Sweetland Wind Farm Project

Draft Supplemental Environmental Assessment

Hand County, South Dakota

Western Area Power Administration

United States Fish and Wildlife Service

DOE/EA-2095-S1

June 2022

Prepared for:

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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.
CWCTP	Cooperative Whooping Crane Tracking Project
EA	Environmental Assessment
FONSI	Finding of No Significant Impact
gen-tie	generation- tie transmission line
IPaC	Information for Planning and Consultation
kV	kilovolt
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NESC	National Electrical Safety Policy
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
PBA	Programmatic Biological Assessment
PEIS	Programmatic Environmental Impact Statement
SEA	Supplemental Environmental Assessment
SHPO	State Historic Preservation Office
Sweetland	Sweetland Wind Farm, LLC
TCP	traditional cultural property
TCS	Traditional Cultural Specialist

Abbreviation	Term/Phrase/Name
THPO	Tribal Historic Preservation Office
USFWS	U.S. Fish and Wildlife Service
WAPA	Western Area Power Administration

1.0 INTRODUCTION

The Sweetland Wind Farm 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 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 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 U.S. Fish and Wildlife Service (USFWS) Hand County Waterfowl Production Area (referred to hereinafter as the Grassland Easement). The USFWS will serve as a Cooperating Agency in the preparation of this SEA, due to their jurisdiction by law regarding the Grassland Easement.

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 de-energized 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 Grassland Easement.

1.2 Supplemental Environmental Analysis Scope

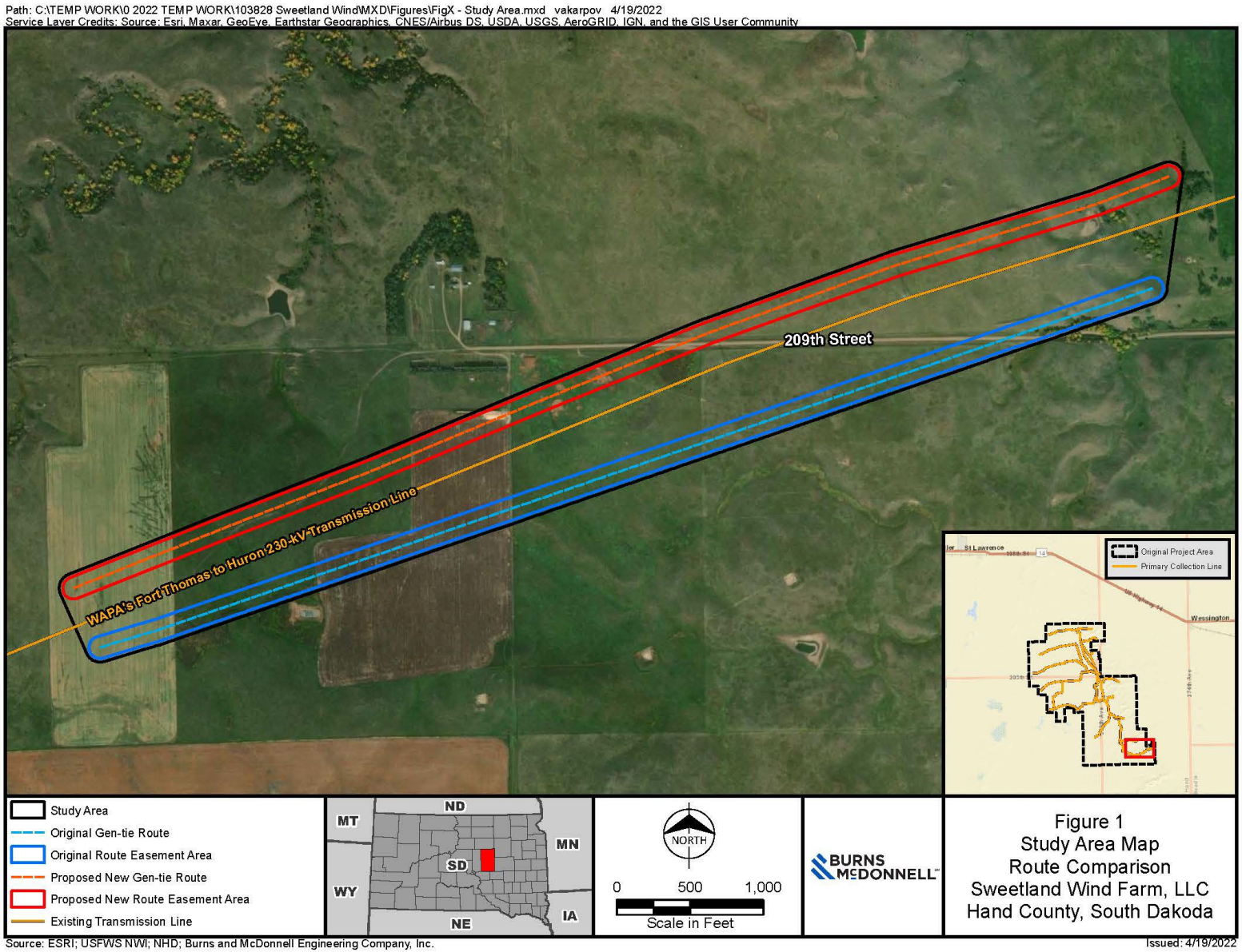
The scope of this SEA is to identify changes to the Proposed Action since the publication of the 2021 EA and to analyze additional potential environmental effects of the modified Proposed Action. Environmental effects analyzed in the 2021 EA that have not changed are incorporated into the analysis by 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 gen-tie alignments and the existing WAPA Fort Thompson to Huron 230-kV transmission line (Figure 1-1).

1.3 Public Involvement

WAPA and the USFWS intend to publish the draft SEA for public review and comment. Federal, State, local, and tribal officials will be contacted regarding the proposed relocation of the gen-tie line. 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 will be contacted and invited to provide feedback on the modified Proposed Action. The SEA will be made available online for public viewing and notices will be published in the local newspaper to invite public review and comment

Figure 1-1: Study Area



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 Grassland Easement. The gen-tie easement would be 150 feet wide and would encompass approximately 10.4 acres within the USFWS Grassland Easement (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 Grassland Easement area.

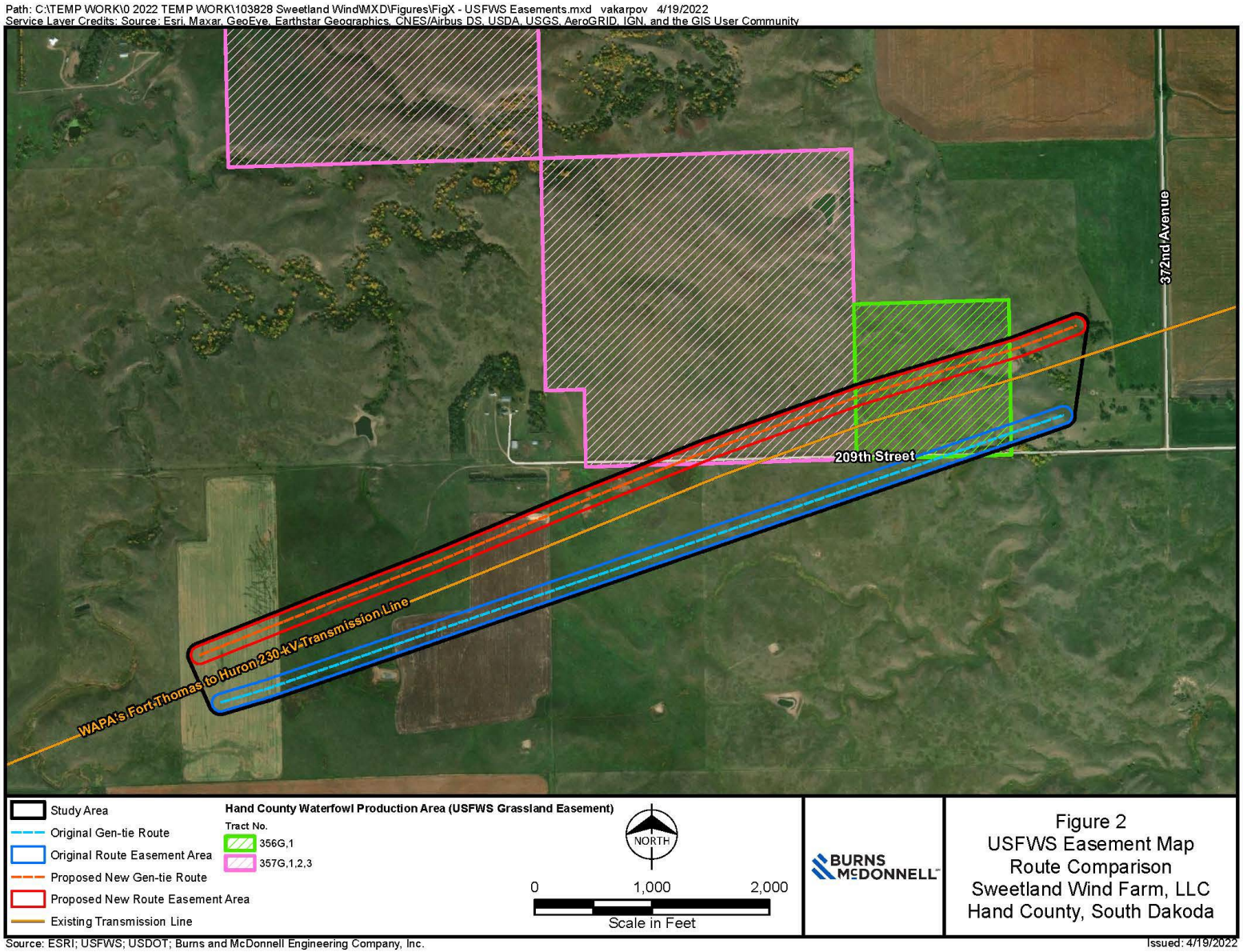
The dimensions of the gen-tie itself would remain the same as proposed in the 2021 EA. That is, the line would be a single-circuit powerline with two-pole wooden H-frame structures with a height of approximately 75 feet. The diameter of each pole is roughly 14 inches as shown in Table 2-1. Fiber optic 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 pre-construction land use. Table 2-1 summarizes the anticipated impacts of the proposed new gen-tie alignment.

Table 2-1: Summary of Impacted Area for 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 Grassland Easement)	200 feet wide	36.4 acres	150-foot-wide corridor	27.9 acres (10.4 acres of which is Grassland Easement)
Gen-tie line structures footprint	11 structures, spaced every 600 feet and 2 poles per structure (Three of the structures within the Grassland Easement)	150 by 150 feet	Within gen-tie line easement	14-inch radius poles	<0.1 acre
Project Total: Construction/Decommissioning			**36.4 acres**		**27.9 acres**

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 Grassland Easement 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).

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

Resource Area	Scope of Potential Impacts
Wetlands	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 Grassland Easement 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 Grassland Easement 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 different impacts beyond those previously analyzed in the 2021 EA.
Water Quality, Floodplains	
Air Quality	
Noise	

Resource Area	Scope of Potential Impacts
Noxious Weeds	
Soils	
Wildlife	
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:

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

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-foot-wide 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).

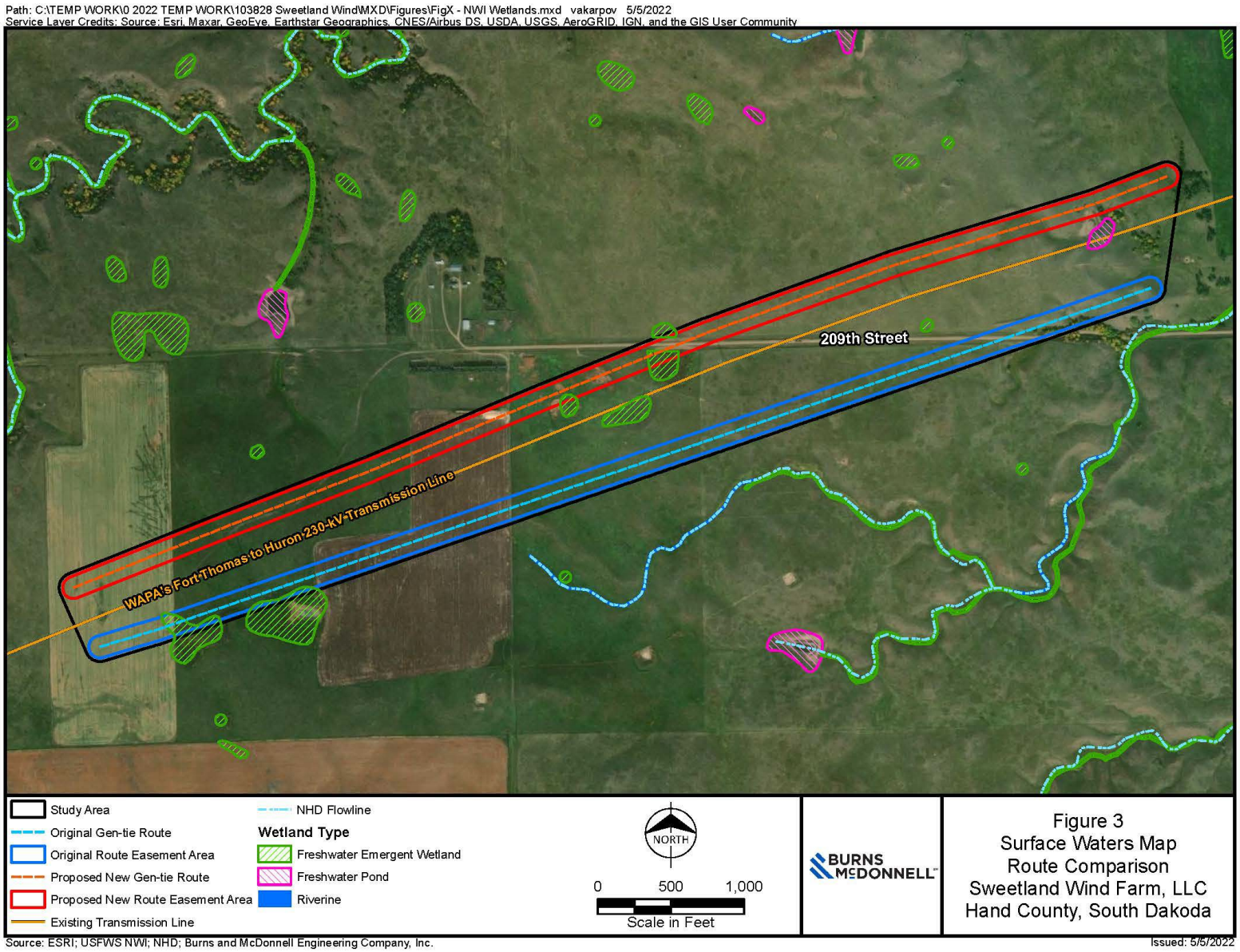
Table 3-1 summarizes the types and proportions of wetlands identified within the study area and buffers as shown in Figure 3-1.

Table 3-1: Water Resources in project Study Area

Classification	Study Area (SA)		Proposed New Gen-tie Easement		No Action Alternative (Original Gen-tie Easement)	
	Acreage	Percent of SA	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**

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.

Table 3-2: Land Cover Types

Land Cover Type	Study Area (SA)		Proposed New Gen-tie Easement		No Action Alternative (original gen-tie Easement)	
	Acreage	Percent of SA	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**

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

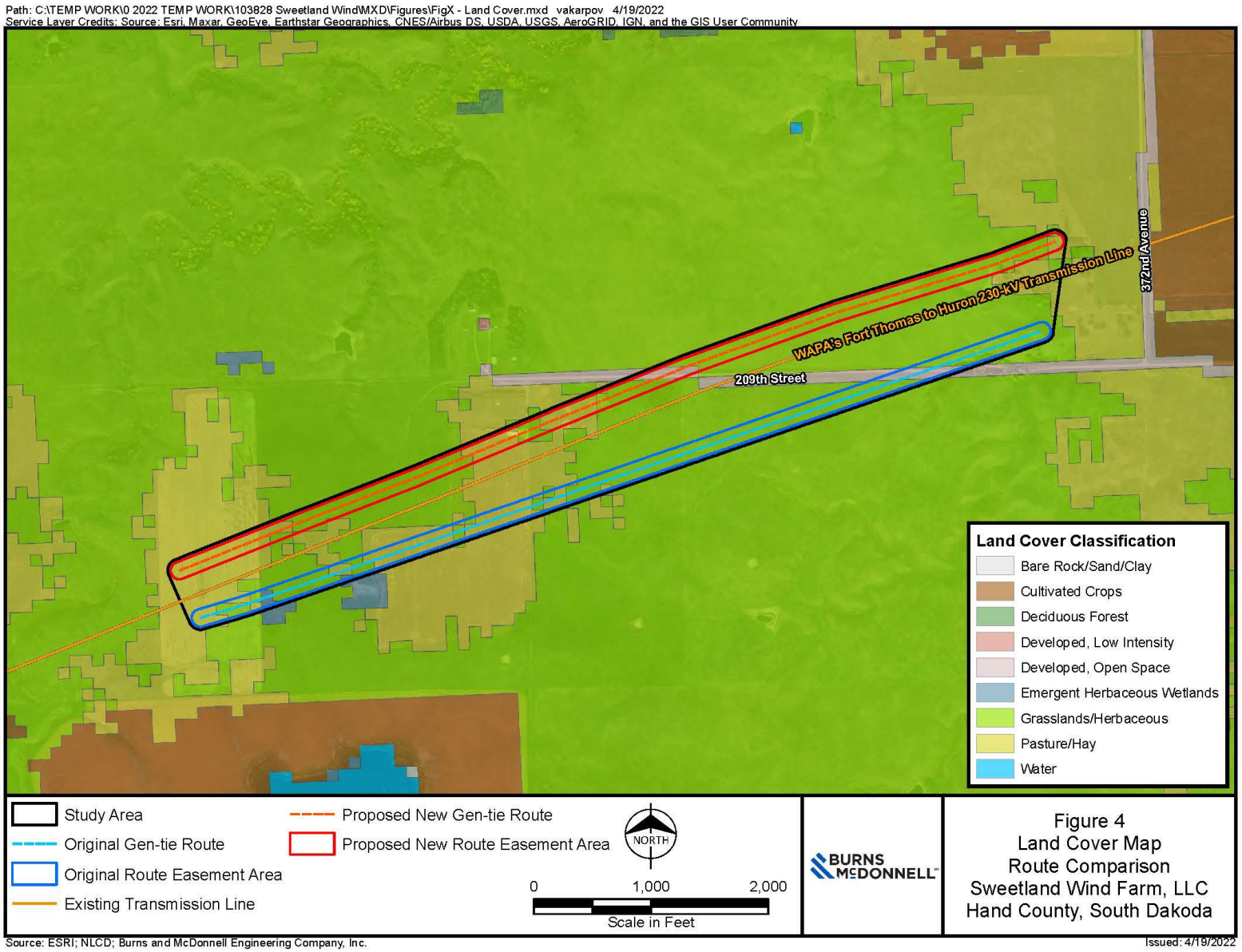
The USFWS Grassland Easement parcels are shown on Figure 2-1. USFWS Grassland Easements are part of the National Wildlife Refuge System and are managed for the protection of wildlife and waterfowl habitat. Table 3-3 summarizes USFWS Grassland Easements within the project study area. The original gen-tie alignment spanned the USFWS Grassland Easement 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 Grassland Easement (10.4 acres versus 2.1 acres) and would have three structures (six poles) placed within the USFWS Grassland Easement.

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

Grassland Easement	Study Area (SA)		Proposed New Gen-tie Easement		No Action Alternative (original gen-tie Easement)	
	Acreage	Percent of SA	Acreage	Percent of New Easement	Acreage	Percent of Original Easement
Hand County Waterfowl Production Area (Tract No. 357G, 1, 2, 3)	13.7	9.1	5.7	20.3	0	0.0
Hand County Waterfowl Production Area (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**

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 were defined as 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 Grassland Easement 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 Grassland 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 Grassland Easement. The new gen-tie line corridor contains a total of 10.4 acres of USFWS Grassland Easement. Within this approximately 0.6-mile span within USWFS Grassland Easement, 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 Grassland 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 Grassland Easement), 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 Grassland 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 (IPaC) 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.

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

*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 (CWCTP; USFWS, 2017), no observations of whooping cranes have occurred within the project area. Based on CWCTP data, 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.
- Establish a procedure for preventing whooping crane collisions with gen-tie line structures and conductor during operations by establishing and implementing formal plans for monitoring the project site and surrounding area for whooping cranes during spring and fall migration periods throughout the operational life of the project (or as determined by the local USFWS field office) and shutting down construction activities within 2 miles of the whooping crane sightings. Monitoring can be done by existing onsite personnel trained in whooping crane identification. Sightings of whooping cranes in the vicinity of the project will be reported to the appropriate USFWS field office immediately (see Appendix M of the 2021 EA).

As a companion to the PEIS, WAPA and the USFWS jointly prepared a Programmatic Biological Assessment (PBA). For EAs that tier off of the PEIS, projects can utilize the streamlined consultation in PBA by committing to the appropriate avoidance and minimization measures, as documented in species-specific consistency evaluation forms. The 2021 EA tiers 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 noise associated with the project construction. However, the risk of displacement is low because construction would occur outside of the spring and fall/winter migration, therefore, cranes are not in the area and 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 gen-tie line could negligibly increase collision risk to migrating whooping cranes; however, the best available science coupled with the conservation measures (bird flight diverts to increase visibility, as well as sighting away from suitable stopover habitat) lead to the determination that effects to migrating whooping cranes resulting from the construction and operation of the proposed power lines would be insignificant and discountable.

WAPA has determined the project may affect but is not likely to adversely affect whooping crane. There are no differences relevant to whooping crane between the proposed new gen-tie alignment and the original alignment. Therefore, the effect determination remains the same.

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 (NHPA).

To identify new or previously recorded cultural resources eligible for listing on the NRHP, cultural resource staff from Burns & McDonnell and traditional cultural specialists (TCS) 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 TCS 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). To date, no comments have been received.

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.

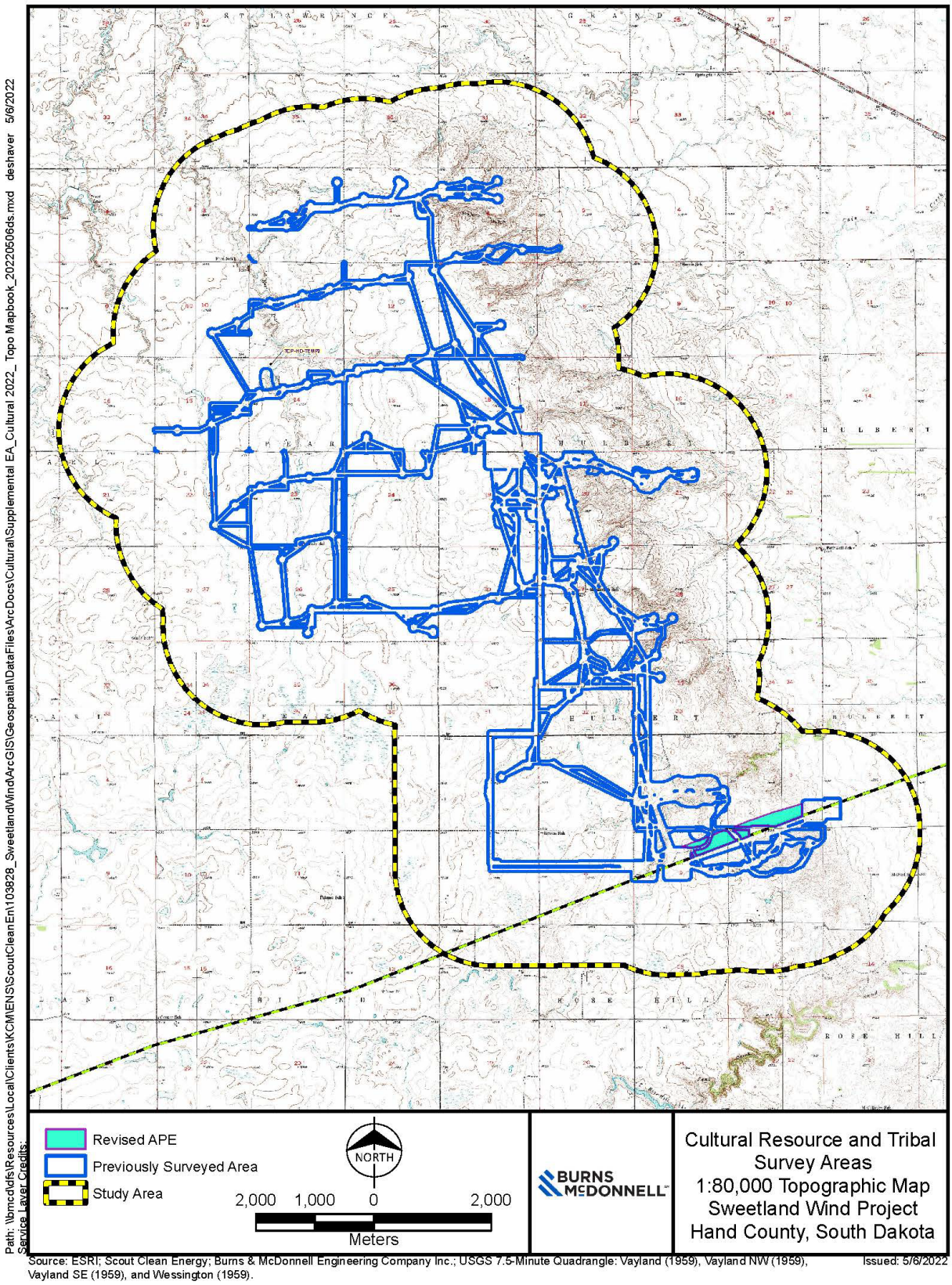
- TCP sites that are in the process of having NRHP eligibility status determined (unevaluated) will be treated as eligible for the purpose of this project, including during project construction and operation activities.
- An Unanticipated Discovery Plan has been prepared (included as part of the cultural 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. Subsequently, the MOA and all its associated stipulations will be carried out by the responsibility parties.

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).

Table 3-5: Discussion of Cumulative Effects

Alternative	Resources that Could Experience Cumulative Effects	Related Past, Present, and Reasonably Foreseeable Activates	Discussion of Potential Cumulative Effects
No Action Alternative (2021 EA Design Alternative)	None	• Roads and highways • Electric transmission and distribution lines • Titan Wind project • Cultivated land • Developed land • Residences and other buildings • Grazing • Hunting	The No Action Alternative would not contribute to any new cumulative effects, as all aspects of the No Action Alternative have been addressed in the 2021 EA.
Proposed Action (Modified Design Alternative)	Noise	• Roads and highways • Farm operations • Titan Wind project	The project's incremental 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.
	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.

Alternative	Resources that Could Experience Cumulative Effects	Related Past, Present, and Reasonably Foreseeable Activates	Discussion of Potential Cumulative Effects
	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 proposed action of the 2021 EA.

4.0 LIST OF PREPARERS

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

Table 4-1: List of SEA Preparers

Name	Agency/Firm	Title
Christina Gomer	WAPA	NEPA Coordinator (Natural Resources Specialist)
Brian Pauly	WAPA	Biologist
David Kluth	WAPA	Archaeologist
Kevyn Johnson	Burns & McDonnell	NEPA Project Manager
Paul Callahan	Burns & McDonnell	Senior NEPA Specialist
Douglas Shaver	Burns & McDonnell	Senior Environmental Scientist

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