Sweetland Wind Farm Project

Final Supplemental Environmental Assessment

Hand County, South Dakota





Western Area Power Administration

United States Fish and Wildlife Service

DOE/EA-2095-S1 November 2022

Prepared for:

U.S. Department of Energy Upper Great Plains Regional Office PO Box 35800 Billings, MT 59107-5800 Phone: 406-255-2800

United States Fish and Wildlife Service Western South Dakota WMD Complex Huron Wetland Management District 20721 392nd Ave Wolsey, SD 57384

Prepared by:

Burns & McDonnell Engineering Company, Inc. 9400 Ward Parkway Kansas City, MO 641140 Phone: 816-333-9400

Project Applicant:

Sweetland Wind Farm, LLC 5775 Flatiron Parkway, Suite 120 Boulder, Colorado 80301 Phone: 720-592-0507



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List of Abbreviations

Abbreviation	Term/Phrase/Name
2021 EA	2021 Sweetland Wind Farm Project Final Environmental Assessment
APE	Area of Potential Effect
BMP	best management practice
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
FONSI	Finding of No Significant Impact
gen-tie	generation- tie transmission line
kV	kilovolt
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NESC	National Electrical Safety Policy
NRHP	National Register of Historic Places
PBA	Programmatic Biological Assessment
PEIS	Programmatic Environmental Impact Statement
Project	Sweetland Wind Farm Project
SEA	Supplemental Environmental Assessment
SHPO	State Historic Preservation Office
Sweetland	Sweetland Wind Farm, LLC
ТСР	traditional cultural property
ТНРО	Tribal Historic Preservation Office
USFWS	U.S. Fish and Wildlife Service
Easements	Hand County Waterfowl Habitat Protection Area
WAPA	Western Area Power Administration

1.0 INTRODUCTION

The Sweetland Wind Farm Project (Project) is a 200-megawatt proposed project, located southeast of the City of Miller in Hand County, South Dakota (Figure 1-1). The Western Area Power Administration (WAPA) prepared the Sweetland Wind Farm Project Final Environmental Assessment (DOE/EA-2095) (referred to hereinafter as the "2021 EA") and signed a Finding of No Significant Impact (FONSI) on September 24, 2021. The 2021 EA and FONSI are available online at the following website: https://www.wapa.gov/regions/UGP/Environment/Pages/SweetlandWind.aspx. The 2021 EA tiered off the analysis conducted in the Upper Great Plains' Wind Energy Final Programmatic Environmental Impact Statement (PEIS), a document prepared jointly by WAPA and the U.S. Fish and Wildlife Service (USFWS) (WAPA and USFWS, 2015a).

Following the completion of the 2021 EA, Sweetland Wind Farm, LLC (Sweetland) proposed to redesign a portion of the approximately 7-mile-long, 230-kilovolt (kV) transmission line (gen-tie) outside of the area previously analyzed in the 2021 EA. WAPA has prepared this Supplemental Environmental Assessment (SEA) to analyze potential impacts of the newly proposed gen-tie line route which were not previously analyzed in the 2021 EA. For the purposes of this SEA, "gen-tie line" refers only to the approximately 1.5-mile-long segment of the 230-kV gen-tie line proposed for redesign. The 2021 EA had analyzed the gen-tie line segment on the south side of WAPA's existing Fort Thompson to Huron 230-kv transmission line, which would require crossing over WAPA's existing line twice. As proposed in this SEA, the segment would instead parallel the north side of WAPA's existing Fort Thompson to Huron 230-kV line and across a 0.6-mile portion of the USFWS Hand County Waterfowl Habitat Protection (referred to hereinafter as the USFWS Easements). The USFWS will serve as a Cooperating Agency in the preparation of this SEA, due to their jurisdiction by law regarding the USFWS Easements.

The goal of the proposed redesign is to avoid crossing the existing WAPA transmission line. There are substantial benefits to be gained by removing this line crossing from the Project design. Grid reliability and worker safety are improved by avoiding line crossings whenever possible. When the upper line at the point where two lines cross is damaged and falls on the lower line crossing under it, both lines are deenergized until the necessary repairs are completed. Therefore, avoiding the WAPA 230-kV transmission line crossing would minimize potential outages that could occur during one of these damaging events.

In addition to reliability concerns, the presence of line crossings adds another layer of risk to maintenance workers when performing maintenance and repair to either line. Transmission line crossings also increase both visual electrical safety hazards and unseen induction hazards of high-voltage transmission lines. WAPA and the USFWS have prepared this SEA pursuant to regulations implementing the National Environmental Policy Act (NEPA), to assess the potential impacts of the proposal on the environment.

1.1 Purpose and Need for Agency Action

1.1.1 WAPA Decision

WAPA's purpose and need for action remains as described in the 2021 EA: WAPA must consider and respond to Sweetland's interconnection request.

1.1.2 USFWS Decision

The USFWS must consider whether to deny or support the issuance of a USFWS Right-of-Way permit for the temporary construction disturbance and installation of three wooden H-frame transmission line structures (each structure includes two 14" poles, for a total of 6 poles in the ground) with less than 0.01 acres of permanent impact to a USFWS Easements.

1.2 Supplemental Environmental Analysis Scope

The scope of this SEA is to identify changes to the Proposed Action since the publication of the 2021 EA and to analyze additional potential environmental effects of the modified Proposed Action. Environmental effects analyzed in the 2021 EA that have not changed are incorporated into the analysis by reference and will not be discussed further in this SEA.

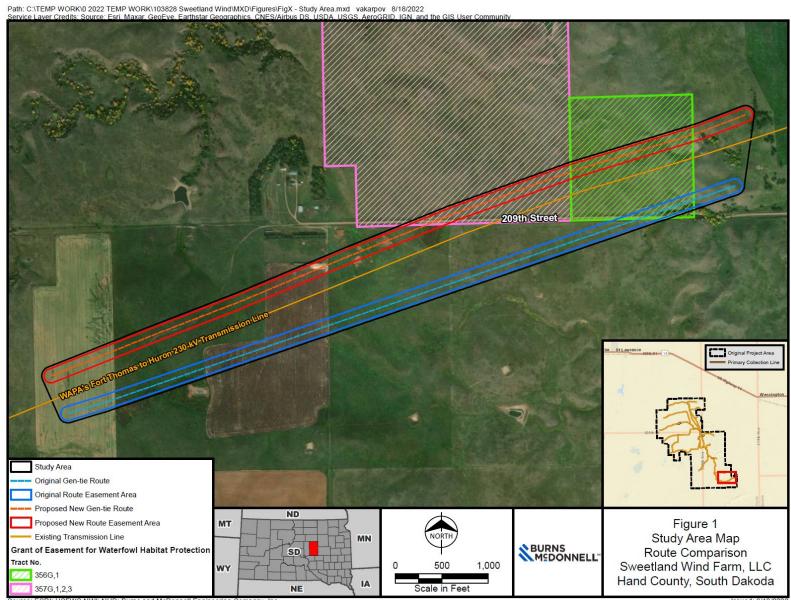
The change to the original Proposed Action in the 2021 EA is the relocation of the 1.5-mile-long segment of the 230-kV gen-tie line, which is described in more detail in Chapter 2. The scope of the SEA focuses on the construction, operation, and decommissioning activities and environmental impacts associated with the new Proposed Action within the approximately 150-acre study area that contains both the original and the new gentie alignments and the existing WAPA Fort Thompson to Huron 230-kV transmission line (Figure 1-1).

1.3 Public Involvement

WAPA and the USFWS published the draft SEA for public review and comment.

Government officials (Federal, State, local, and tribal), members of the general public, and other stakeholders that were contacted for the preparation and completion of the 2021 EA were contacted and invited to provide feedback on the modified Proposed Action. In addition to individual letters to interested parties, the SEA was made available online for public viewing and notices were published in the local newspaper to invite public review and comment. WAPA and the USFWS received comments from 14 entities or individuals. A complete register of comments and responses can be found in Appendix A.

Figure 1-1: Study Area



Source: ESRI; USFWS NWI; NHD; Burns and McDonnell Engineering Company, Inc.

Issued: 8/18/2022

2.0 DESCRIPTION OF PROPOSED ACTION AND NO ACTION ALTERNATIVE

This chapter describes the changes to the Project design since the 2021 EA (Proposed Action – Modified Design Alternative) and the No Action Alternative (2021 EA Design Alternative).

2.1 Proposed Action (Modified Design Alternative)

The proposed 230-kV gen-tie line would parallel the north side of WAPA's existing 230-kV transmission line along a 1.5-mile-long portion of the route. This gen-tie route adjustment would avoid additional and potentially hazardous transmission line crossings and improve the overall reliability and safety of the proposed Project. With this adjustment, the gen-tie route would cross approximately 0.6 mile of USFWS Easements. The gen-tie easement would be 150 feet wide and would encompass approximately 10.4 acres within the USFWS Easements (Figure 2-1). This span would require the installation of three wooden H-frame transmission line structures (each structure includes two poles, for a total of 6 poles in the ground) within the USFWS Easements area.

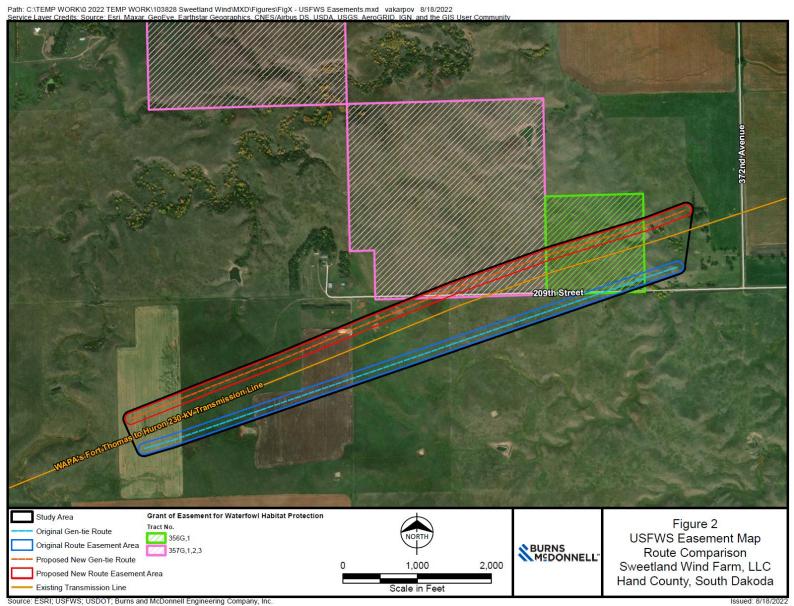
The dimensions of the gen-tie itself would remain the same as proposed in the 2021 EA. That is, the line would be a single-circuit powerline with two-pole wooden H-frame structures with a height of approximately 75 feet. The diameter of each pole is roughly 14 inches as shown in Table 2-1. Fiber optic cable would also be mounted on the structures. The gen-tie line would be marked with bird diverters with high wind resistance that are visible at a distance and adhere to Avian Power Line Interaction Committee 2012 recommendations. The markers would be maintained for the life of the Project.

During construction, a 50-foot-wide temporary easement would be required in addition to the 150-foot-wide permanent easement. Construction of each transmission structure would disturb an approximately 150- by 150-foot area. These areas would be contained within the permanent transmission line easement area. Sweetland estimates that two pull sites may be necessary to string the conductor for this new gen-tie alignment. This impact is the same as that which was evaluated under the 2021 EA. After construction, Sweetland would retain a 150-foot-wide easement but intends to restore the easement area to preconstruction land use. As part of the operations plan for the Project the gen-tie line will be inspected on an annual basis, or more frequently if an icing or other severe weather event occurs. In the event there is degradation to the bird diverters they would be replaced in accordance with Section 2.1.6 of the 2021 EA. Table 2-1 summarizes the anticipated impacts of the proposed new gen-tie alignment.

Project Component	Assumptions	Construction and Decommissioning Footprint (Temporary) Dimensions	Construction and Decommissioning Footprint (Temporary) Total Acreage	Operational Footprint (Long-Term) Dimensions	Operational Footprint (Long-Term) Total Acreage
Gen-tie line easement	Up to 1.5 miles long (0.6 miles of which is in the UWFWS Easements)	200 feet wide	36.4 acres	150-foot-wide corridor	27.9 acres (10.4 acres of which is in the USFWS Easements)
Gen-tie line structures footprint	11 structures, spaced every 600 feet and 2 poles per structure (Three of the Structures are within theUSFWS Easements)	150 by 150 feet	Within gen-tie line easement	14-inch radius poles	<0.1 acre
	ect Total: Decommissioning		36.4 acres		27.9 acres

Table 2-1: Summary of Impacted Area for Proposed New Gen-Tie Alignment

Figure 2-1: USFWS Easements



2.2 No Action (2021 EA Design Alternative)

Under the No Action Alternative, the gen-tie line would not be redesigned. Construction and operation of the gen-tie line would occur as described in the 2021 EA. The gen-tie line would cross WAPA's existing Fort Thompson to Huron 230-kV transmission line. The gen-tie line in the study area would span approximately 1.4 miles and would require an operational footprint of approximately 26.5 acres. Following construction, areas within the easement not maintained or not occupied by a transmission line structure would be returned to pre-construction land uses.

The reliability and safety concerns that prompted the gen-tie redesign would remain and no impact to the USFWS Easements would take place.

2.3 Comparison of Alternatives

This section provides a summary (Table 2-2) of the environment effects that could result from implementation of the Proposed Action (Modified Design Alternative) and how those effects are expected to differ from the impacts of the 2021 EA Design (the No Action Alternative in this SEA).

Resource Area	Scope of Potential Impacts			
Wetlands	Project construction would temporarily impact up to three wetlands totaling up to 0.5 acre within the proposed new gen-tie line easement corridor. There would be no permanent impacts to wetlands under either the Proposed Action or No Action Alternative.			
Vegetation	A slightly larger vegetated area would be affected within the new gen-tie easement than the 2021 easement area. However, the total number of transmission structures on this segment of the gen-tie would be the same (11) under both route options and the vegetation types are the same as previously analyzed. There would be three structures in the USFWS Easements area under this proposed new alignment while there were none under the 2021 alignment.			
Threatened and Endangered Species	No change in Effects determinations and re-initiated consultation with USFWS is not expected.			
Cultural Resources	Impacts are further disclosed under Environmental Consequences.			
Land Use	The impacts to the USFWS Easements are discussed in Section 3.2: Vegetation and Easement Areas			
Visual Resources	The new gen-tie route would be closer to a residence but is still approximately 925 feet away; therefore, impacts would be within the scope of impacts previously analyzed in the 2021 EA.			
Health and Safety	The new proposed gen-tie alignment will improve both safety and reliability by eliminating two crossings of the existing WAPA transmission line.			
Geology, Soil, Paleontology	The changes to the Proposed Action would not result in any additional or			
Water Quality, Floodplains	different impacts beyond those previously analyzed in the 2021 EA.			
Air Quality				

Table 2-2: Summary of Resources Initially Screened for Impact Analysis

Noise]
Noxious Weeds	
Soils	The changes to the Proposed Action would not result in any additional or
Wildlife	different impacts beyond those previously analyzed in the 2021 EA.
Socioeconomics	
Environmental Justice	

In summary, the resource areas that may be affected by the current Proposed Action in a way that is different than the impacts disclosed in the 2021 EA are as follows:

- Wetlands,
- Vegetation,
- Threatened and endangered species,
- Cultural resources,
- Land Use (described under Vegetation and easement areas),
- Visual resources (not discussed further due to negligible changes), and
- Health and Safety.

Sections 3.1 through 3.4 address these resources further. Section 3.5 addresses any changes to the Project's cumulative effects to these resources.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The following sections describe the affected resources within the study area and the anticipated impacts of both the Proposed Action and the No Action alternatives.

3.1 Water and Wetland Resources

3.1.1 Affected Environment

Both the original and the new gen-tie alignments are located within the Middle James River watershed, which is part of the Missouri River Basin surface water drainage system. There are no intermittent streams or perennial streams within the study area or within either gen-tie easement area.

Wetlands and streams were identified using desktop evaluations within a 75-foot buffer (150-footwide easement) of both the original and the current gen-tie alignment. The desktop evaluation used USFWS National Wetlands Inventory data along with soils data, topographic information, and multiple years of aerial imagery. These sources generally identify all areas that are likely to exhibit wetland characteristics. For a further description of the study area and methodology for the wetland delineation conducted, please reference the full Wetland Delineation Report completed for the 2021 EA (Appendix B of the 2021 EA).

Table 3-1 summarizes the types and proportions of wetlands identified within the study area and buffers as shown in Figure 3-1.

Classification	Study Area		Proposed New Gen-tie Easement		No Action Alternative (Original Gen-tie Easement)	
Classification	Acreage	Percent	Acreage	Percent of New Easement	Acreage	Percent of Original Easement
Freshwater Emergent Wetland (PEM)	3.4	2.2	0.5	1.6	0.7	2.6
Freshwater pond	0.5	0.4	0.0	0.0	0.0	0.0
Uplands (UPL)	146.5	97.4	27.5	98.4	25.9	97.4
Total ^a	150.4	100.0	27.9	100.0	26.5	100.0

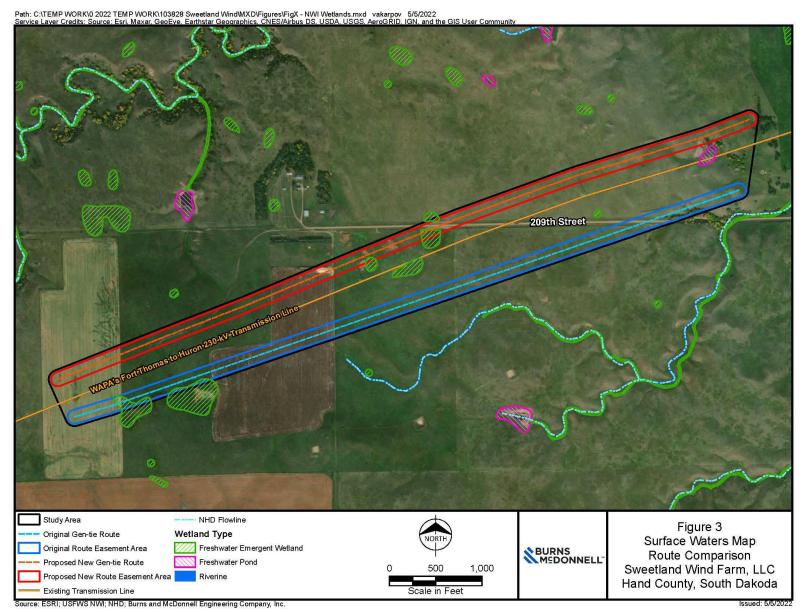
Table 3-1: Water Resources in Project Study Area

Source: National Wetlands Inventory, 2022

(a) Totals may not match sum of addends due to rounding.



Figure 3-1: Surface Waters



3.1.2 Environmental Consequences: Proposed Action

The following environmental protection commitments would be implemented. These are the same as those in the 2021 EA.

- A Spill Prevention, Control and Countermeasure Plan would be prepared for the Project in case of accidental release of construction related chemicals, fuels, or hydraulic fluid. The plan would include best management practices (BMPs) to minimize potential impacts on groundwater. BMPs for spill-related effects include storing fuels within secondary containment devices, checking vehicles and equipment for leaks, performing refueling and equipment maintenance away from wells, maintaining a spill response kit, and appropriate reporting protocols for any spills.
- Apply standard erosion control BMPs to all construction activities and disturbed areas (e.g., sediment traps, water barriers, erosion control matting), as applicable, to minimize erosion and protect water quality.
- Apply erosion controls relative to possible soil erosion from vehicular traffic.
- Limit herbicide and pesticide use to nonpersistent, immobile compounds and apply them using a properly licensed applicator in accordance with label requirements.
- Dispose of excess excavation materials in approved areas to control erosion and minimize leaching of hazardous materials.
- Re-establish the original grade and drainage pattern to the extent practicable.

Project components such as the gen-tie line structures have been located generally in upland areas, avoiding low-lying wetlands. Project construction would temporarily impact up to three wetlands totaling up to 0.5 acre within the proposed new gen-tie line easement corridor. In compliance with Section 404 of the Clean Water Act, these construction impacts to jurisdictional wetlands would be authorized under U.S. Army Corps of Engineers' Nationwide Permit 57, without a pre-construction notification. Sweetland would adhere to all Nationwide Permit 57 conditions.

Once construction is completed, disturbed areas (except cropland) would be revegetated to avoid erosion to surface water resources during Project operation. Herbicides used to control noxious weeds and vegetation growth around transmission line towers and access roads could also degrade water quality in nearby surface water bodies and shallow aquifers.

Because the transmission structures will be located within upland areas and would span the wetlands, permanent operational impacts to wetlands within the study area are not anticipated. Some minor temporary impacts could occur during annual inspections of the line. These inspections would take place

with the use of lower ground pressure vehicles (e.g., All-Terrain Vehicles) and travel through wetlands will be minimized to the extent practicable.

Decommissioning impacts would be similar to those occurring during construction.

3.1.3 Environmental Consequences: No Action Alternative

Under the No Action Alternative, the impacts to water resources would be the same as those described for the Proposed Action in the 2021 EA.

3.2 Vegetation and Easement Areas

3.2.1 Affected Environment

The dominant land cover types in the Project study area are herbaceous/grassland and hay/pasture. About 0.5 percent of the Project study area is emergent herbaceous wetlands. A limited number of trees occur in the Project study area, primarily around residences and in shelterbelts and coulees, and include eastern red cedar and Russian olive. Land cover types within the Project study area are summarized in Table 3-2 and shown on Figure 3-2.

Land Cover Type	Study Area		Proposed New Gen-tie Easement		No Action Alternative (original gen-tie Easement)	
	Acreage	Percent	Acreage	Percent of New Easement	Acreage	Percent of Original Easement
Herbaceous/Grassland	103.9	69.1	19.7	70.5	17.8	67.0
Hay/Pasture	39.6	26.4	7.3	26.1	7.1	26.8
Developed, Open Space	6.2	4.1	0.9	3.3	1.2	4.5
Emergent Herbaceous Wetlands	0.7	0.5	0.0	0.0	0.4	1.7
Total ^a	150.4	100.00	27.9	100.0	26.5	100.0

Table 3-2: Land Cover Types

Source: National Land Cover Database 2011 classification system (MRLC, 2011; Homer et al., 2015) (a) Totals may not match sum of addends due to rounding.

Easement Areas

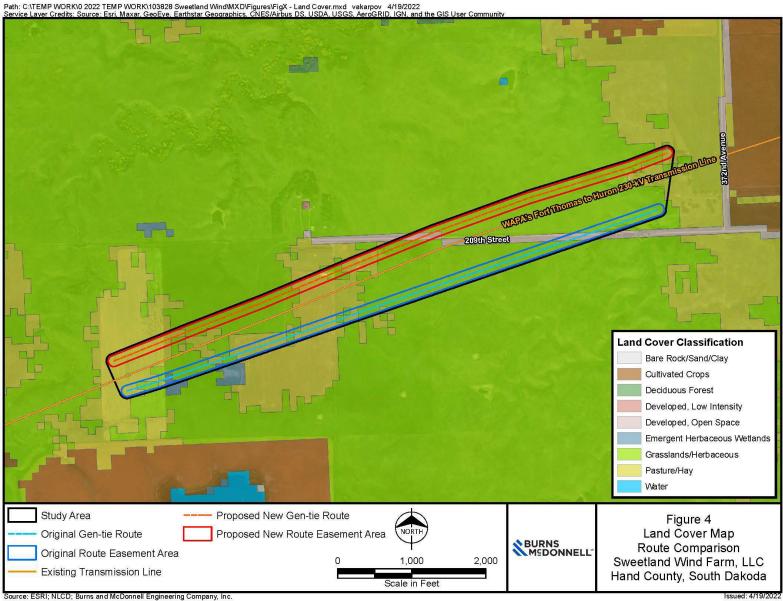
The USFWS Easements parcels are shown on Figure 2-1. USFWS Easements are part of the National Wildlife Refuge System and are managed for the protection of wildlife and waterfowl habitat. Table 3-3 summarizes USFWS Easements within the Project study area. The original gen-tie alignment spanned the USFWS Easements and had no structures within the easement area. The new proposed gen-tie alignment has a substantially greater gen-tie easement area within the

USFWS Easements (10.4 acres versus 2.1 acres) and would have three structures (six poles) placed within the USFWS Easements.

USFWS Easements	Study Area		Proposed New Gen-tie Easement		No Action Alternative (original gen-tie Easement)	
oor wo Lasements	Acreage	Percent	Acreage	Percent of New Easement	Acreage	Percent of Original Easement
Grant of Easement for Waterfowl Habitat Protection (Tract No. 357G, 1, 2, 3)	13.7	9.1	5.7	20.3	0	0.0
Grant of Easement for Waterfowl Habitat Protection (Tract No. 356G, 1)	24.4	16.2	4.7	17.0	2.1	8.1
Total	38.1	25.3	10.4	37.3	2.1	8.1

Table 3-3: Areas of USFWS Easements within Gen-tie Easement Area

Figure 3-2: Land Cover



Grasslands

A grassland habitat assessment was provided as Appendix E of the 2021 EA. Refer to this document for details regarding the assessment methodology and results. Potentially undisturbed grasslands (i.e., grasslands that have not previously been tilled) were initially identified based on publicly available digital data (Bauman et al., 2013) and recent aerial photography. The assessment rated the quality of grasslands as Excellent, Above Average, Average, Fair, or Poor. Excellent grasslands were undisturbed native grasslands that both showed no evidence of previous tilling and were dominated entirely by native tallgrass species. There were no Excellent grasslands documented in the study area. Above Average grasslands with non-native grassland species (such as smooth brome) prevalent but native grasses still commonly occurring. There were no Above Average grasslands documented in the study area. The remaining grasslands in the study area were rated as Average (dominated by introduced grasses with infrequent native grasses), Fair (dominated by introduced grasses with no native grasses present), or Poor (hayfields). No undisturbed native grasslands were documented in the study area.

3.2.2 Environmental Consequences: Proposed Action

The following environmental commitments would be implemented. These are the same as those in the 2021 EA.

- Reduce habitat disturbance by keeping vehicles on access roads and minimizing foot and vehicle traffic through undisturbed areas.
- Installation of three wooden H-frame transmission line structures on USFWS Easements should occur outside the primary nesting season of migratory birds. Installation should occur during the months August through March.
- Initiate habitat restoration of disturbed soils and vegetation as soon as possible after construction
 activities are completed. Restore areas of disturbed soil using weed-free native grasses, forbs, and
 shrubs, in consultation with land managers and appropriate agencies such as State or County
 extension offices or weed boards.
- Develop restoration plans to verify all temporary use areas are restored.
- Develop a plan for control of noxious weeds and invasive plants that could occur as a result of new surface disturbance activities at the site. The plan shall address monitoring, weed identification, the way weeds spread, and methods for treating infestations. Require the use of certified weed-free mulching.
- Vehicles shall be washed outside of active agricultural areas and USFWS Easements to limit the possibility of the spread of noxious weeds.

- Annually monitor access roads and newly established utility and transmission line corridors for the establishment of invasive species. Initiate weed control measures immediately upon evidence of the introduction or establishment of invasive species.
- Do not use fill materials that originate from areas with known invasive vegetation problems.

Construction of the proposed new gen-tie would temporarily disturb up to 27.9 acres of vegetation, of which 7.1 acres would be agricultural land (hay/pasture) and 20.8 acres would be non-agricultural land (19.7 acres herbaceous/grassland and 0.9 acre developed open land). Project construction would result in a temporary (one growing season) loss of crop production and pasture grasses. Impacts to non-agricultural land, such as trampling, crushing, and soil compaction, would occur to 19.7 acres of grasslands rated as Average quality or below and 0.9 acre of developed open space. The grassland types are dominated by introduced species, affected by grazing impacts, and/or experiencing effects of invasive species such as noxious weeds or woody vegetation. The gen-tie line route does not cross any forest acres. However, isolated trees and shrubs may need to be cleared as part of construction, particularly to allow safe operation of the gen-tie line. Tree and shrub removal would occur under the gen-tie line, as required by the National Electrical Safety Code (NESC). There is the potential for noxious weeds to be introduced through construction, operation, and maintenance activities. The impact of these will be minimized through the implementation of the required Noxious Weed and Invasive Species Management Plan.

Following construction, the 27.9 acres would be returned to pre-construction land uses, primarily hay and pastureland, and 0.1 acre would be permanently maintained for O&M use. Operations and maintenance activities would include minor tree or shrub pruning near or below the gen-tie line and pole structures as required by NESC national industry standards. Regular vegetation maintenance would occur along the gen-tie line to remove woody plant species that could grow to a height that could affect the overhead electrical conductor throughout the lifetime of the gen-tie line.

The Project study area contains a total of 38.1 acres of USFWS Easements. The new gen-tie line corridor contains a total of 10.4 acres of USFWS Easements. Within this approximately 0.6- mile span within USWFS Easements, three transmission line structures (since this is a wooden H frame structure, this includes a total of 6 poles) would be placed. Temporary impacts associated with construction would span the entirety of the corridor and would likely result in temporary compaction and trampling of vegetation, as well as potential for spread of noxious and invasive weeds.

Construction and routine O&M activities have the potential to result in the spread of noxious weed species from construction equipment introducing seeds into new areas. The USFWS Easements

through which the new gen-tie passes could be considered more sensitive than areas not under protective easements. Implementation of environmental commitments would reduce the potential for the introduction of noxious weeds.

Construction of the Project would remove vegetation at each of the 11 transmission line structure locations (three of which are within the USFWS Easements), but areas of the gen-tie corridor spanned by the conductor would return to prior land usage. However, Project operation would have long- term impacts, such vegetation management activities, mowing, and occasional trampling by All-Terrain Vehicles during inspection activities

The facility would be decommissioned at the end of the Project's operating life. At that time, gen-tie line structures would be removed in accordance with the wind lease, applicable State regulations, and county agreements, unless otherwise agreed to by the landowner. Disturbed surfaces would be graded, reseeded, and restored as closely as possible to the pre-construction conditions. Impacts from decommissioning would be similar to those for construction.

3.2.3 Environmental Consequences: No Action Alternative

Under the No Action Alternative, the impacts to vegetation would be the same as those described for the Proposed Action in the 2021 EA. The original proposed gen-tie line evaluated in the 2021 EA would temporarily disturb up to 26.5 acres of vegetation, of which 7.1 acres would be agricultural land and 19.4 acres would be non-agricultural land (17.8 acres herbaceous/grassland, 1.2 acres developed open land, and 0.4-acre emergent wetlands). No direct impacts to USFWS Easements would occur because the gen-tie line would span over those parcels.

3.3 Threatened and Endangered Species

3.3.1 Affected Environment

According to a review of the USFWS Information for Planning and Consultation website, three federally listed species protected under the Endangered Species Act have the potential to occur in the study area (Table 3-4). No critical habitat has been designated for these species within the study area.



Species	Federal Status	Potential to Occur		
Northern long-eared bat	Threatened*	Potential seasonal migrant; unlikely to occur due to a lack of habitat within the study area		
Rufa red knot	Threatened	Typically, a coastal species, unlikely to occur due to a lack of stopover habitat within the study area		
Whooping crane	Endangered	Study area is within the migration corridor; potential seasonal migrant		

Table 3-4: Federally Listed Terrestrial Species Potentially Occurring in Study Area

*The USFWS is proposing to reclassify the northern long-eared bat from Threatened to Endangered under the Endangered Species Act. A finalized rule is expected by the end of November 2022. Source: USFWS, 2022a

Northern Long-Eared Bat

The northern long-eared bat is a forest bat species that roosts alone or in colonies under bark, cavities, or crevices in living or dead trees. The study area is on the western fringe of the estimated range for the northern long-eared bat (Bat Conservation International, Inc., 2018).

Sweetland conducted site-specific acoustic presence/absence surveys for the northern long-eared bat (Appendix J of the 2021 EA) according to USFWS protocol guidelines (USFWS, 2018). No potential northern long- eared bat calls were identified; therefore, no qualitative review was necessary, and no follow-up mist-net or telemetry surveys were performed. The acoustic survey results show probable absence of northern long-eared bat within the study area during the summer, but the species may pass through the study area as a seasonal migrant. There are no Natural Heritage Information System records of northern long-eared bat hibernacula within the vicinity of the Project study area; the nearest publicly available northern long-eared bat hibernaculum is in eastern Stearns County, Minnesota, more than 200 miles east (Minnesota Department of Natural Resources/USFWS, 2018).

Rufa Red Knot

The Project study area contains no suitable breeding or foraging habitat for the rufa red knot, which is a rare transient in inland parts of its range. In North America, red knots are commonly found along sandy, gravel, or cobble beaches, tidal mudflats, salt marshes, shallow coastal impoundments and lagoons, and peat banks (USFWS, 2022b). Depending on the year, the nearest potential suitable stopover habitat for the species is the Missouri River located 40 miles west of the study area. No rufa red knots were observed during baseline avian surveys conducted for the Project as described in the 2021 EA.

Whooping Crane

Whooping crane migration occurs in a corridor between the Texas gulf coast to Canada's northwest territories, during which the whooping crane is susceptible to mortality from manmade structures. The Project study area is located in bands where 90 to 95 percent of migratory whooping crane observations have occurred (WAPA and USFWS, 2015b). The more recent study by Pearse et al. [2018] indicated the Project area is located in the 75 percent migration corridor. According to the Cooperative Whooping Crane Tracking Project (USFWS, 2017), no observations of whooping cranes have occurred within the Project area and the nearest historical sighting to the study area occurred approximately 4 miles east (see 2021 EA).

3.3.2 Environmental Consequences: Proposed Action

In addition to the environmental commitments for water resources (Section 3.1) and vegetation (Section 3.2), the following species-specific environmental commitments would be implemented:

- Place approved bird flight diverters on the top static wire on any new or upgraded overhead distribution and transmission lines within one mile of suitable stopover habitat and maintain diverters through the life of the Project.
- Sweetland utilized the Programmatic Biological Assessment (PBA), described below, which contains the requirement to site transmission lines at least 1 mile from wetlands that provide suitable stopover habitat (the Avoidance measure) but when not possible, bird flight diverters should be placed on the top of the static wire of any new or upgraded t-lines within 1 mile of suitable stopover habitat (the Minimization measure). Sweetland committed to all the applicable BMPs necessary to utilize the Species Consistency Forms and the USFWS-Ecological Services concurred with the determination of may affect, not likely to adversely affect to the whooping crane.

As a companion to the PEIS, WAPA and the USFWS jointly prepared a PBA. For EAs that tier off of the PEIS, projects can utilize the streamlined consultation in the PBA by committing to the appropriate avoidance and minimization measures, as documented in species- specific consistency evaluation forms. The 2021 EA and this SEA tier off the PEIS, Sweetland remains committed to implementing the appropriate avoidance and minimization measures, and the final species consistency evaluation forms are provided in Appendix L of the 2021 EA.

Northern Long-eared Bat

Operation of the Project could impact the northern long-eared bat because there is potential for collisions with the gen-tie conductor and structures if the bat passes through the area during migration. These collisions could result in injury or fatality. However, the probable absence of the northern long-eared bats in the study area indicates a low collision risk. The Project site is more than 35 miles from the Missouri River, and the likelihood of hibernacula or suitable habitat decreases with distance from rivers. The nearest known hibernaculum is approximately 200 miles away and very few trees are slated for removal as part of the Proposed Action. Thus, there is a discountable risk of roost removal or disturbance to individuals during construction. No additional impacts would result from construction, maintenance, or decommissioning of the Project. The Project would immediately report detections of northern long-eared bat injury or mortality to the appropriate USFWS office. Therefore, WAPA has determined the Project may affect, but is not likely to adversely affect northern long-eared bat. There are no differences relevant to Northern Long-eared Bat between the proposed new gen-tie alignment and the original alignment. Therefore, the effect determination remains the same.

Rufa Red Knot

No suitable habitat for rufa red knot is in the Project vicinity. Transient individuals are not expected to occur in the Project study area because there are no known detection records in Hand County. Therefore, there is no anticipated risk of exposure to collision mortality, disruption, displacement, or habitat loss.

Therefore, WAPA determined the Project will have no effect to the rufa red knot. There are no differences relevant to rufa red knot between the proposed new gen-tie alignment and the original alignment. Therefore, the effect determination remains the same.

Whooping Crane

Project construction may result in temporary displacement of whooping crane from suitable habitat due to noise associated with the Project construction. However, the risk of displacement is low because construction would occur outside of the spring migration (approximately April 1 to May 15) and fall migration season (approximately September 10 to October 31), therefore, cranes would not be in the area and construction would have no effect to them. As indicated on the whooping crane Project Consistency Evaluation Form (Appendix L of the 2021 EA), the Project is located in areas modeled as having a relatively low probability of use for whooping cranes. Furthermore, no whooping cranes have been observed during surveys to date, though three historic crane observations are within 10 miles of the Project. A whooping crane monitoring plan and shutdown protocol has been developed for the Project (Appendix M of the 2021 EA).

The completed gen-tie line could increase collision risk to migrating whooping cranes, as transmission lines are the greatest known source of mortality for fledged whooping cranes in the Aransas-Wood Buffalo population (USFWS 2008). However, Sweetland utilized the PBA, which contains the requirement to site transmission lines at least one mile from wetlands that provide suitable stopover habitat (the Avoidance measure) but when not possible, bird flight diverters should be placed on the top of the static wire of any new or upgraded t-lines within one mile of suitable stopover habitat (the Minimization measure). The gen-tie line could negligibly increase collision risk to migrating whooping cranes; however, the best available science coupled with the conservation measures (installment and maintenance of bird flight diverters to increase line visibility and placement of transmission lines away from suitable stopover habitat) lead to the determination that potential effects to migrating whooping cranes resulting from the construction and operation of the proposed power lines would be insignificant and discountable.

There is the potential for whooping cranes to use or fly through the area during the life of the Project. However, as described in Appendix L of the 2021 EA, the Project area has a low likelihood of occurrence for whooping cranes based on a number of factors, including the Project's location, the lack of whooping crane sightings, and the quality of habitat. The Project is located in the outer edge (90-95% bands) of the whooping crane flyway and has been sited away from areas with the highest potential use. Historical sightings in Hand County since 2012 are 8-12 mi away from Project facilities and represent a single stopover event. No high-use areas are located within 1 mile of the Project facilities. This lack of previous use may be attributable to either an abundance of potentially suitable habitat on the landscape that is readily available to migrating whooping cranes (as in, extensive suitable habitat occurs outside the Project area) or the absence of habitat features in the Project area that would attract migrating whooping cranes.

The modified Proposed Action has no change in effects to the whooping crane and there are no other triggers to reinitiate consultation under the ESA. There are no differences relevant to effects to whooping crane between the proposed new gen-tie alignment and the original alignment. Therefore, WAPA's determination that the Project may affect, not likely to adversely affect whooping crane remains unchanged.

3.3.3 Environmental Consequences: No Action Alternative

Under the No Action Alternative, the impacts to threatened and endangered species would be the same as those described for the Proposed Action in the 2021 EA.

3.4 Cultural Resources

3.4.1 Affected Environment

Cultural resources include archaeological, historic, and architectural sites or structures, or places that are significant in understanding the history of the United States or North America. Cultural resources may also include traditional cultural properties (TCPs), defined as sites or places of traditional cultural or religious importance to specified social or cultural groups, such as Native American tribes. Cultural resources that meet the eligibility criteria for listing on the National Register of Historic Places (NRHP) are considered "historic properties" under the National Historic Preservation Act.

To identify new or previously recorded cultural resources eligible for listing on the NRHP, cultural resource staff from Burns & McDonnell and Traditional Cultural Specialists from the Yankton Sioux Tribal Historic Preservation Office (THPO), conducted cultural resource and tribal resource field surveys. Both surveys were conducted within a specified 125-foot-wide Area of Potential Effects (APE). The APE was defined as the footprint of the gen-tie line plus a survey buffer to allow for small design modifications, totaling 87 acres, and comprising of the geographic area within which the Project may directly or indirectly cause changes to the character or use of cultural resources or aboveground historic architectural resources (Shaver 2022).

These joint archaeological and tribal surveys, conducted by staff from Burns & McDonnell and the Yankton Sioux THPO, covered all areas that would be physically impacted by the Project within the revised APE. The results of the previous aboveground historic architectural and cultural or tribal resource surveys are discussed in the 2021 EA. In summary, the initial records reviews identified fourteen previously recorded archaeological sites within the Project study area, as defined in Shaver (2019). During the previous cultural resource surveys for the Project, eleven newly identified archaeological sites were identified and one previously recorded historic era archaeological sites boundary was expanded (Shaver 2019a, 2019b, 2019c, and 2021). During the previous tribal resource surveys three traditional cultural landscapes were identified (Blondo 2019). No new archaeological sites were identified during the cultural resource survey of the Revised APE. A result of the tribal resource field survey is the expansion of the boundaries of previously identified traditional cultural landscape TCP-HD-TEMP1. TCP-HD-TEMP1 has been previously recommended as eligible for inclusion in the NRHP

Records Search

A review of the South Dakota Historic Preservation Office (SHPO) records for previously recorded archaeological sites and previously recorded archeological surveys in the New Survey Area indicated no new previously recorded cultural resources within the New Survey Area, beyond what was previously documented in the 2021 EA.

Field Survey Results

In April 2022, archeologists from Burns & McDonnell and a Traditional Cultural Specialist from the Yankton Sioux THPO completed a joint archeological and tribal field survey.

No archaeological sites were identified during the field survey. However, previously unidentified prehistoric/unknown Native American-affiliated stone features were identified within the New Survey Area, resulting in the identification of 22 previously unidentified/unknown features and an expansion of the previously identified TCP-HD-TEMP1 landscape boundary. Feature TCP-HD-TEMP1 has been determined eligible for inclusion on the NRHP. A report summarizing the results of the cultural resource survey was submitted for SHPO and tribal review (Shaver, 2022).

3.4.2 Environmental Consequences: Proposed Action

The following environmental commitments, identical to those in the 2021 EA, would be implemented.

- WAPA developed and executed a Memorandum of Agreement (MOA) for resolving adverse visual effects to the TCPs that includes site avoidance, monitoring, cultural sensitivity training, tribal monitor training, and inadvertent discovery procedures. The MOA is attached in Appendix R of the 2021 EA.
- TCP sites that are in the process of having NRHP eligibility status determined (unevaluated) will be treated as eligible for the purpose of this Project, including during Project construction and operation activities.
- An Unanticipated Discovery Plan has been prepared (included as part of the cultural resources report in Appendix O of the 2021 EA) outlining the procedures that should be followed if previously unknown archaeological sites or possible human remains are discovered during construction or operation activities. The Unanticipated Discovery Plan provides direction to onsite personnel and contractors to follow if a discovery is made.
- If inadvertent discoveries are made during Project implementation, work will cease in the area of discovery and the THPOs will be contacted within 72 hours.
- If human remains are found on a development site, work shall cease immediately in the vicinity of the find. The appropriate law enforcement officials and the appropriate Federal agency shall be contacted. No material shall be removed from the find location. Once it is determined that the remains belong to an archaeological site, the South Dakota SHPO shall be contacted to determine how the remains shall be addressed.
- Cultural resources discovered during construction shall immediately be brought to the attention of the responsible Federal agency. Work shall be immediately halted in the vicinity of the find to

avoid further disturbance to the resources while they are being evaluated and appropriate mitigation plans are being developed.

• A 50-foot setback (buffer) will be established for any archaeological site and TCP features identified during the joint archaeological and tribal surveys as described in the MOA.

The Project has been designed so that no Project structures would directly impact previously identified TCPs. The Project will physically avoid NRHP-eligible and unevaluated TCP features during construction, operations, and decommissioning. Based on the results of the cultural resource survey for the Project, WAPA determined that all previously and newly identified features within the TCP-HD-TEMP1 landscape boundary will be avoided by Project construction impacts. On August 4, 2022, the South Dakota SHPO offered comments recommending that all stipulations of the MOA and the Construction Monitoring Plan be implemented. The SHPO also recommended amending the MOA to record USFWS' involvement. The MOA and all its associated stipulations will be carried out by the responsibility parties and, if the Modified Proposed Action is selected, would be revised as suggested.

3.4.3 Environmental Consequences: No Action Alternative

Under the No Action Alternative, the impacts to cultural resources would be the same as those described for the Proposed Action in the 2021 EA. With respect to 39HD0126, direct impacts to the site will be avoided by spanning the site with wire/cables, locating gen-tie line poles outside of the site, and using the existing two-track road in the vicinity of the site for construction and O&M activities.



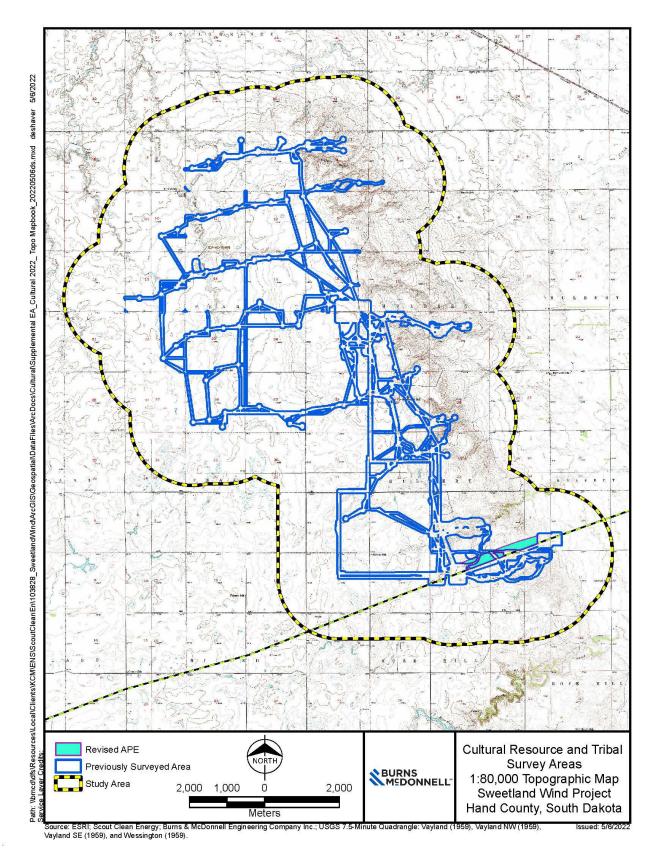


Figure 3-3: Cultural Resource and Tribal Survey Area

3.5 Cumulative Impacts

The cumulative impacts of past, present, and future actions on resources within the Project area were analyzed in Section 6 of the PEIS and within Section 4 of the 2021 EA. No additional cumulative impacts have been identified within the Project vicinity since the 2021 EA. Some minor changes to impacts associated with visual resources, cultural resources, and vegetation types have been identified in this SEA but have not resulted in material changes to the overall conclusions of the 2021 EA cumulative effects section. Table 3-6 provides a complete summary of cumulative effects from the current Proposed Action and how those may differ from the conclusions of the 2021 EA (the No Action alternative).



Alternative	Resources that Could Experience Cumulative Effects	Related Past, Present, and Reasonably Foreseeable Activates	Discussion of Potential Cumulative Effects
	None	 Roads and highways Electric transmission and distribution lines 	The No Action Alternative would not contribute to any new cumulative effects, as all aspects of the No Action Alternative have been
No Action Alternative (2021 EA Design Alternative)	Noise	 Titan Wind project Cultivated land Developed land Residences and other buildings Grazing Hunting Roads and highways 	addressed in the 2021 EA. The Project's incremental
		 Form operations Titan Wind project	contribution to increased noise within the Project vicinity would be negligible, given the duration of construction and operation activities of the 2021 EA Proposed Action.
Proposed Action (Modified Design Alternative)	Ecological Resources, Land Use, Land Cover	 Roads and highways Electric transmission and distribution lines Titan Wind project Cultivated land Developed land Residences and other buildings Grazing Hunting 	Impacts to ecological resources, land use, and land cover have occurred in this area for more than two centuries. The addition of the Proposed Action would contribute to this trend, but would not significantly change those discussed in the 2021 EA.
	Visual Resources	 Titan Wind project Electric transmission and distribution lines Residences and other buildings Roads and highways 	The visual landscape has been continually altered for more than two centuries. The current viewshed is one of a "working" landscape with man-made alterations as prominent features. The increase in the number of man-made structures in the viewshed would be negligible in combination with the pProposed aAction of the 2021 EA.

Table 3-5: Discussion of Cumulative Effects

4.0 LIST OF PREPARERS

Table 4-1 identifies the personnel responsible for the preparation of this SEA.

Name	Agency/Firm	Title
Christina Gomer	WAPA	NEPA Coordinator (Natural Resources Specialist)
Brian Pauly	WAPA	Biologist
David Kluth	WAPA	Archaeologist
Todd Frerichs	USFWS	Project Leader, Western South Dakota Wetland Management District Complex
Thomas Rohlck	USFWS	Easement Specialist, Western South Dakota Wetland Management District Complex
Kevyn Johnson	Burns & McDonnell	NEPA Project Manager
Paul Callahan	Burns & McDonnell	Senior NEPA Specialist
Douglas Shaver	Burns & McDonnell	Senior Environmental Scientist

Table 4-1: List of SEA Preparers



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Appendix A: Public Comments and Responses

Comment ID	Date	Name	Comment	WAPA Response
1	7/5/2022	Private Citizen	I have tried to access the website to review and comment on the draft SEA. It will not let me and an error 404 comes up. I would like to review this. Please inform me on how to do this.	Ms. Gomer with WAPA responded to the commentor via email on 7/5/22:Thank you for your interest in the project and I'm sorry you are having troubles accessing the webpage. The direct web address for the document is: https://www.wapa.gov/regions/UGP/Environment/Documents/Sweetland_Draft_ Supplemental_EA.pdf.Please let me know if that link continues to give you an error message and I would be glad to find another way to assist.
2	7/7/2022	Private Citizen	Citizen left a voicemail that they received our letter and requested a call back from WAPA to discuss.	Ms. Gomer with WAPA called Citizen back on 7/13/22 and provided additional detail on the proposed changes to the project layout and the regulatory requirements to allow for additional public review. Citizen had no official comment to register.
3	7/13/22	Private Citizen	Citizen left a voicemail requesting a call back to discuss a discrepancy they noticed between the letter they received (indicating a comment period ending on August 5th) and a newspaper notice they saw (indicating the comment period ending on August 11th).	Ms. Gomer with WAPA called Citizen back on 7/13/22 and provided additional detail on the change in comment period date and confirmed that comments will be accepted through August 11th. The comment period was meant to run from July 2nd to August 5th. Due to an error with the first newspaper announcement (meant to run on July 2nd), WAPA elected to extend the comment period by an additional week (running from July 9th to August 11th). Ms. Gomer explained that a second letter was going to be mailed this week, explaining the change and the extension to the comment period.
4	7/13/22	Private Citizen	Citizen left a voicemail request a call back to receive more information on the proposed change and next steps.	Ms. Gomer with WAPA called Citizen back on 7/19/22 and provided additional detail on the proposed changes to the project layout and the regulatory requirements to allow for additional public review. Citizen had no official comment to register.

5.a	7/27/22	BIA - Great Plains Regional Office	 This is in response to your letter of June 29, 2022, concerning Sweetland Dakota. We have considered the potential for both environmental damag Native American religious sites on lands held by the United States of Am within the administrative jurisdiction of the Great Plains Region. We hav actions as long as the projects comply with all applicable laws and regula that Tribes or Tribal members may have lands in fee status near the sites necessarily be in our databases, and the Tribes should be contacted direc The actions considered have the following project names: June 29, 2022 Project Name: Sweetland Wind Farm Project, Hand County, South Dakota 	Comment noted.	
5.b			We also find that the listed action will not affect cultural resources on Tr we are responsible. Methodologies for the treatment of cultural resources particularly human remains – must nevertheless utilize the best available the Native American Graves Protection and Repatriation Act, the Archae 1979 (as amended), and all other pertinent legislation and implementing	s now known or yet to be discovered – science in accordance with provisions of cological Resources Protection Act of	Comment noted.
6	7/25/22	Private Citizen	 Citizen left a voicemail (on 7/25, 7/26, and 7/27), indicating that they had received our letter and requested a call back from WAPA for clarification on a few non-critical items. Citizen has two questions: 1) the letter indicated "temporary" - what is the construction timeline? 2) per tower, there is a financial threshold that landowners must receive to make the project financially viable. From previous developers, Citizen had heard a \$6,000 payment per year to landowners. Has WAPA heard what the financial viability threshold is for this project, per tower? 	Ms. Gomer returned Citizen's call on 7/25 construction is expected to begin in earne 6 months. Laydown and delivery of equip year. Ms. Gomer explained that WAPA h landowner permissions (except for the PC directly with landowners) or the terms of thus, she is unaware what the payments w	st next spring, with a timeline of roughly oment might still occur in summer of this as no involvement with acquiring DI facilities, where WAPA negotiates leases/easements with landowners, and
7	7/25/22	Private Citizen	Citizen left a voicemail on 7/25, indicating that they had received our letter asking for input and that they did not know what input they could provide, as they have no towers on their property.	Ms. Gomer returned Citizen's voicemail of that all landowners within and directly ad have received a letter.	

8.a	7/22/22		 On July 6, 2022, and July 20, 2022, the South Dakota Office of the State Historic Preservation Officer received your letter regarding the availability of a Supplemental Environmental Assessment (SEA) for the proposed Sweetland Wind Farm Project in Hand County, South Dakota. The SEA indicates that a revised Area of Potential Effects (APE) was surveyed in 2022, and the boundary of one previously identified traditional cultural landscape was expanded. WAPA, SHPO, the Yankton Sioux Tribe, Sweetland Wind Farm, and the Advisory Council on Historic Preservation executed an MOA in September 2020. SHPO has not yet been consulted on the report generated from the 2022 survey; however, in March of 2022 our office was notified of USFWS's involvement in the project due to the revised transmission line route and the designation of WAPA as lead federal agency for Section 106. Given USFWS's interest in the undertaking, the designation of a lead federal agency, and the possible need to address additional avoidance measures for the expanded property boundary, SHPO does recommend that an amendment to the MOA be executed once WAPA has consulted on the addendum report for the additional survey. 	WAPA sent the report and a letter to SHPO on April 18th, 2022, but upon further investigation, the report submittal was unknowingly denied by the State's uploading portal due to the large file size. WAPA resubmitted the report and the SHPO on July 29, 2022.
		SD SHPO	On July 29, 2022, SHPO received your letter dated April 18, 2022, and the report titled "Addendum #5 - A Level III Intensive Cultural Resources Survey of Proposed Gen-Tie Line Re-Alignment Modification Locations for the Sweetland Wind Project, Hand County, South Dakota" by Douglas Shaver of Burns & McDonnell Engineering Company, Inc. Previously, on March 15, 2022, SHPO had received your email indicating that a segment of the proposed gen-tie had been re-aligned. The re-alignment would cross lands under a US Fish & Wildlife Service (USFWS) easement and require additional survey. The March 15, 2022, correspondence also indicated that USFWS and W AP A designated WAPA as the lead federal agency for the proposed undertaking, pursuant to 36 C.F.R. § 800.2(a)(2).	Comments noted. If the modified Proposed Action is selected, the MOA will be updated as appropriate.
8.b	8/4/22		survey, and 22 stone features were newly recorded during the identification efforts. TCP-HD-TEMPI was updated, and the boundary was expanded to include these new features. TCP-HD-TEMPI remains Eligible for listing in the National Register of Historic Places. Your letter indicates that all features within TCP-HD-TEMPI will be avoided by ground disturbing activities through the use of construction reroutes. However, the proposed undertaking will still have an adverse effect on historic properties, the resolution of which is stipulated in the document <i>titled Memorandum of Agreement among Western Area Power Administration, South Dakota State</i> <i>Historic Preservation Officer, Yankton Sioux Tribe, Sweetland Wind Farm, LLC, and Advisory Council on</i> <i>Historic Preservation Regarding the Sweetland Wind Project near Wessington, Hand County, South Dakota,</i> executed October 30, 2020.	
			 Please ensure that your agency follows the stipulations and Construction Monitoring Plan of the Memorandum of Agreement referenced above to minimize and mitigate the adverse effect of the proposed undertaking on historic properties. SHPO recommends amending the Agreement to record USFWS's involvement in the undertaking and the designation of WAPA as lead federal agency. Any activities occurring in areas not identified in your original request, such as any additional re-routes, will require the submission of additional documentation pursuant to 36 C.F.R. § 800.4. 	

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			We have downloaded and reviewed the Sweetland Wind Farm Project Assessment Hand County, South Dakota, including the Table 3-6 on h		Comment noted.
9	7/18/22	Private Citizen	The 2021 EA, signed a Finding of Significant Impact (FONSI) on September 24, 2021. The supplemental environmental impact (SEA) did not result in any material changes to the overall conclusions of the 2021 EA (the No Action alternative).		
			The undersigned, [redacted], located in the project area, support the job	intly issued WAPA/USFWS draft SEA.	
10.a	7/21/22	USDA-NRCS	Thank you for the opportunity to provide Farmland Protection Policy A The project does impact prime farmland and land of statewide importa delineating the FPPA farmland classifications of the proposed site. Als Impact Rating Form (AD-1006) for this project. We have completed P III, VI, and VII as per instructions on the back of the form and the atta Scoring for the Twelve Factors Used in FPPA. If the TOTAL POINTS proposed activity will have no significant impact on the prime farmlan Hand County, and no further alternatives need be considered.	ance. Enclosed is a Web Soil Survey map so enclosed is a Farmland Conversion Parts II, IV, and V. Please complete Parts I, ched document titled Site Assessment S in Part VII is less than 160 points, the	In response to the comment posted to the Sweetland Supplement to the EA, the Farmland Conversion Impact Rating form was completed and returned as requested. The Total Points are below 160 points, so the conclusion reached based on the previous letter sent on is that the project will have no significant impact on the prime farmland or farmland of statewide importance.
10.b			The Natural Resources Conservation Service (NRCS) would advise the and Farm Service Agency offices regarding any United States Departm in the project areas that may be affected. For any other easements outs local courthouse.	nent of Agriculture easements or contracts	Comment noted. No other USDA easements or contracts are in the affected area.
11	8/10/22	SD Department of Agriculture and Natural Resources	The South Dakota Department of Agriculture and Natural Resources (DANR) has reviewed the above-referenced project for potential impacts to natural resources. Based on the information submitted in your letter dated July 13, 2022, DANR provided comments and permitting requirements for Tanks and Spills, Solid and Hazardous Waste, Air Quality, Drinking Water, Surface Water, Water Rights, and Groundwater.		Comments noted.
12	8/9/22	Private Citizen	 Here are my environmental concerns for the Sweetland Wind Farm Project in Hand County SD: If there is a fire started by the wind towers who is responsible? Will this impact shallow water wells? I would like some answers please. Thank you very much 	 Ms. Gomer with WAPA responded to the Thank you for your interest in the Project. With respect to fires in the Project Area, it investigation into what caused the event. the fire, then the Project may be liable. With respect to shallow water wells, the P full geotechnical investigation, and wetlan concluded that no impact to shallow water effects to water resources can be found in 	f a fire occurred, there would be an If it is determined a wind turbine caused roject has completed a hydrology study, ids survey. The 2021 EA and FONSI wells is expected. Further details on the

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13	8/10/22 and 8/11/22	Private Citizen	 Here are my environmental concerns for the Sweetland Wind Farm Project in Hand Co. SD : How big of a cement pad will they have for the wind turbines? How deep will they have to dig down into the ground for the wind towers? Will this effect shallow wells and artesian wells? I would like to have some answers to this. Thank you very much. 	Ms. Gomer with WAPA responded to the of Thank you for your interest in the Project. With respect to the questions on the turbing will be excavated to a depth of approximat approximately 65 feet, pending final engin smaller than the excavation, is octagonal in feet deep by 62 feet across, pending final e With respect to shallow water wells and ar of the turbine foundation, the 2021 EA and shallow water wells is expected. Further d can be found in Section 3.2.1 of the 2021 E	e foundations, the turbine foundation ely 12 feet with a width of eering. The turbine foundation will be a design, and will be approximately 10 ingineering design. tesian wells, due to the shallow design I FONSI concluded that no impact to etails on the effects to water resources
14.a	8/12/22	USFWS - Ecological Services Office	Thank you for your letters dated June 29, 2022, and July 13, 2022, regat Wind Farm Project Supplemental Environmental Assessment (SEA) an The Sweetland Wind Farm, an approximately 200 MW wind energy face South Dakota, was previously evaluated in an Environmental Assessment of No Significant Impact issued by your office. The current SEA descri- the Sweetland project's 7-mile 230 kV proposed transmission line, white existing Western Area Power Administration lines but will impact a 0.6 harboring U.S. Fish and Wildlife Service (Service) grassland easements The decision whether to issue a Right-of-Way permit allowing this acti- Huron Wetland Management District (WMD), which manages the ease Wildlife Refuge System. Our comments herein do not address the Huro- content within the SEA. We submit the following items for consideration:	d the revised deadline for our comments. cility to be constructed in Hand County, ent which was followed by a 2021 Finding bes a proposed realignment of 1.5 miles of ch now precludes a problematic crossing of 5-mile portion of privately owned lands a that had previously been avoided.	Comment noted.
14.b			Page 1-1, 2nd paragraph. The description of the impact to Service-interest lands initially states the property to be crossed is a Waterfowl Production Area, but then calls it an easement: "a 0.6-mile portion of the U.S. Fish and Wildlife Service (USFWS) Hand County Waterfowl Production Area (referred to hereinafter as the Grassland Easement)". The title on the Service's grassland easement contract is "Easement for Waterfowl Habitat Protection", which is not the same as a Waterfowl Production Area (WPA). WPAs are public lands owned in feetitle by the Service. In contrast, grassland easement properties are kept in private ownership while the Service-purchased easement limits certain activities on those lands to ensure grassland cover for the benefit of wildlife. While both WPAs and easements are managed by the Service as part of the National Wildlife Refuge System, they are not interchangeable. This error should be corrected throughout the SEA (e.g., in Figure 2-1) and any other associated documents as needed.		The Final SEA has been updated throughout to correctly identify "United States Department of the Interior, U.S. Fish and Wildlife Service, Grant of Easement for Waterfowl Habitat Protection."

14.c	Page 1-3. Figure 1-1, Study Area, is the first map shown in the SEA. While it follows a description of the impacts to grassland easements, it does not show those easements. We suggest identifying the easement properties on that map. This may preclude the need for Figure 2-1, the next map in the document, which does show the easements.The Final SEA has been modified as suggested.
14.d	Page 2-1, 3rd paragraph. "The gen-tie line would be marked with bird diverters with high wind resistance that are visible at a distance and adhere to Avian Power Line Interaction Committee 2012 recommendations. The markers would be maintained for the life of the project." We commend this commitment and further recommend development of a plan (if one is not already in place) that requires periodic examination of the markers and includes such specifics as timing (e.g., immediate replacement), funding source(s), materials (we recommend allowance for adaptive management if improved diverters become available), responsible party, etc., to ensure the commitment is upheld while the structures remain in place.
14.e	Page 2-4, Table 2-2. Regarding wetlands, permanent wetland impacts are mentioned in this table, while temporary impacts are not. We recommend inclusion of temporary impacts to wetlands as described on page 3-8, as well as any temporary impacts that may be incurred to the other items listed in this table.The Final SEA has been modified as suggested.
14.f	Page 2-5, bulleted list of resource areas affected. Headings in the bulleted list do not all match the headings in Table 2-2 (e.g., "Wetlands" in Table 2-2 does not match "Water and wetland resources" in the bulleted list).The Final SEA has been modified as suggested.Additionally, the bulleted list is missing the "Health and Safety" category, which is expected to be improved with the new transmission alignment.The single 2-2 (e.g., "Wetlands" in Table 2-2 does not match "Water and wetland resources" in the bulleted list).The single 2-2 does not match "Water and Safety" category, which is expected to be improved with the new transmission alignment.
14.g	Page 3-9, Affected Environment. Eastern red cedar and Russian olive are mentioned as species of trees occurring in the project area. Consider including removal of these invasive woody species from grassland areas as a compensatory measure to offset impacts to grasslands elsewhere in the project area. Sweetland will comply with any required mitigation or compensation efforts, as provided as conditions of any permits or permissions granted by the USFWS WMD.
14.h	Page 3-12, Environmental Consequences; Proposed Action. The bulleted list of commitments in this section mentions that construction should avoid the migratory bird primary nesting season. This may preclude impacts to nesting birds during the year of installation, however, compensatory measures are lacking that could offset the long-term impact of grassland bird displacement likely to occur with the installation of tall structures on the grassland landscape. As in the original EA, we continue to recommend compensation for displacement impacts on the Sweetland Wind Farm Project as a whole.Sweetland will comply with any required mitigation efforts or easement offsets, as provided as conditions of any permits or permissions granted by the USFWS WMD.

14.i	Page 3-16, Whooping crane. We suggest adding to this paragraph that transmission line collisions are the greatest known source of mortality for the Aransas/Wood Buffalo population, which is the population that migrates through South Dakota biannually (see: https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1203&context=nacwgproc).The Final SEA has been more more clearly identify transmi collisions as a source of mort suggested.It is estimated that only 4% of whooping crane stopovers are reported, thus lack of reported sightings in this area is not surprising and does not equate to lack of stopovers. We recommend adding that statistic to the whooping crane paragraph on this page. We will separately send a 2009 citation for that 4% reporting statistic, which says: "Based on the 5 migrations between Spring, 2005 and Spring, 2007, reports were obtained for an estimated 4% of all stopovers (T. Stehn, USFWS, Austwell, TX, unpublished data)."The Final SEA has been more more clearly identify transmi collisions as a source of mort suggested.	ission line
14.j	Page 3-16, Environmental Consequences: Proposed Action. The second bullet under this heading regarding a "procedure for preventing whooping crane collisions" appears to primarily rely on monitoring for whooping cranes as a means to reduce risk to these birds at the transmission lines. Monitoring the local area during construction – and ceasing construction activities when/if whooping cranes are detected as the line are being built or maintained - would reduce the risk of disturbance to the birds, and we appreciate the commitment to inform our office of any such whooping crane sightings (we recommend adding the South Dakota Department of Game, Fish and Parks in that regard). However, simply monitoring for whooping crane presence along the transmission lines at least 1 r wetlands that provide suitabl habitat (the Avoidance meass when not possible, bird flight diverters, and maintaining those markings, are currently the best means known to reduce the risk of powerline collision risk (as mentioned at the top of page 3-18).	o more hat PBA, ent to site mile from le stopover ure) but t diverters of the graded t- e stopover

14.k	Page 3-17, Whooping crane. One statement in this paragraph appears to suggest that whooping cranes are not likely to be present at the Sweetland Wind Farm because they were not observed during preconstruction surveys ("Furthermore, no whooping cranes have been observed during surveys to date") although the sentence does acknowledge that "three historic crane observations are within 10 miles of the project." While future occurrences cannot be predicted with certainty, a lack of past records does not preclude future ones, nor does it equate to evidence of lack of past occurrences at the site. As noted above, only about 4% of whooping crane stopovers during migration are ever reported. We recommend including that statistic here again in the SEA to avoid implying that whooping cranes have not, and/or will not, occur in the project area. The Sweetland Wind Farm Project is proposed within the 75% band of the whooping crane stopovers has been identified within the Sweetland Wind Farm Project area per Appendix K – Whooping Crane Habitat Review within the original EA. Although that review indicates that high quality habitat in relatively lower amounts in the project area than in the immediately surrounding area, whooping cranes are not precluded from using the Sweetland location as stopover habitat during spring or fall, in any year. For informational purposes, note that in the spring of 2022, a whooping crane pair landed within 2 miles of a South Dakota wind energy facility and roosted for several nights in a wetland that was identified as having low suitability for whooping cranes. Also, while the statement in this section that "A whooping crane monitoring plan and shutdown protocol has been developed for the project (Appendix M of the 2021 EA)" is accurate, it is our understanding that this monitoring and shutdown plan is primarily associated with the wind turbines, not the transmission lines that are the subject of this SEA (with exception of ceasing construction activities when cranes are nearby as noted abov	The Final SEA has been modified to more clearly describe the Project's location in the migration corridor and factors influencing likelihood of crane stopovers in the area, as well as removing statements about monitoring and shutdown plans which are not relevant to the proposed modified transmission line.
14.1	Page 3-18, continuation of Whooping Crane paragraph. We recommend revising, for clarity, the following items in parentheses: "(bird flight diverts to increase visibility, as well as sighting away from suitable stopover habitat)". A possible revision could be: "(i.e., installment and maintenance of bird flight diverters to increase line visibility and placement of transmission lines away from suitable stopover habitat)". It is not clear in this SEA, however, that transmission lines were situated intentionally to avoid suitable habitat; rather, mention is made that any lines within one mile of suitable habitat will be marked (page 3-16). If efforts have been made to place transmission lines away from suitable whooping crane stopover habitat, we recommend including that information in this SEA. If not, that action should be omitted from the parentheses.	The Final SEA has been modified as suggested.
14.m	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. We appreciate the opportunity to provide comments. If you have any questions on these comments, please contact Natalie Gates of this office at (605) 220-3881 or Natalie_Gates@fws.gov.	Comment noted.