will use the data to inform construction planning.

V. CONCLUSION

Q. Does this conclude your Supplemental Direct Testimony?

A. Yes.

Dated this 25th day of August, 2020.



_____

Todd Mattson

70756692