

Agency Correspondence and Responses



330 2nd Avenue South, Suite 820
Minneapolis, MN 55401. United States

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VIA US MAIL

January 25, 2018

Scott Larson, Field Supervisor
U.S. Fish and Wildlife Service
South Dakota Ecological Services Field Office
420 South Garfield Avenue, Suite 400
Pierre, SD 57501-5408

**Re: Request for Comments regarding Bitter Root 345 kV Transmission Line Project
Deuel County, South Dakota**

Dear Mr. Larson:

Flying Cow Wind, LLC (Flying Cow Wind), an affiliate of RES America Developments Inc. (RES), is gathering information and requesting comments for the proposed Bitter Root 345 kilovolt (kV) Transmission Line Project (Project) to be constructed and operated in Deuel County, South Dakota. The Project includes a proposed approximately 10-mile, 345 kV overhead electric transmission line, a collector substation, and an interconnection substation (see attached Figure 1).

The Project provides the necessary interconnection to the grid for the proposed Bitter Root Wind Project, a large wind energy conversion system (LWECS) consisting of up to 152 megawatts (MW), located in Yellow Medicine County, Minnesota.¹

The proposed transmission line, collector substation, and interconnection substation will be permitted by the South Dakota Public Utilities Commission and Deuel County. Flying Cow Wind plans to submit an application for a Facility Permit to the South Dakota Public Utilities Commission (PUC) pursuant to South Dakota Codified Law (SDCL) § 49-41B-1 in the first quarter 2018. Flying Cow Wind will also submit a special exception permit application to Deuel County in the first quarter 2018 for the proposed transmission line, collector substation, and interconnection substation.

While the endpoints of the proposed transmission line have been determined (see Figure 1, collector substation and interconnection substation endpoints), the transmission line route between the endpoints is currently under development, pending landowner agreements, environmental review, and engineering design. Flying Cow is working to obtain voluntary easement agreements for all necessary right-of-way for the transmission line. To facilitate your

¹ The Bitter Root Wind Project is being permitted by the Minnesota Public Utilities Commission (MnPUC) in accordance with the Minnesota Wind Siting Act (Minnesota Statutes Chapter 216F) and Minnesota Rules Ch. 7854 which includes all turbines, access roads, collection lines, Project Operation and Maintenance facility, and associated facilities to be located in Yellow Medicine County, Minnesota. Flying Cow Wind submitted a Site Permit Application to the MnPUC to construct and operate the LWECS on November 9, 2017 (see Docket No. IP6984/WS-17-749).



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review, we have enclosed a map of the area within which the proposed transmission line would be routed (see Figure 1).

Table 1 presents the specific location for the Project substation and interconnection substation, as well as the area being evaluated for location of the proposed 345 kV transmission line (Study Area).

Table 1 Study Area				
Township Name	Township	Range	Section	Facility
Norden	114N	47W	34	Collector substation, transmission and underground collection Lines
Scandinavia	113N	48W	22	Interconnection substation and Transmission line
Scandinavia	113	47	3-10	Transmission line
Scandinavia	113	48	1-3, 10-12, 14, 15, 22, 23	Transmission line
Norden	114	47	33, 34	Transmission line

The proposed 345 kV overhead transmission line will begin at the proposed collector substation located near the South Dakota/Minnesota border. Electricity generated by the proposed Bitter Root Wind Project will be transmitted through buried collection lines feeding into the collector substation. From the Project substation, the overhead transmission line will be routed west and south approximately 10 miles along a route yet to be determined within the Study Area, to the interconnection substation. The interconnection substation will tap into the existing Big Stone South to Brookings County 345 kV transmission line that was put into service on September 8, 2017.

The Project's queue position in the Midcontinent Independent System Operator, Inc. (MISO) interconnection process is J493. The interconnection details will be determined as a result of studies, discussions, and agreements with the MISO and Otter Tail Power, the transmission owner.

To assist in the initial transmission line evaluation processes, please provide any information, feedback, or concerns with construction and operation of the proposed 345 kV transmission line within the proposed Study Area. Additionally, please provide comments or concerns regarding the permitting processes.

We respectfully request your comments and/or questions within 30 days of receipt of this letter so that Flying Cow Wind can address the comments, as appropriate, and include them in the Facility Permit and associated County applications.



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Sincerely,

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Michelle Matthews
Development Manager

Enc. Figure 1—Bitter Root 345 kV Transmission Line Study Area Map



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January 25, 2018

Jeff Breckenridge
U.S. Army Corps of Engineers
Omaha District
28563 Powerhouse Road
Pierre, South Dakota 57501

**Re: Request for Comments regarding Bitter Root 345 kV Transmission Line Project
Deuel County, South Dakota**

Dear Mr. Breckenridge:

Flying Cow Wind, LLC (Flying Cow Wind), an affiliate of RES America Developments Inc. (RES), is gathering information and requesting comments for the proposed Bitter Root 345 kilovolt (kV) Transmission Line Project (Project) to be constructed and operated in Deuel County, South Dakota. The Project includes a proposed approximately 10-mile, 345 kV overhead electric transmission line, a collector substation, and an interconnection substation (see attached Figure 1).

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Michelle Matthews
Development Manager

Enc. Figure 1—Bitter Root 345 kV Transmission Line Study Area Map



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January 25, 2018

Jay D. Vogt
State Historic Preservation Officer
South Dakota State Historic Preservation Office
900 Governors Drive
Pierre, SD 57501

**Re: Request for Comments regarding Bitter Root 345 kV Transmission Line Project
Deuel County, South Dakota**

Dear Mr. Vogt:

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Michelle Matthews
Development Manager

Enc. Figure 1—Bitter Root 345 kV Transmission Line Study Area Map



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January 25, 2018

Leslie Murphy
SDGFP Environmental Review Coordinator
South Dakota Dept. of Game Fish and Parks
523 East Capitol Avenue
Pierre, SD 57501

**Re: Request for Comments regarding Bitter Root 345 kV Transmission Line Project
Deuel County, South Dakota**

Dear Ms. Murphy:

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Michelle Matthews
Development Manager

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January 25, 2018

Silka Kempema
South Dakota Dept. of Game Fish and Parks
523 East Capitol Avenue
Pierre, SD 57501

**Re: Request for Comments regarding Bitter Root 345 kV Transmission Line Project
Deuel County, South Dakota**

Dear Ms. Kempema:

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Michelle Matthews
Development Manager

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VIA US MAIL

January 25, 2018

Kent Woodmansey
Natural Resources Engineering Director
South Dakota Department of Environment & Natural Resources
Joe Foss Building
523 E Capitol Ave
Pierre SD 57501

**Re: Request for Comments regarding Bitter Root 345 kV Transmission Line Project
Deuel County, South Dakota**

Dear Mr. Woodmansey:

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Development Manager

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January 25, 2018

Tom Lehmkuhl
Engineering Supervisor,
South Dakota Department of Transportation
Becker-Hansen Building
700 E. Broadway Ave.
Pierre, SD 57501

Re: Request for Comments regarding Bitter Root 345 kV Transmission Line Project Deuel County, South Dakota

Dear Mr. Lehmkuhl:

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The Project provides the necessary interconnection to the grid for the proposed Bitter Root Wind Project, a large wind energy conversion system (LWECS) consisting of up to 152 megawatts (MW), located in Yellow Medicine County, Minnesota.¹

The proposed transmission line, collector substation, and interconnection substation will be permitted by the South Dakota Public Utilities Commission and Deuel County. Flying Cow Wind plans to submit an application for a Facility Permit to the South Dakota Public Utilities Commission (PUC) pursuant to South Dakota Codified Law (SDCL) § 49-41B-1 in the first quarter 2018. Flying Cow Wind will also submit a special exception permit application to Deuel County in the first quarter 2018 for the proposed transmission line, collector substation, and interconnection substation.

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 Minneapolis, MN 55401. United States

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easement agreements for all necessary right-of-way for the transmission line. To facilitate your review, we have enclosed a map of the area within which the proposed transmission line would be routed (see Figure 1).

Table 1 presents the specific location for the Project substation and interconnection substation, as well as the area being evaluated for location of the proposed 345 kV transmission line (Study Area).

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The Project's queue position in the Midcontinent Independent System Operator, Inc. (MISO) interconnection process is J493. The interconnection details will be determined as a result of studies, discussions, and agreements with the MISO and Otter Tail Power, the transmission owner.

To assist in the initial transmission line evaluation processes, please provide any information, feedback, or concerns with construction and operation of the proposed 345 kV transmission line within the proposed Study Area. Additionally, please provide comments or concerns regarding the permitting processes.

We respectfully request your comments and/or questions within 30 days of receipt of this letter so that Flying Cow Wind can address the comments, as appropriate, and include them in the Facility Permit and associated County applications.



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If you have any questions or comments you would like to discuss, please contact me at 612.455.8445, michelle.matthews@res-group.com, or in writing at Renewable Energy Systems, 330 2nd Avenue South, Suite 820, Minneapolis, MN 55401. We look forward to your input and appreciate your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michelle Matthews', is written over a light blue horizontal line.

Michelle Matthews
Development Manager

Enc. Figure 1—Bitter Root 345 kV Transmission Line Study Area Map



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VIA US MAIL

January 25, 2018

Brian Schuck, Program Manager
U.S. Federal Aviation Administration
Dakota-Minnesota Airports District Office, DMA-ADO-600, Bismarck Office
2301 University Drive, Building 23B
Bismarck, North Dakota 58504

**Re: Request for Comments regarding Bitter Root 345 kV Transmission Line Project
Deuel County, South Dakota**

Dear Mr. Schuck:

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Sincerely,

A handwritten signature in black ink, appearing to read 'Michelle Matthews', written in a cursive style.

Michelle Matthews
Development Manager

Enc. Figure 1—Bitter Root 345 kV Transmission Line Study Area Map



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Minneapolis, MN 55401. United States

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VIA US MAIL

January 25, 2018

Jeffrey Zimprich
State Conservationist
U.S.D.A Natural Resources Conservation Service
200 Fourth Street SW, Room 203
Huron, SD 57350

**Re: Request for Comments regarding Bitter Root 345 kV Transmission Line Project
Deuel County, South Dakota**

Dear Mr. Zimprich:

Flying Cow Wind, LLC (Flying Cow Wind), an affiliate of RES America Developments Inc. (RES), is gathering information and requesting comments for the proposed Bitter Root 345 kilovolt (kV) Transmission Line Project (Project) to be constructed and operated in Deuel County, South Dakota. The Project includes a proposed approximately 10-mile, 345 kV overhead electric transmission line, a collector substation, and an interconnection substation (see attached Figure 1).

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Sincerely,

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Michelle Matthews
Development Manager

Enc. Figure 1—Bitter Root 345 kV Transmission Line Study Area Map



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VIA US MAIL

January 25, 2018

Pam Lynde
Deuel County Auditor
Courthouse—2nd Floor
408 4th Street West
Clear Lake, SD 57226

**Re: Request for Comments regarding Bitter Root 345 kV Transmission Line Project
Deuel County, South Dakota**

Dear Ms. Lynde:

Flying Cow Wind, LLC (Flying Cow Wind), an affiliate of RES America Developments Inc. (RES), is gathering information and requesting comments for the proposed Bitter Root 345 kilovolt (kV) Transmission Line Project (Project) to be constructed and operated in Deuel County, South Dakota. The Project includes a proposed approximately 10-mile, 345 kV overhead electric transmission line, a collector substation, and an interconnection substation (see attached Figure 1).

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Sincerely,

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Michelle Matthews
Development Manager

Enc. Figure 1—Bitter Root 345 kV Transmission Line Study Area Map



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Minneapolis, MN 55401. United States

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J: www.res-group.com

VIA US MAIL

January 25, 2018

Jodi Theisen, Zoning Officer
Courthouse - 3rd Floor
PO Box 616
408 4th Street West
Clear Lake, SD 57226

**Re: Request for Comments regarding Bitter Root 345 kV Transmission Line Project
Deuel County, South Dakota**

Dear Ms. Theisen:

Flying Cow Wind, LLC (Flying Cow Wind), an affiliate of RES America Developments Inc. (RES), is gathering information and requesting comments for the proposed Bitter Root 345 kilovolt (kV) Transmission Line Project (Project) to be constructed and operated in Deuel County, South Dakota. The Project includes a proposed approximately 10-mile, 345 kV overhead electric transmission line, a collector substation, and an interconnection substation (see attached Figure 1).

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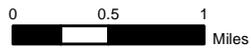
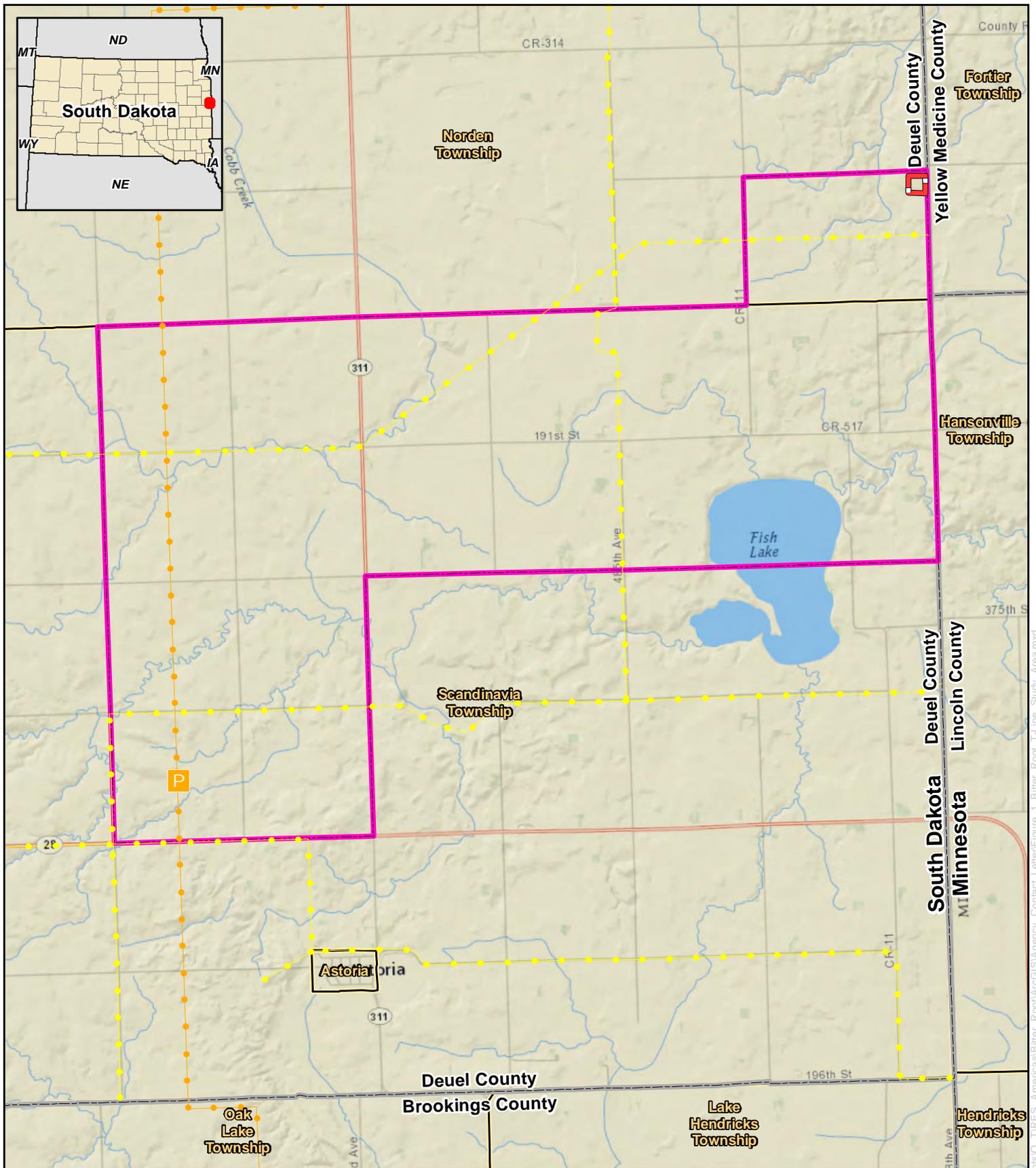
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Michelle Matthews
Development Manager

Enc. Figure 1—Bitter Root 345 kV Transmission Line Study Area Map



1 inch = 1 miles



For Environmental Review Purposes Only



Figure 1
Study Area
Bitter Root 345 kV Transmission Line and Substation
Deuel County, South Dakota

- Proposed Interconnection Substation
- Existing Brookings to Big Stone 345 kV Line
- Existing Transmission Lines
- Proposed Collection Substation
- Study Area
- Civil Township Boundary

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 Pierre, SD 57501

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 Courthouse - 408 Fourth St. W.
 City, State, ZIP+4®
 Clear Lake, SD 57226

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



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 Leslie Murphy - SD Dept Game Fish + Parks
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 523 East Capitol Ave
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<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.50
\$	\$3.95
Total Postage and Fees	\$3.95

Sent To
 Tom Lehmkühl - SD Dept of Transportation
 Street and Apt. No., or PO Box No.
 Becker Hansen Building - 700E Broadway to
 City, State, ZIP+4®
 Pierre, SD 57501

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7017 2680 0000 3800 2703

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Certified Mail Fee	\$3.45
Extra Services & Fees (check box, add fee as appropriate)	\$0.00
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.50
Total Postage and Fees	\$3.95

Sent To
Dorian Schuk-FAA Dakota-MN Airports Dist
Street and Apt. No., or PO Box No.
OMA-ADA-600 Bismarck Office-2301 Univ Dr. 2301
City, State, ZIP+4®
Bismarck ND 58504

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2680 0000 3800 2666

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Extra Services & Fees (check box, add fee as appropriate)	\$0.00
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.50
Total Postage and Fees	\$3.95

Sent To
Scott Larson-USFWS-SD Eco Services Field Off
Street and Apt. No., or PO Box No.
420 South Garfield Ave, Suite 400
City, State, ZIP+4®
Pierre SD 57501-5408

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Extra Services & Fees (check box, add fee as appropriate)	\$0.00
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.50
Total Postage and Fees	\$3.95

Sent To
Jeffery Zimprich-USDA NRCS
Street and Apt. No., or PO Box No.
200 Fourth St. SW, Room 203
City, State, ZIP+4®
Huron SD 57350

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<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.50
Total Postage and Fees	\$3.95

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Jeff Breckenridge-USACE Omaha Dist
Street and Apt. No., or PO Box No.
28563 Powerhouse Rd.
City, State, ZIP+4®
Pierre SD 57501

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Extra Services & Fees (check box, add fee as appropriate)	\$0.00
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.50
Total Postage and Fees	\$3.95

Sent To
Kent Woodmansey-SD Dept Environment & Nat Res
Street and Apt. No., or PO Box No.
Joe Foss Building - 523 E. Capitol Ave
City, State, ZIP+4®
Pierre SD 57501

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7017 2680 0000 3800 2673

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Certified Mail Fee	\$3.45
Extra Services & Fees (check box, add fee as appropriate)	\$0.00
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$0.50
Total Postage and Fees	\$3.95

Sent To
Juv D Vogt-SD State Historic Preservation Off
Street and Apt. No., or PO Box No.
900 Governors Drive
City, State, ZIP+4®
Pierre SD 57501

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January 30, 2018

Ms. Michelle Matthews
RES American Developments Inc.
330 2nd Avenue South, Suite 820
Minneapolis, MN 55401

PROJECT CONSULTATION

Project: 180130002 – RES American Developments Inc. / Flying Cow Wind, LLC; Bitter Root 345kV Transmission Line Project
Location: Deuel County

Dear Ms. Matthews:

Thank you for the opportunity to comment on the proposed Bitter Root 345 kilovolt (kV) Transmission Line Project in Deuel County, South Dakota. Based on your letter received January 30, 2018, it is unclear if the proposed project is a federal action subject to Section 106 of the National Historic Preservation Act of 1966 (as amended), or South Dakota Codified Law (SDCL) 1-19A-11.1.

Nevertheless, a brief check of our records indicates that the proposed “study area” contains a number of previously recorded archaeological properties. Consequently, we would like to make the following recommendations.

We recommend obtaining a records search from the Archaeological Research Center, which will provide information about previously identified cultural resources and surveys. This information can be used to establishing a route that avoids known cultural resources. More information about obtaining a record search can be found on our website at <http://history.sd.gov/Archaeology/resources.aspx>.

Based on the results of the record search, it may be necessary for a qualified archeologist to conduct an intensive Level III Cultural Resource Survey. The survey provides for the identification of previously unrecorded archaeological sites that may be damaged or destroyed by construction activities.

We also recommend taking into consideration the indirect effects of the project to buildings and structures that maybe listed in or eligible for listing in the National Register of Historic Places. Depending on the topography, a one mile buffer is sufficient.

Finally, we recommend seeking comments from American Indian tribes concerning the identification of properties that may be of religious and cultural significance to them. Contact information can be found at <http://history.sd.gov/Preservation/TechAssist/TribalChairsTHPOs.pdf>.

More information about Section 106 of the National Historic Preservation Act and SDCL 1-19A-11.1 can be found on our website at <http://history.sd.gov/Preservation/>.

Should you require additional information, please contact Paige Olson at Paige.Olson@state.sd.us or (605) 773-6004.

Sincerely,

Jay D. Vogt
State Historic Preservation Officer

Paige Olson
Review & Compliance Coordinator



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

February 5, 2018

Renewable Energy Systems
Attn: Ms. Michelle Matthews
330 2nd Avenue South
Suite 820
Minneapolis, MN 55401

RE: Bitter Root 35 kV Transmission Line Project, Deuel County, South Dakota

The South Dakota Department of Environment and Natural Resources (DENR) Surface Water Quality Program has reviewed the proposed Bitter Root Transmission Line Project in Deuel County, South Dakota. The DENR finds that this construction, using conventional construction techniques, should not cause violation of any statutes or regulations administered by the DENR based on the following comments:

1. At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site. Any construction activity that disturbs an area of one or more acres of land must have authorization under the General Permit for Storm Water Discharges Associated with Construction Activities. Contact the Department of Environment and Natural Resources for additional information or guidance at 1-800-SDSTORM (800-737-8676) or <http://denr.sd.gov/des/sw/StormWaterandConstruction.aspx>.
2. A Surface Water Discharge (SWD) permit may be required if any construction dewatering should occur as a result of this project. Please contact this office for more information.
3. Impacts to tributaries, rivers, lakes, and wetlands should be avoided or minimized if possible. These water bodies are considered waters of the state and are protected under the South Dakota Surface Water Quality Standards.

Fish Lake is within the boundary of the proposed project. Fish Lake is classified by the South Dakota Surface Water Quality Standards and Uses Assigned to Streams for the following beneficial uses:

- (6) Warmwater marginal fish life propagation waters;
- (7) Immersion recreation waters;
- (8) Limited contact recreation waters; and
- (9) Fish and wildlife propagation, recreation, and stock watering waters.

Because of these beneficial uses, special construction measures may have to be taken to ensure that the 30-day average total suspended solids criterion of 150 mg/L is not violated.

- 4 The discharge of pollutants from any source, including indiscriminate use of fill material, may not cause destruction or impairment except where authorized under Section 404 of the Federal Water Pollution Control Act. Please contact the U.S. Army Corps of Engineers concerning these permits.

This office requests the opportunity to review and comment on any significant changes that may be proposed before the project is completed. Thank you for the opportunity to comment on the proposed project. If you have any questions, please contact me at 605-773-3351 or Shannon.Minerich@state.sd.us.

Sincerely,



Shannon Minerich
Environmental Scientist
Surface Water Quality Program



MEMO

Date:

February 6, 2018 (Date of PUC meeting), March 8, 2018 (date of memo)

To:

Anne-Marie Griger – RES Americas Inc.

From:

Jennifer Kamm, Merjent, Inc.

Subject:

PUC Meeting: RES Americas, Inc. Bitter Root 345 kV Transmission Line Project, Deuel Co., SD

Attendees:

Darren Kearney, SD PUC Analyst
Kristen Edwards, SD PUC Staff Attorney
Amanda Reiss, SD PUC Staff Attorney
Deb Gregg, SD PUC Consumer Affairs
Jon Thurber, SD PUC Analyst
Leah Mohr, SD PUC Deputy Executive Director
Anne-Marie Griger, Renewable Energy Systems Americas Inc.
Sean Flannery, Renewable Energy Systems Americas Inc.
Michelle Matthews, Renewable Energy Systems Americas Inc.
Andrew Gibbons, Stinson Leonard Street, LLP
Jennifer Kamm, Merjent, Inc.

Handouts:

1. Presentation Printout
2. Bitter Root 345 kV Transmission Line Study Area Map
3. Bitter Root 345 kV Transmission Line Study Area and Bitter Root Wind Farm Yellow Medicine County, MN Project Area Map

Discussion:

- Overview of Renewable Energy Systems Americas Inc.
- Introduction of the Bitter Root 345 kV Transmission Line Project.
- Overview of the MN PUC review of the Bitter Root Wind Farm in Yellow Medicine County. CON was submitted in October 2017 and deemed complete in January 2018. SPA was submitted November 2017 and deemed complete January 2018.
- RES plans to submit an application for a Special Exception to Deuel County summer 2018.

- RES plans to submit an application for a Route Permit to the SD PUC in March or April 2018, pending landowner agreements. RES will update the SD PUC staff as a date is finalized, per their request.
- Ms. Griger asked if the SD PUC Route Permitting process would take a full year. Mr. Kearney responded that a full year may not be needed, but would depend on level of controversy of the project. The Big Stone to Brookings project took one year. Ms. Edwards noted that only the previous wind farm proposal near Lake Cochrane has resulted in contention, and Deuel County updated their ordinance to require the wind turbine setback to Lake Cochrane to be 3 miles.
- RES provided that contact with Deuel County zoning confirmed that an application for Special Exception will be required (with hearing) and is likely a 2 to 3-month process. Engineering setback and transmission line route are needed. Notice to landowners will drive the timeline.
- RES provided that consultation with USFWS and SDGFPD to date regarding a wind farm layout that originally included part of Deuel County. USFWS concern was primarily with regards to impacts on federal lands and easements. It was noted that no ground disturbance would occur in SD for the wind farm and that avian surveys have been completed. USFWS and SDGFPD provided input on the bald and golden eagle and raptor survey protocol and data on known nest locations. One waterfowl production area (WPA) is crossed by the existing Otter Tail 115 kV transmission line in the north portion of the transmission line study area. There is one additional WPA and one grassland easement within the study area.
- Mr. Kearney asked if RES will own the project. Mr. Flannery responded that RES will likely sell the asset to a utility or other long-term project owner.
- RES stated that they plan to provide desktop wetland/waterbody and habitat data in the PUC application and will provide the PUC with field data as it is completed. Mr. Kearney responded that they prefer field verification of the desktop analysis, and that field data could be provided as supplemental filings with a cover letter.
- Mr. Flannery asked what issues may be anticipated based on review of other projects that RES should be aware of. Mr. Kearney responded that he did not know of any. He noted that a soybean nematode issue was raised by landowners during the Big Stone to Ellendale transmission line permitting, but that if you have an easement agreement with the landowner, that should not be a problem.
- Mr. Kearney asked how RES would address issues that may come to light as a result of field data. Ms. Griger stated that pole placement can be designed to avoid sensitive areas and stay within the planned 150-foot easement under the same landowner. Ms. Edwards noted that landowners near the wind farm may use the transmission line project as an opportunity to stop the project.
- Mr. Kearney noted that for Crowned Ridge, the Commission narrowed the focus at the public hearings to just the transmission line and no comments on the wind farm were taken. This focus is anticipated to be implemented for the Bitter Root

- transmission line project as well. No wind siting rules would be applied, and no formal data requests would be made related to the wind farm.
- Mr. Kearney stated that the route alternative analysis can be a discussion on why the proposed route is best and how RES came to that conclusion, possibly sketch out other alternatives and why they were not considered. Mr. Kearney noted that the PUC does not have the authority to tell RES which route to develop, that they would only approve the requested site. Mr. Flannery noted an eastern option that was considered in 2009 that was no longer viable, and that MISO directed the location of the current POI to avoid impacts to other operators.
 - Ms. Griger asked if agency letters would need to be resubmitted showing the updated study area including the additional area on the north. Mr. Kearney stated that a one-mile study area is typical for transmission lines, and that it is recommended to provide notice to landowners within an additional ½-mile of that.
 - Ms. Griger asked how much detail on pole design and substation engineering would be required. Mr. Kearney stated that they would like to see details on the poles (type, material, single or double circuit) and conductor materials, as required in the application rules. Mr. Kearney stated that the substation is not part of the siting rules, and that they would only want to know the location and how many acres it would be and if it would be shared or part of associated facilities. He pointed to the Crowned Ridge Facility Permit Application as an example.
 - time to schedule the hearing within 30 days and they have a lot of projects in addition to ours. PUC commented that we should be aware of newspaper deadlines for publication submittal (often two weeks out) for providing notice for the public meetings.
 - Mr. Kearney noted that after we file the application, the PUC will review it for completeness and may have questions for us. He pointed to the rules checklist. He said to expect many questions, that is typical. After the public input meeting in the project area, there may be another set of questions. If no intervenors or agency concerns, the PUC will issue typical conditions and settlement agreement. If the project is contested, there is an evidentiary hearing and briefing testimony at the PUC. Procedural timeline is provided in Statute 49-41B-17. The PUC may request testimony by agencies to verify facts. Willow Creek Wind Project (docket E115-020) is an example of procedures conducted for no intervenor process.
 - Mr. Kearney requested that the application include maps that show surface water flow direction before and after the project and a statement in the application describing whether any changes in flow direction would occur as a result of the project. Land use classification needs to match the classifications provided in the rules. National Land Cover Data has some differences, if used as base data, make match SD rules.

- Mr. Kearney asked for description of demand for the project in the application; Ms. Matthews stated that RES is currently negotiating a power purchase agreement, but it is not final.
- Mr. Kearney suggested referring to the commission's order on the Crocker project regarding completeness of field surveys. An intervenor can push status of field surveys.

IPaC Information for Planning and Consultation U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Deuel County, South Dakota



Local office

South Dakota Ecological Services Field Office

☎ (605) 224-8693

📅 (605) 224-9974

420 South Garfield Avenue, Suite 400
Pierre, SD 57501-5408

<http://www.fws.gov/southdakotafieldoffice/>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

¹ are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service.

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Red Knot <i>Calidris canutus rufa</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1864	Threatened

Fishes

NAME	STATUS
Topeka Shiner <i>Notropis topeka</i> (=tristis) There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/4122	Endangered

Insects

NAME	STATUS
Dakota Skipper <i>Hesperia dactotae</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/1028	Threatened
Poweshiek Skipperling <i>Oarisma poweshiek</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/9161	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see maps of where birders and the general public have sighted birds in and around your project area, visit E-bird tools such as the [E-bird data mapping tool](#) (search for the name of a bird on your list to see specific locations where that bird has been reported to occur within your project area over a certain timeframe) and the [E-bird Explore Data Tool](#) (perform a query to see a list of all birds sighted in your county or region and within a certain timeframe). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Dec 1 to Aug 31

Black Tern *Chlidonias niger*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/3093>

Breeds May 15 to Aug 20

Bobolink *Dolichonyx oryzivorus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Jul 31

Franklin's Gull *Leucophaeus pipixcan*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 1 to Jul 31

Lesser Yellowlegs *Tringa flavipes*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9679>

Breeds elsewhere

Marbled Godwit *Limosa fedoa*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9481>

Breeds May 1 to Jul 31

Red-headed Woodpecker *Melanerpes erythrocephalus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 10 to Sep 10

Semipalmated Sandpiper *Calidris pusilla*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Smith's Longspur *Calcarius pictus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to *tailor and schedule your project activities* to avoid or minimize impacts to birds.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in your project's counties during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the counties of your project area. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

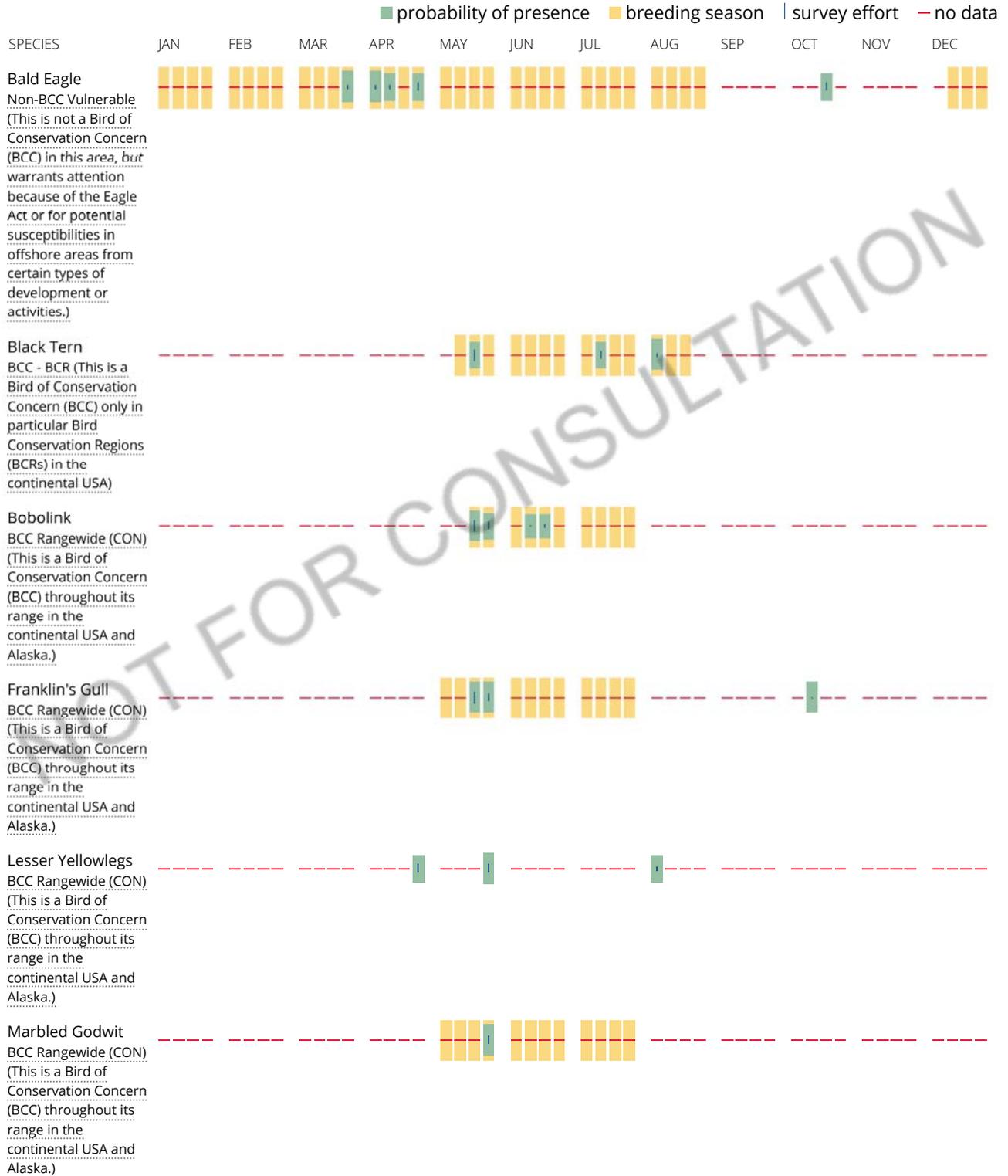
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

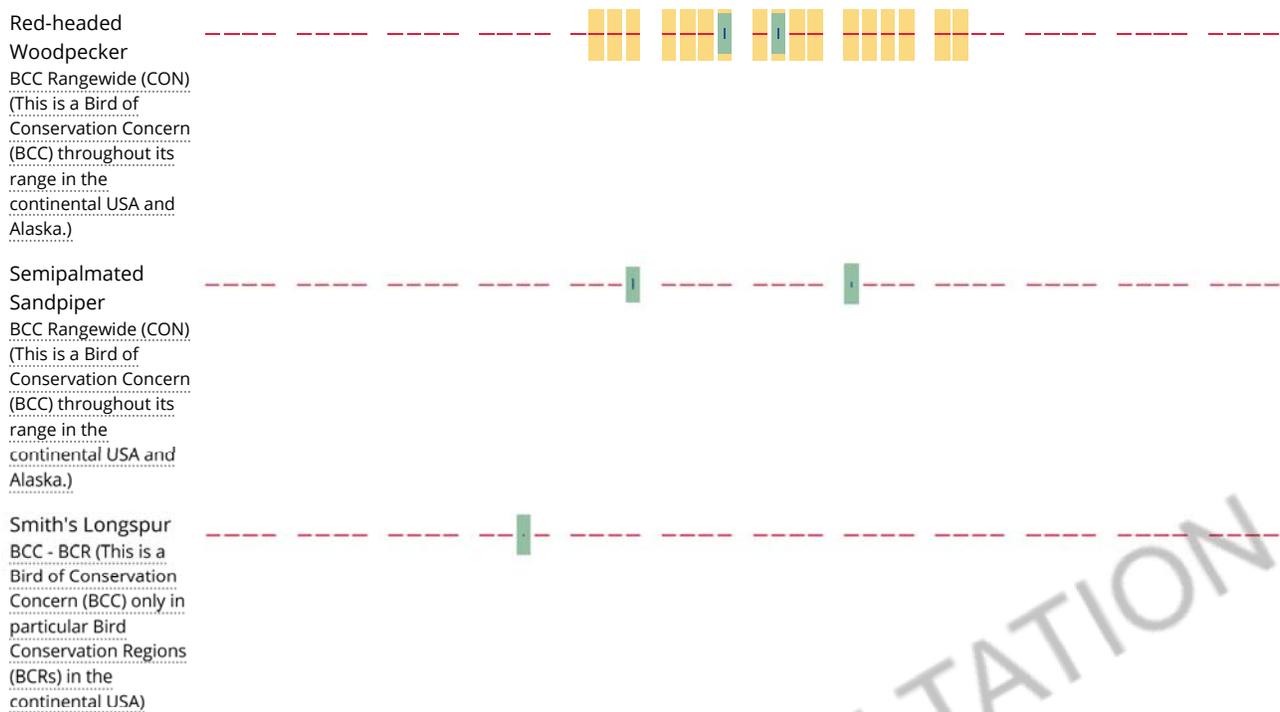
No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the counties which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [E-bird Explore Data Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird entry on your migratory bird species list indicates a breeding season, it is probable that the bird breeds in your project's counties at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review.

Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the BGEPA should such impacts occur.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

This location overlaps the following National Wildlife Refuge lands:

LAND	ACRES
Madison Wetland Management District	187.55 acres

 (605) 256-2974

 (605) 256-9432

MAILING ADDRESS

P.O. Box 48

Madison, SD 57042-0048

PHYSICAL ADDRESS

23520 Sd Highway 19

Madison, SD 57042-0048

<https://www.fws.gov/refuges/profiles/index.cfm?id=64560>

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEMCd](#)

[PEM/ABF](#)

[PEMC](#)

[PEM/ABFd](#)

[PEMAd](#)

[PEMA](#)

[PEME](#)

[PEMFd](#)

FRESHWATER FORESTED/SHRUB WETLAND

[PFOC](#)[PFOA](#)[PFO/EMC](#)[PSSC](#)[PFO/EMA](#)[PFOAd](#)[PFOCd](#)

FRESHWATER POND

[PAB/EMFd](#)[PABFx](#)[PUBFx](#)

LAKE

[L1UBH](#)

RIVERINE

[R4USF](#)

A full description for each wetland code can be found at the National Wetlands Inventory website:

<https://ecos.fws.gov/ipac/wetlands/decoder>

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the

geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
SOUTH DAKOTA REGULATORY OFFICE
28563 POWERHOUSE ROAD, ROOM 118
PIERRE, SOUTH DAKOTA 57501-6174

February 13, 2018

South Dakota Regulatory Office
28563 Powerhouse Road, Room 118
Pierre, South Dakota 57501

res
Attn: Michelle Matthews
330 2nd Avenue South, Suite 820
Minneapolis, Minnesota 55401

Dear Ms. Matthews,

Reference is made to the preliminary information received January 29, 2018, concerning Department of the Army authorization requirements for a proposed project to construct the Bitter Root 345 kV Transmission Line Project, in Deuel County, South Dakota.

The Corps' jurisdiction is derived from Section 404 of the Clean Water Act which calls for Federal regulation of the discharge of dredged or fill material into certain waterways, lakes and/or wetlands, (i.e. waters of the United States). If the project involves either the discharge of dredged or fill material into waters subject to Federal regulation, it is requested that the project proponent submit an application for a Department of the Army permit.

Regarding your request for comment relative to environmental impacts, this office assesses project impacts, including environmental impacts, after receipt of the detailed, site specific information required via our permit application process.

You can obtain additional information about the Regulatory Program and download forms from our website:

<http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/SouthDakota.aspx>

If you have any questions or need any assistance, please feel free to contact this office at the above Regulatory Office address or telephone at (605) 224-8531.

Sincerely,

A handwritten signature in black ink that reads "Steven E. Naylor".

Steven E. Naylor
Regulatory Program Manager,
South Dakota

Anne-Marie Griger

From: Hansen, Natoma <natoma_hansen@fws.gov>
Sent: Thursday, March 01, 2018 11:47 AM
To: Anne-Marie Griger
Cc: Sean Flannery; Michelle Matthews
Subject: Re: Bitter Root Transmission Line
Attachments: DEUEL 195G-1_001.pdf; DEUEL 153X_001.pdf

Anne-Marie,

Sorry about calling in late. It has been one of those days. Attached are the easement contracts for USFWS easements within the Bitter Root Project Area for the transmission line connection.

The grassland easement is identified as Deuel 195G-1 and the Wetland Easement Deuel 153X.

As previously discussed all the grassland is protected within the legal description of the grassland easement. For the wetland easement it is only the wetland areas depicted on the Exhibit A which are protected. The wetland easement protects these areas from filling, draining, burning or leveling.

Please feel free to contact me at any time with additional questions.

Thanks again

Natoma

Natoma (Tomi) Hansen
Project Leader
USFWS Madison WMD
605-636-3869 Direct Office Line
605-256-2974 General Office
605-251-8119 Cell

On Mon, Feb 26, 2018 at 1:39 PM, Anne-Marie Griger <Anne-Marie.Griger@res-group.com> wrote:

Thanks Natoma.

My apologies for the confusion, I accidentally sent out two invites and canceled one, so you should still have one. I will send an update to make sure it is showing up on your calendar.

It is for this Thursday, March 1 at 9 am central time.

The number is 303.679.4801 and conference code is 8314916.

Anne-Marie Griger, AICP, PMP®
Permitting Manager

D +1 512 617 2894 | C +1 512 213 8501

From: Hansen, Natoma [mailto:natoma_hansen@fws.gov]
Sent: Monday, February 26, 2018 11:41 AM
To: Anne-Marie Griger <Anne-Marie.Griger@res-group.com>
Cc: Silka.Kempema@state.sd.us; natalie_gates@fws.gov; Sean Flannery <Sean.Flannery@res-group.com>; Michelle Matthews <Michelle.Matthews@res-group.com>
Subject: Re: Bitter Root Transmission Line

Anne-Marie,

Thanks for the information. I am available on Thursday at 9am if that still works. I saw an invite and then another canceling the event. Let me know. Also which number we are suppose to use to call in.

Thanks

Natoma (Tomi) Hansen

Project Leader

USFWS Madison WMD

605-636-3869 Direct Office Line

605-256-2974 General Office

605-251-8119 Cell

On Fri, Feb 23, 2018 at 9:42 AM, Anne-Marie Griger <Anne-Marie.Griger@res-group.com> wrote:

Hi Natoma,

I apologize for the delay in my response. Attached is a KMZ file of the study area.

Would 9 am on Thursday, March 1 work for everyone for a call? If so, I can send out an invite shortly.

Thank you,

Anne-Marie

Anne-Marie Griger, AICP, PMP®
Permitting Manager

D +1 512 617 2894 | **C** +1 512 213 8501

From: Hansen, Natoma [mailto:natoma_hansen@fws.gov]

Sent: Wednesday, February 21, 2018 9:13 AM

To: Anne-Marie Griger <Anne-Marie.Griger@res-group.com>

Cc: Silka.Kempema@state.sd.us; natalie_gates@fws.gov; Sean Flannery <Sean.Flannery@res-group.com>; Michelle Matthews <Michelle.Matthews@res-group.com>

Subject: Re: Bitter Root Transmission Line

Anne-Marie,

Thanks for your email. Can you send me the project area electronically? I just want to make sure I am accurately responding in regards to USFWS interests. I will then send you an updated map of USFWS interests in project area.

I am not available this week for a call. However next week the 28th or 29th works well for me.

Natoma

Natoma (Tomi) Hansen

Project Leader

USFWS Madison WMD

605-636-3869 Direct Office Line

605-256-2974 General Office

605-251-8119 Cell

On Thu, Feb 15, 2018 at 2:35 PM, Anne-Marie Griger <Anne-Marie.Griger@res-group.com> wrote:

Hello Natoma, Natalie, and Silka,

We last communicated with you regarding the Bitter Root wind project in October 2016. Since then, we have shifted the entire wind farm footprint to Yellow Medicine County, MN and have begun the process of obtaining an LWECs permit from the MN PUC. Because we are tying into the Big Stone to Brookings 345 kV transmission line in Deuel County, SD, our proposed collector substation and transmission line will be entirely located in Deuel County, and we are seeking a facility permit from the SD PUC and a special exception permit from Deuel County this year, with construction scheduled to begin in 2019.

We sent you a letter and study area map for the proposed transmission line a couple of weeks ago. Can we schedule a call with you in the next couple of weeks to discuss the proposed transmission line and input you may have regarding sensitive species and habitats in the area? We are aware of a WPA and a grassland easement in the study area, but would also like to confirm there are not any new USFWS fee title or interest lands.

Please let me know a few days/times that work for you.

Thank you,

Anne-Marie

Anne-Marie Griger, AICP, PMP®
Permitting Manager

D +1 512 617 2894 | C +1 512 213 8501
anne-marie.griger@res-group.com | <http://www.res-group.com>



Home Safe - Every Day

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Bitter Root Transmission Line Agency Conference Call

March 1, 2018 9:00 AM CST

Attendees:

- Natalie Gates - USFWS South Dakota Field Office
- Natoma Hansen - USFWS, Madison Wetlands Management District (WMD)
- Silka Kempema and Leslie Murphy - South Dakota Game, Fish, and Parks (SDGFP)
- Anne-Marie Griger, Michelle Matthews, and Sean Flannery - RES

Discussion:

1. RES described project status since last time RES updated agencies in 2016. Wind farm is now entirely proposed in Yellow Medicine County, Minnesota, and substation and overhead transmission line will be entirely located in Deuel County, SD. Point of Interconnection is the proposed Astoria substation at the existing Brookings to Big Stone 345 kV transmission line, including a shared point of interconnection with Otter Tail Power's proposed natural gas plant. The wind farm is currently in a MN state permitting process, anticipating certificate of need and site permit in September 2018. Construction anticipated to begin in Spring 2019.
2. SDGFP recommended that RES submit a Natural Heritage Inventory request for the transmission line study area. Also recommended avoiding native prairie as much as possible, and avoid construction impacts in grasslands during the nesting season. Some species that may occur in this area are Dakota skipper and grouse, as well as colonial nesting water birds.
3. SDGFP also recommended following APLIC guidelines with regard to designing the transmission line to avoid avian electrocution and collision, particularly near Fish Lake.
4. RES stated that landowner discussions are still underway to determine exact route within the study area. RES will make efforts to route the line along existing infrastructure, but limited by willing landowners and two endpoints.
5. RES is planning field surveys of the proposed route in spring/summer 2018.
6. Natoma stated that the transmission lines near the two waterfowl production areas (WPA) within the study area predate the WPA. Any direct impacts to the WPAs would trigger a federal nexus, as would direct impacts to a grassland easement or wetland basins within the wetland easement. It is acceptable to span easements as long as poles and direct impacts stay out of the easement parcel. USFWS would need to see a route and pole locations to verify that USFWS interests are not affected.

Action Items:

RES

- Submit Natural Heritage Inventory request
- Provide agencies with link to project studies on MN PUC edocket
- Provide route map and pole locations to USFWS, MWD when available
- Include USFWS and SDGFP comments in PUC application
- Follow up with agencies after studies are complete

Natoma

- Provide detailed info on USFWS fee title land and easements in study area (complete)

SDGFP

- Provide link to undisturbed sod layer (complete)
- Provide occurrences of grouse in study area

From: [Anne-Marie Griger](#)
To: "[Kempema, Silka](#)"; "[Hansen, Natoma](#)"; "[Murphy, Leslie](#)"
Cc: "Natalie_Gates@fws.gov"; [Sean Flannery](#); [Michelle Matthews](#)
Subject: Bitter Root Transmission Line
Attachments: [image001.jpg](#)
[BR_Study_area.kmz](#)
[Bitter Root Transmission Line Meeting Minutes 3-06-18.docx](#)

Thank you Silka!

Attached are draft meeting notes. Please let me know if you have anything to add or edit. I likely made some mistakes on who said what over the phone.

I also attached a KMZ file of the study area, in case that is more useful for your review than the PDF map we previously sent.

To access any and all of the reports for the Bitter Root wind project, go to:
<<https://www.edockets.state.mn.us/EFiling/search.jsp>> <https://www.edockets.state.mn.us/EFiling/search.jsp> and search for Docket Number 17-749 and 17-676.

Our consultant, Merjent, filed a Natural History Data Request on Friday, March 2. We will keep you informed as we determine a specific route within the study area and plan field surveys.

Thanks,

Anne-Marie

Anne-Marie Griger, AICP, PMP®
Permitting Manager

D +1 512 617 2894 | C +1 512 213 8501

From: Kempema, Silka [<mailto:Silka.Kempema@state.sd.us>]
Sent: Thursday, March 01, 2018 12:03 PM
To: Anne-Marie Griger <Anne-Marie.Griger@res-group.com>; Hansen, Natoma <natoma_hansen@fws.gov>; Murphy, Leslie <Leslie.Murphy@state.sd.us>
Cc: Natalie_Gates@fws.gov; Sean Flannery <Sean.Flannery@res-group.com>; Michelle Matthews <Michelle.Matthews@res-group.com>
Subject: Bauman et al. 2016

All,

Undisturbed lands layer

https://openprairie.sdstate.edu/data_land-easternSD/1/?utm_source=sdgrassinfo <https://openprairie.sdstate.edu/data_land-easternSD/1/?utm_source=sdgrassinfo&utm_campaign=sdgrassinfo&utm_medium=email&utm_term=sdgrassinfo&utm_content=sdgrassinfo>
&utm_campaign=sdgrassinfo&utm_medium=email&utm_term=sdgrassinfo&utm_content=sdgrassinfo

Silka Kempema | Wildlife Biologist

South Dakota Game, Fish and Parks

523 East Capitol Avenue | Pierre, SD 57501

605.773.2742 | <https://gfp.sd.gov>

From: Jennifer Kamm
To: ["Leslie.Murphy@state.sd.us"](mailto:Leslie.Murphy@state.sd.us)
Cc: ["Anne-Marie Griger"](#); [Michelle Matthews](#); [Sean Flannery](#)
Subject: Flying Cow Wind, LLC - Bitter Root 345 kV Transmission Line Project, Deuel County, South Dakota
Date: Friday, March 02, 2018 10:51:00 AM
Attachments: [RES T-Line SD GFP Natural Heritage Database Request_03022018.pdf](#)
[BR Study area.kmz](#)
[image001.gif](#)
[image002.jpg](#)

Dear Ms. Murphy,

Flying Cow Wind, LLC (Flying Cow Wind), an affiliate of RES America Developments, Inc. (RES) proposes to construct the Bitter Root 345 kilovolt (kV) Transmission Line Project in Deuel County, South Dakota. Please find the attached letter requesting a Natural Heritage Program Data Review from your office for the proposed Project. Also attached is a kmz of the Project Area for your use. We respectfully request your comments and/or questions within 30 days of receipt of this letter so that Flying Cow Wind can address the comments, as appropriate, and include them in the South Dakota Public Utilities Commission Facility Permit Application and associated County applications.

If you have any questions or comments you would like to discuss, please contact Michelle Matthews, the Project Development Manager, at 612.455.8445, michelle.matthews@res-group.com, or in writing at RES America Developments, Inc., 330 2nd Avenue South, Suite 820, Minneapolis, MN 55401. We look forward to your input and appreciate your assistance.

Best Regards,
Jennifer Kamm



**Jennifer
Kamm**

TractorWorks Building 612.746.3660 main
800 Washington Avenue
N. 612.354.4284 direct
Suite 315 612.875.0543 cell
Minneapolis, MN 55401 612.746.3679 fax

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330 2nd Avenue South, Suite 820
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T... 612 746 4028
B info.US@res-group.com
J: www.res-group.com

VIA E-MAIL

March 2, 2018

Leslie Murphy
SDGFP Environmental Review Coordinator
South Dakota Department of Game, Fish & Parks
523 East Capitol Avenue
Pierre, SD 57501
Email: Leslie.Murphy@state.sd.us

**Re: Natural Heritage Program Data Review Request for the Proposed Bitter Root
345 kV Transmission Line Project Deuel County, South Dakota**

Dear Ms. Murphy:

Flying Cow Wind, LLC (Flying Cow Wind), an affiliate of RES America Developments, Inc. (RES) proposes to construct the Bitter Root 345 kilovolt (kV) Transmission Line Project (Project) in Deuel County, South Dakota. The purpose of this letter is to request a Natural Heritage Program Data Review from your office for the proposed Project.

The Project includes approximately 10 miles of 345 kV overhead electric transmission line, a collector substation, and an interconnection substation (see attached Figure 1). The Project provides the necessary interconnection to the grid for the Bitter Root Wind Project, a large wind energy conversion system (LWECS) consisting of up to 152 megawatts (MW), located in Yellow Medicine County, Minnesota.¹

The proposed transmission line, collector substation, and interconnection substation will be permitted by the South Dakota Public Utilities Commission (PUC) and Deuel County. Flying Cow Wind plans to submit an application for a Facility Permit to the South Dakota PUC pursuant to South Dakota Codified Law (SDCL) § 49-41B-1 in Spring 2018. Flying Cow Wind will also submit a special exception permit application to Deuel County in Spring 2018 for the proposed Project.

While the endpoints of the transmission line have been determined (see Figure 1, collector substation and interconnection substation endpoints), the transmission line route between the endpoints is currently under development, pending landowner agreements, environmental review, and engineering design. RES is working to obtain voluntary easement agreements for all necessary right-of-way for the transmission line. To facilitate your data review, we have enclosed a map of the proposed 345 kV transmission line (Study Area) within which the proposed

¹ The Bitter Root Wind Project is being permitted by the Minnesota Public Utilities Commission (MnPUC) in accordance with the Minnesota Wind Siting Act (Minnesota Statutes Chapter 216F) and Minnesota Rules Ch. 7854 which includes all turbines, access roads, collection lines, Project Operation and Maintenance facility, and associated facilities to be located in Yellow Medicine County, Minnesota. Flying Cow Wind submitted a Site Permit Application to the MnPUC to construct and operate the LWECS on November 9, 2017 (see Docket No. IP6984/WS-17-749).



330 2nd Avenue South, Suite 820
 Minneapolis, MN 55401. United States

T... 612 746 4028
 B info.US@res-group.com
 J: www.res-group.com

transmission line would be routed (see Figure 1). Table 1 presents the specific location for the Project substation and interconnection substation, as well as the area being evaluated for location of the Study Area.

Table 1				
Study Area				
Township Name	Township	Range	Section	Facility
Norden	114N	47W	34	Collector substation, transmission and underground collection Lines
Scandinavia	113N	48W	22	Interconnection substation and Transmission line
Scandinavia	113	47	3-10	Transmission line
Scandinavia	113	48	1-3, 10-12, 14, 15, 22, 23	Transmission line
Norden	114	47	31-34	Transmission line
Norden	114	48	36	Transmission line

Electricity generated by the proposed Bitter Root Wind Project will be transmitted through buried collection lines feeding into the collector substation. From the Project collector substation, an overhead transmission line will be routed west and south approximately 10 miles along a route yet to be determined within the Study Area, to the interconnection substation. The interconnection substation will tap into the existing Big Stone South to Brookings County 345 kV transmission line that was put into service on September 8, 2017.

To assist in the initial transmission line evaluation processes, please conduct a Natural Heritage Program Data Review of the species known to occur within the Study Area. RES conducted a preliminary review of the State and Federally Listed Threatened, Endangered and Candidate Species Documented in South Dakota by County for Deuel County, South Dakota (see Table 2; South Dakota Game, Fish & Parks [SDGFP], 2016²). Please provide any additional information regarding ecologically sensitive areas and federally and state listed endangered, threatened, or special concern species occurrences within the Study Area.

² South Dakota Game, Fish & Parks (SDGFP). 2016. State and Federally Listed Threatened, Endangered and Candidate Species Documented in South Dakota by County (Updated on 07/19/2016). Accessed February 2018. Available at: <https://gfp.sd.gov/userdocs/docs/ThreatenedCountyList.pdf>

Table 2		
State and Federally Listed Threatened, Endangered and Candidate Species Documented in Deuel County, South Dakota		
Common Name	Scientific Name	Status ¹
Insects		
Dakota Skipper	<i>Hesperia dacotae</i>	FT
Poweshiek Skipperling	<i>Oarisma poweshiek</i>	FE
Fishes		
Banded Killifish	<i>Fundulus diaphanus</i>	SE
Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
Topeka Shiner	<i>Notropis topeka</i>	FE
Mammals		
Northern River Otter	<i>Lontra canadensis</i>	ST
¹ Species statuses include: FE = Federally Endangered, FT = Federally Threatened, SE = State Endangered, ST = State Threatened		

RES previously submitted a request for comment letter for the Project to the SDGFP and the United States Fish and Wildlife Service (USFWS) on January 25, 2018. RES's goal is to perform a thorough analysis of environmental resources concerning the Project using the best available information, which the data review will provide.

We respectfully request your comments and/or questions within 30 days of receipt of this letter so that Flying Cow Wind can address the comments, as appropriate, and include them in the Facility Permit and associated County applications.

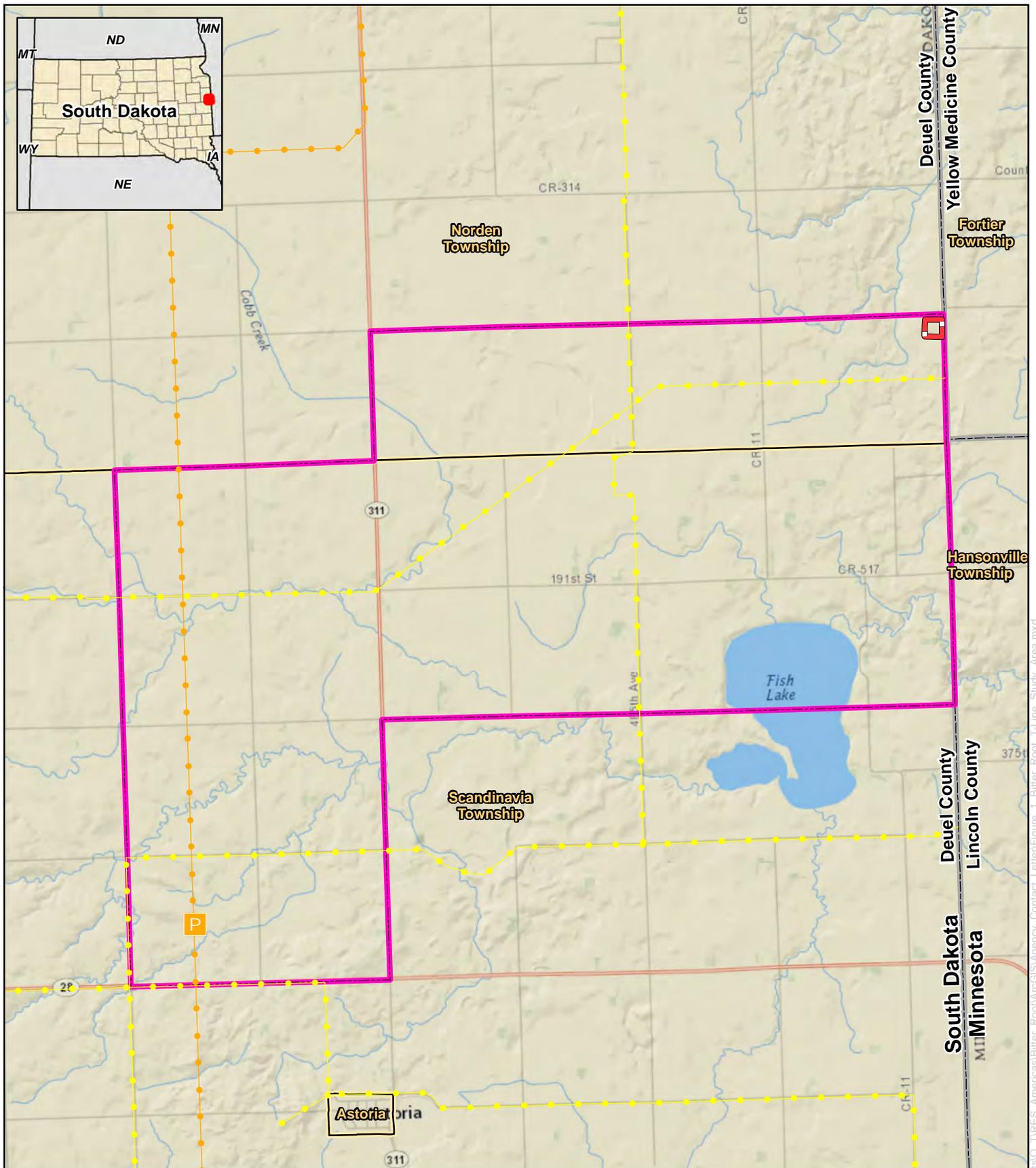
If you have any questions or comments you would like to discuss, please contact me at 612.455.8445, michelle.matthews@res-group.com, or in writing at RES America Developments, Inc., 330 2nd Avenue South, Suite 820, Minneapolis, MN 55401. We look forward to your input and appreciate your assistance.

Sincerely,



Michelle Matthews
Development Manager

Enc. Figure 1—Bitter Root 345 kV Transmission Line Study Area Map



0 0.5 1 Miles

1 inch = 1 miles



For Environmental Review Purposes Only



Figure 1
Study Area
Bitter Root 345 kV Transmission Line and Substation
Deuel County, South Dakota

- Proposed Interconnection Substation
- Existing Brookings to Big Stone 345 kV Line
- Existing Transmission Lines
- Proposed Collection Substation
- Study Area
- Civil Township Boundary

State and Federally Listed Threatened, Endangered and Candidate Species Documented in South Dakota by County. Updated on 07/19/2016

The following list contains documented occurrences of both state and federally listed species by county in South Dakota. Records were compiled from the South Dakota Natural Heritage Database and expert knowledge of species occurrences. Please note that the absence of a species from a county list does not preclude its presence and that a listing of a historical record does not necessarily mean the species still occurs in that county.

Documentations of bird species consist of known breeding records with the exception of the whooping crane (*Grus americana*) for which all observations are included. However, please note that while the year-round distribution of the American dipper (*Cinclus mexicanus*) does not change, all other listed bird species may be found throughout the state during migration.

If more specific information is needed for a particular project site, please visit the following website to request a search of the Natural Heritage Database: <http://gfp.sd.gov/wildlife/threatened-endangered/default.aspx>

Species statuses include: FE = Federally Endangered, FT = Federally Threatened, PE = Proposed Endangered (Federal), PT = Proposed Threatened (Federal) C = Federal Candidate, SE = State Endangered, ST = State Threatened.

County	Common Name	Scientific Name	Status
Aurora	Topeka Shiner	<i>Notropis topeka</i>	FE
	Whooping Crane	<i>Grus americana</i>	FE, SE
Beadle	Topeka Shiner	<i>Notropis topeka</i>	FE
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
Bennett	Northern Pearl Dace	<i>Margariscus nachtriebi</i>	ST
	American Burying Beetle	<i>Nicrophorus americanus</i>	FE
	Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Swift Fox	<i>Vulpes velox</i>	ST
Bon Homme	Blacknose Shiner	<i>Notropis heterolepis</i>	SE
	Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	Sturgeon Chub	<i>Macrhybopsis gelida</i>	ST
	Sicklefin Chub	<i>Macrhybopsis meeki</i>	ST
	Topeka Shiner	<i>Notropis topeka</i>	FE
	False Map Turtle	<i>Graptemys pseudogeographica</i>	ST
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	FE, SE
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Whooping Crane	<i>Grus americana</i>	FE, SE

	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	FT
	Northern River Otter	<i>Lontra canadensis</i>	ST
Brookings	American Burying Beetle	<i>Nicrophorus americanus</i>	FE
	Poweshiek Skipperling	<i>Oarisma poweshiek</i>	FE
	Dakota Skipper	<i>Hesperia dacotae</i>	FT
	Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
	Topeka Shiner	<i>Notropis topeka</i>	FE
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
	Western Prairie Fringed Orchid	<i>Platanthera praeclara</i>	FT
Brown	Dakota Skipper	<i>Hesperia dacotae</i>	FT
	Topeka Shiner	<i>Notropis topeka</i>	FE
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
Brule	Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	Sturgeon Chub	<i>Macrhybopsis gelida</i>	ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	FT
	Northern River Otter	<i>Lontra canadensis</i>	ST
Buffalo	Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	False Map Turtle	<i>Graptemys pseudogeographica</i>	ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
Butte	Finescale Dace	<i>Chrosomus neogaeus</i>	SE
	Longnose Sucker	<i>Catostomus catostomus</i>	ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
	Swift Fox	<i>Vulpes velox</i>	ST
Campbell	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	False Map Turtle	<i>Graptemys pseudogeographica</i>	ST
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	FE, SE
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
Charles Mix	Banded Killifish	<i>Fundulus diaphanus</i>	SE
	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	Sicklefin Chub	<i>Macrhybopsis meeki</i>	ST

	Sturgeon Chub	<i>Macrhybopsis gelida</i>	ST
	False Map Turtle	<i>Graptemys pseudogeographica</i>	ST
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	FE, SE
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	FT
Clark	Northern River Otter	<i>Lontra canadensis</i>	ST
Clay	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	Sicklefin Chub	<i>Macrhybopsis meeki</i>	ST
	Sturgeon Chub	<i>Macrhybopsis gelida</i>	ST
	Topeka Shiner	<i>Notropis topeka</i>	FE
	Eastern Hognose Snake	<i>Heterodon platirhinos</i>	ST
	False Map Turtle	<i>Graptemys pseudogeographica</i>	ST
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	FE, SE
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	FT
	Northern River Otter	<i>Lontra canadensis</i>	ST
Codington	Dakota Skipper	<i>Hesperia dacotae</i>	FT
	Poweshiek Skipperling	<i>Oarisma poweshiek</i>	FE
	Topeka Shiner	<i>Notropis topeka</i>	FE
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
Corson	Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	Sicklefin Chub	<i>Macrhybopsis meeki</i>	ST
	Sturgeon Chub	<i>Macrhybopsis gelida</i>	ST
	False Map Turtle	<i>Graptemys pseudogeographica</i>	ST
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	FE, SE
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Black-footed Ferret	<i>Mustela nigripes</i>	FE, SE
Custer	Blacknose Shiner	<i>Notropis heterolepis</i>	SE
	Longnose Sucker	<i>Catostomus catostomus</i>	ST
	Sturgeon Chub	<i>Macrhybopsis gelida</i>	ST
	American Dipper	<i>Cinclus mexicanus</i>	ST
	Osprey	<i>Pandion haliaetus</i>	ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Black-footed Ferret	<i>Mustela nigripes</i>	FE, SE
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	FT
	Northern River Otter	<i>Lontra canadensis</i>	ST

	Swift Fox	<i>Vulpes velox</i>	ST
Davison	Topeka Shiner	<i>Notropis topeka</i>	FE
Day	Blacknose Shiner	<i>Notropis heterolepis</i>	SE
	Dakota Skipper	<i>Hesperia dacotae</i>	FT
	Poweshiek Skipperling	<i>Oarisma poweshiek</i>	FE
	Banded Killifish	<i>Fundulus diaphanus</i>	SE
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
Deuel	Dakota Skipper	<i>Hesperia dacotae</i>	FT
	Poweshiek Skipperling	<i>Oarisma poweshiek</i>	FE
	Banded Killifish	<i>Fundulus diaphanus</i>	SE
	Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
	Topeka Shiner	<i>Notropis topeka</i>	FE
	Northern River Otter	<i>Lontra canadensis</i>	ST
Dewey	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	FE, SE
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Black-footed Ferret	<i>Mustela nigripes</i>	FE, SE
Douglas	Whooping Crane	<i>Grus americana</i>	FE, SE
Edmunds	Whooping Crane	<i>Grus americana</i>	FE, SE
Fall River	Finescale Dace	<i>Chrosomus neogaeus</i>	SE
	Osprey	<i>Pandion haliaetus</i>	ST
	Swift Fox	<i>Vulpes velox</i>	ST
Faulk	Whooping Crane	<i>Grus americana</i>	FE, SE
Grant	Dakota Skipper	<i>Hesperia dacotae</i>	FT
	Poweshiek Skipperling	<i>Oarisma poweshiek</i>	FE
	Blacknose Shiner	<i>Notropis heterolepis</i>	SE
	Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
	Osprey	<i>Pandion haliaetus</i>	ST
	Northern River Otter	<i>Lontra canadensis</i>	ST
Gregory	American Burying Beetle	<i>Nicrophorus americanus</i>	FE
	Northern Pearl Dace	<i>Margariscus nachtriebi</i>	ST
	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	Sicklefin Chub	<i>Macrhybopsis meeki</i>	ST
	Sturgeon Chub	<i>Macrhybopsis gelida</i>	ST
	False Map Turtle	<i>Graptemys pseudogeographica</i>	ST
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	FE, SE

	Whooping Crane Northern Long-eared Bat	<i>Grus americana</i> <i>Myotis septentrionalis</i>	FE, SE FT
Haakon	Sturgeon Chub Interior Least Tern Whooping Crane Northern River Otter Swift Fox	<i>Macrhybopsis gelida</i> <i>Sternula antillarum athalassos</i> <i>Grus americana</i> <i>Lontra canadensis</i> <i>Vulpes velox</i>	ST FE, SE FE, SE ST ST
Hamlin	Dakota Skipper Poweshiek Skipperling Topeka Shiner Northern River Otter	<i>Hesperia dacotae</i> <i>Oarisma poweshiek</i> <i>Notropis topeka</i> <i>Lontra canadensis</i>	FT FE FE ST
Hand	Whooping Crane	<i>Grus americana</i>	FE, SE
Hanson	Topeka Shiner Northern River Otter	<i>Notropis topeka</i> <i>Lontra canadensis</i>	FE ST
Harding	Sturgeon Chub Peregrine Falcon Swift Fox	<i>Macrhybopsis gelida</i> <i>Falco peregrinus</i> <i>Vulpes velox</i>	ST SE ST
Hughes	Pallid Sturgeon Shovelnose Sturgeon Sicklefin Chub False Map Turtle Interior Least Tern Piping Plover Whooping Crane Northern Long-eared Bat Northern River Otter Swift Fox	<i>Scaphirhynchus albus</i> <i>Scaphirhynchus platyrhynchus</i> <i>Macrhybopsis meeki</i> <i>Graptemys pseudogeographica</i> <i>Sternula antillarum athalassos</i> <i>Charadrius melodus</i> <i>Grus americana</i> <i>Myotis septentrionalis</i> <i>Lontra canadensis</i> <i>Vulpes velox</i>	FE, SE FT ST ST FE, SE FT, ST FE, SE FT ST ST
Hutchinson	Topeka Shiner Whooping Crane	<i>Notropis topeka</i> <i>Grus americana</i>	FE FE, SE
Hyde	Pallid Sturgeon Shovelnose Sturgeon Whooping Crane Swift Fox	<i>Scaphirhynchus albus</i> <i>Scaphirhynchus platyrhynchus</i> <i>Grus americana</i> <i>Vulpes velox</i>	FE, SE FT FE, SE ST
Jackson	Northern Redbelly Dace Sturgeon Chub Whooping Crane Northern Long-eared Bat Swift Fox	<i>Chrosomus eos</i> <i>Macrhybopsis gelida</i> <i>Grus americana</i> <i>Myotis septentrionalis</i> <i>Vulpes velox</i>	ST ST FE, SE FT ST
Jerauld	Whooping Crane Northern River Otter	<i>Grus americana</i> <i>Lontra canadensis</i>	FE, SE ST
Jones	Sturgeon Chub Whooping Crane	<i>Macrhybopsis gelida</i> <i>Grus americana</i>	ST FE, SE

Kingsbury	Piping Plover Whooping Crane	<i>Charadrius melodus</i> <i>Grus americana</i>	FT, ST FE, SE
Lake	Northern River Otter	<i>Lontra canadensis</i>	ST
Lawrence	Finescale Dace Longnose Sucker American Dipper Osprey Northern Long-eared Bat	<i>Chrosomus neogaeus</i> <i>Catostomus catostomus</i> <i>Cinclus mexicanus</i> <i>Pandion haliaetus</i> <i>Myotis septentrionalis</i>	SE ST ST ST LT
Lincoln	Northern Redbelly Dace Topeka Shiner Lined Snake Northern River Otter	<i>Chrosomus eos</i> <i>Notropis topeka</i> <i>Tropidoclonion lineatum</i> <i>Lontra canadensis</i>	ST FE SE ST
Lyman	Pallid Sturgeon Shovelnose Sturgeon Sturgeon Chub False Map Turtle Whooping Crane Black-footed Ferret Northern Long-eared Bat Northern River Otter Swift Fox	<i>Scaphirhynchus albus</i> <i>Scaphirhynchus platyrhynchus</i> <i>Macrhybopsis gelida</i> <i>Graptemys pseudogeographica</i> <i>Grus americana</i> <i>Mustela nigripes</i> <i>Myotis septentrionalis</i> <i>Lontra canadensis</i> <i>Vulpes velox</i>	FE, SE FT ST ST FE, SE FE, SE LT ST ST
Marshall	Dakota Skipper Poweshiek Skipperling Whooping Crane Northern River Otter	<i>Hesperia dacotae</i> <i>Oarisma poweshiek</i> <i>Gus americana</i> <i>Lontra canadensis</i>	FT FE FE, SE ST
McCook	Topeka Shiner Northern River Otter	<i>Notropis topeka</i> <i>Lontra canadensis</i>	FE ST
McPherson	Dakota Skipper Banded Killifish Whooping Crane	<i>Hesperia dacotae</i> <i>Fundulus diaphanus</i> <i>Grus americana</i>	FT SE FE, SE
Meade	Banded Killifish Longnose Sucker Sturgeon Chub American Dipper Interior Least Tern Whooping Crane Northern Long-eared Bat Northern River Otter Swift Fox	<i>Fundulus diaphanus</i> <i>Catostomus catostomus</i> <i>Macrhybopsis gelida</i> <i>Cinclus mexicanus</i> <i>Sternula antillarum athalassos</i> <i>Grus americana</i> <i>Myotis septentrionalis</i> <i>Lontra canadensis</i> <i>Vulpes velox</i>	SE ST ST ST FE, SE FE, SE LT ST ST
Mellette	Sturgeon Chub Whooping Crane	<i>Macrhybopsis gelida</i> <i>Grus americana</i>	ST FE, SE
Miner	Topeka Shiner	<i>Notropis topeka</i>	FE

	Whooping Crane	<i>Grus americana</i>	FE, SE
Minnehaha	Topeka Shiner	<i>Notropis topeka</i>	FE
	Lined Snake	<i>Tropidoclonion lineatum</i>	SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
	Western Prairie Fringed Orchid	<i>Platanthera praeclara</i>	FT
Moody	Dakota Skipper	<i>Hesperia dacotae</i>	FT
	Poweshiek Skipperling	<i>Oarisma poweshiek</i>	FE
	Blacknose Shiner	<i>Notropis heterolepis</i>	SE
	Topeka Shiner	<i>Notropis topeka</i>	FE
	Northern River Otter	<i>Lontra canadensis</i>	ST
Oglala Lakota	Sturgeon Chub	<i>Macrhybopsis gelida</i>	ST
	Swift Fox	<i>Vulpes velox</i>	ST
Pennington	Longnose Sucker	<i>Catostomus catostomus</i>	ST
	Sturgeon Chub	<i>Macrhybopsis gelida</i>	ST
	American Dipper	<i>Cinclus mexicanus</i>	ST
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	FE, SE
	Osprey	<i>Pandion haliaetus</i>	ST
	Peregrine Falcon	<i>Falco peregrinus</i>	SE
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Black-footed Ferret	<i>Mustela nigripes</i>	FE, SE
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	LT
	Northern River Otter	<i>Lontra canadensis</i>	ST
Swift Fox	<i>Vulpes velox</i>	ST	
Perkins	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	LT
	Swift Fox	<i>Vulpes velox</i>	ST
Potter	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	FE, SE
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
Roberts	Dakota Skipper	<i>Hesperia dacotae</i>	FT
	Poweshiek Skipperling	<i>Oarisma poweshiek</i>	FE
	Blacknose Shiner	<i>Notropis heterolepis</i>	SE
	Osprey	<i>Pandion haliaetus</i>	ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
Sandborn	Topeka Shiner	<i>Notropis topeka</i>	FE
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
Spink	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST

	Swift Fox	<i>Vulpes velox</i>	ST
Stanley	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	Sicklefin Chub	<i>Macrhybopsis meeki</i>	ST
	False Map Turtle	<i>Graptemys pseudogeographica</i>	ST
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	FE, SE
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Black-footed Ferret	<i>Mustela nigripes</i>	FE, SE
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	LT
	Northern River Otter	<i>Lontra canadensis</i>	ST
	Swift Fox	<i>Vulpes velox</i>	ST
Sully	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	FE, SE
	Piping Plover	<i>Charadrius melodus</i>	FT, ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
	Swift Fox	<i>Vulpes velox</i>	ST
Todd	American Burying Beetle	<i>Nicrophorus americanus</i>	FE
	Blacknose Shiner	<i>Notropis heterolepis</i>	SE
	Finescale Dace	<i>Chrosomus neogaeus</i>	SE
	Northern Pearl Dace	<i>Margariscus nachtriebi</i>	ST
	Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
	Black-footed Ferret	<i>Mustela nigripes</i>	FE, SE
Tripp	American Burying Beetle	<i>Nicrophorus americanus</i>	FE
	Blacknose Shiner	<i>Notropis heterolepis</i>	SE
	Northern Pearl Dace	<i>Margariscus nachtriebi</i>	ST
	Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
	Sturgeon Chub	<i>Macrhybopsis gelida</i>	ST
	Whooping Crane	<i>Grus americana</i>	FE, SE
	Northern River Otter	<i>Lontra canadensis</i>	ST
Turner	Northern Redbelly Dace	<i>Chrosomus eos</i>	ST
	Topeka Shiner	<i>Notropis topeka</i>	FE
Union	American Burying Beetle	<i>Nicrophorus americanus</i>	FE
	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE
	Shovelnose Sturgeon	<i>Scaphirhynchus platyrhynchus</i>	FT
	Finescale Dace	<i>Chrosomus neogaeus</i>	SE
	Sturgeon Chub	<i>Macrhybopsis gelida</i>	ST
	Sicklefin Chub	<i>Macrhybopsis meeki</i>	ST
	Eastern Hognose Snake	<i>Heterodon platirhinos</i>	ST
	False Map Turtle	<i>Graptemys pseudogeographica</i>	ST
	Lined Snake	<i>Tropidoclonion lineatum</i>	SE

	Interior Least Tern Piping Plover Northern Long-eared Bat Northern River Otter	<i>Sternula antillarum athalassos</i> <i>Charadrius melodus</i> <i>Myotis septentrionalis</i> <i>Lontra canadensis</i>	FE, SE FT, ST LT ST
Walworth	Northern Redbelly Dace Pallid Sturgeon Shovelnose Sturgeon Sturgeon Chub Sicklefin Chub Interior Least Tern Piping Plover Whooping Crane Northern Long-eared Bat	<i>Chrosomus eos</i> <i>Scaphirhynchus albus</i> <i>Scaphirhynchus platyrhynchus</i> <i>Macrhybopsis gelida</i> <i>Macrhybopsis meeki</i> <i>Sternula antillarum athalassos</i> <i>Charadrius melodus</i> <i>Grus americana</i> <i>Myotis septentrionalis</i>	ST FE, SE FT ST ST FE, SE FT, ST FE, SE LT
Yankton	Higgins Eye Scaleshell Pallid Sturgeon Shovelnose Sturgeon Sicklefin Chub Sturgeon Chub Eastern Hognose Snake False Map Turtle Interior Least Tern Piping Plover Northern Long-eared Bat Northern River Otter	<i>Lampsilis higginsii</i> <i>Leptodea leptodon</i> <i>Scaphirhynchus albus</i> <i>Scaphirhynchus platyrhynchus</i> <i>Macrhybopsis meeki</i> <i>Macrhybopsis gelida</i> <i>Heterodon platirhinos</i> <i>Graptemys pseudogeographica</i> <i>Sternula antillarum athalassos</i> <i>Charadrius melodus</i> <i>Myotis septentrionalis</i> <i>Lontra canadensis</i>	FE FE FE, SE FT ST ST ST ST FE, SE FT, ST LT ST
Ziebach	Sturgeon Chub Interior Least Tern Black-footed Ferret Swift Fox Whooping Crane	<i>Macrhybopsis gelida</i> <i>Sternula antillarum athalassos</i> <i>Mustela nigripes</i> <i>Vulpes velox</i> <i>Grus americana</i>	ST FE, SE FE, SE ST FE, SE



IN REPLY REFER TO
Bitter Root Transmission Line

United States Department of the Interior

FISH AND WILDLIFE SERVICE South Dakota Ecological Services

420 South Garfield Avenue, Suite 400
Pierre, South Dakota 57501-5408

March 9, 2018



Michelle Matthews
Development Manager
RES America Developments Inc.
330 2nd Avenue South, Suite 820
Minneapolis, Minnesota 55401

Dear Ms. Matthews:

This letter is in response to your request dated January 25, 2018, for environmental comments regarding the above referenced project involving construction of a 345 kV transmission line and substation in Deuel County, South Dakota, associated with the Bitter Root wind energy facility proposed for construction in Yellow Medicine County, Minnesota.

It is our understanding that either RES, or Flying Cow Wind, LLC (an affiliate of RES), is coordinating with USFWS Ecological Services in Minnesota on the wind facility itself.

Per our March 1, 2018, conference call, it is also our understanding that alternatives that would result in a shorter transmission line from the wind facility - and a potential reduction in environmental impacts - have been investigated but eliminated due to requirements associated with the interconnection point on the Bigstone transmission line and non-cooperative landowners. Should these constraints change, we recommend further investigation of alternative locations for the substation and transmission line in order to minimize adverse wildlife/habitat effects.

You have initiated coordination with Ms. Natoma Hansen of the USFWS Madison Wetland Management District (WMD) regarding potential impacts to USFWS easements and fee-title properties in the transmission line project area; please continue that coordination for exact locations of these properties and any additional restrictions that may apply.

Federally Listed Species

In accordance with section 7(c) of the Endangered Species Act (ESA), as amended, 16 U.S.C. 1531 et seq., we have determined that the following federally listed species may occur in the project area (this list is considered valid for 90 days):

<u>Species</u>	<u>Status</u>	<u>Expected Occurrence</u>
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened	Summer resident, seasonal migrant, known winter resident in Black Hills
Dakota Skipper (<i>Hesperia dacotae</i>)	Threatened	Resident in native prairie, northeastern SD
Poweshiek Skipperling (<i>Oarisma poweshiek</i>)	Endangered	Potential resident in native prairie, northeastern SD
Rufa Red Knot (<i>Calidris canutus rufa</i>)	Threatened	Rare seasonal migrant

Northern long-eared bat

The northern long-eared bat is a medium-sized brown bat that roosts singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Some hibernacula have been documented in caves/mines in the Black Hills, and the species has been documented in other forested areas in the state during the summer months and along the Missouri River during migration. White nose syndrome - a fungus affecting hibernating bats - is considered a significant threat to this species, but individuals may be harmed by other activities such as modifications to hibernacula, timber harvest, human disturbance, and collisions with wind turbines. A 4(d) rule has been published that exempts take of Northern long-eared bats in certain circumstances. For more information, see:

<https://www.fws.gov/Midwest/Endangered/mammals/nleb/index.html>.

Dakota skipper

The Dakota skipper is a small prairie butterfly and obligate resident of high quality prairie ranging from wet-mesic tallgrass prairie to dry-mesic mixed grass prairie. In northeastern South Dakota, Dakota skippers inhabit dry-mesic hill prairies with abundant purple coneflower (*Echinacea angustifolia*), but also use mesic to wet-mesic tallgrass prairie habitats characterized by wood lily (*Lilium philadelphicum*) and mountain death camas (smooth camas; *Zigadenus elegans*). Their dispersal ability is very limited due in part to their short adult life span and single annual flight. Extirpation from a site may be permanent unless it occurs within about 0.6 miles of an inhabited site that generates a sufficient number of emigrants. Avoidance of impacts to native prairie habitat is recommended to reduce the risk of adverse effects to this species. Critical habitat has been designated for this species in South Dakota; for details and locations see the following website: <http://www.fws.gov/Midwest/endangered/insects/dask/index.html>.

Poweshiek skipperling

The Poweshiek skipperling is another small prairie butterfly that occupies some habitats similar to the Dakota skipper. The habitat of Poweshiek skipperlings includes prairie fens, grassy lake and stream margins, moist meadows, and wet-mesic to dry tallgrass prairie. Preferred nectar plants for adult Poweshieks include smooth ox-eye (*Heliopsis helianthoides*) and purple coneflower (*Echinacea angustifolia*), but they also use stiff tickseed (*Coreopsis palmate*), black-eyed susan (*Rudbeckia hirta*), and palespike lobelia (*Lobelia spicata*). Larval food plants are assumed to include spike-rush, sedges, prairie dropseed (*Sporobolus heterolepis*) and little

bluestem (*Schizachyrium scoparium*). Poweshiek skipperlings have one flight per year from about the middle of June through the end of July (depending upon weather). They have a low dispersal capability, and may not cross areas that are not structurally similar to native prairies. Extirpation from fragmented and isolated prairie remnants may be permanent unless it occurs within about 0.6 miles of an inhabited site that generates a sufficient number of emigrants. They are vulnerable to extreme weather conditions, dormant season fire, and other disturbances (e.g., intense cattle grazing). Avoidance of impacts to native prairie habitat is recommended to reduce the risk of adverse effects to this species. Critical habitat has been designated for this species in South Dakota; for details and locations see the following website: <http://www.fws.gov/midwest/endangered/insects/dask/finalch.html>.

Rufa red knot

The rufa red knot is a robin-sized shorebird that migrates annually between its breeding grounds in the Canadian Arctic and several wintering regions, including the Southeast United States, the Northeast Gulf of Mexico, northern Brazil, and Tierra del Fuego at the southern tip of South America. Although it is primarily a coastal species, small numbers of rufa red knots are reported annually across the interior United States (i.e., greater than 25 miles from the Gulf or Atlantic Coasts) during spring and fall migration. These reported sightings are concentrated along the Great Lakes, but multiple reports have been made from nearly every interior State, including South Dakota. The red knot likely uses South Dakota habitats similar to those of the least tern and piping plover. The species does not breed in this state.

We are currently unaware of a federal nexus for the Bitter Root wind energy facility, nor the associated transmission line, although as noted during the March 1, 2018, call, if the proposed transmission line will impact Service-interest lands, the Service may fill that role. Please inform this office if another federal nexus exists or arises that would trigger the need for ESA section 7 consultation.

If no Federal agency is involved with the proposed project and take of federally listed species may occur, ESA compliance may be achieved by private entities via coordination with this office and development of a Habitat Conservation Plan (HCP). Our website provides more information on HCPs at: <http://www.fws.gov/endangered/what-we-do/hcp-overview.html>.

Eagles

Golden eagles (*Aquila chrysaetos*) are year-round residents in western South Dakota, and may be found throughout the state in winter or during migration; bald eagles (*Haliaeetus leucocephalus*) occur throughout South Dakota in all seasons. Both species are protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). These laws protect eagles from a variety of harmful actions and impacts. The Service has developed several guidance documents to assist developers with the evaluation and mitigation of risks that projects may pose to eagles. You are likely already aware of our Eagle Conservation Plan Guidance, Module 1 – Land-based Wind Energy Version 2, and eagle take permit of 2009 (amended in 2016) per your earlier coordination with this office and/or contact with the Minnesota USFWS Ecological Services office. Relative to this transmission line, our National Bald Eagle Management Guidelines (available online at:

<https://www.fws.gov/southdakotafieldoffice/NationalBaldEagleManagementGuidelines.pdf>) may also be helpful. This document indicates circumstances where the MBTA and BGEPA laws may apply and provides conservation measures to assist in avoiding potential violations of these laws.

Wetlands

According to National Wetlands Inventory maps, numerous wetlands exist in the proposed project area, include relatively large waterbodies. Transmission near such habitats can increase risk to migratory bird collisions with lines (more below). If a project may impact wetlands or other important fish and wildlife habitats, the U.S. Fish and Wildlife Service (Service), in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347) and other environmental laws and rules, recommends complete avoidance of these areas, if possible. If this is not possible, attempts should be made to minimize adverse impacts. Finally if adverse impacts are unavoidable, measures should be undertaken to replace the impacted areas.

Electrocutions

The construction of additional overhead power lines creates the threat of avian electrocution, particularly for raptors. Thousands of these birds, including endangered species, are killed annually as they attempt to utilize overhead power lines as nesting, hunting, resting, feeding, and sunning sites. The Service recommends the installation of underground, rather than overhead, power lines whenever possible/appropriate to minimize environmental disturbances. For all new overhead lines or modernization of old overhead lines, we recommend incorporating measures to prevent avian electrocutions. The publication entitled Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 includes many measures to reduce risk to birds including pole extensions, modified positioning of live phase conductors and ground wires, placement of perch guards and elevated perches, elimination of cross arms, use of wood (not metal) braces, and installation of various insulating covers. You may obtain this publication by contacting the Edison Electric Institute via their website at: <http://www.eei.org/resourcesandmedia/products/Pages/products.aspx>, or by calling 202-508-5000.

Please note that utilizing just one of the "Suggested Practices . . ." methods may not entirely remove the threat of electrocution to raptors. In fact, improper use of some methods may increase electrocution mortality. Perch guards, for example, may be only partially effective as some birds may still attempt to perch on structures with misplaced or small-sized guards and suffer electrocution as they approach too close to conducting materials. Among the most dangerous structures to raptors are poles that are located at a crossing of two or more lines, exposed above-ground transformers, or dead end poles. Numerous hot and neutral lines at these sites, combined with inadequate spacing between conductors, increase the threat of raptor electrocutions. Perch guards placed on other poles has, in some cases, served to actually shift birds to these more dangerous sites, increasing the number of mortalities. Thus, it may be necessary to utilize other methods or combine methods to achieve the best results. The same principles may be applied to substation structures.

Please also note that the spacing recommendation within the “Suggested Practices . . .” publication of at least 60 inches between conductors or features that cause grounding may not be protective of larger raptors such as eagles. This measure was based on the fact that the skin-to-skin contact distance on these birds (i.e., talon to beak, wrist to wrist, etc.) is less than 60 inches. However, an adult eagle’s wingspan (distance between feather tips) may vary from 66 to 96 inches depending on the species (golden or bald) and gender of the bird, and unfortunately, wet feathers in contact with conductors and/or grounding connections can result in a lethal electrical surge. Thus, the focus of the above precautionary measures should be to a) provide more than 96 inches of spacing between conductors or grounding features, b) insulate exposed conducting features so that contact will not cause raptor electrocution, and/or c) prevent raptors from perching on the poles.

Additional information regarding simple, effective ways to prevent raptor electrocutions on power lines is available in video form. *Raptors at Risk* may be obtained by contacting EDM International, Inc. at 4001 Automation Way, Fort Collins, Colorado 80525-3479, Telephone No. (970) 204-4001, or by visiting their website at:
<https://www.edmlink.com/component/zoo/item/video-raptors-at-risk>.

Line Strikes

In addition to electrocution, overhead power lines also present the threat of avian line strike mortality. Particularly in situations where these lines are adjacent to wetlands or where waters exist on opposite sides of the lines, we recommend marking them in order to make them more visible to birds. For more information on bird strikes, please see *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* which, again, may be obtained by contacting the Edison Electric Institute via their website at <http://www.eei.org/resourcesandmedia/products/Pages/products.aspx>, or by calling 202-508-5000. Please note that while marking of power lines reduces line strike mortality, it does not preclude it entirely. Thus, marking of additional, existing, overhead lines is recommended to further offset the potential for avian line strike mortality at the new line.

The Service

If changes are made in the project plans or operating criteria, or if additional information becomes available, the Service should be informed so that the above determinations can be reconsidered.

Ms. Matthews

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The Service appreciates the opportunity to provide comments. If you have any questions on these comments, please contact Natalie Gates of this office at (605) 224-8693, Extension 227.

Sincerely,

A handwritten signature in blue ink that reads "Scott Larson". The signature is written in a cursive style with a large, prominent "S" at the beginning.

Field Supervisor
South Dakota Field Office

cc: FWS ES, Margaret Rhuede, Twin Cities FO, MN
Silka Kempema/Leslie Murphy, SDDGFP, Pierre, SD



SOUTH DAKOTA DEPARTMENT OF GAME, FISH AND PARKS

523 EAST CAPITOL AVENUE | PIERRE, SD 57501

March 19, 2018

Ms. Michelle Matthews, Development Manager
RES Americas
330 2nd Avenue South, Suite 820
Minneapolis, MN 55401

**RE: Bitter Root 345kV Transmission Line Project
Deuel County, South Dakota**

Dear Michelle,

This letter is in response to your request for environmental comments regarding the above referenced project which involves the installation of approximately 10 miles of new 345kV overhead electric transmission line, a collector substation, and an interconnection substation, which will provide the necessary interconnection to the grid for the Bitter Root Wind Project, located in Yellow Medicine County, Minnesota.

A conference call took place on March 1, 2018 with project consultants, the South Dakota Department of Game, Fish and Parks, and the U.S. Fish and Wildlife Service. Alternative project routes were discussed that would result in a shorter transmission line, but those routes were ultimately eliminated due to requirements associated with the Big Stone transmission line connection location and unwilling landowners.

Regarding the proposed transmission line, a primary concern of this office is the threat of electrocution to raptors and other avian species. Bird mortality results when species attempt to utilize overhead power lines as nesting, hunting, resting, feeding, and sunning sites. For this reason, and to minimize environmental impacts, we recommend underground power lines be installed whenever possible and appropriate. Transmission lines, unlike distribution lines, typically pose a lesser risk of electrocution due to their large size. However, the potential of avian line strikes still exists with the presence of overhead lines. For all new overhead lines, we recommend incorporating measures to prevent electrocutions and, in situations where these lines are adjacent to wetlands or other waters on opposite sides of the lines, we recommend marking the lines in order to make them more visible to birds. We also recommend that all above ground power lines be constructed in a manner designed to minimize collisions and electrocution hazards to birds. The Avian Protection Power Line Interaction Committee has developed two documents that may be of use to reduce power line strikes and mortality:

1. *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*
2. *Mitigating Bird Collisions with Power Lines*

Both of these documents are available from the Edison Institute (<http://www.aplic.org/>).

According to National Wetlands Inventory mapping, numerous water resources are likely to exist in the project area, including Fish Lake. Transmission lines near wetland and open water habitats can increase

risk of bird collisions with the lines. If the project is anticipated to impact wetlands or other water resources, the Department of Game, Fish and Parks first recommends avoidance of these areas, followed by minimization of impacts, and finally mitigation to offset impacts.

RES requested that a search of the South Dakota Natural Heritage Database be conducted in the project area. This database monitors species at risk, specifically those species that are legally designated as threatened or endangered (legally protected) or rare. Rare species are those that are declining and restricted to limited habitat or a jurisdiction, may be isolated or disjunct due to geographic or climactic factors that are classified as such due to lack of survey data. A list of monitored species can be found at <http://gfp.sd.gov/wildlife/threatened-endangered>. Please note that many places in South Dakota have not been surveyed for rare or protected species and the absence of a species from the database does not preclude its presence.

There were records of two rare, but population secure bird species in the area of Fish Lake: black-crowned night herons (*Nycticorax nycticorax*) and green herons (*Butorides virescens*). Black-crowned night herons breed in wetland habitats and nest in colonies anywhere from the ground on marsh vegetation to platforms of sticks in groups of trees or shrubs, nesting most commonly 10-40 feet off the ground. Green herons nest as isolated pairs or in small groups, and rarely in large colonies. The nest is a platform of sticks usually in shrub or tree habitat, 5-30 feet above ground and close to water. The conservation goal of these two species is to maintain or improve the population status.

Based upon the information submitted with the preliminary coordination letter and wildlife and habitat resources in the project vicinity, we would offer the following comments for your consideration during the balance of project planning and during construction.

1. Disturbance to riparian areas should be kept to an absolute minimum. Avoidance of native prairie is recommended and efforts should be made to place transmission lines in a manner so that they do not bisect large tracts of native prairie.
2. Riparian vegetation losses should be quantified and replaced on site. Seeding of indigenous species should be accomplished immediately after construction is complete to reduce sediment and erosion potential.
3. A site specific sediment and erosion control plan should be made part of the project plan and implemented at the direction of the project staff.
4. If a federally or state listed species is encountered during project construction, construction activities should cease until the resource agencies are consulted.

Thank you for the opportunity to provide comments on this project. If you have any questions, please contact me at 605.773.6208.

Sincerely,



Leslie Murphy
Environmental Review Coordinator

Telephone Log



Client: Anne-Marie Griger, Michelle Matthews, Sean Flannery
RES Americas/Flying Cow Wind, LLC

Job #: B7449-0001

Participants: Joe Sedarski, Wenck
Leslie Murphy, SD GFP Environmental Review Coordinator

Date: June 6, 2018, 9:30 am

Subject: Bitter Root Transmission Project – Wetland/Waterway & Cultural Resources
Field Survey Review

Joe Sedarski attempted to contact Leslie Murphy, Environmental Review Coordinator, SD GFP (605.773.6208) to review status of the Bitter Root Transmission Project and plans for conducting upcoming field delineation of wetlands/waterways associated with the Project. She was not in and I left a voice message.

On June 11, 2018 (10:45 am), Ms. Murphy called be back. I informed Leslie that Wenck, on behalf of RES Americas/Flying Cow Wind, will be conducting delineation work associated with the easement area and construction areas of the proposed route(s) for the Project over the next 3-6 weeks, in addition to a cultural resources field survey. I mentioned that RES Americas/Flying Cow Wind has been working on the transmission line route alignment and design, and working with landowners to secure easements for the Project. Routing tasks include finding locations where any wetlands/waterways, other water resources and native prairie can be avoided or impacts to such minimized as much as possible.

I mentioned that RES Americas/Flying Cow Wind will prepare a wetland/waterway delineation report and submit that to the USACE for review and concurrence. At that time, we will also be able to assess potential permit needs following the USACE permit application process. I asked her if SD GFP required anything else related to the Project at this time and she said no, this sounds good.

I thanked her for her time and we ended the call at 10:47 a.m.

Telephone Log



Client: Anne-Marie Griger, Michelle Matthews, Sean Flannery
RES Americas/Flying Cow Wind, LLC

Job #: B7449-0001

Participants: Joe Sedarski, Wenck
Steven Naylor, USACE Regulatory Program Manager, SD

Date: June 6, 2018, 9:00 am

Subject: Bitter Root Transmission Project – Wetland/Waterway Field Survey Review

Joe Sedarski tried contacting Steven Naylor, Regulatory Program Manager, SD, USACE (605.224.8531) but learned he was out of the office this week. Joe did speak to Cathy Juhas, USACE Project Manager (same telephone number as above) who works with Mr. Naylor, to review status of the Bitter Root Transmission Project and plans for conducting upcoming field delineation of wetlands/waterways associated with the Project.

I first thanked Ms. Juhas for the USACE comment letter (dated February 13, 2018) in response to our request for comments (Bitter Root/Flying Cow Wind letter dated January 29, 2018) and acknowledged receipt of that.

I then informed Cathy that Wenck, on behalf of RES Americas/Flying Cow Wind, will be conducting delineation work associated with the easement area and construction areas of the proposed route(s) for the Project over the next several weeks. RES Americas/Flying Cow Wind has been working on the transmission line route alignment and design, and working with landowners to secure easements for the Project. Routing tasks include finding locations where any wetlands/waterways can be avoided or impacts to such minimized as much as possible.

Finally, I mentioned that RES Americas/Flying Cow Wind will prepare a delineation report and submit that to the USACE for review and concurrence. At that time, we will also be able to assess potential permit needs following the USACE permit application process.

Ms. Juhas said she would let Mr. Naylor of this call and thanked me for keeping the USACE informed of the Project.

We ended the call at 9:07 a.m.

From: [Anne-Marie Griger](#)
To: [Joe Sedarski](#)
Subject: FW: [EXTERNAL] Bitter Root Transmission Line
Date: Friday, September 14, 2018 11:02:05 AM
Attachments: [image013.jpg](#)
[image012.jpg](#)
[image015.jpg](#)
[image011.png](#)
[image014.jpg](#)
[Proposed Structures Entire Boundary.pdf](#)
[Proposed Structures 105C 195G-1.pdf](#)

Joe,

See attached and below correspondence from USFWS WMD for inclusion in the FPA. I confirmed that we were aware of grassland easement 105C and will not impact that parcel.

Thanks,

Anne-Marie

From: Hansen, Natoma <natoma_hansen@fws.gov>
Sent: Friday, September 14, 2018 9:52 AM
To: Anne-Marie Griger <Anne-Marie.Griger@res-group.com>
Cc: Murphy, Leslie <Leslie.Murphy@state.sd.us>; Kempema, Silka <Silka.Kempema@state.sd.us>; Gates, Natalie <natalie_gates@fws.gov>; Sean Flannery <Sean.Flannery@res-group.com>
Subject: Re: [EXTERNAL] Bitter Root Transmission Line

Anne_Marie,

Thank you for updating us on the proposed transmission line. I reviewed the information you provided and attached PDFs depicting the proposed transmission line with our interests. Thank you for working with us to avoid impacts to the grassland easement identified as 195G-1. I wanted you to be aware there is a grassland easement north (105C) of the the proposed substation see attachments. There is no impact to grassland easement 105C as proposed but wanted to make you aware in case plans change. I am not sure if we provided information on this easement since it was outside of the project area.

Thanks again for coordinating with us, and if you have any questions in regards to the USFWS easements or Waterfowl Production Areas please do not hesitate to contact me.

Natoma

Natoma (Tomi) Hansen
Project Leader
USFWS Madison WMD
605-636-3869 Direct Office Line
605-256-2974 General Office
605-251-8119 Cell

On Wed, Sep 5, 2018 at 4:40 PM, Anne-Marie Griger <Anne-Marie.Griger@res-group.com> wrote:

Hello Natoma, Natalie, Silka, and Leslie,

It has been a while since we have updated you on our proposed transmission line in Deuel County. We have been coordinating with landowners, talking to the county, and completing our permit application to the SD PUC, which we plan to submit in about three weeks. Attached for your review and comment are the proposed substation and transmission line route in both shapefile and KMZ formats.

We have placed the poles as close to road right of way as permitted. You will see that we are planning to span a section of a grassland easement. We will avoid any impacts to the grassland easement. The transmission line structures will generally be steel monopole tangent structures 95-113 feet above ground, and 2.5-3.5 feet in diameter on the ground. These structures will all be directly embedded in the ground for minimal ground disturbance. There will also be a few self-supporting running angle and dead-end structures that will be up to 130 feet tall and up to 10 feet in diameter on the ground. We will not have any guyed structures. We will be marking the transmission line along Fish Lake with bird diverters on overhead shield wires and spaced at a maximum distance of 50 feet to reduce the potential for large bird collisions.

We still have yet to conduct our wetland and cultural resources studies, which will be completed in the next few weeks, so we may make minor shifts to the pole locations. The locations along the route that appeared to be native prairie or have undisturbed soils have been field reviewed, and according to our consultant, WEST, there is robust growth by invasive grasses and forbs; habitats, grasses and forb host plants were not consistent with Poweshiek skipperling or Dakota skipper habitat.

We conducted a raptor nest survey in May 2018. The nearest eagle nest is about 0.8 mile southeast of the proposed route. I can send you the raptor nest survey report as well as the habitat assessment when they are complete.

Please let me know if you have any questions.

Thank you,

Anne-Marie

Anne-Marie Griger, AICP, PMP®
Permitting Manager

D +1 512 617 2894 | C +1 512 213 8501
anne-marie.griger@res-group.com | <http://www.res-group.com>



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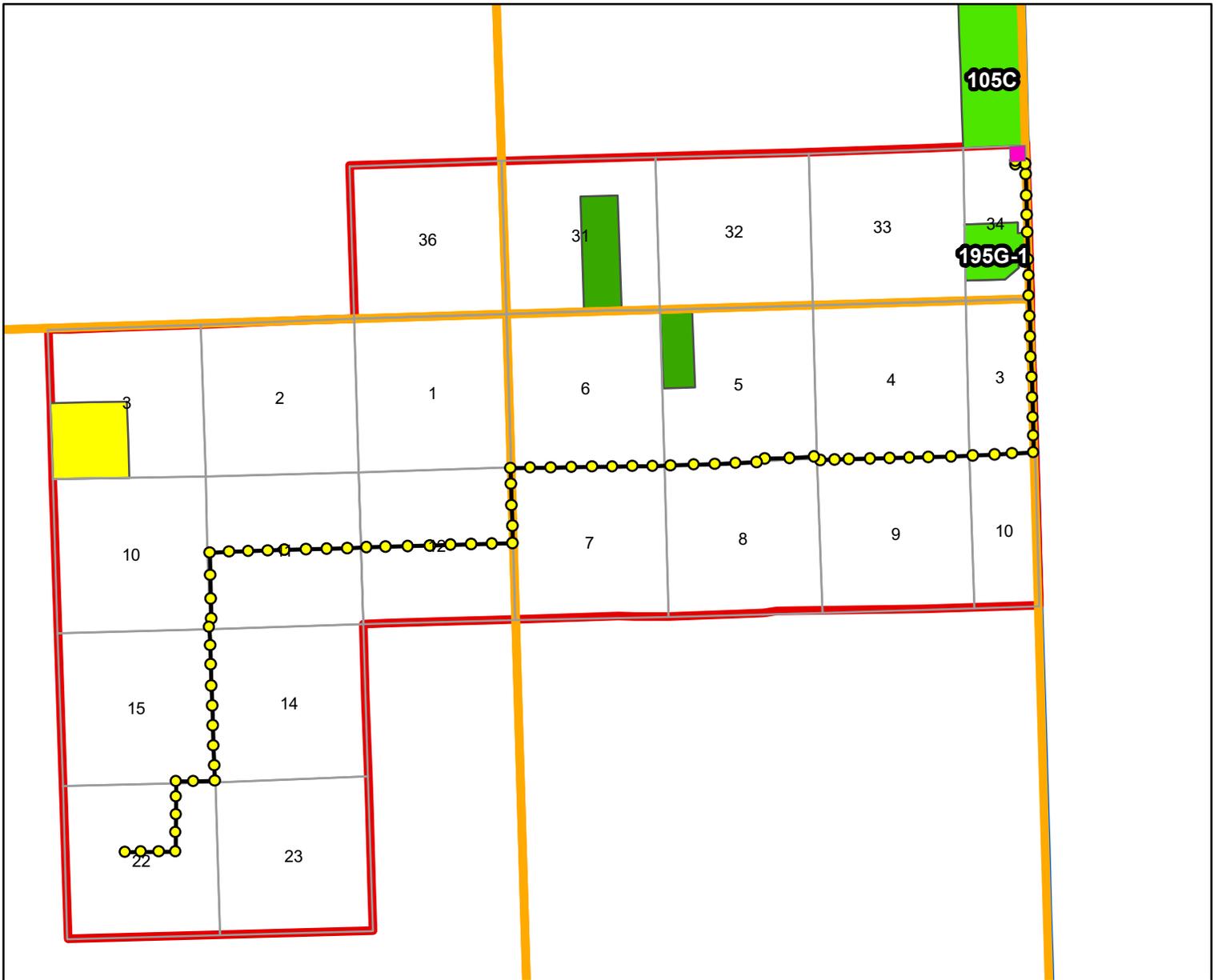
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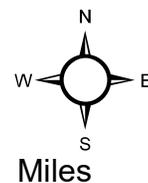
Bitter Root Wind Project

U.S. Fish & Wildlife Service Interests



Legend

-  Bitter Root Wind Project Boundary
-  Proposed Substation
-  Proposed Route Structures
-  Proposed Route
-  Section Boundary
-  Township Boundary
-  USFWS Waterfowl Production Area (WPA)
-  USFWS Wetland Easement
-  USFWS Grassland Easement





Bitter Root Wind Project

U.S. Fish & Wildlife Service Interests



Legend

-  Bitter Root Wind Project Boundary
-  Proposed Substation
-  Proposed Route Structures
-  Proposed Route
-  Section Boundary
-  Township Boundary
-  USFWS Waterfowl Production Area (WPA)
-  USFWS Wetland Easement
-  USFWS Grassland Easement

