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Figure 1.1-1
Williston to Stateline Project Overview

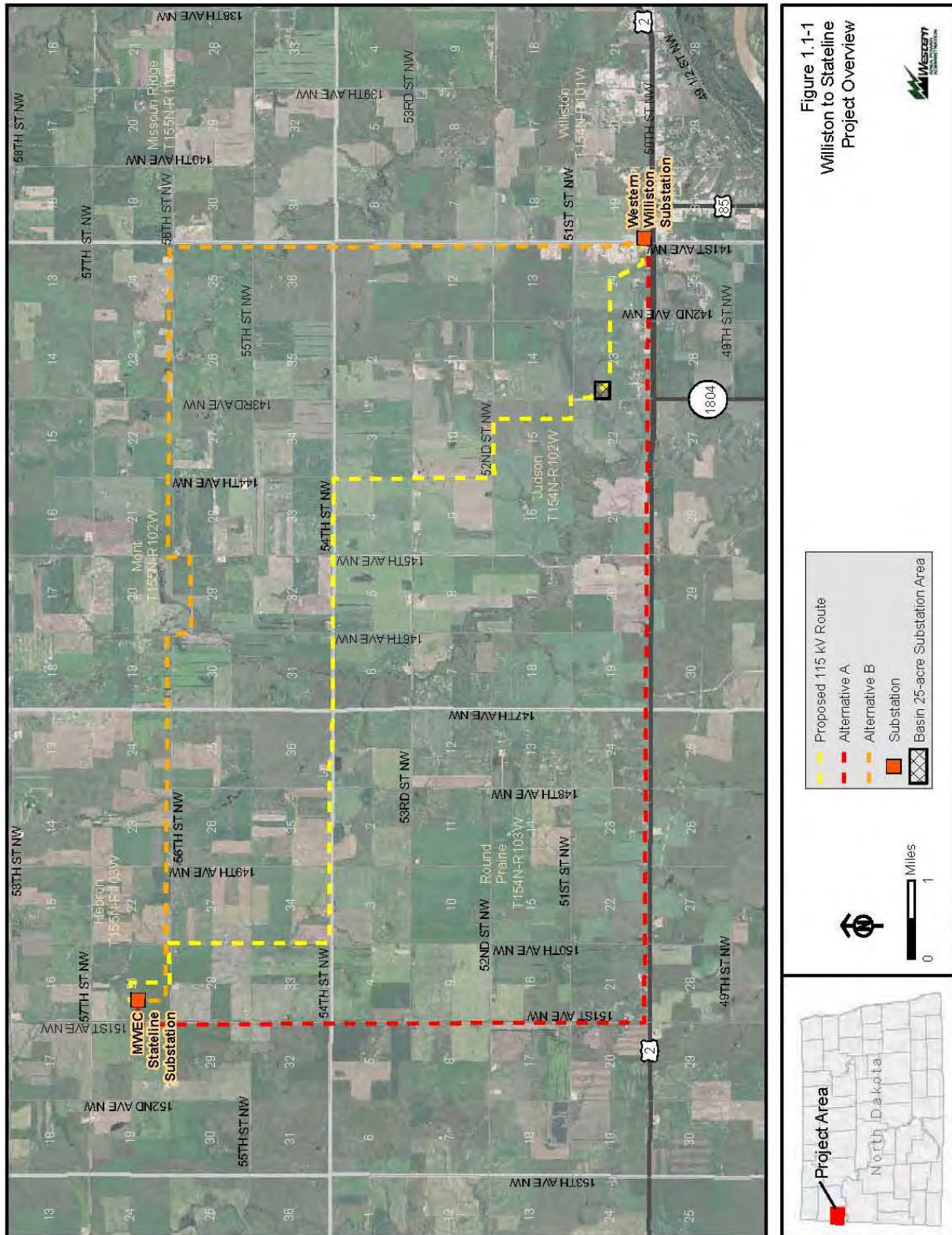
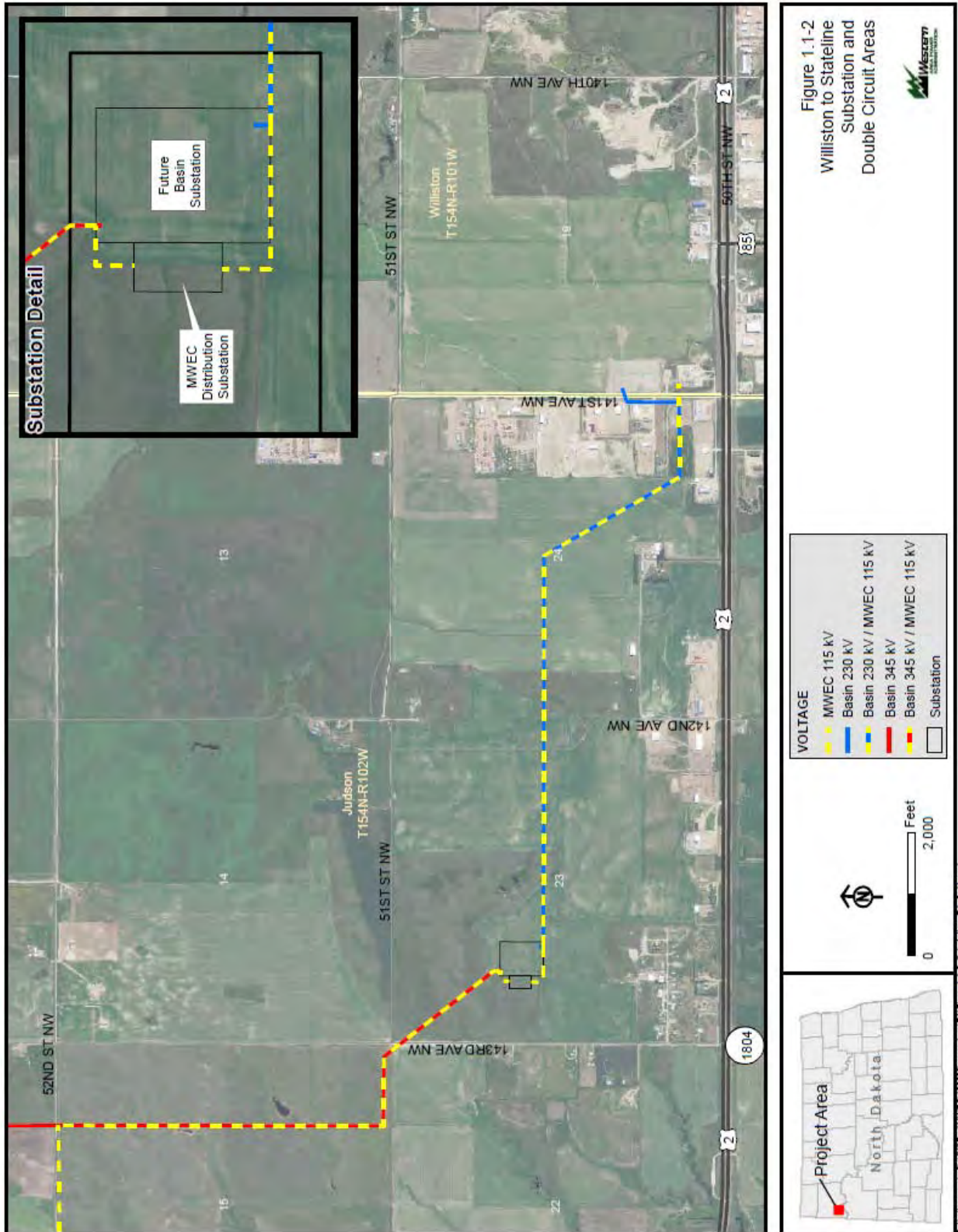


Figure 1.1-2
Williston to Stateline Substation and Double Circuit Areas



1.1 PURPOSE OF AND NEED FOR ACTION

1.1.1 WESTERN'S RESPONSE TO MWEC'S INTERCONNECTION REQUEST

Western's purpose is to market and deliver reliable power. Western provides power through interconnection requests from power providers. In this EA Western is considering an interconnection request from MWEC. In responding to the interconnection request (need for agency action), Western must abide by the following purposes:

- ◆ **Providing Transmission Service.** Western published its *Notice of Final Open Access Transmission Service Tariff (Tariff)* in the Federal Register on January 6, 1998 amended on January 25, 2005. Under Western's *Tariff*, Western offers transmission capacity in excess of the capacity Western requires for the delivery of long-term, firm capacity and energy to current contractual electrical services customers of the Federal government. The *Tariff* also requires Western to provide firm and non-firm, point-to-point transmission service and network integration transmission service to the extent that Western has available transmission capability.
- ◆ **Addressing Interconnection Requests.** Western's *General Guidelines for Interconnection* provides a process for addressing applications for interconnection. The process dictates that Western respond to an application as presented by an applicant. Section 211 of the Federal Power Act requires transmission service be provided upon application if transmission capacity is available.
- ◆ **Protecting Transmission System Reliability and Service to Existing Customers.** Western's purpose is to ensure that existing reliability and service is not degraded. Western's *General Guidelines for Interconnection* provides for transmission and system studies to ensure that system reliability and service to existing customers are not adversely affected.
- ◆ **Consideration of the Applicant's Objectives.** Since the statement of purpose and need affects the extent to which alternatives are considered reasonable, it is important to understand both the agency's purpose and need and that of the Applicant.

1.1.2 MWEC'S NEED FOR THE INTERCONNECTION REQUEST

MWEC's need for this project is to serve the 60 MVA Bear Paw Gas Plant. The Bear Paw Gas Plant is being constructed to reduce flaring from the oil fields. Phase I is currently under construction with subsequent expansion phases planned. ONEOK has requested that MWEC provide redundant electrical supply to the plant. MWEC's system does not have the capacity to serve the gas plant with a primary and redundant power source. The Proposed Action will provide the redundancy necessary to operate the plant, and it will serve the gas plant expansion.

Additionally, the Proposed Action could accommodate the additional load growth related to the continued increase of oil and gas activity in the area. At the time, MWEC is receiving numerous

requests monthly; most of the requests are to support compressors for drilling activities and ancillary structures. MWEC anticipates that the load growth being experienced in the area due to the oil and gas industry will continue to increase.

MWEC is proposing to construct the new transmission facility to meet the increased and redundant demand associated with the gas plant, and for potential future demands, in the most reliable manner possible to avoid jeopardizing the existing transmission system and the service provided to its existing or new customers. The new transmission line would assist in providing the area with reliable infrastructure for existing and future load demands.

1.2 AUTHORIZING ACTIONS

In addition to Western’s action, other Federal, State, and local agencies have jurisdiction over certain aspects of the Proposed Action. Table 1.2-1 provides a listing of agencies with permitting and authorizing responsibilities for the Proposed Action.

Table 1.2-1
Permits that May be Required

Permit	Jurisdiction	Status
Local Approvals		
Conditional Use Permits (for 115-kV transmission line and distribution substation)	Williams County, North Dakota	Will be applied for if needed
State of North Dakota Approvals		
Consolidated Certificate of Corridor Compatibility and Route Permit	North Dakota Public Service Commission	Pending*
Right-of-Way Grant	North Dakota State Land Department	Pending
National Pollutant Discharge Elimination System Permit	North Dakota Department of Health	To be applied for where ground disturbance would disrupt more than 1 acre.
Section 401 Water Quality Certification	North Dakota Department of Health	To be applied for, if necessary
Federal Approvals		
Interconnection Approval	Western Area Power Administration	Pending
Endangered Species Act (ESA) Section 7 Consultation	U.S. Fish and Wildlife Service	Biological assessment and consultation to be completed as part of the NEPA process
National Historic Preservation Act Section 106 Consultation	North Dakota State Historic Preservation Officer	Cultural survey and consultation to be completed concurrent with the NEPA process
Clean Water Act Compliance (Section 404 Approval)	U.S. Army Corps of Engineers	To be applied for, if necessary.

* The PSC is requiring BEPC to obtain a permit for the 4 miles of transmission line that is being double circuited with MWEC’s 115-kV transmission line.

1.3 AGENCY CONSULTATION AND PUBLIC PARTICIPATION

Western has consulted with the various federal and state agencies and tribes in the development of this analysis (Appendix D). In addition to these consultations, Western will consider comments to this EA from agencies, tribes, landowners, and other interested persons.

Western held a scoping meeting for the proposed project on July 6, 2011, in Williston, North Dakota, at the Ernie French Extension Center. The meeting was to inform landowners and other interested parties about the project. Western staff and MWEC representatives were available to address questions and concerns. There were no comments received at or following the public scoping meeting.

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

The Proposed Action, as shown in Figure 1.1-1, consists of a new, approximately 16-mile-long, 115-kV transmission line, owned and operated by MVEC, between the Williston Substation and the Stateline Substation located at Bear Paw Gas Plant. The project also includes construction of the MVEC Judson Distribution Substation approximately two miles west of the Western Williston Substation. The MVEC Judson Distribution Substation would occupy approximately five acres.

Table 2.1-1 provides legal descriptions of where the proposed facilities would be located in Williams County:

Table 2.1-1
Location of Proposed Action in Williams County

Township Name	Township	Range	Sections
Judson	154 N	102W	3-6, 10,14-15,23-24
Round Prairie	154 N	103W	1
Hebron	155N	103W	21-22, 27, 34-36

2.2 INTERCONNECTION AT THE WILLISTON SUBSTATION

The proposed interconnection would utilize an existing 115-kV transmission line termination position that will be vacated by the upgrade of the Watford City 115-kV transmission line to 230-kV. Western will modify the relays, potential and current transformers, and revenue metering at the termination position as necessary. The modifications will occur within the existing termination bay and no new surface disturbance will be necessary.

2.3 TRANSMISSION LINE

Figure 2.3-1 through Figure 2.3-5 provide photos typical of the proposed structures to be installed for the transmission line. MVEC is proposing to use single-pole wooden structures placed approximately 300 feet apart (with a maximum span of 325 feet) along most of the transmission line. The height of the new structures would vary from 60 feet above ground to 90 feet, depending on terrain and structure type. This structure may be used to support transmission line only or may be modified as shown in Figure 2.3-2 to serve as a distribution underbuild structure.

Between the Williston Substation and proposed BEPC Judson Substation (Township 154N, Range 102 W, Sections 23 and 24) and north of the BEPC Judson Substation through Township 154N, Range 102W, Section 15, MVEC is proposing to use single-pole steel structures that would accommodate a double circuit transmission line build out. Figure 1.1-2 shows the location of the potential 230/115-kV double circuit and the location of the 345/115-kV double circuit. The structures would be placed approximately 800 feet apart (with a maximum span of 850 feet).

The height of the new structures would vary from 100 feet above ground to 115 feet, depending on terrain and structure type. Photos of the 230/115-kV double circuit are shown in Figure 2.3-3 and Figure 2.3-4. A typical 345/115-kV is shown in Figure 2.3-5. Only the 115-kV line would be placed on the structures and energized as part of this project. However, future lines are being planned in the area and MWEC is coordinating with BEPC to reduce environmental impacts by double-circuiting where feasible. The transmission line structures would be constructed with the davit arms for the second circuit for the Project. However, the second circuit would not be strung and energized until BEPC receives applicable state and federal approvals. Near Township 155N Range 103W Section 36, two-pole wooden H-frame structures or a three-pole wooden structure with H-frame structures on each end are proposed to span a sensitive wetland and wildlife area. The spans for these structures would be between 600 to 700 feet apart.

The proposed permanent right-of-way (ROW) width would be 100 feet for the single circuit line and 150 feet for double circuit configurations. During construction of single- or multi-pole structures, each pole and anchor facility would typically involve up to 10,000 square feet, or 0.2 acres, of ground disturbance. The permanent impact would be approximately 100 square feet, or 0.002 acres. The H-frame or three-pole structures would permanently impact up to 0.6 acre. These acreages might increase slightly where guy wires are used to stabilize the pole. Guy wires would be used on wooden angle structures or areas where soil conditions are less stable¹. Up to six guy wires may be used per pole structure.

¹ To estimate impacts, it has been assumed that up to 25 structures may require guy wires.

Figure 2.3-1
Standard Single Pole 115-kV Structure with Distribution Underbuild



Figure 2.3-2
Standard Single Pole 115-kV Structure with Distribution Underbuild Typical

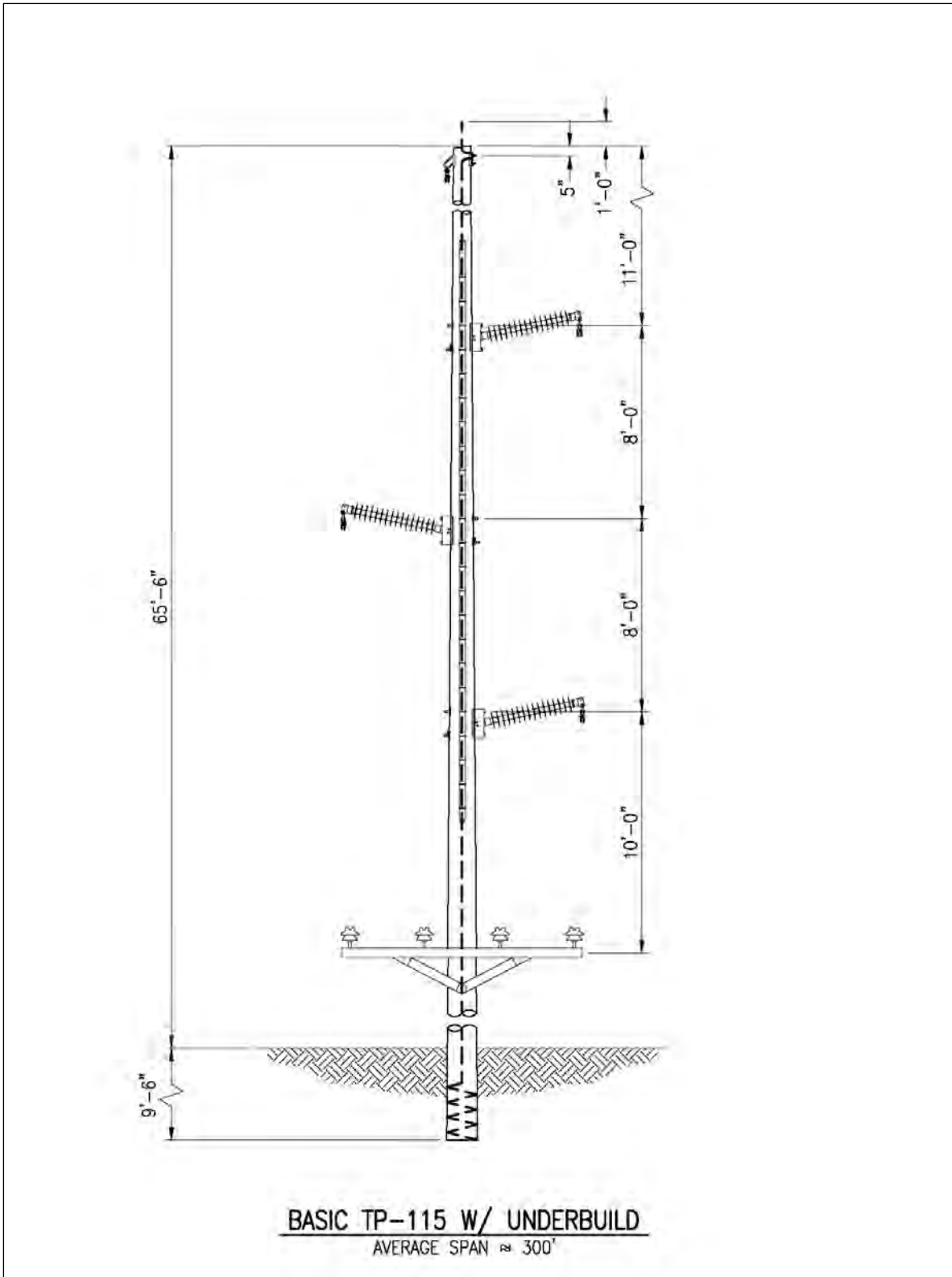


Figure 2.3-3
Single Pole Double circuit 230/115-kV Structure



Figure 2.3-4
Single Pole Double circuit 230/115-kV Structure Typical

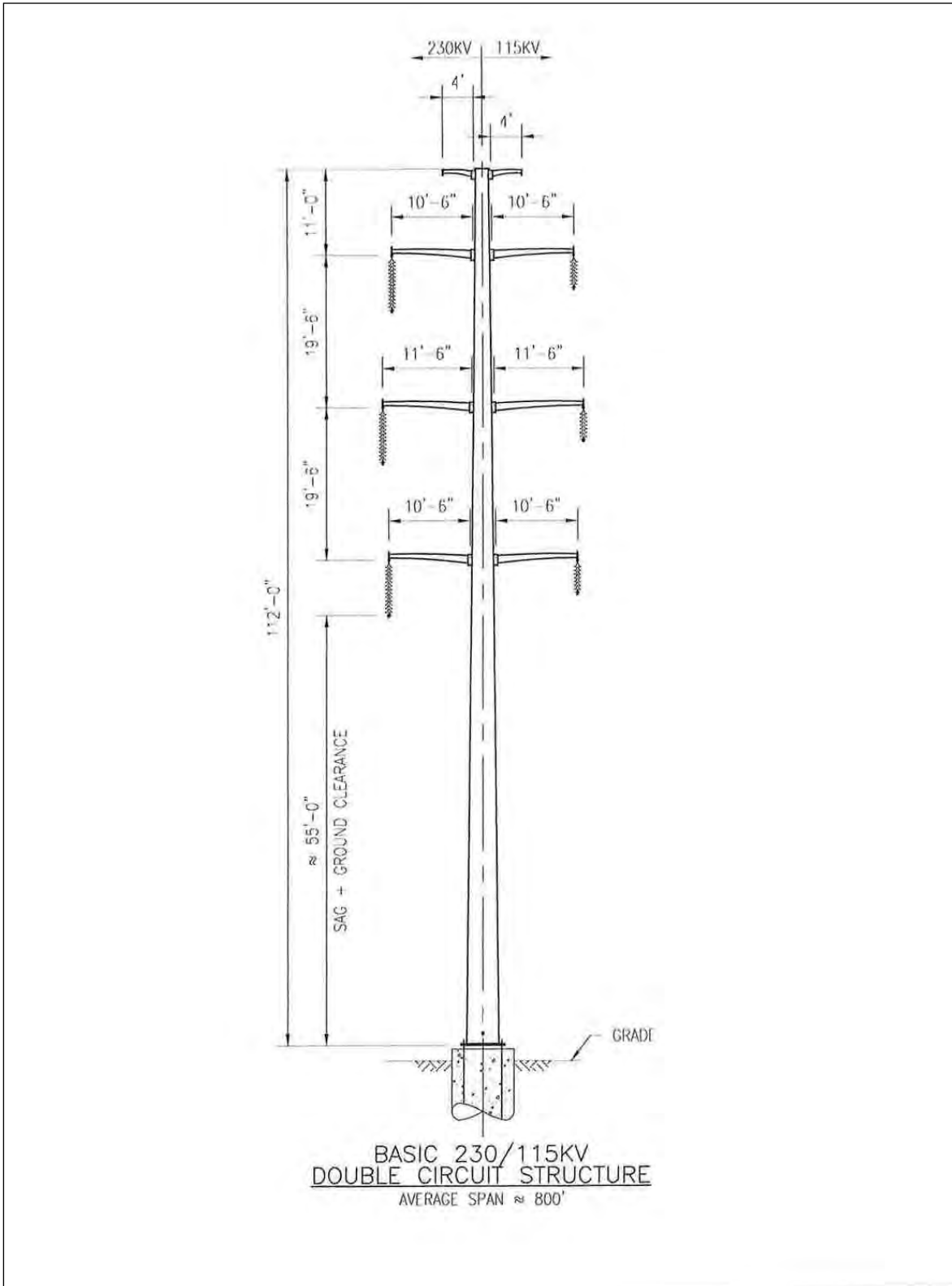
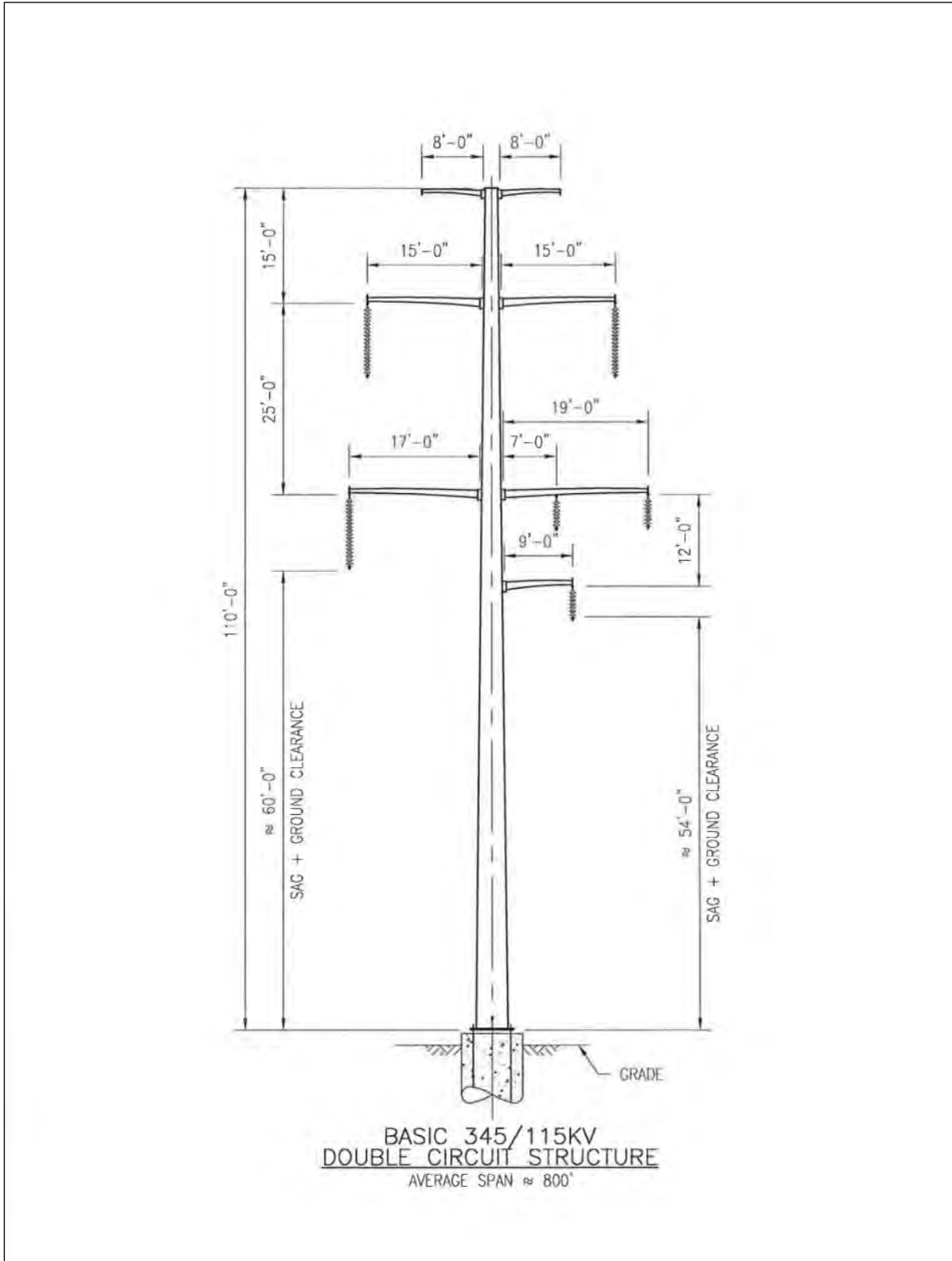


Figure 2.3-5
Single Pole Double circuit 345/115-kV Structure Typical



2.4 DISTRIBUTION SUBSTATION

To accommodate the additional load growth related to the continued increase of oil and gas development activity in the area, an additional substation would be constructed in Township 154N, Range 102W, Section 23. The proposed BEPC Judson Substation site would include a MWEC distribution substation and a BEPC Judson transmission substation. Figure 1.1-2 shows the general layout and configuration of the overall site. This EA will note natural and cultural resources in the overall site location, however, the impacts associated with the construction of the distribution portion of the substation will be the focus of the impact analysis for the EA. Five acres have been secured for construction of the MWEC distribution substation. The BEPC Judson transmission substation will be covered in more detail in an environmental analysis being prepared by BEPC in subsequent environmental documents.

The proposed MWEC Judson distribution substation would be located on a 5-acre parcel and would be owned, constructed, and operated by MWEC. The five acre parcel would be located within the larger BEPC Judson Substation site. Table 2.4-1 summarizes the equipment to be installed at the MWEC Judson distribution substation. During construction approximately 3 acres of this site would be disturbed. Once the equipment is installed, the area that would be permanently occupied by the distribution substation would be less than 2 acres. Access to the substation site would be from the north.

Table 2.4-1
MWEC Distribution Substation Equipment

Equipment	Installation (Total)
Control House	1
15/20/25MVA, 115-24.9/14.4 kV Transformer	1
15/20/25 MVA, 115-12.47/7.2 kV Transformer	1
115 kV Circuit Breakers	4
24.9 kV Circuit Recloser	6 initial, 12 ultimate
24.9 kV Voltage Regulator	3
12.5 kV Voltage Regulator	3

2.5 PRECONSTRUCTION ACTIVITIES

Preconstruction activities include literature searches, site engineering surveys, environmental surveys and studies, landowner agreements, and engineering design. Preconstruction activities would apply to all components of the Proposed Action.

2.5.1 PRECONSTRUCTION SURVEYS AND STUDIES

A summary of completed and planned surveys are as follows:

- ◆ Geotechnical borings to provide detailed information for foundation design of the proposed facilities; and
- ◆ Cultural and natural resource surveys to assess existing conditions. These surveys identify sensitive resources and assure that the placement of the proposed facilities avoid them, or minimize/mitigate potential impacts in the event avoidance is not possible.

2.5.2 LANDOWNER AGREEMENTS

MWEC has been working with affected landowners to negotiate agreements for the Proposed Action.

2.5.3 PROJECT PLANNING AND DESIGN

The Proposed Action has been designed to comply with applicable Federal, State, and local regulations. All facilities would be constructed in accordance with the National Electrical Safety Code (NESC) and the U.S. Department of Labor Occupational Safety and Health Standards. The MWEC components would be built to RUS transmission engineering and construction standards, substation and design standards and control engineering and design standards. In addition, the Proposed Action has been sited to avoid sensitive resources, such as sensitive habitat, native prairie remnants, wetlands, cultural resources and residential areas as much as possible. Construction schedules are being planned to avoid breeding seasons for nesting birds and other sensitive wildlife, to the extent practicable. Construction will be delayed during the breeding season (February 1 to July 1) in T154N, R102W Section 23, 10; T155N, R102W, Section 31; and T155N, R103W, Section 36 along native grassland areas to minimize impacts to migratory birds.

General land requirements and disturbance areas for each of the components are shown in Table 2.5-1. A summary of construction equipment, personnel, and time required for each task is provided in Table 2.5-2

Table 2.5-1
Summary of Disturbances

Component	Impact (acres) ¹	
	Construction Requirements (temporary)	Maintenance Requirements (long-term)
115-kV transmission line	49	0.49
Distribution Substation area	3	2
Total Impacts	52	2.49

¹ Impacts were calculated based on preliminary design layouts for taking into account the various structure types and average span lengths. Temporary construction impacts include temporary impacts associated with pole construction, as described in Sections 2.3 and 2.4. Materials would be stored at the Stateline substation, proposed Judson substation, and the MWEC maintenance yard. No new areas of disturbance would be necessary.

**Table 2.5-2
Summary of Construction Equipment and Personnel**

Task	Number of Construction Personnel Needed	Equipment Needed	Length of Time for Task
Transmission Line			
Site Clearing	3	Pickups, ATVs, hand tools	2 weeks
Transmission Line Structure Assembly	6 – 8	Pickups, cranes, material trucks,	2 months
Transmission Line Hole Excavation	2 - 3	Rotary drilling rigs, backhoes, pickups, ATVs, portable compressors	2 months
Concrete Foundations for Transmission Line Structures	5	Excavators, concrete trucks, skid steer	1 -2 months
Transmission Line Structure Erection	6 – 8	Cranes, boom trucks, pickups	2 months
Ground Wire and Conductor Stringing	10 – 14	Pickups, manlifts, boom trucks, hydraulic tensioning machines, reel trailers	1 – 2 months
MWEC Distribution Substation			
Site Grading	4 -6	Graders, dump trucks, pickups	2 weeks
Concrete Foundations	6-8	Excavators, concrete trucks, skid steer	3 weeks
Steel Erection	6-8	Cranes, boom trucks, pickups	3 weeks
Wiring and Buswork	4-6	Pickups	3 weeks
Commissioning	4	Pickups	1 week
Clean up	4	Pickups, dump trucks, flatbed trucks	On-going during construction

2.6 CONSTRUCTION ACTIVITIES

2.6.1 CONSTRUCTION OF THE TRANSMISSION LINE

Site Clearing

Because the majority of the proposed 115-kV transmission line would be constructed in cultivated agricultural fields and pastures (one pasture area includes mixed grass prairie species and construction will be delayed in this area to minimize impacts to migratory birds), minimal vegetation clearing would be required. Trees would be removed in T154N, R102W, Section 5 and in T155N, R103W, Section 34. The proposed 115-kV transmission line would be constructed at-grade for the majority of the ROW. In some isolated cases, grading could be required at structure locations if there is sloping or uneven ground. Grading may be necessary in

that situation to provide a level working area. Trees will be cleared within the ROW. Equipment used for this grading would likely consist of a front end loader or a small bulldozer. A summary of disturbances is included in Table 2.5-1 in Section 2.5.

Equipment Delivery and Transportation

Most of the material required for construction of the transmission line (e.g. poles, conductors, insulator bells) would be delivered to temporary material storage areas either located at the MWEC Office in Williston, proposed Judson Substation or the Stateline Substation. The materials and equipment would then be transported to the construction ROW along the route as construction progresses or from existing access points along county and section roads. No new access roads would be constructed.

Excavation, Foundations and Structure Erection

Insulators and other hardware would be attached to each structure while on the ground. Each single circuit wooden pole structure would require excavating or auguring a hole approximately 8.5 to 12 feet deep and approximately 2 to 4 feet in diameter. Excavation dimensions would depend upon soil conditions, whether the structures would support an angle, and guying room available. Double circuit pole structures would require excavating or auguring a hole approximately 12 to 40 feet deep and approximately 7 to 8 feet in diameter.

The pole would then be lifted, and placed in the hole by a crane or similar heavy-duty equipment. The holes would be back-filled with native material or select backfill.

Conductor Stringing

Conductors would be installed by establishing stringing setup areas within the ROW, typically every two miles, which would store the spools of conductor cable. Temporary guard or clearance poles would be installed as needed over existing distribution or communication lines, streets, roads, highways, or other obstructions after any necessary notifications are made and permits obtained. This ensures that conductors would not obstruct traffic or contact existing energized conductors or other cables. Once the structures have been erected, crews would drive along the ROW, securing the conductor line through the insulators on the poles and installing shield wire clamps once final sag is established. The structures would be accessed by a hydraulic bucket system vehicle or “cherry picker.”

Gravel and Fill

Various construction activities associated with the Proposed Action could require access to gravel. The source for gravel would be from a commercially available source such as an already disturbed gravel pit.

Construction Waste Management

All waste and scrap, such as wire reels and pallets, would be removed from the area and disposed of properly at an approved disposal site. Personal waste generated by the construction crew, such

technically feasible; and 7) be economically viable. A variety of data sources, including regional electrical system models, system plans, aerial photographs, topographic maps, geographic information system (GIS) data, site visits and landowner input were used to select the location of the route.

MWEC considered the following route alternatives, which are discussed below:

- ◆ Alternative A
- ◆ Alternative B

Alternative A

Alternative A would exit the Western Williston Substation and travel west along Highway 2 for approximately 10 miles until 151st Ave NW at this point the route would turn north and travel six miles north to the new MWEC Stateline Substation (Figure 1.1-1).

This alternative would be placed in an area where two 115-kV transmission lines already parallel Highway 2. One of these transmission lines is constructed for 230-kV and will likely be converted in the future. As a result space is limited in this area to support another transmission line route. In addition, Alternative A route would be located near more homes and businesses than the Proposed Action and near or over multiple communication towers resulting in possible conflicts or relocations. It was not the preferred route by landowners who were not supportive of easements along this route.

The route would be longer than the Proposed Action, impacting more land resources and resulting in higher cost for the transmission line; it would not provide benefits over the Proposed Action.

Alternative B

Alternative B would exit the Williston Substation and travel six miles north to 56th street NW where the route would turn west and travel ten miles west terminating at the MWEC Stateline Substation (Figure 1.1-1).

This alternative would be located closer to documented whooping crane sightings which are likely associated with Lake Sakakawea and the Missouri and Little Muddy rivers to the east. The area east of this route has been identified as a future growth area in the Williston comprehensive plan as a mixture of industrial, commercial, residential and agricultural uses. Landowners were not supportive of this route when approached regarding possible land easements.

This route would be longer than the Proposed Action, but would not provide benefits over the Proposed Action. Instead, it may result in impacts to future land use and would be closer to areas where whooping cranes have been sited.

2.8.3 WESTERN'S DETERMINATION

Based on the summary of evaluations, impacts and considerations discussed above, Western determined that, compared to the Proposed Action, neither route alternatives A or B offered substantive environmental and/or economic benefits that would warrant further, more detailed investigation. For these reasons, the alternatives described above were not carried forward for detailed analysis in this EA.

proposed distribution Substation would result in temporary emissions of PM_{2.5} and PM₁₀. Emissions of O₃, NO_x, PM_{2.5}, and PM₁₀ would not significantly impact air quality in the Project Area.

The O₃ and NO_x emissions from a 115-kV transmission line result from corona effects and are very minor. Corona consists of the breakdown or ionization of air within a few centimeters or less of conductors, which can produce ozone and oxides of nitrogen. For a 115-kV transmission line, the conductor gradient surface is usually below the air breakdown level. Typically, some imperfection, such as a scratch on the conductor or a water droplet, is necessary to cause corona. Ozone is not only produced by corona, but also forms naturally in the lower atmosphere from lightning discharges and from reactions between solar ultraviolet radiation and air pollutants such as hydrocarbons from auto emissions. The natural production rate of ozone is directly proportional to temperature and sunlight and inversely proportional to humidity. Thus, humidity (or moisture), the same factor that increases corona discharges from transmission lines, inhibits the production of ozone from chemicals in the atmosphere. Ozone is a very reactive form of oxygen and combines readily with other elements and compounds in the atmosphere. Because of its reactivity, it is relatively short lived.

Transmission lines and substations do not produce substantial amounts of O₃ and NO_x and emissions of PM_{2.5} and PM₁₀ would be temporary and intermittent. Due to the temporary and intermittent nature of these emissions and the fact that the study area is currently in attainment for both federal and state ambient air quality standards, impacts anticipated from the Proposed Action would not result in a violation of ambient air quality standards.

No-Action (No-Build)

Under the No-Action Alternative, continued flaring at hundreds of pumping stations could result in a decrease in air quality. While flaring may not violate federal and state air quality standards, the overall impacts to air quality would be greater under the No-Action Alternative.

The need for the Project would still exist if the No-Action alternative is chosen. If this project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

Neither the Proposed Action nor the No-Action Alternative, in combination with other projects, would result in a violation of federal or state air standards. Predicted emission levels during construction and maintenance of any facilities would be low and the resulting concentrations would not exceed state or federal standards.

No substantive direct, indirect, or cumulative impacts to air resources would result from the Proposed Action or the No-Action Alternative.

3.2.3 CLIMATE CHANGE

Existing Environment

Greenhouse gases (GHG) are chemical compounds in the Earth's atmosphere that absorb and emit radiation within the thermal infrared range. The primary GHGs consist of water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases (USEPA 2010). Human activities such as deforestation, soil disturbance, and burning fossil fuels can increase emissions of GHGs, resulting in a build up of heat in the atmosphere. Models predict that atmospheric concentrations of all GHGs will increase over the next century due to human activity; however, the extent and rate of change is difficult to predict. In response to concerns over the predicted increase of global GHG levels, several federal regulations address the need to reduce GHG emissions. One of these regulations, the USEPA Mandatory Reporting Threshold for Large Sources, requires reporting of GHG emissions exceeding 25,000 metric tons of carbon dioxide equivalent (CO₂e) per year. This threshold is approximately equivalent to the amount of CO₂ generated by 4,400 passenger vehicles per year.

Environmental Impacts

Proposed Action

Construction Impacts

During construction, GHG emissions from the Proposed Action would result from the use of gasoline and diesel-powered vehicles and temporary disturbance of vegetation would result in a reduction of GHG storage in the Project Area. Based on the low workforce and the limited amount of temporary vegetation clearing required to construct the transmission line, GHG emissions resulting from construction would be negligible and well below the USEPA Mandatory Reporting Threshold.

Operation Impacts

Fossil fuels consumed during periodic maintenance would be the only producers of GHGs during Project operation, while permanent clearing of vegetation and trees along the transmission line corridor would reduce the overall GHG storage capacity of the Project Area. The amount of CO₂ produced by maintenance vehicles over the life of the project would be negligible and well below the USEPA Mandatory Reporting Threshold. Permanent vegetation removal and proposed mitigation is discussed in Section 3.2.5. Because operation and maintenance activities would be similar to existing conditions, project GHG emissions would not represent a substantial change.

No-Action (No-Build)

Under the No-Action Alternative, continued flaring at hundreds of pumping stations could result in increased GHG emissions. While flaring may not exceed the USEPA Mandatory Reporting Threshold, overall GHG emissions would be greater under the No-Action Alternative than the build alternative.

The need for the Project would still exist if the No-Action alternative is chosen. If this project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

All levels of GHG emissions are relevant in that they contribute to global GHG concentrations and climate change. Predicted emission levels during construction and maintenance of any facilities would be low and the resulting impact on GHG concentrations would be low.

No substantive direct, indirect, or cumulative impacts to air resources would result from the Proposed Action or the No-Action Alternative.

3.2.4 WATER RESOURCES AND QUALITY

Existing Environment

The study area for water resources and water quality is the proposed ROW. Some discussion of regional resources is necessary for context of site-specific water resources. Western North Dakota is a semiarid to subhumid and continental region, receiving approximately 14 inches of moisture annually (SCS 1998). Water resources within the study area include groundwater aquifers, streams and associated wetlands, isolated prairie pothole wetlands, and man-made lakes. Agriculture, cattle, and oil and gas facilities are the most likely sources of degraded water quality (See Appendix C).

Groundwater

Groundwater resources in the study area are included in the Fort Union Formation Tertiary aquifer. Tertiary aquifers consist mostly of semi-consolidated to consolidated sandstone beds of Oligocene to Paleocene age (USGS 1996). These water-yielding sandstones are an important water source in the region. According to the North Dakota State Water Commission (NDSWC), water observation wells access groundwater resources as shallow as 6 feet below the ground surface (NDSWC 2011).

Surface Water

Surface water resources in the study area are found within the Charlie-Little Muddy Creek watershed (NDSWC 2006). No major rivers are found in the study area. However, the Missouri River is located approximately two miles to the southeast of the study area. One stream, Painted Woods Creek, and several unnamed tributaries cross the proposed alignment (NRCS 1998). Individual stream crossings are listed in Table 3.2-1. In general, surface water in the study area drains southeast toward the Missouri River.

Table 3.2-1
Water Crossings

Waterbody Name	# of Crossings
Painted Woods Creek	1
Multiple Unnamed Tributaries	6

Source: (NRCS 1998)

Water Quality

Widespread agricultural practices in the region (e.g., feedlots, application of pesticides, herbicides, and fertilizers, cattle grazing and trampling of streams and riparian areas, and absence of erosion control) have contributed to a general decline in water quality over the last 100 years. Recent and ongoing oil extraction may also contribute to water quality degradation. According to the North Dakota Geographic Targeting System for Groundwater Monitoring, surface water and groundwater in Williams County has levels of pesticides and nitrates well within human health and aquatic life standards.

Wetlands

The study area for wetlands includes the proposed ROW, temporary material storage areas, MWEC distribution substation, and surrounding lands that may be temporarily affected by construction. Typical wetland vegetation is emergent, with seasonally saturated-to-ponded hydrologic regimes. The majority of the wetlands are associated with streams and stream impoundments. Isolated prairie pothole wetlands also occur in the Project area.

Wetland resources within the study area were initially identified by reviewing Williams County Soil Survey data published by the Natural Resources Conservation Service (NRCS), and National Wetlands Inventory (NWI 2011) data. Following review of this information, on-site wetland delineations took place in August 2011 according to the 1987 Army Corps of Engineers Field Guide for Wetland Delineation methods and the 2010 Army Corps of Engineers Great Plains Regional Supplement.

Scattered small wetlands (less than 1 acre) occur throughout the ROW landscape. Some of these wetlands are associated with the intermittent drainages that direct water to Painted Woods Creek; while others are isolated prairie pothole wetlands. According to USGS stream mapping there are no perennial streams that are crossed by the Project. The only named watercourse crossed by the Project is Painted Woods Creek, an intermittent stream. Twenty-three wetlands are located within the proposed ROW. Wetlands and other surface water features are shown in Appendix C.

As shown in Table 3.2-2, the wetlands in the Project area are typically temporarily or seasonally flooded, palustrine, emergent-type wetlands. Many wetlands in the area have been affected by agricultural practices, grazing and trampling by cattle, partial drainage or tillage, or runoff of fertilizers and herbicides.

Typical wetland vegetation includes green needlegrass (*Stipa viridula*), needleandthread (*Stipa comata*), western wheatgrass (*Agropyron smithii*), and blue grama (*Bouteloua gracilis*). Wetlands found in pasture areas are generally used by cattle for watering. Species diversity within these areas tends to be low, and impacts from soil disturbance by cattle are noticeable in many locations. Hydrologic regimes ranged from temporarily saturated in some swales, to deep-water habitat in intermittent streams.

Table 3.2-2
Wetlands within ROW

Cowardin Classification	Acres
PEMA	0.45
PEMB	0.0
PEMC	2.07
PABFx	0.10
Total	2.62

Environmental Consequences

A significant impact to water resources would occur under any of the following conditions:

- ◆ Groundwater, surface water quality, or wetland degradation resulting in violations of federal and/or state standards, including stormwater discharge events in violation of NPDES permit requirements; and
- ◆ Increased susceptibility to on-site or off-site flood damage due to altered surface hydrology; or
- ◆ Unmitigated discharge of dredged or fill material into jurisdictional waters of the United States under Section 404 of the Clean Water Act or in violation of a Section 404 permit or applicable state wetland regulations; or
- ◆ Unmitigated drainage or dewatering of jurisdictional waters of the United States under Section 404 of the Clean Water Act or in violation of a Section 404 permit or applicable State wetland regulations; or
- ◆ Loss of wetland area

Proposed Action

Groundwater may be encountered during excavations for transmission line structures, however, the Proposed Action is not expected to require dewatering. If dewatering is found to be necessary during construction (i.e., during pole embedding), the effects on water tables would be localized and short-term. Dewatered groundwater would be properly discharged to minimize erosion and facilitate infiltration back into the ground. The Proposed Action would have no impact on either

municipal or private water uses in the study area. No water storage, reprocessing, or cooling is required for either the construction or operation of the transmission line. Therefore the Proposed Action would not result in violations of groundwater quality standards.

The 115-kV transmission line would be designed to span and/or avoid surface water features, including streams and wetlands. Construction of the transmission line would not be expected to alter existing surface water drainage patterns due to the small cross section per pole and their relatively wide spacing. The typical distance between structures would be 350 feet. No wetlands or wetland complexes within the ROW are wider than the maximum span distance. Access roads would be routed to avoid wetlands. The small area of impermeable surfaces created by the pole structures would not cause an increase in the susceptibility of the region to flooding.

Sediment reaching tributaries to Painted Woods Creek has the potential to adversely affect water quality downstream. MWEC would employ BMPs and adhere to the terms and conditions of the NPDES permits during construction. These actions would protect topsoil and adjacent water resources and minimize and trap soil erosion before it could reach surface water resources.

Maintenance and operation activities for substation or transmission-line facilities are not expected to have an adverse impact on surface water quality.

There is the possibility with any construction activity of spilling fuel, hydraulic fluid, or other regulated materials that could reach surface water resources. MWEC would minimize the likelihood of such an event by ensuring that refueling takes place at secure areas away from drainages. Spill kits would be maintained at these sites to contain and clean up any spills that may occur. Construction crew members would be trained in spill prevention and clean up to insure proper handling of any accidental spill (Appendix A).

No-Action (No-Build)

Under the No-Action Alternative, increased disturbance from site clearing and excavation activities would not occur, resulting in less opportunity impacts to water quality in the Project area. The overall impacts to water resources would be less under the No-Action Alternative.

The need for the Project would still exist if the No-Action alternative is chosen. If this project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

The effect of the Proposed Action on water resources, in combination with the projects described in Section 3.4, would not be expected to degrade water resources. The proposed transmission projects in the area would have a similar construction methodology as the Proposed Action and would not be expected to impact water resources, including wetlands. BMPs would be employed by MWEC to ensure that erosion and sedimentation are avoided, minimized, and contained during construction, and that sediment does not reach surface water bodies. Adherence to

NPDES permits would require adequate design, grading, and use of BMPs to ensure that water quality is not affected by these projects.

No substantive direct, indirect, or cumulative impacts to surface water resources would result from the Proposed Action or the No-Action Alternative

3.2.5 VEGETATION

A biological reconnaissance survey was completed in August 2011, to identify vegetation in the study area. The study area for vegetation is 1 mile on either side of the proposed transmission line route and the proposed MWEC distribution substation location. Some discussion of regional resources is necessary for context of site-specific vegetation.

Existing Environment

Historically, vegetation in the western region of North Dakota consisted of mixed-grass prairie. The present vegetative cover in the study area is primarily row crops, pastured mixed-grass prairie, and non-native grassland. Trees and shrubs are scarce, consisting of planted trees and shrubs associated with farmstead windbreaks and tree rows. The following provides detailed descriptions of the vegetation communities observed during the August 2011, biological surveys.

Cropland

Cropland is frequent throughout the study area. Most cropland is used to cultivate wheat. In 2011, however, the majority of the crop fields were left fallow—possibly due to spring flooding—and fields consisted of wheat stubble and weeds such as horsetail (*Conza canadensis*), Canada thistle (*Cirsium arvense*), sowthistle (*Sonchus arvensis*), green foxtail (*Setaria viridis*), and pigweed (*Amaranthus spp.*).

Figure 3.2-1
Typical Cropland in Study Area (August 2, 2011)



Non-Native Grassland

Intermittent areas of non-native grassland have been planted within the study area. These areas, which appear to be used for hayland, are dominated by species such as intermediate wheatgrass (*Thinopyrum intermedium*), crested wheatgrass (*Agropyron cristatum*), smooth brome (*Bromus inermis*), and alfalfa (*Medicago sativa*).

Figure 3.2-2
Typical Non-native Grassland in Study Area (August 2, 2011)



Mixed-Grass Prairie

Much of the pastureland within the study area is moderately grazed and maintains strong mixed-grass prairie characteristics. Dominant mixed-grass plant species (areas greater than 10 percent of the plant community) in order of abundance, include green needlegrass (*Stipa viridula*), junegrass (*Koeleria macrantha*) blue grama (*Bouteloua gracilis*), and western wheatgrass (*Pascopyrum smithii*). Other frequently observed species, in order of abundance, include fringed sagewort (*Artemisia frigida*), needleandthread (*Stipa comata*), purple coneflower (*Echinacea angustifolia*), prairie coneflower (*Ratibida columnifera*), white milkwort (*Polygala abla*), purple prairie clover (*Dalea purpurea*), silverleaf scurfpea (*Pediomelum argophyllum*), red threeawn (*Aristida purpurea*), pasqueflower (*Anemone patens*), blanket flower (*Gaillardia aristata*), dotted blazingstar (*Liatris punctata*), prairie rose (*Rosa arkansana*), prairie turnip (*Pediomelum esculatum*), and rush skeletonplant (*Lygodesmia juncea*).

A photo of the mixed grass prairie is found in Figure 3.2-3. Locations of mixed-grass prairie adjacent to the Project are shown in Figure 3.2-4. There are two main areas of mixed grass prairie, which account for approximately 6 percent of the land cover in the Project area. A search of the North Dakota Natural Heritage conservation database indicated no significant ecological communities or sensitive plant species within a 1-mile radius of the Project.

Figure 3.2-3
Typical Mixed-grass Prairie in Study Area (August 2, 2011)



Figure 3.2-4
Mixed Grass Prairie

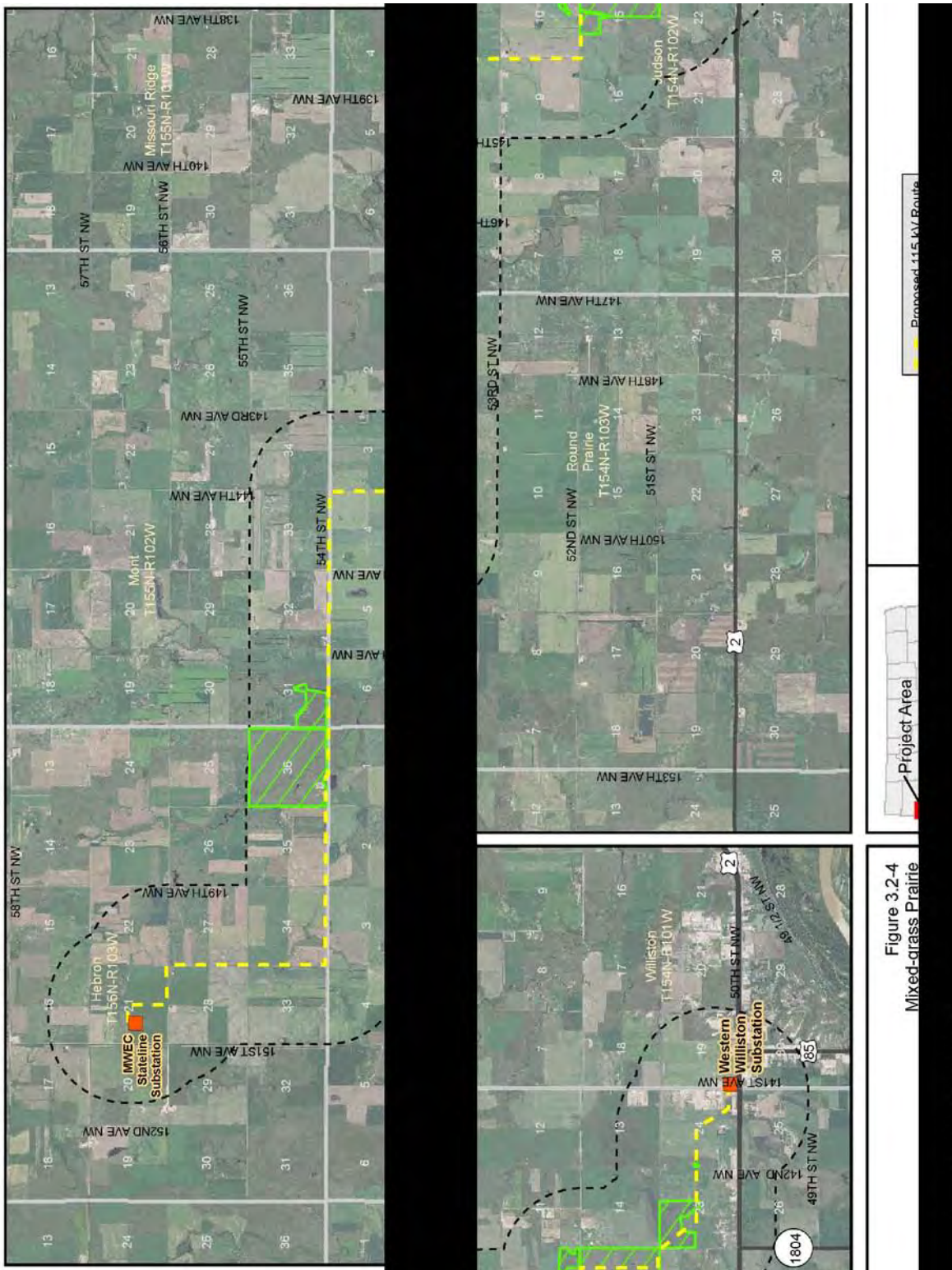


Figure 3.2-4
Mixed-grass Prairie

Noxious Weeds

North Dakota has listed eleven species of noxious weeds (North Dakota Century Code chapter 63-01.1). Neither Williams County nor the city of Williston has additional listed noxious weed species (NDDA 2011). Six of the listed species are known to occur in Williams County (NDDA 2007). Table 3.2-3 shows the North Dakota noxious weed list and those weeds that have been identified in Williams County. Although these species occur in Williams County, mapped occurrences are outside of the study area, according to the North Dakota Weed Mapper (NDDA 2011). Canada thistle was intermittently present in the study area, mostly within untreated fallow agricultural fields along the transmission line, but it was not a dominant species.

Table 3.2-3
North Dakota Noxious Weeds

Common Name	Scientific Name	ND	Williams County
Absinth Wormwood	<i>Artemisia absinthium</i> L.	X	X
Canada thistle	<i>Cirsium arvense</i> (L.) Scop.	X	X
Dalmatian toadflax	<i>Linaria genistifolia</i> ssp. <i>dalmatica</i>	X	
Diffuse knapweed	<i>Centaurea diffusa</i> Lam.	X	
Leafy spurge	<i>Euphorbia esula</i> L.	X	X
Musk thistle	<i>Carduus nutans</i> L.	X	X
Purple loosestrife or <i>Lythrum</i>	<i>Lythrum salicaria</i> , <i>L. virgatum</i> L. and all	X	X
Russian knapweed	<i>Acroptilon repens</i> (L.) DC	X	
Saltcedar (tamarisk)	<i>Tamarix ramosissima</i> Ledeb., including <i>T. chinensis</i> and <i>T. parvidiflora</i> DC.	X	
Spotted knapweed	<i>Centaurea maculosa</i> Lam.	X	X
Yellow starthistle	<i>Centaurea solstitialis</i> L.	X	

Source: North Dakota Noxious Weeds List Regulations – Chapter 7-06-02 – Noxious Weeds Listed and North Dakota Department of Agriculture Noxious Weed Species Information
<http://www.agdepartment.com/Programs/Plant/NoxiousWeeds.html>

Environmental Consequences

A significant impact to vegetation resources would occur under the following conditions:

- ◆ Loss of vegetation resulting in the listing or jeopardizing of the continued existence of any non-noxious plant species; or elimination or decrease of a local plant population to below self-sustaining levels
- ◆ Introduction of noxious weeds to areas presently free of noxious weeds.

Proposed Action

The Proposed Action was sited to follow existing distribution or transmission lines and along section and quarter section lines as much as possible. As a result, minimal impacts to mixed-grass prairie and agricultural vegetation are expected. No sensitive vegetation communities were identified in the Project impact area during the Natural Heritage Database search, nor were any observed during field surveys. Impacts to existing vegetation would be limited to areas where

poles are located. Trees would be removed in T154N, R102W, Section 5, and in T155N, R103W, Section 34. Areas disturbed due to construction activities would be restored to preconstruction contours and, if acceptable to the affected landowner, would be reseeded with weed-free regionally native seed mixes recommended by local land management agencies.

Introduction of noxious weeds would be minimized through prompt revegetation with regionally native species. Additionally, all vehicles would be washed, especially the under carriage, prior to construction start. Vehicles would also be washed before traveling from an area identified as contaminated by noxious weeds to an uncontaminated area.

No-Action (No-Build)

Under the No-Action Alternative, increased ground disturbance from site clearing and excavation activities would not occur, leaving current vegetative communities completely in tact. The overall impacts to vegetation resources would be less under the No-Action Alternative.

The need for the Project would still exist if the No-Action alternative is chosen. If this Project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

The effects on vegetation from the Proposed Action, in combination with projects described in Section 3.4 would not be expected to significantly impact vegetation. Almost all of the past, present, and reasonably foreseeable projects involve temporary or permanent loss of vegetation in a small footprint. These losses may change the vegetative landscape in the study area. However, any resulting changes in vegetation will not jeopardize the continued existence of any non-noxious plant species or contribute to its listing, as most of the landscape is under cultivation.

No substantive direct, indirect, or cumulative impacts to vegetation resources would result from the Proposed Action or the No-Action Alternative.

3.2.6 WILDLIFE

The study area for wildlife resources is the ROW for the transmission line and the proposed MWEC distribution substation, with some discussion of regional resources. Existing literature and other information related to known species distribution were reviewed for relevance to the Proposed Action. A biological survey of the study area was conducted in August 2011. Sensitive species within the study area are discussed in Section 3.2.6, Special Status Species.

Existing Environment

In general the wildlife species present within the study area are typical of agricultural landscapes, pasture grasslands, and wetland habitat in the region. Common mammals for these habitats include raccoon (*Procyon lotor*), mink (*Mustela vison*), skunk (*Mephitis* spp.), weasel (*Mustela*

nivalis), white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), badger (*Mustilidae* family), and rabbit (*Syvilagus* spp.). Common birds include songbirds such as the western meadow lark (*Sturnella neglecta*), Say's phoebe (*Sayornis saya*), and dark-eyed junco (*Junco hyemalis*); waterfowl such as the blue winged teal (*Anas discors*) and Canada goose (*Branta canadensis*); raptors such as the American kestrel (*Falco sparverius*) and red-tailed hawk (*Buteo jamaicensis*); and upland game birds, such as ringneck pheasant (*Phasianus colchinus*), sharp-tailed grouse (*Tympanuchus phasianellus*), or wild turkey (*Meleagus gallopavo*). Most of the bird species nest in fencerow trees and on the ground in the grasslands associated with the prairie remnant, other grasslands, and riparian corridors.

Terrestrial wildlife is most common in farm fields, hayfields, pasture, fencerows, woodlots, and small creeks and wetland areas. These areas provide corridors for migration and foraging as well as ample cover for small mammals, raptors, waterfowl, upland game birds, and other common wildlife.

A review of the North Dakota Natural Heritage conservation database indicated no species of concern or sensitive ecological communities present within 1 mile of the proposed transmission line.

No game production areas, state recreation areas, lakeside use areas, or state game refuges are located within 1 mile of the Proposed Action. Two Wildlife Management Areas (WMAs) are located within 10 miles of the Proposed Action: Lewis & Clark WMA and Trenton WMA. One North Dakota State Land Surface tract is located adjacent to the Proposed Action. There are three Private Land Open to Sportsmen (PLOTS) parcels within 10 miles: one 6.6 miles southeast, one 7.7 miles southeast, and one 9.4 miles south of the Proposed Action. The Proposed Action does not affect any USFWS easements or other federally owned land. It is, however, approximately 2.7 miles from the closest U.S. Army Corps of Engineers (USACE) land (Garrison Dam – Lake Sakakawea) located along the Missouri River. Two Bureau of Land Management Surface and Mineral Lands are located approximately 6.3 miles southeast and approximately 8.1 miles southwest of the Proposed Action (NDGFD 2011).

The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, and transportation (among other actions) of migratory birds, their eggs, parts, and nests, except when specifically permitted by regulations. Additionally, the Bald and Golden Eagle Protection Act (BGEPA) prohibits anyone without a permit issued by the Secretary of the Interior from taking eagles, including their parts, nests, or eggs.

Some raptor species, including eagles, build stick nests that may be used for multiple years. As part of the August 2 to 3, 2011, biological surveys the following areas were reviewed for stick nests:

- ◆ Raptor stick nests – Area within 200 feet of edge of ROW
- ◆ Bald eagle nests – Area within 0.5 miles of edge of ROW

No raptor stick nests or eagle nests were identified within the area of review.

Environmental Consequences

Impacts to wildlife would be short-term if they impact one or two reproductive seasons, generally during the construction period; or long-term if they affect several generations during the life of the Proposed Action. Impacts would be direct if they affect an individual, a population, or a habitat; or indirect if the effect results from other actions. A significant impact to wildlife resources would occur under the following condition:

- ◆ Loss of habitat resulting in the listing of or jeopardizing the continued existence of any wildlife species

Proposed Action

Minor displacement of wildlife and alteration of habitat would occur from the Proposed Action. No designated wildlife areas occur in the study area and undesignated areas of high-quality wildlife habitat, including native prairie and wetlands, are not common. However there were areas of mixed grass prairie that may have increased presence of wildlife species such as the Sprague's pipit. Additionally, surveys have identified four wetlands within one-mile of the Project that offer suitable whooping crane stopover habitat. A discussion of these habitats is provided in Section 3.2.7, Special Status Species. Wildlife species may be displaced during construction, however, the transmission line has been sited to avoid large tracts of suitable habitat and follows roads and property lines wherever possible to avoid impacts associated with habitat fragmentation and disruption.

Raptors, waterfowl, and other bird species may be affected by the construction and placement of the transmission lines. Avian collisions are a possibility after the completion of the transmission line. Waterfowl, wading birds, and shorebirds are typically more susceptible to transmission line collision, especially if the transmission line is placed between agricultural fields that serve as feeding areas, or between wetlands and open water, which serve as resting areas. However, impacts to bird species due to collisions with the transmission line would be minimized by use of bird diverter devices or line markers placed in areas of likely wildlife foraging and movement, which make the transmission lines easier to see. Based on these measures, bird impacts would be minimized to the extent practicable, and would not be expected to be significant or to jeopardize the continued existence of any bird species.

Electrocution of large birds, such as raptors, can occur when birds come in contact with either two conductors or a conductor and a grounding device. Larger voltage lines (those above 69 kV) are less likely to cause electrocutions because the wires are spaced farther apart than on lower voltage lines. MWEC's transmission line design will meet Avian Power Line Interaction Committee (APLIC 2006) guidelines to provide adequate spacing between the conductors to minimize risk of raptor electrocution.

Nesting bird species may be affected by the operation of vehicles, equipment, and personnel associated with construction of the Proposed Action. These bird species and their young would be expected to occur in pasture, grassland, and prairie areas. Nesting season is approximately February 1 to July 1, according to USFWS (2011). Construction activities are planned for early spring and would avoid areas with mixed grass prairie habitat during nesting season whenever practicable. MWEC would survey construction and maintenance areas prior to work to identify and avoid nest locations. The USFWS (2011) recommends implementing all practicable measures to avoid a take, such as suspending construction where necessary, and/or maintaining adequate buffers to protect birds until the young have fledged.

Raptors may use the transmission structures as hunting perches. Concerns have been raised that raptors could impact the prairie nesting bird population, such as sharp-tailed grouse, due to this increase in perch availability. While this may occur, impacts are expected to be minor and localized to areas under the transmission line structures. Existing transmission and distribution lines in the study area already provide Raptor perches, and have not been shown to have significantly affected prairie nesting bird populations.

MWEC would install line marking devices in four locations of nesting, roosting or feeding areas (i.e., wetlands) to increase line visibility and reduce the potential for avian collisions.

Based on these measures, the Proposed Action would not result in listing of or jeopardizing the continued existence of any wildlife species.

No-Action (No-Build)

Under the No-Action Alternative, increased disturbance to wildlife from site clearing, excavation activities, and increased construction traffic would not occur. Potential impacts to avian species would be less under the No-Action Alternative due to the absence of new transmission line facilities under this scenario.

The need for the Project would still exist if the No-Action alternative is chosen. If this project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

The effects on wildlife from the Proposed Action, in combination with projects described in Section 3.4, would not be expected to adversely impact wildlife. Past, present, and anticipated developments with transmission and distribution lines could cause avian collisions to increase over current conditions. The Proposed Action and future projects in the area would conform to APLIC guidelines to insure that proper designs are incorporated into electrical transmission and distribution development.

No substantive direct, indirect, or cumulative impacts to wildlife resources would result from the Proposed Action or the No-Action Alternative.

Project is located within disturbed lands and follows roads, existing distribution lines, section lines, and field lines, minimizing the disturbance to mixed-grass prairie habitat.

State Protected Species of Concern

NDGF has identified 100 SoCP across the state in its Wildlife Action Plan (Hagen et al. 2005). These species are considered important for conservation in the state of North Dakota but do not have any legal protection. Twenty-seven species have been identified in the Missouri Coteau geographic region, including seventeen level I species, ten level II species, and no level III species. NDGF places the most emphasis on level I species. Table 3.2-5 identifies all of the Species of Conservation Priority associated with the Missouri Coteau geographic area and their designated level of concern. No SoCP or significant ecological communities are known to occur within 1 mile of the proposed transmission line according to the records obtained from the North Dakota Natural Heritage biological conservation database (Appendix D).

Table 3.2-5
Species of Conservation Priority that Occur in the
Missouri Coteau Geographic Region

Priority Level	Species of Conservation Priority	
	Common Name	Scientific Name
I	American bittern	<i>Botaurus lentiginosus</i>
	Swainson's hawk	<i>Buteo swainsoni</i>
	Ferruginous hawk	<i>Buteo regalis</i>
	Willet	<i>Coturnicops noveboracensis</i>
	Upland sandpiper	<i>Bartramia longicauda</i>
	Marbled godwit	<i>Limosa fedoa</i>
	Wilson's phalarope	<i>Phalaropus tricolor</i>
	Sprague's pipit	<i>Anthus spragueii</i>
	Lark bunting	<i>Calamospiza melanocorys</i>
	Grasshopper sparrow	<i>Ammodramus savannarum</i>
	Baird's sparrow	<i>Ammodramus bairdii</i>
	Nelson's sharp-tailed sparrow	<i>Ammodramus nelsonii</i>
	Chestnut-collared longspur	<i>Calcarius ornatus</i>
	Plain's spadefoot toad	<i>Spea bombifrons</i>
	Canadian toad	<i>Bufo hemiophrys</i>
	Smooth green snake	<i>Liochlorophis vernalis</i>
	Western hognose snake	<i>Heterodon nasicus</i>
II	Northern pintail	<i>Anas acuta</i>
	Northern harrier	<i>Circus cyaneus</i>
	Sharp-tailed grouse	<i>Tympanuchus phasianellus</i>
	Short-eared owl	<i>Asio flammeus</i>
	Loggerhead shrike	<i>Lanius ludovicianus</i>
	Sedge wren	<i>Cistothorus platensis</i>

Priority Level	Species of Conservation Priority	
	Common Name	Scientific Name
	Le Conte's sparrow	<i>Ammodramus leconteii</i>
	Dickcissel	<i>Spiza americana</i>
	Bobolink	<i>Dolichonyx oryzivorus</i>
	Richardson's ground squirrel	<i>Spermophilus richardsonii</i>

Areas of suitable and potentially suitable habitat for level I SoCP were reviewed during the field surveys in August 2011. Casual observations of Sprague's pipit calls were noted at several locations within the mixed-grass prairies, but other occurrences of SoCP were not documented. It is possible that other species could be present in or near the Project, but high quality habitat in the study area is limited (See Biological Assessment for available habitat types observed in the study area). If SoCP were present, it is likely that they would avoid the area during construction when crews are present.

Environmental Consequences

A significant impact to endangered, threatened, and candidate species would occur under the following conditions:

- ◆ Loss of individuals that would jeopardize the continued existence of a species; or
- ◆ Loss of individuals leading to their being listed or a change in listing from threatened to endangered or the addition of a species to the federal list.

Proposed Action

No permanent, adverse impacts to special status species would be expected from the Proposed Action. Habitat for many of the listed species includes large river or lake habitats, wetlands, or remnant prairies. The Project will not cross any large river or lake habitats present in the study area, but will cross a number of wetlands, including several that could provide suitable stopover habitat to whooping cranes. Direct permanent impacts to the mixed-grass prairie habitat would be minimized, resulting in areas large enough to provide suitable habitat. In cases where sensitive areas cannot be spanned, MEC would minimize the number of structures in the area by maximizing span length. Additional species-specific analyses are provided below.

Pallid Sturgeon

The nearest large river habitat suitable for pallid sturgeon is located 2 miles from the Project area. Based on this information, the Proposed Action would have no effect on the pallid sturgeon.

Piping Plover and Interior Least Tern

Large river sandbars and shoreline habitat of the Missouri and Lower Yellowstone Rivers are preferred by both piping plover and interior least tern. The Missouri River is located 1.75 miles from the Project, and the Yellowstone River is located more than 50 miles from the study area.

No piping plover or interior least tern habitat is located within the study area. Because the Project area is outside of breeding habitat and offers limited foraging habitat for both piping plovers and interior least terns, possible collisions would be limited to times of local bird movements or migration. Considering the low likelihood of collisions due to line marking, the Proposed Action may affect, but would not be likely to adversely affect piping plover and interior least tern. The Project does not cross designated piping plover critical habitat, therefore there will be no effect on designated piping plover critical habitat.

Whooping Crane

Wetlands in the study area may provide suitable roosting and stopover habitat for migrating whooping cranes. Collisions with power lines are a substantial cause of mortality for fledged whooping cranes (CWS and USFWS, 2007). Migrating cranes are most vulnerable to collisions with structures in the early morning or late evening when light levels are diminished, as they fly at very low altitudes between roost and foraging sites, or when flying at low altitude when starting or ending a migration flight.

Historic whooping crane observations do not indicate that the study area is frequently used by whooping cranes for migration, stopover, or foraging (USFWS 2008b), but whooping cranes have been observed at areas near the Missouri River, approximately 2 miles away. On August 2 and 3, 2011, surveys for suitable whooping crane stopover habitat took place within 1 mile of the Project. During these surveys, four wetlands were identified that offer suitable whooping crane stopover habitat. Construction and operation of the Project could displace whooping cranes from available stopover habitat, both temporarily and in the long-term. Additionally, if whooping cranes should frequent the study area, collisions with transmission lines during take-off and landing would be a concern. In order to prevent whooping crane collisions, within 1 mile of each of the four separate wetland areas noted, the lines would be marked with devices that would alert the birds to the presence of a line in the air. By following these mitigation measures, the Proposed Action would not likely adversely affect whooping cranes.

Gray Wolf

The gray wolf may pass through the Project area. However, it is unlikely that gray wolves would be present during construction and operation, with the possible exception of an occasional transient animal. If gray wolves entered the proposed Project area during construction they could be struck by vehicles, but the chance of collisions is considered negligible, particularly since posted speed limits would be very low. Due to the low likelihood of their presence, the absence of suitable wolf habitat, and low posted speed limits in the Project area, the Project would have no effect on the gray wolf.

Sprague's Pipit

Sprague's pipits are closely associated with native grassland throughout their range and are less abundant (or absent) in areas of introduced grasses than in areas of native prairie (Johnson and

Schwartz 1993, Madden et al. 2000, Grant et al. 2004). Loss of appropriate habitat is the primary reason that the species is in decline. During the breeding season, Sprague's pipits prefer large patches of native grassland with an approximate minimum size of 358 acres (USFWS 2010b).

On August 2 and 3, 2011, surveys indicated that suitable mixed-grass prairie habitat is present within the study area, and that Sprague's pipits likely utilize the habitat. Loss of habitat could occur where transmission line structures and the MWEC distribution substation impact mixed-grass prairie habitat. For transmission line structures, the impacts to mixed-grass prairie would be limited to localized permanent impacts due to structure installation, or temporary impacts due to construction activities. The MWEC distribution substation is adjacent to an area of mixed grass prairie, but is anticipated to be entirely located within an existing wheat field, avoiding impacts to Sprague's pipit habitat. The Project is not expected to fragment core Sprague's pipit habitat, as it follows roadways and field lines that form the edges of suitable pipit habitat. Minimization of habitat disturbance and limiting ground clearing to fall and winter (prior to the nesting season) make the Project unlikely to adversely affect Sprague's pipit.

Species of Conservation Priority

Review of the North Dakota Wildlife Action Plan indicated that SoCP may occur in the Missouri Coteau geographic region where the Project would be located. Surveys for high quality native prairie, wetlands, and suitable grasslands were conducted in August 2011 to document suitable habitat for these species. Results from these surveys did not identify any SoCP. Habitat in the Project area was not high quality and it is unlikely that these species would be affected by the Project.

No-Action (No-Build)

Under the No-Action Alternative, increased disturbance from site clearing, excavation activities, and increased construction traffic would not occur. Potential impacts to avian species would be less under the No-Action Alternative due to the absence of new transmission line facilities under this scenario. Loss of individuals that would jeopardize the continued existence of species or a change in listing status of a species would not occur under the No-Action Alternative.

The need for the Project would still exist if the No-Action alternative is chosen. If this project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

The effects on special status species from the Proposed Action, in combination with the projects described in Section 3.4, would not be expected to result in significant impacts to any species. Future projects as a result of the Proposed Action include new construction of distribution lines from the proposed substations to new oil facilities and other outlets.

Pallid sturgeon

The Proposed Action would not add to or combine with the effects of other past and reasonably foreseeable future actions to adversely affect the pallid sturgeon.

Piping plover and Interior least tern

Considering the low likelihood of a direct effect due to line marking, the Project would not add to or combine with the effects of other past and reasonably foreseeable future actions to adversely affect the piping plover or interior least tern.

Whooping crane

Any additional distribution or transmission line construction throughout the principal migration corridor would increase the opportunity for whooping crane collision mortalities. Considering the low likelihood of a direct effect due to line marking, the Project would not add to or combine with the effects of other past and reasonably foreseeable future actions to adversely affect the whooping crane.

Gray Wolf

Wolves, should they pass through the area, would generally avoid areas of human presence. No cumulative effects to gray wolves are expected to be caused by the Project.

Sprague's Pipit

It can be assumed that as development and disturbance near the Project area would continue to increase, the quality and quantity of mixed-grass prairie habitat would decline. However, considering the small footprint of the Project, it would not add to or combine with the effects of other past and reasonably foreseeable future actions to adversely affect Sprague's pipit.

Species of Conservation Priority

Since pole placement takes up minor areas of land, and pole placement for distribution lines in wetlands and rock outcrops is structurally undesirable, future distribution projects in the area would be expected to have a minimal effect on native prairie, mixed grasslands, rock outcrops, and wetland habitats.

No substantive direct, indirect, or cumulative impacts to special status species resources would result from the Proposed Action or the No-Action Alternative.

3.3 SOCIAL RESOURCES

3.3.1 SOCIOECONOMICS

The socioeconomic setting and potential impacts of the Proposed Action were evaluated for the city of Williston and for Williams County.

Existing Environment

The Proposed Action would be located in Williams County, in the Judson, Hebron, and Round Prairie Townships. These townships are sparsely populated but do contain a number of farms and an increasing number of residences that may be associated with the growing energy industry. The city of Williston is the only community within the study area. Williston is located 3 miles east of the existing Williston Substation and 5 miles east of the proposed MWEC distribution substation. The city of Williston has a population of nearly 15,000 (USCB 2010). The population fluctuates due to the heavy development of oil and gas in the Bakken Formation. Table 3.3-1 shows the demographic characteristics of the city of Williston, Williams County, and the state of North Dakota.

Table 3.3-1
Demographic Characteristics of the Project Area

Area	Population				Percent Change 2000-2010	Percent White ^c	Percent below Poverty Level ^c	Median Household Income ^c
	1990 ^b	2000 ^b	2008 ^c	2010 ^c				
North Dakota	638,800	642,200	641,481	672,591 ^c	4.7% ^c	90.0% ^c	11.7% ^c	\$47,898 ^c
Williams County	21,129	19,761	19,444	22,398 ^c	13.3% ^c	92.1% ^c	8.6% ^c	\$53,958 ^c
Williston ^a	13,131	12,512	12,641	14,716 ^d	16.4% ^d	91.9% ^e	11.9% ^e	\$49,742 ^e

^a USCB 2005-2009.

^b USCB 2000 or USCB 1990, <http://www.nd.gov/dhs/info/pubs/docs/aging/2010-report-aging-is-everyones-business.pdf>

^c United States Census Bureau (USCB) 2009-10 (<http://quickfacts.census.gov/qfd/states/38/38105.html>)

^d http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_PL_GCTPL2.ST13&prodType=table

^e http://factfinder.census.gov/servlet/ACSSAFFacts?_event=Search&geo_id=04000US38&geoContext=01000US%7C04000US38&_street=&_county=Williston&_cityTown=Williston&_state=04000US38&_zip=&_lang=en&_sse=on&ActiveGeoDiv=geoSelect&_useEV=&pctxt=fph&pgsl=040&_submenuId=factsheet_1&ds_name=ACS_2009_5YR_SAFF&_ci_nbr=null&q_r_name=null®=null%3Anull&_keyword=&_industry=

Williams County is rural, with an energy based (oil and gas extraction) economy and a strong construction industry. Williams County also supports an agriculture economy and a small amount of recreation activity. The city of Williston, the county, and the state all experienced an increase in population from 2000 to 2010. Williston experienced the largest population increase of 16.4 percent.

This same trend in population growth also occurs at the state level; North Dakota experienced an increase of 4.7 percent. The County is currently experiencing a substantial amount of growth in oil and gas drilling activities. The result is an unemployment rate of 1.4 percent in June 2011 (USDL 2011) for Williams County compared to a state unemployment rate of 3.3 percent in July 2011. The national unemployment rate was 9.3 percent (ND Job Service 2011).

The city of Williston is the Williams County seat. Williston offers a range of services including hospitals and clinics, grocery and retail stores, banks, churches, emergency services, community

pools, parks, golf courses, and numerous hotels. Additional businesses include farm and heavy equipment dealers, and at least five car dealerships. Schools in the area include four elementary schools, a middle school, and Williston High School. The city is also home to Williston State College. Williston is a gateway to the Missouri River and Lake Sakakawea and associated recreation such as fishing and water sports. Sloulin Field International Airport is located north of Williston and east of the Proposed Action. There is an Amtrak station in Williston, which is one of the stops along the Empire Builder route.

Environmental Consequences

Overall, socioeconomic impacts of the construction of the 115-kV transmission line and substations would be slightly positive as a result of expenditures at businesses by the temporary workers during construction. Owners of the land on which the transmission lines will be located will receive financial compensation for potential farmland losses because of surface disturbance as a result of the new infrastructure.

Adverse effects to the socioeconomic environment would occur under the following conditions:

- ◆ Relocation of residences or businesses resulting in unrecoverable economic loss.
- ◆ Undue burden to community services and facilities.

Proposed Action

Construction and operation of the transmission line and substation would not affect any community facilities in Williston or Williams County. No residences or agricultural buildings in the county would be displaced. Socioeconomic impacts resulting from the Proposed Action would be primarily positive.

Construction Impacts

Construction of the Proposed Action is expected to occur over approximately 4 months. It is assumed that between 60 and 77 workers will be required for construction of the transmission line and MWEC distribution substation. Temporary construction jobs would provide a one-time influx of additional income to the area through increased spending on lodging, meals, and other consumer goods and services. Because the Project area is minimally populated, the addition of construction workers from outside of the study area is not expected to exceed the capacity of any local public services.

Operation Impacts

The socioeconomic impacts from the Proposed Action on a long term basis would be primarily positive. The additional power supplied to the area would allow oil extraction activities to continue to grow, resulting in new job opportunities for at least the next fifteen years (Seifert 2009). Contractors are needed for drilling activities like concrete work and well completion. Once a well is in production, a variety of support personnel are needed. These individuals perform such tasks as hauling water, maintaining pipelines, road construction and maintenance,

maintaining pads (i.e. weed control, fence repair, etc.), maintaining the pumps and other machinery necessary for production, and administrative support work. It is assumed that the majority of new permanent employees required for operation of the Project will be local residents, and will therefore not exceed the current capacity of local public services. Oil development activities have had a positive ripple effect throughout the local economy, as evidenced by the lower unemployment rates in Williams County. Local personal incomes increase as workers come into Williston and Williams County for both short- and long-term assignments and spend money on services in the community, putting dollars into circulation.

Local businesses and residents would benefit from reliable power. The increased availability of reliable power in the area would have a positive effect on local businesses and the quality of service provided to the general public.

No-Action (No-Build)

Because of the increasing energy demand, the proposed MWEC distribution substation would still be necessary. The substation would require a transmission line. This line may or may not have more adverse impacts on Socioeconomics and could result in greater disturbance to housing and agricultural income.

Under the No-Action Alternative, Williston would not experience the influx of income from the construction workers and needed supplies during the construction of the transmission line nor would it benefit from a more reliable power source.

The need for the project would still exist if the No-Action alternative is chosen. If this project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

No substantive negative direct, indirect, or cumulative impacts to socioeconomic resources would result from the Proposed Action or the No-Action Alternative. The Proposed Action would increase economic wealth in the area.

3.3.2 ENVIRONMENTAL JUSTICE

Executive Order (EO) 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) is intended to ensure that adverse human health and environmental effects of agency actions would not disproportionately impact minority and low-income populations, including Native American Indian tribes. For the purposes of this section, minority and low-income populations are defined as follows:

Minority Populations

Ethnic origins include blacks or African Americans, American Indians or Alaska Natives, Asians, Hispanics or Latinos, and Native Hawaiian and other Pacific Islanders.

Low-Income Populations

Low-income populations include people living below the national poverty level. In 2010, the weighted-average poverty threshold for a family of four was \$22,314, and for an individual was \$11,136 (USCB 2010). The poverty threshold is calculated by the U.S. Census Bureau each year as a means to estimate the number of Americans living in poverty.

Existing Environment

The Project Area is located in a rural, predominantly ethnically white area that has historically been an agricultural economy. Currently, oil and gas exploration and drilling activities are being undertaken. Table 3.3-1, above, shows the majority and low-income populations for North Dakota, Williams County, and Williston. The city of Williston has the second highest percentage of the three entities for white residents (91.9 percent) (USCB 2010). According to the 2010 Census, 89 percent of the residents of the Judson, Hebron, and Round Prairie Townships are white.

Based on the information gathered from the U.S. Census Bureau, the percentage of people who reside in Williston and live below the national poverty line (11.9 percent) is slightly higher than for the state (11.7 percent) and higher than the county (8.6 percent). Information for poverty status in Judson and Hebron Township is based on 2000 Census data, and shows that 6.8 percent of individuals in Judson Township and 0 percent of individuals in the Hebron and Round Prairie Townships were below the poverty level in 1999.

Environmental Consequences

A significant impact would occur under the following condition:

- ◆ Low-income, minority, or subsistence populations in the region of the Proposed Action are disproportionately affected by the Proposed Action.

Proposed Action

The proposed action would not displace any residents. There are no low-income, minority, or subsistence populations in or around the study area that would be disproportionately affected by the Proposed Action. No residents will be displaced by the Project.

No-Action (No-Build)

Because of the increasing energy demand, the proposed MWEC distribution substation would still be necessary. The substation would require a transmission line. This line may or may not have more adverse impacts on environmental justice and could result in greater disturbance to low income and minority populations.

It would be speculative to define the exact nature of impacts to socioeconomic resources that would occur under the No-Action Alternative. However, it is likely that greater impacts would occur in terms of road traffic if more drill sites are developed because of the associated increase in the number of well pad sites that would require refueling and maintenance. Impacts could be greater than, equal to, or less than those expected under the Proposed Action depending on how the large engines used for enhanced recovery methods are re-fueled, such as by regular fuel deliveries or by use of fuel supply lines to each well injection site. Under the No-Action Alternative, no low-income or minority populations would be disproportionately affected.

The need for the project would still exist if the No-Action alternative is chosen. If this project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

No substantive direct, indirect, or cumulative impacts to minority or low-income populations would result from the Proposed Action or the No-Action Alternative.

3.3.3 LAND USE

The study area for land use is a one-half mile buffer centered on the route and includes an interconnect at Western's Williston Substation and the 115-kV transmission line, and the proposed Judson Substation, which would be located approximately 2 miles west of the Western Williston Substation. This section also includes a discussion of regional land use issues.

Existing Environment

The study area is located in a mixture of flat terrain and rolling hills, cropland, and pasture typical of west central North Dakota. Historically, vegetation in the study area consisted of mixed-grass prairie. Land use in the area is predominantly agricultural. The primary commercial land use in the Project area is oil and gas extraction and transport. Pasture tracts are also found in the study area. Small patches of trees are clustered around rural homes, along field lines, and around the few natural water features near the Project Area. Wetlands, stream drainages, and mixed grass prairie are also found scattered in the landscape, although these habitats occupy a very small percentage of the land area. Oil and gas wells and oil infrastructure have become common, and are located throughout the area.

The transmission line route mostly parallels rural roads, property lines, and section on $\frac{1}{4}$ section lines to minimize impacts to farm fields. Road and road right-of-way (ROW) includes paved and gravel roads and two-track road ROW. This region of Williams County is lightly populated (see Table 3.3-1). Rural residences are widely dispersed across the four townships (Judson, Mont, Round Prairie, and Hebron). Residences and farmsteads are located along the roads paralleled by the proposed route. Home sites include residential structures, yards, barns, and other farm and agricultural facilities. Commercial and industrial uses are located on the eastern end of the

transmission line, which is just outside the western edge of the city of Williston, particularly along US Highway 2, and 141st Avenue NW.

While the Proposed Action route is generally rural in nature, oil pads, pipelines, and truck traffic maintain a noticeable presence. The present vegetative covers are primarily row crops, pastured mixed-grass prairie, and non-native grasses. Scattered prairie pothole wetlands and intermittent drainages also are present. Wetlands and streams are addressed in Section 3.2.3 and in a separate wetland report.

Within one-quarter mile of the Proposed Action, approximately, 1.6 percent of land is considered Prime Farmland if irrigated and approximately 66.5 percent of the land is classified as Farmland Of Statewide Importance (USDA 1980; SSURGO 1999). Federal regulations define Prime Farmland as “land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses” (7 CFR, 675.5 (a) (1)). Farmland of Statewide Importance includes land that supports production of crops important to North Dakota. Farmland of Statewide Importance is often the same soil types as Prime Farmland but at steeper slopes. Development on Designated Prime Farmland and Farmland of Statewide Importance is restricted through land use regulations.

One section along the Project alignment is owned by the North Dakota State Land Department (T155N, R103W, Section 36). These state-owned lands need a special permit or easement for placement of transmission facilities. Transmission line easements are a compatible land use on State Trust Lands. No other land management easement or other land use limitation occurs in the study area.

Vegetation in the study area consists of cropland, non-native grasses, and mixed-grass prairie. A description of these vegetation communities is provided in Section 3.2.4, Vegetation.

Eight different land cover types were documented along the proposed route based on aerial photo analysis and visits to the study area. The categories are cropland (row crops and hay), grassland (pasture and potential native vegetation), roads, riparian (stream/ditch zone), developed-general, developed-energy (oil and gas), developed-residence (homes and farmsteads), and wetland. Aerial images showing land cover are provided in Appendix C and a summary of the land cover analysis within one-quarter mile of the proposed route is presented in Table 3.3-2.

Table 3.3-2
Existing Land Cover within a Quarter Mile of Alignment

Habitat and Land Use Type	Approximate Acres*	Land Area
Cropland	3,230	62%
Developed	170	3%
Roads	105	<1%
Grassland	1,430	1%

Habitat and Land Use Type	Approximate Acres*	Land Area
Developed-residence (homes and farmsteads)	50	28%
Developed-energy (oil and gas)	25	3%
Wetland	25	2%
Riparian	100	<1%
Total	5,170	100%

* Land use types were identified based on 2011 site visits, 2010 NAIP aerial photos, hydric soils maps, and USGS 1:24,000 topographic maps. Acreage calculated by overlaying 1/2-mile-wide corridor (centered on transmission line) over land use types.

The major crops in the area are wheat, lentils, and peas (USDA 2009). Within a quarter mile of the study area, 62 percent of land is considered row crop. Based on field visits and aerial imagery analysis, no centerpoint or other irrigation appears to be in use within a quarter mile of the route.

Wetlands and streams compose a minor portion of the land in the study area. Woodlands typically consist of scattered trees and wind shelters.

Environmental Consequences

Consequences from the change in land use would pertain to physical and operational effects of the Proposed Action on existing and future land use. In the study area, these impacts are primarily related to agricultural practices and residents.

A significant impact to land use would occur under the following conditions:

- ◆ Uncompensated loss of crop production; or
- ◆ Foreclosure of future land uses.

Proposed Action

Construction Impacts

The Proposed Action would result in permanent and temporary impacts to farmland. Temporary and short-term impacts would occur from construction activities because of removal of existing agricultural land from crop or forage production. During construction, temporary impacts such as soil compaction and crop damage are likely within the working ROW and along any temporary work space such as access roads. MWEC would compensate landowners for crop damages that may occur as the result of the Proposed Action. This compensation may be by either providing financial compensation to landowners, or by using contractors to chisel plow the disturbed area.

Operation Impacts

Permanent impacts would result from the construction of the transmission line, the MWEC distribution substation, as well as at transmission line structure locations. Long-term impacts would include:

- ◆ Loss of pasture land under the substation site and a small amount of pasture land and row crop area immediately around structures;
- ◆ Modified farming operations around transmission structures; and
- ◆ Modified aerial application of herbicides and fertilizers to avoid transmission structures.

Permanent impacts to cropland would be localized to pole placement, with 0.002 acres of impact per pole structure and three acres for the MWEC distribution substation location. The total impact to agricultural land for both the transmission line and the MWEC distribution substation would equal approximately 2.5 acres. The proposed route segments minimize impacts to farmland by paralleling existing road section lines, quarter section lines, and property lines wherever possible. The locations for the transmission line were selected based on landowner preference to minimize loss of farmland and help ensure access to the land near the poles.

No-Action (No-Build)

Under the No-Action Alternative, (although current development in the area may result in land use changes) a change in land use or conversion of agricultural land would not occur. The overall impacts to land use would be less under the No-Action Alternative.

The need for the Project would still exist if the No-Action alternative is chosen. If this project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

Almost all of the past, present, and reasonably foreseeable projects involve temporary or permanent loss of land use. These losses are not expected to contribute to a measurable change to long-term land uses in the study area. In most cases, except where permanent disturbance is located, current uses have continued. The total land removed from agricultural production under the Proposed Action would be a very small fraction of the total land currently in production. The total acreage removed from agricultural production under the No-Action Alternative would vary depending on the drilling methods uses and the current demand for oil and gas resources, however, the overall land use in the area is expected to remain agricultural.

No substantive direct, indirect, or cumulative impacts to land use would result from the Proposed Action or the No-Action Alternative.

3.3.4 TRANSPORTATION

Regional transportation facilities, largely consisting of highways and rural roads, would be used to transport construction and maintenance workers, equipment, and materials to transmission line sites. Established roads would be used to the greatest extent practicable. Construction equipment and materials would be transported on overland trails that would be within the ROW to structure sites. Overland trails would generally not be graded.

Existing Environment

County and township (section line) roads characterize the existing roadway infrastructure in and around the Corridor. The entire project Corridor is located north of Hwy 2, originating near the intersection of Hwy 2 and 141st Avenue NW. Traveling East from the Western Williston Substation, the transmission line will cross 142nd Avenue NW before arriving at the proposed Judson Substation location east of 143rd Avenue NW. From the Judson Substation, the transmission line corridor will continue within the rights-of-way of the following county roads: 143rd Avenue NW, 52nd Street NW, 144th Avenue NW, 54th Street NW, 150th Avenue NW, and 56th Street NW. There are several privately owned roads located within the Corridor, used to access agricultural land. Interstate 94 is located approximately 115 miles south of the project Corridor.

Major roadways in the Project area include US Highway 2, US Highway 85, and State Route 1804. All of the highways and state routes in the Project area are located south of the Project corridor and will not be crossed by the transmission line. The existing traffic volumes on the area's county highways are documented in Table 3.3-3. Determining the specific capacity of any highway is a complex process; however, general estimates are used for planning purposes. For purposes of comparison, the functional capacity of a two-lane paved rural highway is approximately 5,000 vehicles per day, or Average Daily Traffic (ADT). In general, the state highways in and near the Corridor and Route carry higher levels of traffic than what is average for rural North Dakota, but represent only a fraction of the capacity of the roadway.

Table 3.3-3
Existing Daily Traffic Levels

Roadway Segment	2010 Average Annual Daily Traffic (AADT)	2010 Commercial Truck Traffic
State Highway 2 east at State Highway 85	4450	735
State Highway 2 east of Williston	1700	235

Source: 2010 Traffic Volumes from NDDOT, Bismarck

Additional county and township roads run through the Corridor, but have no count data available. In general, the North Dakota Department of Transportation (NDDOT) provides traffic counts for designated U.S. and State Highways. As per NDDOT, the routes with no counts are likely lower than those with count data.

Environmental Consequences

Proposed Action

Construction Impacts

Constructing the transmission line will require temporary access along the Route, which is approximately 3.8 miles in length. The access path will be approximately 10-12 feet wide; no

major grading or filling is anticipated since the access road will only be needed during construction.

The maximum transmission line construction workforce is expected to generate an approximate average of 20-30 additional vehicle trips per day. Using any combination of state and county highways and other township roads throughout the Project site, the traffic impacts are considered negligible. Since many of the area roadways have minimal ADT currently, the addition of 20-30 vehicle trips represents a large percentage increase (and likely would be perceptible), but would still be less than seasonal variations such as autumn harvest. The capacity of any route and Level-of-Service to the traveling public would not be impacted.

Operation Impacts

Increased traffic resulting from operation of the project will be limited to those required for service and maintenance of the transmission line. The addition of maintenance vehicles on local roads would not be noticeable, and would result in adverse impacts to transportation facilities or traffic.

No-Action (No-Build)

Under the No-Action Alternative, (although current development in the area may result in changes in traffic volumes) a change in transportation facilities or traffic would not occur. The overall impacts to transportation would be the same under the No-Action Alternative.

The need for the Project would still exist if the No-Action alternative is chosen. If this project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

Almost all of the past, present, and reasonably foreseeable projects would involve long term transportation impacts. Construction and operation of facilities associated with oil and gas development would increase traffic on roads in the Project area. State, county, and local officials would have the appropriate jurisdiction to regulate transportation impacts to manage cumulative effects. While the cumulative effects would result in a noticeable change to traffic volumes in the area, traffic volumes on regional highways and roads would continue to be well below the current capacity of the roadways.

No substantive direct, indirect, or cumulative impacts to visual resources would result from the Proposed Action or the No-Action Alternative.

3.3.5 VISUAL

The study area for visual resources includes the foreground, middleground, and background along the route. Scenic quality is determined by evaluating the overall character and diversity of landform, vegetation, color, water, and cultural or manmade features in a landscape. Typically,

3.3.6 NOISE

The study area for noise was limited to the residential receptors nearest to the Project area.

Existing Environment

Noise is defined as unwanted sound. Conductors on transmission lines and transformers at substations produce noise under certain conditions. The level of noise, or its loudness, depends on conductor conditions, voltage levels, and weather conditions.

Noise is measured in units of decibels (dB) on a logarithmic scale. Because human hearing is not equally sensitive to all frequencies of sound, certain frequencies are given more “weight.” The A-weighted (dBA) scale corresponds to the sensitivity range for human hearing. A 10 dBA change in noise levels is perceived as a doubling of loudness.

Noise levels decrease with increasing distance from the source. From a point source, such as a substation, noise levels decrease by 6 dBA for every doubling of distance; for a line source, such as a transmission line, noise levels decrease between 3 and 4.5 dBA, depending on ground cover, with every doubling of distance. If the noise emitted from a source is doubled, there is a 3 dBA increase in noise, which is barely discernible to the human ear. When looking at multiple sources of noise of different magnitudes, the rule of thumb is that if there is a difference of greater than 10 dBA between noise sources, there will be no additive effect (only the louder source will be heard and the quieter source will not contribute audibly to the noise levels). Table 3.3-4 shows noise levels associated with common, everyday sources, and places the magnitude of noise levels discussed here in context.

Table 3.3-4
Common Noise Sources and Levels

Sound Pressure Level (dB)	Typical Sources
120	Jet aircraft takeoff at 100 feet
110	Same aircraft at 400 feet
90	Motorcycle at 25 feet
80	Garbage disposal
70	City street corner
60	Conversational speech
50	Typical office
40	Living room (without TV)
30	Quiet bedroom at night

Source: Environmental Impact Analysis Handbook, ed. by Rau and Wooten 1980

The need for the project would still exist if the No-Action alternative is chosen. If this project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

The effects on noise from the Proposed Action, in combination with projects described in Section 3.4, would not be expected to significantly increase noise levels in the Project area. Past, present, and anticipated developments with transmission and distribution lines would increase noise levels similarly to the Proposed Action. It is assumed that all past, present, and anticipated developments would adhere to industry standards for minimizing noise impacts, resulting in no cumulative effects from construction or operation of the Project in combination with other projects.

No substantive direct, indirect, or cumulative noise impacts would result from the Proposed Action or the No-Action Alternative.

3.3.7 HEALTH AND SAFETY

Evaluation of safety and health issues was limited to the study area specifically focused on the construction and maintenance activities associated with the Proposed Action.

Existing Environment

Public and Worker Safety

The predominant activities that currently occur within the study area include agriculture, oil and gas development, and vehicular travel.

Electric and Magnetic Fields

The Proposed Action would create electric and magnetic fields (EMFs) arising from the flow of electricity and the voltage of transmission lines. The voltage of the transmission line, current flow in the conductors, weather conditions, and the design of the transmission line can cause electrical environmental effects.

Electric Fields

Voltage on any wire (conductor), be it home wiring or a transmission line, produces an electric field in the area surrounding the wire. The electric field associated with transmission lines extends from the energized conductors to other nearby objects, such as the ground, towers, vegetation, buildings, and vehicles. The electric field from a transmission line gets weaker with increasing distance from the transmission line. Nearby trees and building material also greatly reduce the strength of transmission line electric fields and act as a shield.

The intensity of electric fields is associated with the voltage of the transmission line and is measured in kilovolts per meter (kV/m). Transmission line electric fields near the ground are designated by the difference in voltage between two points (usually one meter). With respect to

public health and safety, the presence of an electric field is not a predominant concern during normal operations. The electric field is of major concern only during a line to ground fault (a short circuit between a conductor and the ground).

Magnetic Fields

Current passing through any wire conductor produces a magnetic field in the area around the wire. The magnetic field associated with a high voltage transmission line surrounds the conductor and decreases rapidly with increasing distance from the conductor. The magnetic field is expressed in units of magnetic flux density, expressed as gauss (G). The normal magnetic field can interfere with telephone and railroad communications equipment near the line.

The magnetic field associated with transmission line operation can induce currents and voltage in long, parallel conductors such as fences or telephone cables, if they are not properly grounded. The potential induced voltage is dependent on line geometry, the current carried on the line, the distance to the conducting object, the length of parallel structures, the grounding of the conducting object, and the shielding of the conducting object. There are no federal regulations establishing maximum magnetic field levels.

Stray Voltage

Stray voltage is a natural phenomenon that can result in low levels of electrical current between two contact points where electricity is grounded. Electrical systems, including farm systems and utility distribution systems, must be grounded to the earth by code to ensure continuous safety and reliability. Some current flows through the earth at each point where the electrical system is grounded and a small voltage develops. This voltage is called neutral-to-earth voltage (NEV). When a portion of this NEV is measured between two objects that may be simultaneously contacted by an animal, it is frequently called stray voltage. Stray voltage does not cause electrocution and is not related to ground currents, EMFs, or earth currents. Transmission lines have been shown to contribute to stray voltage when the electric distribution system directly serving the farm or wiring from a farm was under and parallel to the transmission line.

Environmental Consequences

A significant impact would occur under the following conditions:

- ◆ Design of components causes an increase in the frequency or severity of worker injuries to a level above average;
- ◆ Children are disproportionately impacted by adverse human health and environment effects;
- ◆ Increase of electric and magnetic fields at or outside the ROW to levels above best industry practice; or
- ◆ Increase in risk of injuries or fatalities to the public from construction and operation of the Proposed Action.

Proposed Action***Public and Worker Safety***

The Proposed Action would be designed to comply with applicable local, state, and National Electrical Safety Code (NESC) standards regarding worker safety, clearance to ground, clearance to crossing utilities, clearance to buildings, strength of materials, and ROW widths. Construction crews would comply with local, state, NESC, Western regulations and MWEC standards regarding installation of facilities and standard construction practices. Established MWEC and industry safety procedures would be followed during and after installation of the transmission line. This would include clear signage during all construction activities.

The proposed transmission line would be equipped with protective devices to safeguard the public from the transmission line in the unlikely event that an accident occurs and a structure or conductor falls to the ground. The protective devices are breakers and relays located where the line connects to the substation. This protective equipment would de-energize the line in the unlikely event that such a situation occurs. In addition, the substation facility would be fenced and access would be limited to authorized personnel. Therefore, the Proposed Action would not be expected to cause an increase in the frequency or severity of worker injuries to a level above MWEC's average.

Electric and Magnetic Fields***Electric Fields***

Electric field levels at electric substations drop off rapidly. At 100 feet away from a substation fence, the electric field levels from the substation equipment are typically at background levels. Any measured fields in that area and beyond would be from transmission and distribution lines entering and exiting the substation, and not from the substation. The nearest residence to any of the Project facilities is located more than 1000 feet from the proposed MWEC distribution substation

The proposed 115-kV transmission line would have a maximum magnitude of electric field density of approximately 0.87 kV per meter underneath the conductors and 1 meter above ground level in a double circuit configuration.

Since the Project is located in a rural area, there are no residences within 500 feet of the proposed facilities, so electric field levels are not anticipated to have a significant effect.

Magnetic Fields

Magnetic field levels at electric substations also drop off rapidly from transformers, which are the main source of magnetic fields from the substation equipment. At 100 feet away from a substation fence, the magnetic field levels from the substation equipment are at background levels. Any measured fields in that area and beyond would be from transmission and distribution

lines entering and exiting the substation, and not substation equipment. The proposed MWEC distribution substation is more than 1,000 feet from the nearest residence.

The maximum calculated ground-level magnetic field produced by the normal operating current for the 115-kV portion of the Proposed Action is 87 milligauss (mG) for the proposed transmission line. This maximum reading would be directly under the conductors at mid-span, where the conductors would be closest to the ground.

The proposed transmission line has been routed to avoid placing the line within 500 feet of occupied residences whenever possible. Maximizing the distance from residences was a primary factor in choosing the preferred route.

Since the location of the Project is in a rural area, and there are no residences nearby, magnetic field level would also not be a concern. No impacts to human health and safety from electric and magnetic fields are anticipated.

Stray Voltage

The transmission line construction will avoid paralleling distribution lines directly serving farms. Therefore, no impacts associated with stray voltage issues are anticipated due to the Proposed Action.

Intentional Destructive Acts

Transmission line projects may be the subject of intentional destructive acts ranging from random vandalism and theft to sabotage and acts of terrorism intended to disable a facility. Acts of vandalism and theft are more likely to occur than acts of sabotage and terrorism and most likely to occur in remote areas and at substations. Theft frequently involves equipment and salvageable metal at substations. Vandalism often includes shooting out insulators. Sabotage and terrorism would most likely involve destruction of key transmission line components with the intent of interrupting the electrical grid.

Intentional destructive acts can result in financial and environmental impacts and impacts to consumers and businesses that rely on power. Financial impacts are ultimately passed on to the rate payers. Environmental impacts related to intentional destructive acts could range from electrocution of perpetrators, line crews, or the public; to wildfire ignition from downed lines; and to oil contamination from damaged equipment. Impacts to consumers and business would range from minor annoyance to economic hardship.

Vandalism and theft within the substations would be minimized as equipment would be protected by fencing. Little or no preventive measures are available to protect the transmission line from vandalism or sabotage. However, separation of lines would reduce the potential for two or more lines to be affected as a result of a single act of sabotage.

No-Action (No-Build)

Under the No-Action Alternative, increased risks to health and safety related to construction activities would not occur, but the potential impacts from operation of the Bear Paw Gas Plant without closed loop service can not be predicted.

The need for the Project would still exist if the No-Action alternative is chosen. If this project is not approved it may result in another project being constructed that would not require an interconnect agreement with Western.

Cumulative Effects

The effects on health and safety from the Proposed Action, in combination with projects described in Section 3.4, would not be expected to adversely impact wildlife. Past, present, and anticipated developments with transmission and distribution lines would have health and safety risks similar to those described as part of the Proposed Action. It is assumed that all past, present, and anticipated developments would adhere to industry standards for minimizing health and safety risks, resulting in no cumulative effects from construction or operation of the Project in combination with other projects.

No substantive direct, indirect, or cumulative health and safety impacts would result from the Proposed Action or the No-Action Alternative.

3.3.8 CULTURAL RESOURCES

Archaeological and historic architecture resources represent the visible or otherwise tangible record of human activity on the landscape. These resources vary in size, shape, condition, and importance, among other considerations; some are buried, while others are clearly evident on the landscape. The resources include precontact (Native American) archaeological sites, historic-period (Euroamerican) archaeological sites, and 19th and 20th century buildings, bridges, railroads, and industrial sites. The possible presence of resources in the Project area has triggered Western to request a review of the Project area by a cultural resource professional.

Western and the North Dakota Historic Preservation Office (SHPO) determined that the proposed action triggers federal and state review. The primary legislation that mandates federal management of cultural resources is the National Historic Preservation Act (NHPA) of 1966 (as amended in 1976, 1980, and 1992), specifically Section 106, and its implementing regulations in 36 CFR 800. This action also triggers consideration of state laws such as the Energy Conversion and Transmission Facility Siting Act (ND Century Code 49-22), the Protection Of Unmarked Human Burials Act (ND Century Code 23-06), and the Protection of Historic and Prehistoric Sites (ND Century Code 55-02.07). Western has taken the lead in consulting with SHPO, and has identified tribal groups with a vested interest in the Project area and other interested members of the public as a part of their compliance with Section 106 regulations.

Western provided SHPO with a Project area map and information pertaining to the scope and route of the Project in a letter dated August 2011. SHPO responded to Western with a letter on September 2, 2011, stating that they recommend a background file search and investigation of the Project area that identifies and considers archaeological and architectural resources. SHPO assigned the Project state identification number ND SHPO Ref: 11-1758.

A Class I Cultural Resources Literature Search was completed by HDR Engineering, Inc., (HDR) in June and July 2011, to review and contextualize any previous surveys and reports conducted within one mile of the proposed transmission line. The records search included a review of existing cultural resources documentation on file at SHPO, and a review of Government Land Office (GLO) records and maps. This report will be included as a part of the larger Class III report.

A Class III Intensive Cultural Resource Inventory was completed for the direct Area of Potential Effect (APE). The inventory included a pedestrian survey of a 100-foot-wide corridor centered on the transmission line (50 feet on either side of the Project centerline) and an architectural inventory of a one-half-mile visual effects APE. This inventory was completed in mid-September 2011.

The archaeological inventory was completed by archaeologists qualified under Secretary of Interior Professional Standards to review the ROW. Two archaeologists, spaced at a 15 meter transect, performed a pedestrian survey to examine the direct effects APE and covered the ROW in a single pass. No shovel tests were completed at the time of inventory. All areas within the ROW that exhibit enhanced surface exposure via rodent burrow dirt piles, ditch back slopes, cutbank exposures, etc., were examined. All archaeological properties identified during the inventory were recorded on SHPO archaeological site forms. The results of the pedestrian survey have been summarized in a report that meets Western and SHPO standards.

The architectural inventory was completed by an architectural historian qualified under Secretary of Interior Professional Standards to review the buildings and structures within one-half-mile of the proposed transmission line. Buildings and structures that appeared to be 45-years old or older were documented. The survey took place only from the public ROW; no private property was directly accessed to document standing structures. The survey methodology used the following standards:

- ◆ Standing buildings/structures within the APE that appeared to meet a minimum age of 45 years or older (constructed 1966 or earlier) were photographed from the public right of way with at least one digital image. View and scale depended on local conditions such as surrounding vegetation and distance from the right of way.
- ◆ Notes and digital images taken of some standing buildings/structures that were less than 45-years-old, containing information regarding why the location is not considered to meet the minimum age requirement, will be retained in HDR files and not presented in report.

Information sufficient to complete the North Dakota Cultural Resource architectural forms was gathered for locations with standing structures considered to meet the 45-year minimum age requirement based on field observation. This age requirement was confirmed by research in the Williams County Courthouse, City of Williston Public Library, and other archival sources.

Existing Environment

Archaeological and Historic Resources

Nineteen previously recorded surveys or investigations fall within one mile of the APE in Williams County. The SHPO files indicate that there are 10 previously recorded cultural resources within one mile of the Project. These cultural resources are composed of one archaeological site, eight isolated finds, and one architectural structure. The cultural resources are represented by: lithic scatters, a transmission line, two historic archaeological sites, and one farmstead location. The Class I literature search revealed that two of the previously recorded sites are located adjacent to the 100-foot ROW. These two sites were reviewed in the field during a survey of the transmission line and particular attention was paid to assess if any cultural material was present along or within the proposed Project boundary. However, HDR did not extend survey in these locations outside of the 100-foot ROW as the sites identified have been determined as site leads only. A third previously recorded site is located partially within ½ mile of the 100 foot ROW. This site was not reviewed by survey crews as it will not be physically impacted. The sixteen remaining sites exceed the ½ mile visual effects APE, but do not extend beyond the one mile study area.

Nine Native American tribes or communities have historical affiliation to the general study area. Consultation with these tribes was initiated by Western in August 2011. The tribes or communities contacted are identified in Appendix D. At this time no traditional cultural properties (TCP) have been identified within the APE and no Native American Religious Concerns have been identified.

Inventory of the 100-foot ROW was completed from September 12 to 16, 2011. During the inventory one dispersed historic scatter and six surface features were identified. A brief description of each location is given below.

- ◆ The dispersed historic scatter is located in Section 34, T155N, R103W, in a harvested soybean field. The field had 90 percent visibility. Just across the road from this location is a small shelter belt and four metal grain bins. Items associated with this find are, metal, glass, a whiteware fragment, and a white porcelain doorknob. Less than 30 artifacts in total were observed at the site. The artifacts are dispersed over approximately a 5 meter by 5 meter area. The artifacts appear to lack integrity due to intensive farming and are probably associated with the shelter belt and grain bins across the road. HDR feels the site does not warrant further investigation. HDR recommends this site as not eligible for listing on the NRHP.

- ◆ The ten surface features are located in Section 15, T154N, R102W, in range land. The field had 5 to 10 percent visibility. The ten stone features found in this section are represented by three stone alignments and seven stone cairns. No obvious signs of cultivation could be identified in this field. Three of the surface features are no longer located within the current proposed ROW. All of these features are well sodden suggesting they have been in place for some time and that they have integrity. It is possible these features are associated with prehistoric time periods, but further investigation would be needed to confirm this. Four additional cairns are located in this section, but are no longer located within the project corridor. At this time the NRHP eligibility of these sites remains unresolved. Resolution of these sites would be completed before the project is finalized.
- ◆ Inventory of the ½ mile visual APE was complete for further study. The architectural resources are represented by five farms, one agricultural experimental station, and one residence. All of these properties were associated with early 20th century farming. HDR recommends all of the architectural properties as not eligible for listing on the NRHP as the properties no longer retain integrity to their significant time period.

Environmental Consequences

An impact to a historic property would occur under the following condition:

- ◆ Impacts to historic properties can occur from ground disturbing activity and/or through visual intrusion during preconstruction, construction, operation, or maintenance.

The Proposed Action is not anticipated to result in an adverse impact to historic properties as the applicant will strive to identify all significant resources before construction and avoid impact where necessary. HDR anticipates that historic properties would be marked in the field prior to construction so that those identified areas would be avoided by construction crews. In addition, structures will be spaced to avoid direct impact to the identified surface features. In the event that an unanticipated discovery of a resource occurs during construction, MWEC would stop construction, secure the area, notify SHPO and Western's archaeologist, and then, through consultation with appropriate parties, determine the significance of the find. In the event an impact would occur, MWEC would consult with SHPO and Western to develop an appropriate treatment plan to address any impacts.

At this time no traditional cultural properties or areas of Native American Religious Concerns have been identified in the APE that would be affected by the Proposed Action. A final determination will be made by Western following consultation with the appropriate parties.

No-Action (No-Build)

Under the No-Action Alternative, Western would not approve the MWEC's interconnection request. As a result it is anticipated that no impacts to cultural properties would occur as MWEC

would take No-Action that could harm these types of resources. It is anticipated that other actions taken to accomplish MWEC's goal would receive review before preconstruction, construction, or operation occurred.

Cumulative Impacts

The Proposed Action is not likely to cause significant direct, indirect, or cumulative impacts to cultural resources as standard industry construction standards strive to avoid resources when identified.

3.4 CUMULATIVE EFFECTS

The Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) defines cumulative impacts as:

... the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.7).

Cumulative impacts are considered direct effects, which are "caused by the action and occur at the same time and place" (40 CFR 1508.8). The CEQ regulations require a discussion of cumulative actions and connected actions in the scope of the environmental review. These terms are defined as follows:

- ◆ Cumulative actions are those "which, when viewed with other Proposed Actions have cumulatively significant impacts and should therefore be discussed in the same [environmental review]" [40 CFR 1508.25(a) (2)].
- ◆ Connected actions are those that are closely related. "Actions are connected if they: (i) automatically trigger other actions which may require environmental review; (ii) cannot or will not proceed unless other actions are taken previously or simultaneously; or (iii) are interdependent parts of a larger action and depend on that larger action for their justification" [40 CFR 1508.25(a) (1)].

Indirect effects, also termed secondary effects, are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR 1508.8).

Cumulative impact analyses are based on the existing conditions and consider those issues identified in individual resource sections. Discussions focus on critical resources. The past, present, and reasonably foreseeable future projects are analyzed according to incremental impacts in combination with the Proposed Action.

3.4.1 PAST AND PRESENT

Agricultural practices, oil and gas development, vehicle travel along gravel and paved township, county, state, and federal roadways, and operation of existing electric transmission facilities are the primary activities that have occurred and are presently occurring in the study area and more generally in Williams County.

3.4.2 REASONABLY FORESEEABLE FUTURE

Reasonably foreseeable development activities and projects have been identified that may impact resources common to this Project. Projects considered as part of this analysis include:

- ◆ Oil and Gas Development – Oil and gas development is ongoing in the study area. According to the North Dakota Department of Mineral Resources, more than 1.8 million barrels of oil have been produced in Williams County. Currently, there are 43 rigs actively drilling in Williams County (NDDMR 2011). Williams County is located in a prime location of the Bakken formation. In 2010, the Bakken formation was the highest producing formation, outputting more than 85 millions barrels of oil.
- ◆ As indicated above, oil and gas development is occurring and, based on the current demand for new energy supplies and fluctuating price for crude oil (between \$115 and \$75 a barrel (oilprice.net 2011)), is likely to continue occurring for the foreseeable future. Information about the exact locations and scope of future developments was not available as this information is generally confidential and proprietary. As a result, the exact well locations, the number of new wells, and associated impacts are not known at this time.
- ◆ In general, it is anticipated that the oil and gas industry would have to comply with existing state and federal regulations. The primary surface impacts of oil and gas development typically include ground disturbing impacts at each drill site, totaling about 2 acres. There may also be access roads and utility lines of various lengths, and tanks and other site facilities to stockpile and house equipment and supplies. These facilities would convert existing land use and vegetation to industrial purposes. In addition, transportation system impacts would occur related to vehicles transporting water, salt water, and site personnel. Noise is expected to increase depending on the number of wells and types of motors powering the wells. The viewshed of the area would also change as the number of oil rigs increase across the landscape.
- ◆ To accommodate increased oil and gas development, several new transmission lines are planned in the vicinity of the Project. BEPC is proposing to construct a 345-kV Transmission Line and associated Judson Substation that is planned to double circuit the Project for approximately 4 miles from the existing Williston Substation to 52nd Street NW in the Judson Township and continue north into Mont County. The Judson Substation will be adjacent to the proposed MWEC distribution substation near 143rd

Avenue NW. Double circuiting the BEPC transmission line with the Project will reduce the overall cost and environmental impact of each transmission line.

- ◆ MWEC is projected approximately 60 miles of new transmission line within their service area to accommodate the increased oil and gas development. The new transmission line will be built over the course of the next two years.
- ◆ The Bear Paw Energy, LLC, a unit of Oneok Partners LP of Tulsa, Oklahoma, is currently constructing a new 60 MVA natural gas processing plant northwest of Williston, at the northern terminus of the project. The natural gas processing plant will help reduce the amount of gas that is burned off and wasted due to flaring at pump sites. The Bear Paw Gas Plant request for power included a closed loop service for system reliability.
- ◆ The current extraterritorial area (ETA) for the city of Williston includes a one-mile area surrounding the city limits, where the City has subdivision and zoning rights. As part of its Comprehensive Plan issued in August 2010, the city of Williston plans to expand its ETA from one mile to two miles. Expansion of the ETA is intended to accommodate the City's population, and requires joint review by the applicable townships. The proposed ETA boundary is approximately one mile east of the Proposed Action.

The potential cumulative impacts of these past, present, and reasonably foreseeable projects evaluated as part of this environmental assessment are addressed in chapter 3.0 for each resource area.

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Appendix A
STANDARD AVOIDANCE AND MITIGATION MEASURES

General Avoidance and Minimization Measures – During Site Selection and Design

- ◆ Areas known as major flyways or migratory resting spots should be avoided whenever feasible.
- ◆ To minimize the likelihood of bird collisions, the Applicant should coordinate with the USFWS to identify areas where marking of transmission line shield wires and/or alternate structures are appropriate.
- ◆ Unless otherwise permitted or approved, sensitive resources (including prairie remnants and threatened and endangered species) should be avoided during siting, construction, maintenance, and operations.
- ◆ Wetlands will be spanned, where possible. If necessary, structures should be placed at the edges of wetlands (where avoidance is not feasible) in order to minimize disturbance.

Avoidance and Mitigation Measures – During Construction

EROSION CONTROL MEASURES

PERFORMANCE REQUIREMENTS

- ◆ Construction shall not start until affected areas such as wetlands, rivers, and streams are protected by appropriate and effective erosion control devices as identified in any NPDES permits and SWPPP required for certain parts of the project (particularly at substations).
- ◆ Erosion control work shall be performed concurrently with earthwork, final grading, and turf establishment operations. In cases involving relatively small site developments, this work shall be completed as soon as practical.
- ◆ The Applicant shall establish and complete all permanent erosion control structures required for the site development. All temporary measures shall remain in place to the extent practical, until permanent erosion control structures are effective.
- ◆ The Applicant shall establish and complete or rework erosion control items to the extent necessary to correct conditions which develop during the sequence of work on the site. These efforts shall be maintained until permanent turf establishments, drainage facilities or controls incorporated into the grading drawings are complete and operative.

- ◆ The Applicant will assign personnel to manage the installation and maintenance of erosion control measures. These personnel will develop plans and work with the crews to ensure the commitments listed in this section are followed. As required, reports will be prepared outlining measures installed, inspections undertaken, and any issue resolution that occurred, such as unanticipated major weather events. These personnel will also be available to work with the crews to install erosion control measures that may be necessary during construction.

TEMPORARY EROSION CONTROL MEASURES

- ◆ If there are areas of exposed erodible soil in the course of any earthwork operations associated with substation construction, they shall be shaped to permit storm runoff with minimum erosion.
- ◆ In order to maintain sheet flow and minimize rills and/or gullies, there shall be no unbroken slope length of greater than 75 feet for slopes with a grade of 3:1 or steeper.
- ◆ Temporary berms, slope drains, diversion mounds, and sedimentation basins shall be required in accordance with the NPDES permits where possibilities for water pollution exist and permanent erosion controls are not completed or operative.
- ◆ Sedimentation barriers shall be required around the perimeter of the construction limits of the substation sites, as necessary, to prevent sediment from leaving the site and entering wetlands.
- ◆ Temporary erosion control measures also will be installed along the transmission line route where the potential for sediment entering wetlands or waterbodies may occur.
- ◆ Where silt fence is installed, one of the three following installation methods may be used:
 - (1) Machine-sliced silt fence.
 - (2) Hand-installed preassembled silt fence, with the bottom of the fabric anchored in a 6" by 6" trench.
 - (3) Geotextiles supported by steel posts with securing pins at the base may be used. The geotextile material shall be a woven pervious plastic yarn

and shall allow water transmission and retention of soils native to the site.

- ◆ Where soils are too soft to allow the installation of silt fence, slopes are too steep or surface water is present, staked hay bales may be substituted for silt fence.
- ◆ If drainageways are constructed (associated with substations), rock check dams shall be installed at the outlet of the drainageways to stabilize the ditches.
- ◆ Where work continues beyond the growing season for turf establishment, all exposed soils on slopes and ditches shall be dormant seeded and mulched.

PERMANENT EROSION CONTROL MEASURES

- ◆ Apply seed to disturbed soils until vegetation is re-established. Continue to seed until disturbed areas are revegetated to match the density of vegetation in adjacent, undisturbed areas.
- ◆ Once disturbed areas are fully revegetated, remove and dispose of temporary erosion control measures (e.g., silt fence).
- ◆ Where construction results in an increase in stormwater runoff, permanent erosion control measures will be installed as required by applicable NPDES stormwater permit requirements. Stormwater runoff shall be managed to protect downstream water quality by promoting on-site infiltration and retention of stormwater to reduce the volume and velocity of discharges to receiving waters or drainageways.
- ◆ During operation of the substation site, the permanent stormwater measures shall be periodically inspected and maintained. Where necessary, accumulated sediments shall be removed from downstream drainageways, eroded areas restabilized, or additional measures installed to prevent erosion and downstream sedimentation associated with the substation facilities

CONSTRUCTION NEAR STREAMS

- ◆ Clearly identify a buffer on both banks of a stream crossing to prohibit any construction activity, except for the removal of trees necessary for safe operation of the transmission line facilities. Where trees are removed, remove by hand-clearing, if possible.
- ◆ When construction operations occur over the waterway, control the operations in a manner to prevent materials from falling into the water body. If materials do enter the water, they should be promptly removed.
- ◆ Minimize the removal of riparian vegetation. If vegetation must be removed, mulch disturbed soils and reseed or stabilize soils promptly following construction to prevent erosion of the stream bank.

POLLUTION PREVENTION

Spills: Maintain spill kits (e.g., absorbent rags, shovels, plastic bags) on-site to facilitate prompt containment and clean-up of hazardous materials. All spills should be promptly contained and cleaned up. The Contractor shall collect contaminated soils (e.g., in a drum(s)) for proper disposal off site. Spills of hazardous materials greater than 5 gallons shall be reported to the State Duty Officer, as required.

Trash and Debris: The work site shall be kept clean and trash and debris shall not be buried on site. Construction and demolition debris, debris from clearing and grubbing, trash, and other waste shall be collected at least weekly for disposal off site. No on-site burning is allowed unless necessary permits have been obtained. Federal, state, and local requirements for the disposal of solid waste shall be followed.

Hazardous Materials: Oils, fuels, and hazardous substances must be properly stored, including secondary containment for tanks larger than 55 gallons, to prevent spills. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous materials must be in compliance with federal, state, and local regulations.

Truck Washing: If required, a location shall be set aside for washing concrete trucks. Discharge from the wash will be directed into a sediment trap which will also receive waste concrete. The trap shall be cleaned out to prevent overflow and the material disposed off site.

NOXIOUS WEED PREVENTION

Revegetation: In areas where vegetation has been disturbed, revegetation with regionally native species will occur immediately following construction to prevent the introduction of noxious weeds.

Vehicle Washing: All vehicles would be washed, especially the under carriage, prior to construction start. Vehicles would also be washed before traveling from an area identified as contaminated by noxious weeds to an uncontaminated area.

WETLANDS

In areas where a structure will be placed in a wetland, and/or construction will occur in close proximity to a wetland, the following measures will be followed (in addition to the erosion and sedimentation controls listed above) to avoid or minimize the potential for wetland impacts:

- ◆ Access the wetland with the least amount of physical impact to the wetland (i.e., shortest route);
- ◆ Assemble structures in upland areas before bringing into a wetland for installation;
- ◆ When constructing in or through wetlands, use construction mats, low ground weight equipment, or schedule construction to occur under frozen conditions, as necessary or possible, to minimize rutting and ground disturbance;
- ◆ Avoid wetland crossings and close temporary crossings when they are no longer needed for construction, remove mats, and restore disturbed areas as near as practical to its original grade.
- ◆ Avoid refueling equipment or the storage of fuel or other hazardous materials within or near wetlands.

INSPECTIONS AND MAINTENANCE

Inspections. Periodic inspections should be conducted of all temporary erosion and sediment controls, infiltration areas, and stabilized areas. Inspections should occur as soon as possible after rainfall events and repairs made as necessary or as specified by applicable NPDES permit requirements. It is the Contractor's responsibility to maintain temporary erosion and sediment controls in working order throughout the project and make repairs as needed. The following inspection and maintenance measures shall be implemented:

- ◆ Excess sediment behind silt fences should be removed and properly disposed on- or off-site when sediments reach 1/3 the height of fence
- ◆ Damaged or downed silt fence should be repaired or replaced within 24 hours of discovery.
- ◆ Tracked sediments should be removed from paved surfaces at the end of each day. Material collected may be disposed of on or off site.
- ◆ Remove sediments from trap(s) and/or rock checks when sediments have reduced the available volume by 50 percent.
- ◆ Off-site disposal sites for collected sediments shall be determined to be acceptable ahead of time, and shall not be in or adjacent to streams or wetlands. Off-site disposal locations must conform to local, state and Federal regulations, and any necessary permits shall be obtained before disposal. If collected sediments are stored on site (within substation area), measures will be taken to prevent erosion and stabilize the sediments as outlined above.

AIR QUALITY

- ◆ Fugitive dust would be controlled by spraying the working area with water, as needed.

AVIAN PROTECTION

- ◆ Transmission lines and structures will be constructed according to Avian Power Line Interaction Committee's (APLIC) *2006 Suggested Practices for Avian Protection on Power Lines and Mitigating Bird Collisions with Power Lines: The State of the Art in 2006*.
- ◆ Both shield wires of the transmission line will be marked in an alternating pattern with spiral-type visual marking device in compliance with USFWS Region 6 Guidelines dated February 4,2010.
- ◆ Ground clearing and tree removal will occur in the fall and winter prior to the nesting season.

Appendix B
NAAQS FOR CRITERIA POLLUTANTS

Pollutant	Prime Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon Monoxide	9 ppm (10 mg/m ³)	8-hour ¹	None	
	35 ppm (40 mg/m ³)	1-hour ¹		
Lead	0.15 µg/m ³ ²	Rolling 3-Month Average	Same as Primary	
Nitrogen Dioxide	53 ppb ³	Annual (Arithmetic Average)	Same as Primary	
	100 ppb	1-hour ⁴	None	
Particulate Matter (PM10)	150 µg/m ³	24-hour ⁵	Same as Primary	
Particulate Matter (PM2.5)	15.0 µg/m ³	Annual ⁶ (Arithmetic Average)	Same as Primary	
	35 µg/m ³	24-hour ⁷	Same as Primary	
Ozone	0.075 ppm (2008 std)	8-hour ⁸	Same as Primary	
	0.08 ppm (1997 std)	8-hour ⁹	Same as Primary	
	0.12 ppm	1-hour ¹⁰	Same as Primary	
Sulfur Dioxide	0.03 ppm ¹¹ (1971 std)	Annual (Arithmetic Average)	0.5 ppm	
	0.14 ppm ¹¹ (1971 std)	24-hour ¹		
	75 ppb ¹²	1-hour	None	

Source: (EPA 2011)

1. *Not to be exceeded more than once per year.*
2. *Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.*
3. *The official level of the annual NO₂ standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard*
4. *To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010).*
5. *Not to be exceeded more than once per year on average over 3 years.*
6. *To attain this standard, the 3-year average of the weighted annual mean PM_{2.5} concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m³.*
7. *To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m³ (effective December 17, 2006).*
8. *To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008)*
9. *(a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.*

- (b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.*
- (c) EPA is in the process of reconsidering these standards (set in March 2008).*
10. *(a) EPA revoked the 1-hour ozone standard in all areas, although some areas have continuing obligations under that standard ("anti-backsliding").*
(b) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is < 1.
 11. *The 1971 sulfur dioxide standards remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.*
 12. *Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75*

Appendix C
WATER AND LAND USE FIGURES

Additional Information

Permittees are reminded that General Condition No. 6 prohibits the use of unsuitable material. In addition, organic debris, some building waste, and materials excessive in fines are not suitable material.

Specific verbiage on prohibited materials and the 1978 Stream Evaluation Map for the State of North Dakota can be accessed on the North Dakota Regulatory Office's website at:
<https://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm>



Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov



June 22, 2011

Mr. Gregory Liebelt
Environmental Protection Specialist
Western Area Power Administration
P.O. Box 145
Fort Peck, MT 59223

Re: MWEC Williston to Bear Paw Gas Plant 115 kV Transmission Line Project
Williams County, North Dakota

Dear Mr. Liebelt:

This department has reviewed the information concerning the above-referenced project submitted under date of June 17, 2011, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.
2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.
3. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

Environmental Health
Section Chief's Office
701.328.5150

Division of
Air Quality
701.328.5188

Division of
Municipal Facilities
701.328.5211

Division of
Waste Management
701.328.5166

Division of
Water Quality
701.328.5210

Mr. Gregory Liebelt

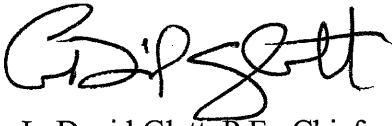
2.

June 22, 2011

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "L. David Glatt". The signature is stylized and cursive.

L. David Glatt, P.E., Chief
Environmental Health Section

LDG:cc
Attach.



Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

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Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.



"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352



June 30, 2011

Gregory Liebelt
Environmental Protection Specialist
Western Area Power Administration
P.O. Box 145
Fort Peck, MT 59223

Dear Mr. Liebelt:

RE: Mountrail Williams Electric Cooperative - 115-kV Transmission Line
Williston Substation to Bear Paw Gas Plant
Williams County, North Dakota

The North Dakota Game and Fish Department has reviewed this project for wildlife concerns.

Our primary concern is the possible disturbance of native prairie and wetland areas during construction of the transmission line. We ask that work within these areas be avoided to the extent possible, above-ground appurtenances not be placed in wetland areas, and disturbed areas be reclaimed to pre-project conditions.

We would appreciate a copy of the Draft Environmental Assessment when it becomes available.

Sincerely,

(for) Paul Schadewald
Chief
Conservation & Communication Division

js



**STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA**



Jack Dalrymple
Governor of North Dakota

June 21, 2011

North Dakota
State Historical Board

Mr. Gregory Leibelt
Environmental Protection Specialist
WAPA
PO Box 145
Fort Peck MT 59223

Chester E. Nelson, Jr.
Bismarck - President

Gereld Gerntholz
Valley City - Vice President

Richard Kloubec
Fargo - Secretary

**ND SHPO Ref.: 11-1758 WAPA/Mountrail Williams Electric Cooperative
new 115kV Transmission line from WAPA Williston substation to the Bear
Paw Gas Plant in portions of Williams County, North Dakota**

Albert I. Berger
Grand Forks

Calvin Grinnell
New Town

Dear Mr. Leibelt,

Diane K. Larson
Bismarck

We received your Public Notice letter dated June 17, 2011 and recommend a Cultural Resources Inventory at the Class I (file search), Class II (reconnaissance or driving) and Class III (pedestrian) levels of the APE (Area of Potential Effect).

A. Ruric Todd III
Jamestown

Sara Otte Coleman
*Director
Tourism Division*

Thank you for the opportunity to review this project to date. We look forward to review of the Cultural Resources Inventory before any ground disturbance takes effect. Please include the ND SHPO reference number listed above in further correspondence for this specific project. If you have any questions, please contact Susan Quinnell at 701-328-3576, or squinnell@nd.gov

Kelly Schmidt
State Treasurer

Alvin A. Jaeger
Secretary of State

Mark A. Zimmerman
*Director
Parks and Recreation Department*

Sincerely,

Francis Ziegler
*Director
Department of Transportation*

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)

Merlan E. Paaverud, Jr.
Director

*Accredited by the
American Association
of Museums since 1986*



**STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA**

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*Director
Parks and Recreation
Department*

Francis Ziegler
*Director
Department of Transportation*

Merlan E. Paaverud, Jr.
Director

*Accredited by the
American Association
of Museums since 1986*

September 2, 2011

Mr. David W. Kluth
Regional Preservation Officer
WAPA
South Dakota Maintenance Office
200 4th Street SW
Huron SD 57350-2474

ND SHPO Ref.: 11-1758 WAPA/Mountrail Williams Electric Cooperative new 115kV Transmission line from WAPA Williston substation to the Bear Paw Gas Plant in portions of Williams County, North Dakota

Dear Mr. Kluth,

We received your letter dated August 26, 2011, 2011 and recommend a Cultural Resources Inventory at the Class I (file search), Class II (reconnaissance or driving) and Class III (pedestrian) levels of the APE (Area of Potential Effect).

Thank you for the opportunity to review this project to date. We look forward to review of the Cultural Resources Inventory before any ground disturbance takes effect. Please include the ND SHPO reference number listed above in further correspondence for this specific project. If you have any questions, please contact Susan Quinnell at 701-328-3576, or squinnell@nd.gov

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)



On June 17, 2011, Western Area Power Administration sent out a notification for a public scoping meeting on the Mountrail Williams Electric Cooperative 115 kV transmission line near Williston, North Dakota. The scoping meeting was held on July 6 at the Ernie French Extension Center in Williston. Unfortunately, the notification that was sent to you came back return to sender on Tuesday July 12, 2011. We are resending this notification and requesting that you contact us with comments and concerns you may have by August 5, 2011. There will also be another opportunity to comment once the draft Environmental Assessment is published. If we do not hear back from you we will assume you do not have comments on the project. We apologize for any inconvenience this may have caused. You can send, email, or phone in your comments to Western at the contact information listed on page two of this notification.

Western Requests Your Help to Consider Environmental Impacts

Mountrail Williams Electric Cooperative (MWEC) is proposing to construct a new 115-kilovolt (kV) transmission line in Williams County, North Dakota. The new transmission line would connect to the existing Western Area Power Administration (Western) Williston substation. The transmission line would be located north of U.S. Highway 2 and would extend approximately 16 miles to the Bear Paw Gas Plant. The intent of this notice is to inform the public about this proposed project and request public input.

Western will be preparing an Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA), and is seeking comments regarding the project. Part of the NEPA process is to solicit comments from interested parties regarding environmental impacts that may be associated with a project. The EA will evaluate potential impacts on environmental resources to determine their level of significance. Your comments on the proposed project will be considered before the EA is completed. Should significant environmental impacts be identified during the EA process that cannot be mitigated to a less-than-significant level, Western would initiate the preparation of an Environmental Impact Statement (EIS).

The transmission line is being proposed in order to serve growth associated with oil and gas developments in this area, particularly the load associated with the gas plant. MWEC has evaluated multiple transmission line routes and determined the proposed route discussed below best serves the increased demand. The new transmission line would help ensure that the area has adequate infrastructure to accommodate growth and provide system reliability.

The route proposed by MWEC for the new transmission line begins at the existing Williston substation. The route would exit the Western Williston substation and proceed diagonally northwest for approximately 2 miles. At 146th Avenue NW the route would turn north for 1 mile to 52nd Street NW, where it would then turns west for 1 mile to 147th Avenue NW, and then continue north for 2 miles where it would intersect 54th Street NW. The line would proceed west along 54th Street NW (and the existing distribution line) for approximately 6 miles to 153rd Avenue NW. (The existing distribution lines in this segment would be underbuilt on the same structure as the proposed transmission line.) The route would continue north for approximately 2 miles and parallel 153rd Avenue NW to 56th Street NW where would turn west for 1 mile. The transmission line would cross mostly agricultural land and would terminate at the Bear Paw Gas Plant, which is currently being constructed at the intersection of 56th Street NW and 154th Avenue NW.

The proposed transmission line would consist of single wood-pole structures placed between 300 and 400 feet apart, depending on underbuild of the existing distribution lines. Near the substation, single steel-pole structures may be used to allow more space between structures and accommodate potential growth. The standard right-of-way width for a single-pole, 115-kV transmission line would be 100 feet. The height of the new structures would vary from 75 to 100 feet above ground, depending on terrain and structure type.

MWEC plans to build the new transmission line upon receiving approval from Western, the lead federal agency responsible for NEPA review of project. Before Western can approve the project, potential environmental impacts must be considered in compliance with NEPA. Part of the NEPA process is to solicit comments from interested parties regarding alternative line routes and environmental impacts that may be associated with the project. Western will use comments received to help define the scope of the EA. Any questions or concerns you have about the NEPA process and your participation in it, and any comments you wish to provide on the project, may be directed to:

Mr. Gregory Liebelt
Environmental Protection Specialist
Western Area Power Administration
P.O. Box 145
Fort Peck Montana 59223
e-mail: liebelt@wapa.gov
fax: (406) 526-8501
telephone: (406)526-8515.

Any questions you have for MWEC about the proposed project may be directed to:

Mr. Dale Haugen
MWEC
P.O. Box 1346
218 58th Street West
Williston, North Dakota
e-mail: dhaugen@mwec.com
telephone:(800) 279-2667 telephone .

Proposed Project Schedule

November 30, 2011 - Draft EA Available for Public Review
January 6, 2012 - Draft EA Public Comment Period Ends
March 5, 2012 - Environmental Review Completed/Construction Starts (subject to approvals)



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501

AUG - 3 2011



Mr. Gregory Liebelt
Environmental Protection Specialist
Western Area Power Administration
P.O. Box 145
Fort Peck, Montana 59223

Re: Mountrail Williams Electric
Cooperative 115 kV Transmission
Line near Williston, North Dakota

Dear Mr. Liebelt:

The U.S. Fish and Wildlife Service (Service) has reviewed Mountrail Williams Electric Cooperative's (MWEC) proposed new overhead 115-kilovolt (kV) transmission line, described in a letter we received July 15, 2011. The proposed project would occur in Williams County. The new transmission line would connect the Bear Paw Gas Plant to an existing Western Area Power Administration (Western) Williston substation, a distance of approximately 16 miles. We offer the following comments under the authority of and in accordance with Endangered Species Act (16 U.S.C. 1531 et seq.) (ESA), the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.) (MBTA), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) (BGEPA), the the National Environmental Policy Act (42 U.S.C. 4321 et seq.) (NEPA), and in accordance with Executive Order 11990 "Protection of Wetlands" (E.O. 11990) and Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds" (E.O. 13186).]

Threatened, Endangered and Candidate Species

If a Federal agency authorizes, funds, or carries out a proposed action, the responsible Federal agency, or its designated agent, is required to evaluate whether the action "may affect" listed species and critical habitat. If the Federal agency determines the action "may affect, is likely to adversely affect" listed species and/or critical habitat, then the responsible Federal agency shall request formal section 7 consultation with this office, or work with this office to remove the likely adverse effects before proceeding. If the evaluation shows a "no effect" determination on listed species or critical habitat, further consultation is not necessary. If a non-Federal entity receives Federal funding for an activity, or if a Federal permit or license is required, the Federal funding, licensing, or permitting agency may designate in writing the fund recipient or permittee as its agent for purposes of informal section 7 consultation. The Federal action agency is

responsible to ensure that its actions comply with the ESA, including obtaining concurrence from the Service for any action that may affect a threatened or endangered species or designated critical habitat prior to carrying out the activity, funding, permitting or licensing the activity.

A list of federally listed endangered and threatened species that may be present within the proposed project's area of influence is enclosed. This list fulfills requirements of the Service under Section 7 of the Endangered Species Act. This list remains valid for 90 days.

The Aransas Wood Buffalo Population (AWBP) of the whooping crane is the only self-sustaining migratory population of whooping cranes remaining in the wild. These birds breed in the wetlands of Wood Buffalo National Park in Alberta and the Northwest Territories of northern Canada, and overwinter on the Texas Gulf Coast. Whooping cranes in the AWBP annually migrate through North Dakota during their spring and fall migrations. Currently, collisions with power lines are the greatest known source of mortality for fledged whooping cranes, and have accounted for the death or serious injury of at least 46 whooping cranes since 1956.

Whooping cranes normally migrate from 1,000 to 6,000 feet above the ground (Kuyt 1992) and well above the height of power lines, but stop every night to roost in shallow wetlands (Howe 1989). Potentially suitable migratory stopover roosting habitat for whooping cranes includes wetlands with areas of shallow water (approximately 18 inches or less) without visual obstructions (i.e., high or dense vegetation) (Austin and Richert 2001; Johns et al. 1997; Lingle et al. 1991; Howe 1987) and submerged sandbars in wide, unobstructed river channels that are isolated from human disturbance (Armbruster 1990). Roosting wetlands are often located within 1 mile of grain fields.

The proposed project area is located within the whooping crane migration corridor that includes 95% of all confirmed whooping crane sightings in North Dakota (enclosure). Conservation measures to avoid or reduce potential impacts to whooping cranes include, but are not limited to: burying all new electrical transmission lines; if new transmission lines cannot be buried, mark all new overhead transmission lines within 1 mile of suitable whooping crane stopover habitat with visual marking devices such as aviation marker balls, swinging plates, spiral vibration dampeners, or swan flight diverters to make the lines more visible, reducing the potential for avian collision. However, marking devices only reduce the risk of a whooping crane strike by between 50 and 80 percent (Morkill and Anderson 1990). To further reduce the increased risk of a strike from proposed new overhead lines, additional existing lines will need to be marked. The Service suggests that in addition to marking the new line, an equal amount of existing line be marked within 1 mile of suitable wetlands in the 95 percent migration corridor.

In addition to marking line, the Service requests that if a whooping crane is seen within 1 mile of a portion of the project under construction, construction be halted on that portion of the project and the Service be notified immediately. In consultation with the Service, work may resume once birds have left the area.

Sprague's pipit was added to the candidate species list in 2010. Migratory bird species such as the Sprague's pipit that are candidates are not protected under the ESA, but are still protected under the MBTA. Sprague's pipits require large patches of grassland habitat for breeding, with preferred grass height between 4 and 12 inches. The species prefers to breed in well-drained, open grasslands and avoids grasslands with excessive shrubs. They can be found in lightly-to-heavily grazed areas. They avoid intrusive human features on the landscape, so the impact of a development can be much larger than the actual footprint of the feature. If Sprague's pipit habitat is present within your proposed project area, the Service requests that you document any steps taken to avoid and minimize disturbance of this habitat, and that you share this information with our office.

For candidate species such as the Sprague's pipit, Federal agencies and non-Federal applicants have the option of requesting a conference with the Service to ensure that their actions minimize and mitigate effects to candidate species. Western has previously indicated that they wish to provide protection for the Sprague's pipit as if the species has been proposed for Federal listing.

Migratory Birds

The MBTA prohibits the taking, killing, possession, and transportation (among other actions) of migratory birds, their eggs, parts, and nests, except when specifically permitted by regulations. While the MBTA has no provision for allowing unauthorized take, the Service realizes that some birds may be killed during project construction and operation even if all known reasonable and effective measures to protect birds are used. The Service Office of Law Enforcement carries out its mission to protect migratory birds through investigations and enforcement, as well as by fostering relationships with individuals, companies, and industries that have taken effective steps to avoid take of migratory birds, and by encouraging others to implement measures to avoid take of migratory birds. It is not possible to absolve individuals, companies, or agencies from liability even if they implement bird mortality avoidance or other similar protective measures. However, the Office of Law Enforcement focuses its resources on investigating and prosecuting individuals and companies that take migratory birds without identifying and implementing all reasonable, prudent, and effective measures to avoid that take. Companies are encouraged to work closely with Service biologists to identify available protective measures when developing project plans and/or avian protection plans, and to implement those measures prior to/during construction or similar activities.

To the extent practicable, schedule construction for late summer or fall/early winter so as not to disrupt migratory birds during the breeding season (February 1 to July). If work is proposed to take place during the breeding season or at any other time which may result in the take of migratory birds, their eggs, or active nests, the Service recommends that the project proponent implement all practicable measures to avoid all take, such as suspending construction where necessary, and/or maintaining adequate buffers to protect the birds until the young have fledged. The Service further recommends that if you choose to conduct field surveys for nesting birds with the intent of avoiding take, that you maintain any documentation of the presence of

migratory birds, eggs, and active nests, along with information regarding the qualifications of the biologist(s) performing the survey(s), and any avoidance measures implemented at the project site. Should surveys or other available information indicate a potential for take of migratory birds, their eggs, or active nests, the Service requests that you contact this office for further coordination on the extent of the impact and the long-term implications of the intended use of the project on migratory bird populations. Marking lines to prevent whooping crane strikes would also protect other migratory and resident birds against line strikes.

Bald and Golden Eagles

The BGEPA prohibits anyone without a permit issued by the Secretary of the Interior from taking bald eagles, including their parts, nests, or eggs. The Act provides criminal and civil penalties for persons who take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald or golden eagle, alive or dead, or any part, nest, or egg thereof. The Act defines take as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. "Disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagles return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment.

The Service recommends surveying ½ mile out from the proposed project areas to determine the presence of any eagle nests. If an eagle nest is observed within ½ mile of the proposed project areas, the Service requests that the location be documented and the Service be contacted for further coordination.

Executive Order 11990

Our review of the National Wetland Inventory (NWI) maps and photographs indicate the proposed planning area includes several wetland basins. You may access the NWI data directly through their website (wetlands.fws.gov). Wetland impacts can be avoided by spanning them so that poles are placed in the upland habitat.

High Value Habitat Avoidance

- Avoid construction in native prairie, if possible, and reseed disturbed native prairie with a comparable native grass/forb seed mixture. The Service recommends planting a diverse mixture of native cool and warm season grasses and forbs. Recent research has

suggested that a more diverse mix, including numerous forb species, is not only ecologically beneficial but is also more weed resistant, allowing for less intensive management and chemical use. In essence, the more species included in a mixture, the higher the probability of providing competition to resist invasion by non-native plants. The seed source should be as local as possible, preferably collected from the nearby native prairie. Obtain seed stock from nurseries within 250 miles of the project area to ensure the particular cultivars are well adapted to the local climate. The Natural Resources Conservation Service (NRCS) compiles a list of vendors in North Dakota that supply conservation seed and plants (<http://www.plant-materials.nrcs.usda.gov/pubs/ndpmcmt8152.pdf>). Additional information on native grasses and forbs may be found at the NRCS Bismarck Plant Materials Center (<http://www.plant-materials.nrcs.usda.gov/ndpmc/>).

- Make no changes in drainage patterns.
- Install and maintain appropriate erosion control measures to reduce sediment transport to adjacent wetlands and stream channels.

Thank you for the opportunity to comment on this project. If additional information is required, please have your staff contact Carol Aron of my staff, or contact me directly at (701) 250-4481 or at the letterhead address.

Sincerely,



Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

Enclosures

FEDERAL THREATENED, ENDANGERED, AND CANDIDATE SPECIES
AND DESIGNATED CRITICAL HABITAT FOUND IN
WILLIAMS COUNTY, NORTH DAKOTA

ENDANGERED SPECIES

Birds

Interior least tern (*Sterna antillarum*): Nests along midstream sandbars of the Missouri and Yellowstone Rivers.

Whooping crane (*Grus Americana*): Aransas-Wood Buffalo Population (264 birds) occurs in North Dakota counties during spring and fall migration between breeding and wintering areas. Whooping cranes prefer to roost overnight in shallow open water wetland habitat with good visibility during migration stopovers.

Fish

Pallid sturgeon (*Scaphirhynchus albus*): Known only from the Missouri and Yellowstone Rivers. No reproduction has been documented in 15 years.

Mammals

Gray wolf (*Canis lupus*): Occasional visitor in North Dakota. Most frequently observed in the Turtle Mountains area.

THREATENED SPECIES

Birds

Piping plover (*Charadrius melodus*): Nests on midstream sandbars of the Missouri and Yellowstone Rivers and along shorelines of saline wetlands. More nest in North Dakota than any other state.

CANDIDATE SPECIES

Birds

Sprague's Pipit (*Anthus spragueii*): Nests in native and planted grassland. Prefers patches of grassland at least 72 acres (29 hectares).

DESIGNATED CRITICAL HABITAT

Birds

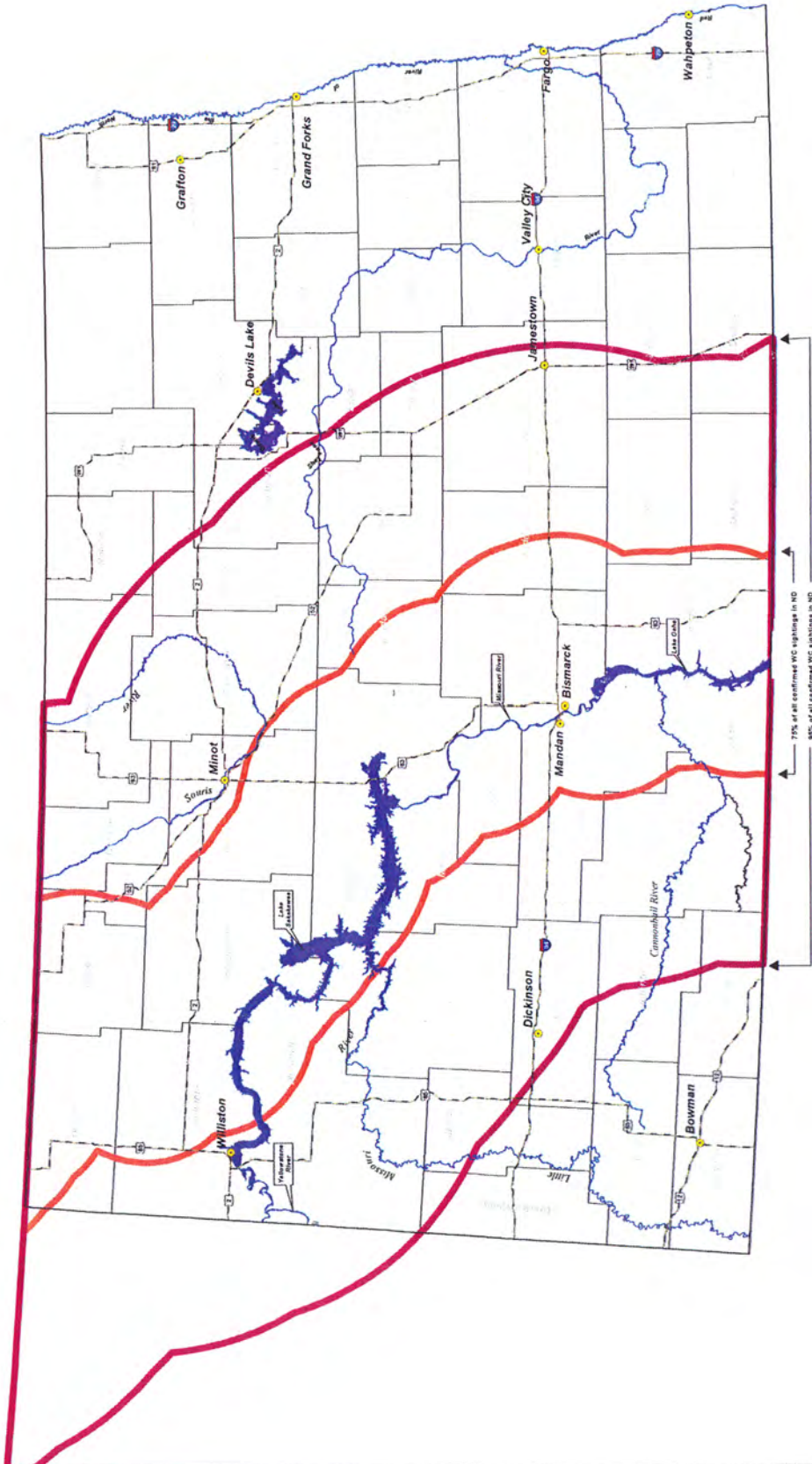
Piping Plover - Alkali Lakes and Wetlands - Critical habitat includes: (1) shallow, seasonally to permanently flooded, mixosaline to hypersaline wetlands with sandy to gravelly, sparsely vegetated beaches, salt-encrusted mud flats, and/or gravelly salt flats; (2) springs and fens along edges of alkali lakes and wetlands; and (3) adjacent uplands 200 feet (61 meters) above the high water mark of the alkali lake or wetland.

Piping Plover - Missouri River - Critical habitat includes sparsely vegetated channel sandbars, sand and gravel beaches on islands, temporary pools on sandbars and islands, and the interface with the river.

Piping Plover - Lake Sakakawea and Oahe - Critical habitat includes sparsely vegetated shoreline beaches, peninsulas, islands composed of sand, gravel, or shale, and their interface with the water bodies.



North Dakota Whooping Crane Migration Corridor



- 75% Whooping Crane Migration Corridor
- 95% Whooping Crane Migration Corridor

DISCLAIMER:
 The USFWS makes no claim as to the accuracy or completeness of the displayed information. Species occurrence and habitat information is provided for illustrative purposes only. Federal action agencies and project proponents should contact the USFWS North Dakota Field Office for more detailed species information and technical assistance in evaluating potential project impacts to fish and wildlife resources.
 Map produced 04/21/2010 by USFWS Ecological Services, Bismarck, ND.



Schneider, Karen

To: Lutz-Zimmerman, Laura R.
Subject: RE: Williston to Stateline Natural Heritage Database Search
AMServiceURLStr: <https://Slingshot.hdrinc.com/CFSS/control?view=services/FTService>

From: Chris Brostuen [<mailto:brostuen@mwec.com>]
Sent: Monday, July 18, 2011 12:45 PM
To: kgduttonhefner@nd.gov
Cc: Lutz-Zimmerman, Laura R.
Subject: FW: Williston to Stateline Natural Heritage Database Search

Ms. Duttonhefner:

Mountrail Williams Electric Cooperative (MWEC) is preparing an environmental assessment for an approximate 16-mile transmission line near Williston ND. The transmission line would start at the Williston substation and connect to the Bear Paw Gas plant that is currently under construction. I would like to request a natural heritage inventory database search of the transmission line project area. I have attached a shapefile of the proposed transmission line right-of-way for your use in completing the search. The coordinate system for the shapefile is North Dakota State Plane, zone 3301. I understand that I can receive the data in an electronic format. Please provide me the necessary data agreement form to receive the data in an electronic format.

If you have any questions, please contact me using the contact information below or contact Laura Lutz-Zimmerman of HDR Engineering, our consultant hired to complete the EA. Her contact information is 303-318-6344 or laura.lutz-zimmerman@hdrinc.com

Thank you.
Chris J. Brostuen
Assistant General Manager
Mountrail-Williams Electric Cooperative
PO Box 1346
Williston, ND 58802-1346
701.577.3765 (Office)
701.770.0773 (Cell)
701.577.3777 (Fax)
Email: brostuen@mwec.com



Jack Dalrymple, Governor
Mark A. Zimmerman, Director

1600 East Century Avenue, Suite 3
Bismarck, ND 58503-0649
Phone 701-328-5357
Fax 701-328-5363
E-mail parkrec@nd.gov
www.parkrec.nd.gov

August 17, 2011

Laura R. Lutz-Zimmerman
HDR Engineering, Inc.
303 E. 17th Ave., Suite 700
Denver, CO 80203

Re: Williston to State Line Transmission Line

Dear Ms. Lutz-Zimmerman:

Thank you for your interest in the Department's Natural Heritage Inventory biological conservation database. The Department did not conduct an environmental review for this particular project site but only conducted a search in our database which includes data only for species of concern and significant ecological communities. Other lands and projects that are owned or managed by the ND Parks & Recreation Department were not included in this search such as: state parks, state nature preserves, Land and Water Conservation Fund projects, Recreational Trails Program projects, and Scenic Byways and Backways.

The North Dakota Natural Heritage biological conservation database has been reviewed to determine if any current or historical plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the project area. Based on this review, there are no known occurrences within or adjacent to the project area.

Because this information is not based on a comprehensive inventory, there may be species of concern or otherwise significant ecological communities in the area that are not represented in the database. The lack of data for any project area cannot be construed to mean that no significant features are present. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. We recommend also contacting the North Dakota Game and Fish Department and the United States Fish and Wildlife Service regarding animal species.

The ND Parks & Recreation Department would appreciate being consulted during the public scoping and/or environmental assessment phase of the project.

Thank you for the opportunity to provide preliminary data for the project site. Please contact me if additional information is needed.

Sincerely,

Kathy Duttonhefner

Coordinator/Biologist
Natural Resource Program
Natural Areas Registry/Natural Heritage Inventory
701-328-5370 (office)
701-220-3377 (cell)
kgduttonhefner@nd.gov

R.USNDNHI*R11-10

• • • • •
Play in our backyard!

B0401.BL

AUG 16 2011

Mr. Morris Belgard
Cultural Resource Liason
Fort Belknap Indian Community
R.R. 1 Box 66
Harlem, MT 59526

Dear Mr. Belgard:

Western Area Power Administration (Western), a power-marketing agency with the Department of Energy, has received a request from Mountrail-Williams Electric Cooperative (MWEC) to interconnect a newly proposed 115-kilovolt (kV) transmission line in Williams County, North Dakota, into Western's transmission system (Project). The new transmission line would connect to Western's existing Williston Substation and extend approximately 16 miles to the Bear Paw Gas Plant. The new transmission line would be located north of U.S. Highway 2.

The purpose of this letter is to inform you of this proposed Project, provide notice that Western will prepare an Environmental Assessment (EA) for the proposed Project unless the need for an Environmental Impact Study (EIS) develops, initiate government-to-government consultation, and invite your participation in the environmental review and National Historic Preservation Act Section 106 consultation process. The information presented in this letter includes a brief Project description and map. Additional information will continue to be provided to you and designated tribal departments or staff as it becomes available.

The transmission line is being proposed in order to serve growth associated with oil and gas developments in this area, particularly the load associated with the gas plant. MWEC has evaluated multiple transmission line routes. The new transmission line would ensure that the area has adequate infrastructure to accommodate growth and provide system reliability.

The proposed Project would consist of single wood pole structures placed about 300 to 400 feet apart, depending on underbuild of the existing distribution lines. Near the substation, single steel pole structures may be used to allow farther spacing between structures and accommodate potential future growth. The standard right-of-way width for a single pole 115-kV transmission line would be 100 feet. The height of the new structures would vary from 75 feet above ground to 100 feet above ground, depending on terrain and structure type.

An interconnection with Western is considered a "major Federal action" under the regulations of the National Environmental Policy Act. It is our understanding that there may be important cultural and natural resources, and/or places with traditional cultural significance for your Tribe within the area that may be impacted by the proposed Project. At this time, we would appreciate receiving any information you would be willing to share with us on any unique, special, ethnographic, or archaeological resources or areas in or near the proposed Project.

For questions related to the Project, please contact Western's staff Steve Tromly toll-free at (800) 366-7549, or Greg Liebelt at (406) 526-8515. Steve Tromly's e-mail is tromly@wapa.gov and Greg Liebelt's e-mail is liebelt@wapa.gov.

I am looking forward to working with you as this process moves forward.

Sincerely,

ISI Matt Marsh

for Nicholas J. Stas
Environmental Manager

Enclosure

bcc:

S. Tromly, A7400, Lakewood, CO

D. Kluth, B0411.HU, Huron, SD

G. Liebelt, B0430.FP, Fort Peck, MT

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Tribal Consultation

FT BELKNAP INDIAN COMMUNITY

Morris Belgard
Cultural Resource Liaison
R.R. 1 Box 66
Fort Belknap Agency
Harlem, MT 59526
406-353-8433
mbelgarde@yahoo.com

NORTHERN CHEYENNE TRIBE:

Mr. Eugene Littlecoyote, President
Northern Cheyenne Tribal Council
P.O. Box 128
Lame Deer, MT 59043
(406) 477-6284

(Send original here, certified mail)

cc:

Mr. Conrad Fisher
Tribal Historic Preservation Officer
P.O. Box 128
Lame Deer, MT 59043
(406) 477-6035

Mr. Steven Brady
Traditional Spokesperson
P.O. Box 542
Lame Deer, MT 59043
(406) 477-8344

OGLALA LAKOTA NATION:

Ms. Cecelia Firethunder, President
Oglala Sioux Tribal Council
P.O. Box H
Pine Ridge, SD 57770
(605) 867-5821
Fax (605) 867-5659

(Send original here, certified mail)

ROSEBUD SIOUX TRIBE:

Mr. Rodney Bordeaux President
Rosebud Sioux Tribal Council
P.O. Box 430
Rosebud, SD 57570
(605) 747-2381
Fax (605) 747-2243

(Send original here, certified mail)

cc:

Mr. Terry Gray
Cultural Resource Coordinator

(Primary cultural contact)

Rosebud Sioux Tribe
Sinte Gleska College
P.O. Box 675
Mission, SD 57555
(605) 856-4901

CHEYENNE RIVER SIOUX TRIBE:

Mr. Herold Frazier, Chairman (Send original here, certified mail)
Cheyenne River Sioux Tribal Council
P.O. Box 590
Eagle Butte, SD 57625
(605) 964-4155
Fax (605) 964-4155

cc:

James Ticotte (Primary cultural contact)
Tribal Historic Preservation Officer
Cheyenne River Sioux Tribe
P.O. Box 590
Eagle Butte, SD 57625
(605) 964-7554

STANDING ROCK SIOUX:

Mr. Ron His-Horse-is-Thunder, Chairman
Standing Rock Sioux Tribal Council
P.O. Box D
Fort Yates, ND 58538
(701)-854-7448

cc:

Mr. Tim Mentz
Tribal Historic Preservation Officer
P.O. Box D
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CROW TRIBE:

Mr. Carl Venne, Chairman (Send original here, certified mail)
Crow Tribal Council
P.O. Box 159
Crow Agency, MT 59022
(406) 638-3708
Fax (406) 638-7283

cc:

Mr. Dale Old Horn (Primary cultural contact)
Tribal Historic Preservation Officer
Crow Tribal Administration
P.O. Box 159
Crow Agency, MT 59022
(406) 638-3793

FT PECK TRIBES:

Mr. A.T. "Rusty" Stafne, Chairman
Ft. Peck Tribes
P.O. Box 836
Poplar, MT 59255

Mr. Curley Youpee, THPO
Ft. Peck Tribes
P.O. Box 836
Poplar, MT 59255

THREE AFFILIATED TRIBES:

Tex Hall, Chairman
Three Affiliated Tribes Business Council
404 Frontage Road
New Town, ND 58763

Mr. Elgin Crows Breast
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Three Affiliated Tribes
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New Town, ND 58763