

**APPENDIX E**  
**ENDANGERED SPECIES DOCUMENTATION**



## Intra-Service Section 7 Biological Evaluation Form - Region 6

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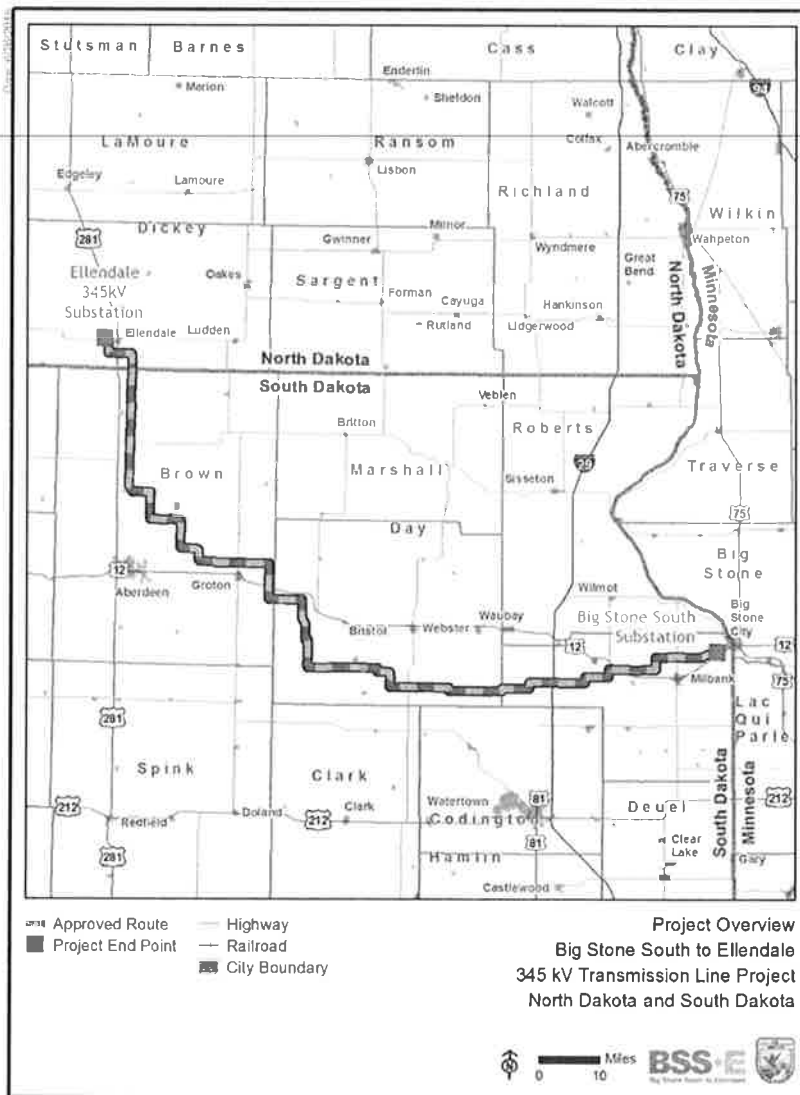
**I. Service Program and Geographic Area or Station Name:**

Waubay WMD, Sand Lake WMD, Kulm WMD

II. **Flexible Funding Program** (e.g. Joint Venture, etc) if applicable:

III. **Location:** Location of the project including County, State and TSR:

The North Dakota portion of the proposed Project route consists of about 9 miles of transmission line and the new Ellendale 345-kV Substation, all located in Dickey County, North Dakota. The South Dakota portion of the proposed Project route consists of 153 miles of transmission line in Brown, Day, and Grant counties, South Dakota.



IV **Species/Critical Habitat:** List federally endangered, threatened, proposed, and candidate species or designated or proposed critical habitat that may occur within the action area.

Eight species listed as federally endangered or threatened in accordance with the Endangered Species Act (ESA), may occur in the counties where the proposed Project is located. These species are listed in Table 3, and include the piping plover, red knot (*Calidris canutus rufa*), Sprague's pipit (*Anthus spragueii*), whooping crane (*Grus Americana*), Topeka shiner (*Notropis Topeka*), Dakota skipper (*Hesperia dacotae*), poweshiek skipperling (*Oarisma Poweshiek*), and the northern long-eared bat (*Myotis septentrionalis*).

**Known Threatened, Endangered and Candidate Species in Proposed Project Area**

Scientific Name	Common Name	Federal Status	Critical Habitat Crossed	Suitable Habitat	Likely to Occur in Proposed Project Area
<b>Birds</b>					
<i>Charadrius melodus</i> <sup>1</sup>	Piping plover	Threatened	No	Typically use alkali wetlands and river courses with broad beaches for nesting. They may also stop at flooded fields, along lake edges, or along wetland shores during migratory periods.	Possible – suitable habitat nearby
<i>Calidris canutus rufa</i> <sup>2</sup>	Red knot	Threatened	No	Noncoastal stopover habitat information is lacking for red knots.	Possible – the species is a full-distance migrant from the coastal southeast U.S. coastal to the Arctic. Presence is likely inconsistent from year-to-year and brief.
<i>Anthus spragueii</i> <sup>3</sup>	Sprague's pipit	Candidate	No	Inhabits well-drained native grasslands with moderate litter depths, few visual obstructions, and little woody vegetation. During migration, it also occurs in stubble and fallow fields.	Possible – suitable habitat present

Scientific Name	Common Name	Federal Status	Critical Habitat Crossed	Suitable Habitat	Likely to Occur in Proposed Project Area
<i>Grus americana</i> <sup>4</sup>	Whooping crane	Endangered	No	Whooping cranes prefer seasonally flooded shallow emergent palustrine wetlands in spring and unconsolidated semi-permanent lacustrine wetlands in the fall for migration stopover habitat. Whooping cranes also prefer unobstructed views, both vertically and horizontally.	Possible – suitable habitat present
<b>Fishes</b>					
<i>Notropis Topeka</i> <sup>5</sup>	Topeka shiner	Endangered	No	Inhabits slow moving, small-to mid-sized prairie streams with sand, gravel, or rubble bottoms. They prefer pool and oxbow areas that are outside main channel courses.	Possible
<b>Insects</b>					
<i>Hesperia dacotae</i> <sup>6</sup>	Dakota skipper	Threatened	No	Prefer native dry mesic to dry prairie where mid-height grasses such as little bluestem, prairie dropseed, and side oats grama are a major component of the vegetation.	Yes – suitable habitat present
<i>Oarisma Poweshiek</i> <sup>7</sup>	Poweshiek skipperling	Endangered	No	Prefer native dry mesic to dry prairie where mid-height grasses such as little bluestem, prairie dropseed, and side oats grama are a major component of the vegetation.	Yes – suitable habitat present

Scientific Name	Common Name	Federal Status	Critical Habitat Crossed	Suitable Habitat	Likely to Occur in Proposed Project Area
<b>Mammals</b>					
<b><i>Myotis septentrionalis</i></b> <sup>8</sup>	Northern long-eared bat	Threatened	No	Hibernates in winter in caves/mines. During the summer roost singly or in colonies underneath bark, in cavities or crevices of live trees & snags. Males and non-reproductive females may also roost in cooler places, like caves/mines.	Unlikely

References: <sup>1</sup>(USSCP 2013), <sup>2</sup>(USFWS 2015b), <sup>3</sup>(BirdLife Int 2015), <sup>4</sup>(USFWS 1990), <sup>5</sup>(MN DNR 2015c), <sup>6</sup>(MN DNR 2015a), <sup>7</sup>(MN DNR 2015d), <sup>8</sup>(MN DNR 2015b)

**Project Description:** Describe proposed project or action or, if referencing other documents, prepare an executive summary (attach additional pages as needed):

The joint Applicants are Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., (Montana-Dakota), and Otter Tail Power Company, (Otter Tail Power). The Applicants propose to construct the Big Stone South to Ellendale Project (Project). The proposed Project will consist of both a 345-kilovolt (kV) transmission line that is about 162 miles long traversing through North Dakota and South Dakota, and the Ellendale 345-kV Substation located near Ellendale, North Dakota. The transmission line will consist of overhead wires supported by steel monopole structures. The construction process will also involve construction of temporary access roads and permanent access roads only where absolutely necessary and construction of 4-5 temporary laydown areas for storage of supplies and equipment during construction. However, no laydown areas will be located on grassland easements or within protected USFWS wetlands in wetlands easements.

The proposed Project ROW will be 150-feet wide and will cross 12 grassland easements and 37 wetland easements. The 12 grassland easements crossed would have impacts from proposed transmission line structures and one permanent access road. Approximately 2,512 square feet (0.058 acres) of grassland easements would be directly permanently impacted by structures. Structure 620 and the permanent access road will result in 0.42 acres of impact to grassland easement. Out of the 37 wetland easements crossed, 32 wetland easements would have proposed transmission line structures on them, but only three structures would be in protected wetlands, resulting in 236 square feet (0.005 acres) of direct permanent impacts. The proposed Project ROW would overhang 5 USFWS wetland easements, but no structures would be installed on the easement parcel.

The new transmission line would be constructed in accordance with recommendations and standards outlined in the Avian Power Line Interaction Committee's (APLIC's) Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 and Mitigating Bird Collisions with Power Lines: The State of the Art in 2012.

Best Management Practices taken from the Environmental Assessment are attached.

## **VI. Determination of Effects:**

**(A) Description of Effects:** Describe the action(s) that may affect the species and critical habitats listed in item IV. Your rationale for the Section 7 determinations made below (B) should be fully described here.

The proposed Project will have no effect upon the gray wolf (*Canis lupus*) as there are no known populations in the proposed Project area.

### **Piping Plover**

There is no known nesting habitat or designated critical habitat near the proposed Project ROW. Piping plovers typically utilize alkali wetlands and river courses with broad beaches for nesting. They may stop at flooded fields, along lake edges, or along wetland shores during migratory periods. The Applicants propose to conduct pre-construction surveys for active nesting piping plovers within the ROW. If active nesting areas are identified during the surveys, the Applicants propose to maintain a 0.5-mile buffer from active piping plover nesting areas. Prudent construction BMPs (see attached) will help to minimize direct and indirect impacts to the piping plover and its associated aquatic beach habitat. The proposed Project may affect, but is not likely to adversely affect the piping plover and its habitat.

### **Red Knot**

Little information is available regarding red knot stopover habitat, and the northern plains of the U.S. is not on the regular migration pathway for this long-distance migratory bird that travels thousands of miles at a time without stopping (USFWS 2015b). Since red knots are a full-migration bird, it is expected that any stopover use of habitat along the proposed Project would be very minimal. Since the presence of this species along the proposed Project would be rare, the length of presence would be short if it were to occur, presence would only be for stopover activities, and because collisions with a transmission line for a small shorebird such as a red knot is unlikely, the proposed Project may affect, but is not likely to adversely affect the red knot and its habitat.

### **Sprague's Pipit**

Overall, no impacts on Sprague's pipit are expected, or if they occur they would be negligible. Most of the land cover within the ROW is actively cultivated land or small parcels of pasture land, and therefore the potential for suitable habitat is low.

No occurrences of Sprague's pipit have been documented within 1 mile of the ROW. However, Sprague's pipit may be present during migration.

Direct effects to Sprague's pipit could occur if transmission line structures or other infrastructure eliminates native prairie habitat or where this habitat type is reduced. Indirect effects would occur if existing native prairie habitats were degraded by the introduction of non-native or invasive species that could degrade or destroy these habitats over time. Pre-construction surveys for grassland birds, such as the Sprague's pipit, will be conducted prior to construction in grassland areas. If active nests are identified, a buffer from active nesting areas will be established to prevent proposed Project construction from disturbing nesting activities. Therefore, the proposed Project may affect, but is not likely to adversely affect the Sprague's pipit and its habitat.

### **Whooping Cranes**

The proposed Project is located on the far eastern side of the 95 percent migration corridor, with about 15 miles of proposed Project route within the 95 percent migration corridor (Cooperative Whooping Crane Tracking Project, 2007). The potential direct effects to whooping cranes include collisions with

transmission lines. According to USFWS, collisions with power lines are the greatest known source of mortality for fledged whooping cranes.

Migrating cranes are most vulnerable to collisions with structures in the early morning or late evening when light levels are diminished, as they fly at very low altitudes between roost and foraging sites, or when flying at low altitude when starting or ending a migration flight, especially when thermal currents are minimal. The primary indirect proposed Project effect is the potential for whooping cranes to avoid the stopover habitat located near the proposed Project.

Loss of migration habitat is a growing concern for the Aransas-Wood Buffalo migratory population. Searching for suitable stopover habitat may cause increased exposure to hazards as birds are required to fly low for longer distances. However, due to the location of the proposed Project near existing roadways and other facilities and the abundance of suitable habitat nearby, the observed loss of suitable habitat is presumed to be low. The increased disturbance within the migration route could also place the cranes at greater risk of exposure to other hazards encountered during migration such as structures, hunters, disease, and predation.

A line marking plan will be part of the proposed Project to mitigate potential impacts to whooping cranes and other migratory birds that may use habitat along the proposed Project. The line marking plan is described in more detail below. A total of almost 42 miles is proposed for marking outside of the 95 percent migration corridor, which exceeds the length of additional marking called for in the USFWS Region 6 Guidelines. Combined with the almost 15 miles proposed to be marked within the 95 percent migration corridor, over 56 miles of the 163 mile long proposed Project will be marked. The proposed Project may affect, but is not likely to adversely affect the whooping crane and its habitat.

### **Topeka Shiner**

The Topeka shiner is a small minnow inhabiting slow moving, small- to mid-sized prairie streams with sand, gravel, or rubble bottoms that are consistent with some of the stream types crossed in Brown County, South Dakota. They prefer pool and oxbow areas that are outside main channel courses. Pools occupied by this species are in contact with groundwater and usually contain vegetation and areas of exposed gravel.

The Topeka shiner has occurred in a branch of the Maple River in South Dakota. The proposed Project will not include the permanent placement of structures in any streams or tributaries, so no permanent impacts to the Topeka shiner or aquatic species habitat are anticipated. Direct impacts to the Topeka shiner will be avoided by spanning appropriate aquatic habitats. Indirect impacts will be minimized by utilizing erosion and sedimentation control measures that reduce or prevent sediment from reaching adjacent waterways.

No work within rivers or streams is proposed for the proposed Project. In addition, soil erosion into streams and rivers will be minimized through the use of erosion and sediment BMPs during construction as discussed in the Environmental Assessment Chapter 5 (see attached). The proposed Project may affect, but is not likely to adversely affect the Topeka shiner and its habitat.

### **Dakota Skipper**

Dakota skippers prefer native dry mesic to dry prairie where mid-height grasses such as little bluestem, prairie dropseed, and side oats grama are a major component of the vegetation. Potential habitat for this species is limited to prairie remnants or wetland areas surrounded by prairie remnants,



particularly on steep slopes. The majority of known sites occur along the Coteau des Prairies at the eastern end of the South Dakota portion of the ROW area.

The direct effect to the Dakota skipper from the proposed Project is possible loss of habitat. Generally, loss of habitat associated with the proposed Project will be limited to permanent impacts at structure installation locations or temporary impacts due to construction activities. The proposed Project has attempted to span suitable Dakota skipper habitat and will limit disturbance in those areas to the extent practicable. Surveys of suitable habitat in 2013, 2014, and 2015 did not identify any Dakota skipper. The proposed Project may affect, but is not likely to adversely affect the Dakota skipper and its habitat.

#### **Poweshiek Skipperling**

Similar to the Dakota skipper, the Poweshiek skipperling prefer native dry mesic to dry prairie where mid-height grasses such as little bluestem, prairie dropseed, and side oats grama are a major component of the vegetation. Potential habitat for the species is limited to prairie remnants or wetland areas surrounded by prairie remnants. The majority of known sites occur along the Coteau des Prairies at the eastern end of the South Dakota portion of the ROW.

The direct effect to the Poweshiek skipperling is possible loss of habitat. The proposed Project has attempted to span suitable Poweshiek skipperling habitat and will limit disturbance in those areas to the extent practicable. Surveys of suitable habitat in 2013, 2014, and 2015 did not identify any Poweshiek skipperling. The proposed Project may affect, but is not likely to adversely affect the Poweshiek skipperling and its habitat.

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#### **Northern Long-eared Bat**

The northern long-eared bat utilizes both live trees and snags for roosting during summer. Minimizing tree clearing was one of the routing criteria that were used for the proposed Project. The proposed Project will require over 2,950 acres of land for ROW easements. Of the 2,900 acres of ROW easement required for the proposed Project, only about 25 acres of trees will be cleared, of which about 2.7 acres of tree clearing will occur on USFWS grassland or wetland easements. Tree clearing will be conducted between November 1 and March 31 to avoid the incidental take of summer roosting northern long-eared bats. The proposed Project may affect, but is not likely to adversely affect the northern long-eared bat and its habitat.

**(B) Determination:** Determine the anticipated effects of the proposed project on species and critical habitats listed in item IV. Check all applicable boxes and list the species (or attach a list) associated with each determination.

**Determination**

*No Effect:* This determination is appropriate when the proposed project will not directly or indirectly affect (neither negatively nor beneficially) individuals of listed/proposed/candidate species or designated/proposed critical habitat of such species. **No concurrence from ESFO required.**

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*May Affect but Not Likely to Adversely Affect:* This determination is appropriate when the proposed project is likely to cause insignificant, discountable, or wholly beneficial effects to individuals of listed species and/or designated critical habitat. **Concurrence from ESFO required.**  
Determination for all 8 listed species.

X

*May Affect and Likely to Adversely Affect:* This determination is appropriate when the proposed project is likely to adversely impact individuals of listed species and/or designated critical habitat. **Formal consultation with ESFO required.**

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~~*May Affect and Likely to Adversely Affect but the proposed action is for the purpose of endangered or threatened species recovery and falls under Region 6's Programmatic Consultation on Service-initiated Recovery Actions:*~~  
This determination is appropriate when adverse effects are likely but the project is designed to assist with recovery of listed species and/or designated critical habitat. **Concurrence from the ESFO that the project is covered by the programmatic consultation is required.**


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*May affect but Not Likely to Jeopardize candidate or proposed species/critical habitat:*  
This determination is appropriate when the proposed project may affect, but is not expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. **Concurrence from ESFO optional.**

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*Likely to Jeopardize candidate or proposed species/critical habitat:*  
This determination is appropriate when the proposed project is reasonably expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. **Conferencing with ESFO required.**

\_\_\_\_\_

Signature   
[Supervisor at originating station]

Date 1-5-16

**Reviewing Ecological Services Office Evaluation (check all that apply):**

A. Concurrence X

Nonconcurrence \_\_\_\_\_

Explanation for nonconcurrence:

B. Formal consultation required  
List species or critical habitat unit \_\_\_\_\_

C. Effects are addressed in the Programmatic Consultation on R6's  
Recovery Program – no further consultation needed \_\_\_\_\_

D. Conference required  
List species or critical habitat unit \_\_\_\_\_

Name of Reviewing ES Office

South Dakota Ecological Services

Signature

Scott Larson

Date  
Jan. 11, 2016



**Reviewing Ecological Services Office Evaluation** (check all that apply):

**A. Concurrence** \_\_\_\_\_

**Nonconcurrence** \_\_\_\_\_

Explanation for nonconcurrence:

**B. Formal consultation required**  
List species or critical habitat unit

\_\_\_\_\_

**C. Effects are addressed in the Programmatic Consultation on R6's  
Recovery Program – no further consultation needed**

\_\_\_\_\_

**D. Conference required**  
List species or critical habitat unit

\_\_\_\_\_

Name of Reviewing ES Office \_\_\_\_\_

Signature

\_\_\_\_\_

Date

\_\_\_\_\_

## Portion of Environmental Assessment Chapter 5

### Vegetation and Wetlands

The Applicants have, and will continue to, work closely with landowners and agencies to minimize impacts to existing vegetation within the proposed ROW. Final structure locations are being designed to minimize impacts to existing vegetation and land use. In particular, the following conservation measures are proposed for USFWS grassland and wetland easements.

- A construction monitoring plan will be developed to monitor the implementation of BMPs during construction.
- All on-site crews will be trained about the importance of staying on defined access routes and within the ROW.
- Aside from Structure 620, no site grading is anticipated. If grading is necessary, the WMD will be notified prior to work.
- Tree clearing activities will be minimized and disturbances will be stabilized as soon as practicable. No stump removal is anticipated as trees will be cut above ground level.
- The transmission line structures will be constructed within protected wetland basins during the winter, to the extent practicable. If summer construction becomes necessary, all fill placed in protected wetland basins for temporary construction access roads must be removed upon tower completion. The WMD will be notified when tower construction is complete and/or fill is removed so a visual inspection may be made of the site. No fill will be placed in protected basins.
- Non-native weeds will be controlled by limiting the number of construction vehicles, washing vehicles, and using weed-free seed and straw.
- All cultivated fields were tested for SCN by the proposed Project and mitigation techniques to minimize the spread of soil during construction have been identified.
- Utilizing a USFWS recommended native seed mix for restoration.

#### 1.1.1 Grassland Easement Replacement

To the extent practicable, and while attempting to minimize impacts to other proposed Project routing criteria (e.g., existing residences, forest, cultural resources, etc.), the proposed Project has minimized the crossing of grasslands and grassland easements. For those grassland easements that could not be avoided, the proposed Project then attempted to minimize the number of transmission structures that will be required to be constructed within grassland easements. In addition, impacts on native vegetation have been minimized, when possible, by spanning habitats of higher quality. Where spanning has not been feasible, impacts on grassland easement vegetation will be mitigated by reestablishing similar native species once construction is complete. Areas disturbed during construction will be reseeded or otherwise stabilized with a native grass and forb mix specified by the USFWS.

The Applicants will work with the USFWS to coordinate the purchase of the replacement acres. The Applicants will provide funding to replace the acres of grassland easement lost through construction of the transmission line structures. Replacement will be acre for acre (for those contracts with less than one acre of loss, a minimum of one acre will be used for replacement of impacts to grassland easements). The Applicants propose to provide 1 acre replacement of grassland easement acreage for the 0.48 acres of direct permanent impacts from the proposed Project in South Dakota.

### **1.1.2 Wetland Easement Replacement**

Minimizing impacts to wetlands and USFWS wetland easements was one of the routing criteria for the proposed Project. Once the route for the proposed Project was approved, the proposed Project attempted to further minimize impacts to wetlands by spanning wetlands to the extent practicable. Permanent impacts on jurisdictional wetlands will be permitted under U.S. Army Corps of Engineers (USACE) jurisdiction. Wetland replacement will occur as required by applicable permits. Temporary impacts will be minimized by utilizing erosion and sedimentation control BMPs that minimize or prevent sediment from reaching adjacent waterways and protect topsoil. The Applicants will use BMPs during construction and operation of the proposed Project to protect topsoil and adjacent wetland resources and to minimize soil erosion. Additional BMPs may be used to limit impacts include the use of tracked equipment, winter construction in wetlands, and matting. Practices may include containing excavated material, protecting exposed soil, stabilizing restored material, and re-vegetating disturbed areas. Areas on wetland easements disturbed during construction will be reseeded or otherwise stabilized with a native seed mix specified by the USFWS.

The Applicants will work with the USFWS to coordinate the purchase of the replacement acres in the appropriate state. The Applicants will provide funding to replace the acres of wetland easement lost through construction of the transmission line structures. Replacement will be acre for acre (for those contracts with less than one acre of loss, a minimum of one acre will be used for replacement for impacts to wetland easements).

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The Project proposes to provide 1 acre replacement of wetland easement acreage for the 0.005 acres of direct permanent impacts from the proposed Project in North Dakota.

## **Wildlife Best Management Practices**

Various BMPs or conservation measures are proposed for the following protected wildlife species.

### **1.1.3 Migratory Birds**

To discourage active nesting within temporary or permanent disturbance areas associated with construction, tree removal, ground clearing, or mowing, these proposed Project activities will occur in late fall to early spring (outside the bird breeding/nesting season). If ROW areas are not cleared in early spring before the breeding season, a survey of the construction areas for active nests of protected species will be conducted. If an active nest is found, a construction buffer around the nest will be established. Restricting construction activities during this time frame (May to August) will allow nesting birds to breed without direct disturbance. In areas where construction activity disturbs non-cropland vegetative cover, the areas will be reseeded or otherwise stabilized to a similar condition as it was before construction or per applicable permit requirements.

### **1.1.4 Raptors and Eagles**

Tree clearing associated with the proposed Project is proposed to occur from November 2015 through February 2016. Residual clearing may need to be performed in the winter of 2016/2017 due to late acquired land rights on limited tracts of land requiring eminent domain actions. Although proposed Project tree clearing will not directly impact known raptor nests, construction activity could indirectly affect nesting activities.

If tree clearing is not finished before December 1st when bald eagles may begin building their nests, the proposed Project Applicants will notify USFWS. Proposed Project biologists and USFWS staff will monitor the eagle nest in vicinity of the proposed Project ROW while tree clearing continues, to ensure that clearing activity does not impact nesting activities. Bald eagles fledge by August 1, after which construction may resume as needed. To minimize impacts on breeding eagles, subsequent field

surveys will occur during the spring leaf-out period (anticipated to be April 2016) to locate any eagle nests that may have been built after the 2015 field surveys. If an active eagle nest is located in the proposed Project Area, the Applicants will follow USFWS guidelines to reduce impacts on breeding eagles, including but not limited to performing seasonal monitoring of known eagle nests along the route.

A transmission line marking plan has been developed to reduce the potential for bird strikes. The plan is consistent with the APLIC recommendations in *Avian Collisions with Power Lines: The State of the Art in 2012* (APLIC, 2012). Additional details on the line marking plan is included in Section 5.4.6.

#### **1.1.5 Piping Plover**

Pre-construction surveys for active nesting piping plovers within the proposed Project ROW will be conducted. If active nesting areas are identified during surveys, a 0.5-mile buffer from active nesting areas will be established to prevent proposed Project construction from disturbing nesting activities.

#### **1.1.6 Red Knot**

Since the presence of this migratory species along the proposed Project is rare, the length of presence would be short if it were to occur (presence would only be for stopover activities), and because collisions with a transmission line for a small shorebird such as a red knot is unlikely, no species specific mitigation is proposed.

#### **1.1.7 Sprague's Pipit**

A pre-construction survey for grassland birds, such as the Sprague's pipit, will be conducted prior to construction in grassland areas. If active nests are identified, a construction buffer from active nesting areas will be established to prevent proposed Project construction from disturbing nesting activities.

#### **1.1.8 Whooping Cranes**

A line marking plan will be part of the proposed Project to mitigate potential impacts to whooping cranes and other migratory birds that may use habitat along the proposed Project. As recommended by USFWS, the line marking plan includes marking sections of the proposed Project within one-mile of potentially suitable stopover habitat within the 95 percent whooping crane migration corridor.

In addition, the USFWS recommends marking an equal length of existing power lines within one-mile of suitable stopover habitat. However, it is not feasible to mark an existing distance of equal line due to the complexities of the proposed Project involving more than one utility owner and the shortage of suitable existing transmission lines within the 95 percent whooping crane migration corridor. In addition, the Applicants have found that the existing transmission lines have not been engineered to support the additional ice and wind loading associated with the line marking devices.

To meet the spirit of the USFWS Region 6 Guidance for line marking for migratory and grassland birds (including prairie grouse) and colonial nesting species, line marking will extend outside of the 95 percent whooping crane migration corridor. Agencies identified wetlands, open water habitats and high quality grasslands as the habitat of species of concern. Thus, line marking is planned at open water crossings (including major rivers), large wetland complexes, and flyways that may connect these types of resources. This will afford protection to species of concern, such as waterfowl, in addition to whooping cranes which may stray into potentially suitable habitat outside the 95 percent migration corridor. A total of almost 42 miles is proposed for marking outside of the 95 percent migration corridor, which exceeds the length of additional marking called for in the Region 6 Guidelines. Combined with the almost 15 miles proposed to be marked within the 95 percent migration corridor, over 56 miles of the 162 mile long proposed Project will be marked.



#### **1.1.9 Topeka Shiner**

No work within rivers or streams is proposed for the Project. In addition, soil erosion into streams and rivers will be minimized through the use of erosion and sediment BMPs during construction as discussed in Sections 5.1 and 5.2. No further mitigation for Topeka shiner is proposed.

#### **1.1.10 Dakota Skipper**

Travel routes to construction sites on Grassland Easements will be minimized to reduce impacts to potential Dakota skipper habitat. The preferred construction time frame is winter to further avoid impact to potential habitat.

The Applicants conducted three consecutive years of surveys and found no Dakota skippers, therefore no further mitigation is proposed.

#### **1.1.11 Poweshiek Skipperling**

Travel routes to construction sites on Grassland Easements will be minimized to reduce impacts to potential Poweshiek skipperling habitat. The preferred construction time frame is winter to further avoid impact to potential habitat.

The Applicants conducted three consecutive years of surveys and found no Poweshiek skipperlings, therefore no further mitigation is proposed.

#### **1.1.12 Northern Long-eared Bat**

Tree clearing will be minimized to the extent possible and conducted between November 1 and March 31 to avoid the incidental take of summer roosting northern long-eared bats.

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# References

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