U.S. Department of the Interior Bureau of Land Management North Central Montana District

Big Flat Electric Coop. Inc, MTM-99490

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CHAPTER 1: PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 Introduction and Background

This environmental assessment (EA) will analyze a right-of-way application (ROW) from Big Flat Electric Cooperative (Big Flat) for a proposal for a 115 kV transmission line, which is one of the various aboveground ancillary facilities associated with the pipeline construction. A total of 64.56 miles of line would be constructed in this project, of which approximately 32.7 miles would be on BLM administered lands (refer to Exhibits A thru I and Appendix 5). The proposed transmission line would interconnect with an existing Western Area Power Administration (WAPA) 161 kV transmission line (MTM58703) located 10 miles south of Saco, Montana as well as proposed Big Flat substation and terminate at Pump Station 9 on the Keystone XL Pipeline. This document analyzes the portions of lands administered by BLM and WAPA infrastructure. This ROW application for a 115 kV transmission line is one of the aboveground ancillary facilities associated with the Keystone XL Pipeline Project (TransCanada Keystone Pipeline, L.P. (Keystone) is authorized to construct, connect, operate, maintain and eventually decommission a pipeline system and ancillary facilities from Hardisty, Alberta, Canada to Steele City, Nebraska (referred to as the Keystone XL Project).

1.2 Purpose and Need

The BLM's purpose is to make a determination on whether to approve a right-of-way across BLM lands for an aerial transmission line (115 Kv). The need for the action is to respond to and consider a Federal Land Policy and Management Act (FLPMA) right-of-way (ROW) application as submitted by Big Flat Electric Cooperative, Inc. to construct, operate, and maintain an 115 kV transmission line across public lands administered by the BLM Malta Field Office. The BLM would respond to Big Flat's application for a new ROW authorization and consider approval of Big Flat's request in a manner that avoids or reduces impacts on sensitive resource values and prevents unnecessary or undue degradation of the public lands. BLM's responsibility to process land use applications is detailed in 43 CFR 2804.25.

WAPA's purpose and need remains as described in Chapter 6.2.2 of the Final SEIS for the Keystone XL Project. WAPA must consider and respond to interconnection requests from the local power cooperatives, and the related construction or upgrading of any WAPA-owned facilities as a result of the requests.

1.3 Decision to be Made

The BLM must decide whether or not to grant the right-of-way across 32.7 miles of BLM managed lands, and if so, under what terms and conditions.

WAPA's decision to be made is whether to grant or deny Big Flat's interconnection request along WAPA's Fort Peck to Malta 161-kilovolt transmission line and, if granted, to construct a new WAPA substation (to be called Bowdoin). Specifically, WAPA will consider the potential environmental impacts identified in this EA to inform its pending Record of Decision for the SEIS.

1.4 Conformance with Land Use Plans

The project area is managed according to decisions in the HiLine Resource Management Plan (HiLine RMP) approved in 2015. The HiLine RMP can be accessed at

<u>https://eplanning.blm.gov</u>. The RMP states that "Requests for land use authorizations (rights-ofway, leases or permits) will be analyzed and mitigation measures applied on a case-by-case basis through the environmental review process. Terms and conditions for rights-of-way, corridors, and development areas (oil and gas) will incorporate applicable Best Management Practices (BMP), current professional practice, and recent scientific findings" (page 3-22).

Portions of the proposed project fall within General Habitat Management Area for Greater sagegrouse, as identified by the Montana's Sage Grouse Conservation Strategy (Project No. 2815, Governor's Executive Orders 12-2015 and 21-2015), as attached (Appendix 1). The HiLine RMP designates these areas as avoidance areas for infrastructure ROW's (pg. 2-5) but may be available with special stipulations. The proposed project was reviewed by the Montana Sage Grouse Habitat Conservation Program and evaluated against the disturbance cap and Habitat Quality Tool (Appendix 1). Using these values, special stipulations were developed to reduce impacts to sage grouse including timing limitations for disturbing activities and a modified route that places the transmission line farther from active leks. Because of this, and the fact that the remainder of the proposed project is within areas identified as Open to ROWs in the RMP, the proposed project is in conformance with the Land Use Plan (LUP).

1.5 Relationship to other Plans, or other NEPA Documents

This EA tiers to (40 CFR 1508.28, 40 CFR 1502.20) and incorporates by reference (40 CFR 1502.21) the Department of State (DOS) Keystone XL FSEIS (December 2019), the Keystone XL 2014 Final SEIS and the Keystone XL 2011 EIS. More specifically, electrical distribution lines and associated pump stations were analyzed in greater detail and considered as connected actions in Chapter 6 – Electrical Power Infrastructure (pp. 6-1 to 6-136) and Chapter 7 - Cumulative Impacts (pp. 7.1 to 7.22) of the Keystone XL FSEIS (2019) and the 2014 Keystone XL Final SEIS.

The proposed actions analyzed in this EA are project-specific refinements that are tiered to the broader connected actions, in conformance with 40 CFR 1508.28 and 40 CFR 1502.20), as described in Section 2.5 of the Final EIS (2011) and incorporate by reference (pursuant to 40 CFR 1502.21) the associated analysis completed in Keystone XL FEIS (2011), Keystone XL Supplemental FEIS (2014) and Keystone XL Supplemental FEIS (2019).

In fulfillment of the requirements under Section 7 of the Endangered Species Act the potential impacts of the Keystone XL pipeline and connected actions, including construction of the PS09 transmission line, on Threatened and Endangered Species were analyzed in the Biological Assessment (BA) for the Keystone XL Project. (November 26, 2019). The final proposed transmission route was submitted to US Fish & Wildlife Service ECOS-IPaC system in June 2020 to verify which species analyzed in the BA are specific to the PS09 project.

The US Fish and Wildlife Service (USFWS) reviewed the Biological Assessment and issued a Letter of Concurrence (December 23, 2019) which is included in Appendix 4.

Since a portion of the proposed project lies within GHMA, the proponent was required to consult with the Montana Sage Grouse Habitat Conservation Program (MSGHCP) and submit the resulting program recommendations and mitigation plan (Appendix 1) as part of their ROW application. In the January 2020 report, MSGHCP considered 3 route alternatives, including the

original route that was included in the 2019 SEIS, and two reroutes designed to lessen impacts to active GRSG leks. Alternative 3 was determined to be the least impactful to active leks and was agreed on by MSGHCP, MSGOT, BLM and Big Flat Electric as the final proposed route.

Federal Law, Executive Orders, and Secretarial Orders:

Section 501 of FLPMA (Public Law 94-579-October 21, 1976 as amended): The Secretary, with respect to the public lands, are authorized to grant, issue, or renew rights-of-ways over, upon, under and through such lands.

Executive Order 13783 Promoting Energy Independence and Secretarial Order 3349 American Energy Independence directs reexamination of practices across the Department of Interior to balance conservation strategies and job-creation.

Presidential Memorandum Regarding Construction of the Keystone XL Pipeline (January 2017) directs the Secretary to take all steps necessary and appropriate to review and approve as warranted, in an expedited manner, requests for approvals related to the Keystone XL Pipeline.

Secretarial Order 3362: Improving Habitat Quality in Western Big-Game Winter Range and Migration Corridors

Executive Order 13788: Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects and Secretarial Order 3355: Streamlining National Environmental Policy Act Reviews.

Secretarial Order 3353: Greater Sage-Grouse Conservation and Cooperation with Western States. June 7, 2017.

1.6 Resource Issues Identified for Analysis

1.6.1 Resource Issue 1

Threatened and Endangered Species

- Timing of surface disturbance.
- Area of disturbance.

1.6.2 Resource Issue 2

Greater Sage-grouse habitat

- Timing of surface disturbance.
- Area of disturbance.

1.6.3 Resource Issue 3

BLM Sensitive Species

- Timing of surface disturbance
- Area of disturbance.

1.6.4 Resource Issue 4

Big game winter range and migration corridors

- Timing of surface disturbance.
- Area of surface disturbance.

1.6.5 Resource Issue 5

Visual Resources

- Area of surface disturbance.

1.8.5 Resource Issue 6

Surface Water, Groundwater, Wetlands, Riparian Areas

- Area of surface disturbance within wetlands.
- Impacts to groundwater and surface water quality.
- Function and condition of floodplains and riparian areas.

1.7 Issues/Resources Considered but Eliminated from Further Analysis

Resources were analyzed in an internal scoping document in 2013 as updated in 2019. The following resources were considered but eliminated from further analysis based on the proposed project and design features, as identified in Chapter 2, section 2.4 Alternative B (Proposed Action).

- 1.7.1 Invasive Species and Noxious Weeds
 - The majority of the proposed ROW on BLM would take place along existing roads, which have previously been and continue to be disturbed, and would not be adversely impacted by a new disturbance. Leafy spurge (Euphorbia esula) and other noxious weeds are present in and around the immediate construction area. The standard design features, as stated under the terms and conditions, should mitigate this issue, i.e. all vehicles and equipment used in conjunction with the construction activities would be cleaned of all vegetation, plant parts, and soil, prior to entering BLM lands to lessen the possibility of establishing or spreading noxious weeds. By following the required design features, no additional impacts are expected. This area of disturbance is included under regular weed monitoring.

1.7.2 Recreation

- There are no developed recreation sites and recreational use is low and dispersed, mainly consisting of hunting activities. Most of the proposed ROW on BLM would take place along existing roads, which have previously been and continue to be disturbed, and would not be adversely impacted by a new disturbance. The co-location of the proposed transmission line and roads would avoid or minimize impacts to recreation in the area.
- 1.7.3 Special Designations and Wilderness Characteristics
 - No areas within the proposed project area were determined to possess wilderness characteristics during the 2011 inventory update.
- 1.7.4 Grazing and Upland Vegetation
 - The impact to the range health and the local vegetation will be minimal across the entire project and specifically within the BLM's portion of the proposed project. Standard design features, as stated in the terms and conditions under the proposed action, would mitigate any potential impacts.
- 1.7.5 Cultural and Paleontological, Native American Concerns
 - The Proposed project has been inventoried to Class III Standards (BLM Cultural Resource Report# 19-MT-065-003, 18-MT-065-006, 13-MT-065-002) with SHPO

concurrence received August 4th, 2015, April 22nd 2019 and September 17th, 2019. All significant Cultural resource locations were avoided by project redesign.

- Furthermore: copies of sites and mitigation/avoidance strategies were sent to multiple Native American Communities and Tribes, no comments or concerns were received.
- An Unanticipated Discovery Plan has also been developed and would be implemented to minimize impacts on unknown cultural resources that may be inadvertently encountered during construction or operation of the proposed transmission line. As such, it is expected that there would be negligible impacts ("No Adverse Effect") on cultural resources from the construction and operation of the transmission line.
- WAPA "A Class III Cultural Resource Inventory of Three WAPA Construction Projects in Custer, McCone, and Phillips Counties, Montana" and associated SHPO concurrence, received on 7/5/2011.

1.7.6 Soils

Impacts to soils from Electrical Distribution Lines and associated infrastructure were analyzed in the Final Supplemental Environmental Impact Statement (SEIS) for the Keystone XL Project (USDoS, 2014). The analysis states: "Since the construction and operation of electrical lines and associated structures would require minor disturbances to the landscape of the area, the impacts to the soils resources are expected to be negligible." (pg. 4.2-15). Impacts were also described, in greater detail, in the 2019 SEIS (USDoS, 2019). The SEIS concluded that: "Overall, the impacts on soils resulting from construction of power lines and associated infrastructure would be negligible to minor and the impacts resulting from operations and maintenance would be negligible." (pgs. 6-28 to 6-29). Impact monitoring of similar past actions, within the Hi-Line District, supports the stated analysis and conclusions. There would be up-to 2,550 square feet of soils disturbed for power pole placement and 5.7 acres for the WAPA Bowdoin Substation throughout the 32.7 miles. There would be no new access roads constructed. Design features would be implemented to reduce impacts.

CHAPTER 2. PROPOSED ACTION AND ALTERNATIVES

2.1 Introduction

Alternatives were developed based upon National and State BLM direction and policy, existing conditions and resource issues. Resource issues are discussed in Chapter 1. Other factors that influenced alternative development are discussed in Chapter 3.

2.2 Alternatives Considered but Eliminated

Due to the co-location of the line with existing disturbances, no additional alternatives were brought forward by the BLM or the applicant in the final application. Several minor realignments were completed due to cultural resources and sage grouse habitat, prior to analyzing resources.

2.3 Alternative A (No Action)

Big Flat Electric Coop., Inc.'s application for a 32.7-mile ROW to construct a 115 kV aerial transmission line would be denied. WAPA would deny the request to interconnect and would not connect to a Big Flat Electric Substation or the existing 161 kV transmission line to accommodate the interconnection. No right-of-way grant across BLM administered lands would be offered.

2.4 Alternative B (Proposed Action)

Big Flat Electric Cooperative, Inc. has submitted an application for a ROW to construct a 115 kV aerial transmission line in Phillips County. A total of 64.56 miles of line would be constructed in this project with approximately 32.7 miles on BLM administered lands. This construction would take place within a long term 80' ROW (100' construction ROW) and would contain 317.09 acres. Upon completion of construction the ROW will be reduced to the long term 80' width. For a complete location description see Appendix 5, as attached.

The proposed total 64.56 mile transmission alignment would interconnect with WAPA's existing 161 kV transmission line (MTM-58703) approximately 18 miles south of Saco, Montana, at the new Bowdoin Substation (MTM-102768) and parallel existing powerlines, roads, and trails to Pump Station 9. The transmission line would consist of 60'-80' single and "H" frame treated wood poles with three conductors and one static wire. The span length between poles would generally range from 250 feet to 290 feet except where local topography dictates longer lengths. The long term right-of-way would be 80 feet in order to meet Electronic Magnetic Field (EMF) safety recommendation. All construction and temporary use areas (none on BLM administered lands) would be contained inside the long term right-of-way. Equipment and construction materials staging areas would be in existing yards, on private lands.

Structure locations would be flagged and staked. Poles and associated hardware would be shipped to each structure site by truck. At each structure site, poles and components would be assembled and readied for erection.

For public protection during wire installation, guard structures would be erected over obstacles such as roads, railroads, existing power lines, and existing structures. Guard structures consist of H-frame poles placed on either side of the obstacle. These structures would prevent ground wire,

conductors, or other equipment from falling on an obstacle. Equipment for erecting guard structures include augers, line trucks with booms, and pole trailers.

Excavations for poles would be made with power equipment. After the hole is augered, poles would be set, backfilled, and tamped using existing spoils. Remaining spoils material would be banked against the pole to shed water and discourage pooling.

A pilot line would be pulled from structure to structure (or strung) by a vehicle and threaded through the stringing sheaves at each tower. Then a larger diameter, stronger line (the pulling line) would be attached to the pilot line and strung. This process is repeated until the ground wire or conductor is pulled through all sheaves.

The ground wire and conductor would be strung using power pulling equipment at one end and power braking or tensioning equipment at the other end. The tensioner, line truck, and wire trailer that would be needed for stringing and anchoring the ground wire or conductors are located at this site. The tensioner, along with the puller, maintains tension of the ground wire or conductor. Maintaining tension ensures adequate ground clearance and is necessary to avoid damage to the ground wire, conductor, or any objects below them during the stringing operation.

Following construction, temporary structures would be removed, final cleanup would be performed, and any testing procedures completed. The line would then be ready to be put into service.

Design Features:

- 1. Ground disturbance, including off-road travel should be kept to a minimum to avoid the appearance of an established route that will be mistakenly used by the public. The ROW holder will be responsible for installation and maintenance of BLM-approved signage, if such disturbance is caused.
- 2. As per the HiLine RMP (2015, p. 3-78), power lines and substations constructed on BLM land will comply with the most current avian protection standards (currently Reducing Avian Collisions with Power Lines: The State of the Art in 2012).
- 3. Construction, operation and/or maintenance activities shall not be performed during periods when the soil is too wet to adequately support equipment/vehicles. If equipment/vehicles create ruts in excess of 3 inches deep, operations must cease as the soil will be deemed too wet to adequately support equipment.
- 4. The holder shall remove only the minimum amount of vegetation necessary. Topsoil shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. Topsoil shall be stripped and stockpiled separate from subsoil/spoil material. Topsoil shall be stored and protected from erosion for use in reclamation on all areas of surface disturbance. Topsoil that is not re-spread within 30 days shall be covered/protected in such a way that topsoil viability is not compromised. At the time of reclamation, topsoil shall be replaced to pre-existing depths once ripping and discing of compacted subsoil/spoil. The order of soil replacement shall be the reverse of removal, e.g. first off, last on.

- 5. All construction equipment will be clean of excess soil and vegetation before entering or leaving BLM public land. This will mitigate the potential for spreading invasive species across the landscape.
- 6. The holder shall be responsible for erosion control and sediment containment. Appropriate erosion control and sediment containment Best Management Practices (BMPs) shall be determined and put in place by the holder and the holder shall be responsible for maintaining those BMPs for their intended function and until the disturbed area is successfully reclaimed/revegetated. Erosion control and sediment containment products/devices shall be certified weed free and installed according to manufacturer's specifications.
- 7. The holder shall be responsible for reclamation of disturbed areas. Reclamation measures shall be designed by the holder to meet the Reclamation Requirements described in Appendix M: Reclamation of the HiLine RMP (USDI, 2015).
- 8. Vehicle and equipment servicing and refueling activities would take place 500 feet from the outer edge of riparian areas, wet areas, and drainages.
- 9. The holder shall be responsible for reclamation monitoring of disturbed areas. Erosion of the disturbance area shall be equal to or less than similar adjacent undisturbed areas. Soil stability will be assessed by looking for indicators of accelerated erosion such as rills, gullies, pedestalling, and/or slumping/sliding. Within one growing seasons of the initial disturbance, vegetative cover shall be at least 30% or more of desirable species. Desirable species are those species specified in the seed mix. Within 3 to 5 years vegetative cover shall be at least 70% of that on similar adjacent undisturbed areas. If these standards are not met, additional reclamation measure such as re-seeding, applying soil amendments and/or additional erosion/sediment control BMPs, etc. shall be implemented.
- 10. Debris and other waste materials associated with installation, modification, operation, and maintenance activities would be placed in a location that avoids the entry of said material into riparian zones and wetland areas.
- 11. If safety, disrepair, erosion and/or rutting problems are discovered along the access and maintenance routes, the holder shall be responsible to repair, improve and/or maintain the roadway to assure safety, stability and to minimize soil erosion/rutting.
- 12. The holder shall be responsible for adhering to the program recommendations listed in the Montana Sage Grouse Habitat Conservation Program Project Letter No. 2815 (January, 2020) along with the attached Revised Greater Sage-Grouse Mitigation Plan approved by the Montana Sage Grouse Oversight Team (Appendix 1).
- 13. Avoid construction or surface disturbing activities from December 1 May 15 for big game winter range. Exceptions, if applicable, may be granted by the Authorized Officer on a case-by-case basis.
- 14. Avoid construction or surface disturbing activities from April 14 July 15 migratory birds. Exceptions, if applicable, may be granted by the Authorized Officer on a case-by-case basis.
- 15. Avoid construction or surface disturbing activities with ½ mile of sharp-tailed grouse leks from March 15 through June 30. Exceptions, if applicable, may be granted by the Authorized Officer on a case-by-case basis.

- 16. Avoid construction or surface disturbing activities within 2 miles of greater sage-grouse leks from March 1 through June 15. Exceptions, if applicable, may be granted by the Authorized Officer on a case-by-case basis.
- 17. The holder shall adhere the applicable conservations measures provided by the US Fish & Wildlife Service in their concurrence letter to the BA. The applicable measures include:
 - a) install flight diverters on the power line within 0.25 mile of the Milk River crossing;
 - b) install anti-perching features on all poles within 0.1 mile of the Milk River crossing;
 - c) provide BLM and TC Energy with written confirmation that the power lines have been marked.

Exhibit A	MTM99490
37N 27E 37N 28E 37N 29E 37N 30E 37 36N 27E 36N 28E 36N 29E 36N 36N	N 31E 37N 32E 37N 33E 37N 34E 37N 35E 37N 36E 31E 36N 32E 36N 33E 36N 34E 36N 35E 36N 36E 36N 37E 31E 35N 32E 36N 33E 36N 34E 36N 35E 36N 36E 36N 37E 31E 35N 32E 36N 33E 36N 34E 36N 35E 36N 36E 36N 37E 31E 35N 32E 36N 33E 36N 34E 36N 35E 36N 36E 36N 37E 31E 34N 32E 34N 33E 34N 34E 34N 35E 34N 36E 34N 37E 31E 34N 32E 34N 33E 34N 34E 34N 35E 34N 36E 33N 37E 32N 32E 33N 33E 33N 34E 33N 35E 32N 36E 33N 37E 33N 32E 33N 33E 32N 34E 33N 35E 31N 36E 31N 37E 31N 32E 31N 33E 31N 34E 31N 35E 31N 36E 31N 37E 30N 32E 31N 33E 30N 34E 30N 35E 30N 36E 30N 37E
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BLM Wilderness Area IR Wilderness Area	National Forest Lands (USFS) USFW Service Wilderness Area
Bankhead-Jones Land Use Lands (BLM) Ind bn Lands or Reserv	/ations National Grasslands (USFS) USFW Service, National Wildlife Refuges
Bureau of Reclamation (BOR)	National Park Service (NPS) Military Reservations/Corps of Engineers
Bureau of Land Management (BLM)	State Lands Wildow Protective Area (WPA-County Administered)
County and City Lands Other Federal Lands	Private Lanos Water
Porest Service Wildermess Area NPS Wildermess Area Phillips County, Montana PMM T. 29 - 37 N., R. 31 - 33 E.	Big Flat Electric Coop., Inc. PO Box 229 Malta, Montana 59537 30.35 miles x 80' permament ROW containing 294.3 acres more or less
United States Department of the Interior Bureau of Land Management Montana/Dakotas State Office	Proposed 115 kV Transmission Line CAUTEON: Land ownership data is derived from less accounte data than the 1:24000 scale base map. Therefore, land ownership may not be shown for parcells smaller than 40 scnes, at land ownership lines may have platfilling errors due to source data. No warranty is made by the Bureau of Land Management for the use of the data for purposes not intended by the BLM.

















CHAPTER 3. AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

The Affected Environment section describes the existing conditions and trends of resource issues and environmental elements that may be affected by implementing an alternative. This discussion is organized by the resource issues that were identified in Chapter 1 and provides the baseline for comparison of potential impacts and consequences described in Chapter 3.

Potential effects include direct, indirect and cumulative effects. Direct effects are those which are caused by the action and occur at the same time and place. Indirect effects are reasonably predictable and caused later in time or farther removed in distance from the action. Cumulative effects to a resource result from the addition of the action's impacts to the accumulated effects from other past, present, and reasonably foreseeable future actions within a geographic and temporal scope specific to the resource or resource use.

3.2 General Setting

The proposed action is located in Phillips County, Montana. The county's major economy is agriculture. Non-agricultural economy producers include but are not limited to recreation, oil and gas industry. A total of 1,029,364 surface acres of BLM administered lands (31%) can be found in Phillips County.

3.2.1 Resource Issue 1 – Threatened and Endangered Species:

How would the proposed action impact piping plovers, whooping cranes, and red knot?

3.2.1.1 Affected Environment

A Biological Assessment (BA) was completed for the Keystone XL Project which evaluated the entire pipeline and interconnected and interrelated actions including construction of the PS09 transmission line. Based on the results of the BA, the U.S. Fish & Wildlife Service (Service) issued a memorandum which includes the ESA Section 7 Determinations and Service Concurrence for the project (Appendix 4).

The transmission line project was submitted to the US Fish & Wildlife Service ECOS-IPaC website (https://ecos.fws.gov/ipac/) on June 30, 2020 (Consultation Code: 06E11000-2020-SLI-0120) to identify which species addressed in the BA might specifically occur within the PS09 proposed project area and to ensure the proposed route, which was slightly modified since the SEIS, would not impact any species not analyzed in the BA. Threatened and endangered species that might occur within the proposed project area were identified as piping plover *(Charadreus melodus)*, whooping crane *(Grus americana)*, and red knot *(Caladris canatus rufa)* (Appendix 3).

Piping Plover: Piping plovers (PIPL) are a federally listed threatened shorebird that nest along the Missouri River and the alkali lakes of northeastern Montana. In the Northern Great Plains, PIPL breed and raise young on sparsely vegetated sandbars and reservoir shorelines on river systems as well as on the shorelines of alkaline lakes. Changes in the quality and quantity of riverine habitat due primarily to damming and water withdrawals are a primary threat to the species.

The ECOS-IPaC analysis identified no critical habitat within 5 miles of the proposed action area. The Montana Natural Heritage Program (MNHP) Map Viewer program (http://mtnhp.org/mapviewer/) was used to produce Environmental Summary of the project area including a 5-mile buffer. The MNHP summary characterizes approximately 1% of the summarized proposed action area as Great Plains Saline Depression Wetland and less than 1% as Great Plains Open Freshwater Depressional Wetland (Appendix 2). These sites would serve as the most likely nesting habitat for piping plover within the proposed action area. Within the 5mile transmission line buffer area, 19 occurrences of piping plover have been documented on Nelson Reservoir between 1986 and 2004 (MNHP, 2020).

Whooping Crane: Whooping cranes are a federally listed endangered species. The proposed project area falls outside of designated critical habitat and the 95% whooping crane migration corridor. Possible areas used by whooping cranes during migration include major river systems and their associated wetlands, as well as palustrine wetlands and shallow areas of reservoirs, stock ponds, and lacustrine wetlands for roosting with agricultural croplands for foraging in the vicinity. No historical or telemetry observations of whooping cranes have been documented within 1.5 miles of the project area but there are two documented sightings from 1985 and 1990 in Phillips County within 5 miles of the proposed action area (MNHP, 2020).

Red Knot: Red knots are a federally threatened species. Apart from a few, primarily saline, lakes in the northern Great Plains, there is no evidence that red knots use non-coastal habitats as stopover sites (Central Flyway Council 2013). Although there is very little potentially suitable stopover habitat close to the proposed project (Appendix ?-letter of concurrence), there are two documented sightings of red knot from 2001 and 2005 in Phillips County within 5 miles of the proposed action area (MNHP, 2020).

3.2.1.2 Environmental Impacts – Alternative A (No Action)

Under a No Action alternative there would be no impacts to piping plovers, whooping cranes, or red knot beyond what was analyzed in the Keystone EIS.

3.2.1.3 Mitigation and Residual Effects

There would be no residual effects as there would be no surface disturbance.

3.2.1.4 Cumulative Impacts

There would be no cumulative impacts as there would be no surface disturbance.

3.2.1.5 Environmental Impacts – Alternative B (Proposed Action)

Piping Plovers: Less than 2% of the lands within 5 miles of the proposed project provide potential habitat for this species (MNHP). While there is the potential for piping plovers to collide with the transmission line and there is possibly an increased risk from avian predators, the general lack of habitat, the required design features to which the project is committed, and the fact that piping plovers are small, agile shorebirds that are at low risk for power line strikes, the proposed action would not have an effect on the overall population.

Whooping Cranes: A detailed analysis of the risk of power line strikes by whooping cranes was completed for the EIS (2019) and associated BA. The conclusion was that the likelihood of a whooping crane impacting a transmission line associated with the proposed project would be

"insignificant and discountable" for the entire KXL project as long as the following conservation measures are followed:

- Power lines have not been sited within 5 miles of designated critical habitat or documented high use areas; and
- Within the 95 percent corridor, providers would mark new power lines within 1 mile of potentially suitable habitat pursuant to APLIC (2012) standards.

The USFWS concurred with this conclusion (Appendix 4). Given the required design features, limited number of individuals, and the lack of documented observations within 1.5 miles of the project area, the proposed action would have no effect on whooping cranes.

Red Knot: Given that red knots typically make non-stop, direct migratory flights and that very little potentially suitable habitat exists within the proposed project area, the likelihood that an individual of this species would encounter the transmission line is very low. The required design features associated with the proposed project would reduce the likelihood even further. Therefore, the proposed action would have no effect on red knots.

3.2.1.6 Mitigation and Residual Effects

The addition of a new transmission line would contribute to an overall increase in anthropogenic features on the landscape that would remain for the lifetime of the project.

3.2.1.7 Cumulative Impacts

Other past, present and reasonably foreseeable actions that have or could occur within the area of action is the construction of KXL pipeline and other associated infrastructures such as the NorVal transmission line.

Piping Plovers: While cumulative impacts on piping plover are expected to be minor throughout the KXL project and associated actions, the impacts within the area of the Big Flat transmission line are expected to be even less, given the limited occurrence of piping plovers in the area, installation of deterrents for avian collisions, and timing restrictions for construction.

Whooping Crane: While cumulative impacts on whooping crane are expected to be minor throughout the KXL project and associated actions, the impacts within the area of the Big Flat transmission line are expected to be even less, given the very limited occurrence of whooping cranes in the area and installation of deterrents for avian collisions.

Red Knot: Given the lack of stopover habitat and the lack of occurrence within the project area along with the short amount of time individuals do remain in the area, cumulative temporary impacts are not expected to occur.

3.2.2 Resource Issue 2 – Greater Sage-grouse Habitat:

3.2.2.1 Affected Environment

Chapter 2 of the Hiline RMP (2015) contains the Approved Resource Management Plan for Greater Sage-grouse (GRSG) Habitat. This BLM sensitive species generally prefers intact sagebrush ecosystems away from roads and other anthropogenic features. Approximately 26.5 miles of the proposed project area falls within General Habitat Management Area (GHMA) for

GRSG with about 60% of those miles on BLM surface. GHMA are lands with or without ongoing or imminent impacts containing GRSG habitat outside of the priority areas. BLM management goals for these lands are to maintain habitat for sustainable sage-grouse populations to promote movement and genetic diversity.

Appendix B of the Hiline RMP states that the BLM will assess and address impacts to GRSG leks from actions within a range of lek buffer-distances and identifies conservations measures to apply for actions within those buffer areas. The appropriate buffer distance for tall structures such as transmission lines is a two-mile radius from a lek. There are three active GRSG leks within two miles of the proposed transmission line route. The average high male GRSG count for SG11-72 from 2002 to 2019 is 15 birds with the highest count being 31 males in 2012. For SG11-78, the average high male count for that time period is 13 with a high of 29 in 2010. For SG11-90 the average high male count is 4 during that time period with a high of 14 in 2013.

The GHMA area surrounding these three leks is highly impacted by natural gas infrastructure, communications towers, county and 2-track roads, and agricultural features including fences and livestock reservoirs.

The Montana Sage Grouse Habitat Conservation Program (MSGHCP) reviewed the proposed project, including the power line corridor, access roads, the new substation, and 3 storage yards. That analysis and recommendations are included in Appendix 1. The vegetative community is described in Section 1.3 while the affected GRSG populations are described in Section 1.4.

The MSGHCP uses the Habitat Quantification Tool (HQT) functional acre approach which accounts for differences in habitat quality and functionality. The HQT estimates the acres lost in the direct footprint and accounts for indirect effects. More background information on the HQT is included in the MSGHCP response and recommendations in Appendix 1.

3.2.2.2 Environmental Impacts – Alternative A (No Action)

Under a No Action alternative there would be no impacts beyond what was analyzed in the Keystone EIS.

3.2.2.3 Mitigation and Residual Effects

There would be no residual effects as there would be no surface disturbance.

3.2.2.4 Cumulative Impacts

There would be no cumulative impacts as there would be no surface disturbance.

3.2.2.5 Environmental Impacts – Alternative B (Proposed Action)

The MSGHCP estimates a total loss of 145,597.52 functional acres from the proposed project area (Appendix 1). This loss would persist for the life of the transmission line. Sage grouse have been shown to be negatively impacted by anthropogenic features such as power lines. Kohl et al. (2019) found that power lines negatively affected lek trends for a distance up to 2.8km (1.74 miles) but did not affect lek persistence. Tall structures such as transmission line poles may be utilized by avian predators as a perch which increases the likelihood of predation on GRSG during lekking, nesting and brood-rearing activities. Some native bird species, such as GRSG, may also avoid nesting near tall structures, thereby reducing the overall amount of available

nesting habitat. There is also a chance of individual GRSG colliding with the power line while flying.

The MSGHCP mitigation plan includes seasonal and timing stipulations in Section 2.1, avoidance and minimization recommendations in Section 3.1 and 3.2 respectively, as well as reclamation guidance in Section 3.3. These measures will help offset but not eliminate the overall effects of the proposed project within the project area.

3.2.2.6 Mitigation and Residual Effects

The MSGHCP letter and Mitigation Plan (Appendix 1) describe the mitigation and residual effects of the proposed action in some detail. In summary, the addition of a new transmission line would contribute to an overall increase in anthropogenic features on the landscape that would remain for the lifetime of the project.

3.2.2.7 Cumulative Impacts

Other past, present and reasonably foreseeable actions that have or could occur within the area of action is the construction of KXL pipeline and other associated infrastructures such as the NorVal transmission line in Valley County. Options to mitigate these impacts are outlined in Section 3.4 of the Mitigation Plan (Appendix 1). Big Flat chose the option to contribute to the Stewardship Account and these funds will be used to develop GRSG conservation projects in or near the project area. These compensatory mitigation actions may lead to an overall net-gain of GRSG habitat in Phillips and/or surrounding counties.

The GHMA within the project area is already highly developed with natural gas infrastructure, especially in the Saco Hills toward the south end of the proposed Big Flat transmission line. Natural gas infrastructure includes gas well houses, gas pipeline risers and signage, access roads along with increased vehicle traffic and noise activity throughout the area. Two communications towers are also located within the Saco Hills area and within the 2-mile buffers for SG11-72 and SG11-90.

3.2.3 Resource Issue 3 – Other BLM Sensitive Species:

Other BLM sensitive species that might occur within the proposed project area include swift fox, hoary bat, burrowing owl, ferruginous hawk, long-billed curlew, loggerhead shrike, chestnut-collared longspur, Spragues' pipit, Baird's sparrow and McCown's longspur.

3.2.3.1 Affected Environment

An environmental summary report utilizing the MNHP Map Viewer program (July 2020) reveals that over 50% of the 5-mile buffer analysis area falls within the Great Plains Mixedgrass Prairie. This area provides for the habitat needs of a wide variety of grassland birds and small mammals including several BLM sensitive species. BLM sensitive species are defined by the BLM 6840 Manual as native species found on BLM-administered lands for which the BLM has the capability to significantly affect the conservation status of the species through management, and either: (1) there is information that a species has recently undergone, is undergoing, or is predicted to undergo a downward trend such that the viability of the species or a distinct population segment of the species is at risk across all or a significant portion of the species range, or; (2) the species depends on ecological refugia or specialized or unique habitats on BLM-administered lands, and there is evidence that such areas are threatened with alteration such that the continued viability of the species in that area would be at risk.

BLM sensitive species that might occur within the proposed project area include swift fox, hoary bat,GRSG, burrowing owl, ferruginous hawk, long-billed curlew, loggerhead shrike, chestnut-collared longspur, Spragues' pipit, Baird's sparrow and McCown's longspur. The hoary bat and bird species are all migratory and summer breeding residents while the swift fox, like GRSG, is a year-round resident.

3.2.3.2 Environmental Impacts – Alternative A (No Action)

Under a No Action alternative there would be no impacts beyond what was analyzed in the Keystone EIS.

3.2.3.3 Mitigation and Residual Effects

There would be no residual effects as there would be no surface disturbance.

3.2.3.4 Cumulative Impacts

There would be no cumulative impacts as there would be no surface disturbance.

3.2.3.5 Environmental Impacts – Alternative B (Proposed Action)

While the larger bird species, such as the ferruginous hawk and long-billed curlew are more susceptible to transmission line collisions than the smaller, more agile species, all of the bird and mammal species are more susceptible to avian predators with the introduction of more raptor perches on the landscape. This impact will persist for the life of the transmission line. The use of anti-perch and anti-collision devices at key locations along the transmission line will reduce the overall long-term impacts to BLM sensitive species within the project area.

The project design features which include erosion and invasive species controls as well as timing avoidances for surface disturbance/construction will minimize the short-term impacts to these species.

3.2.3.6 Mitigation and Residual Effects

The addition of a new transmission line would contribute to an overall increase in anthropogenic features on the landscape that would remain for the lifetime of the project.

3.2.3.7 Cumulative Impacts

Other past, present and reasonably foreseeable actions that have or could occur within the area of action is the construction of KXL pipeline and other associated infrastructures such as the NorVal transmission line.

3.2.4 Resource Issue 4 – Big Game Winter Range and Migration Corridors:

3.2.4.1 Affected Environment

Big Game Winter Range: Secretarial Order 3362 (February 9, 2018) Sec. 3(d) directs federal agencies to "[r]eview and use the best available science to inform development of specific guidelines for the Department's lands and waters related to planning and developing energy, transmission, or other relevant projects to avoid or minimize potential negative impacts on wildlife." In addition, Sec 4 describes implementation strategies for the BLM including "(v) minimizing development that would fragment winter range and primary migration corridors;" and "(vi) limiting disturbance of big game on winter range." The BLM has worked with Montana Fish, Wildlife & Parks as well as other agencies and groups to implement SO 3362 which

include identification of priority areas based on current knowledge of big game winter ranges and migration corridors. The proposed project area falls entirely within the Montana Fish Wildlife and Parks Western Big-Game Winter Range and Migration Corridor Priority Area D.

The HiLine RMP (2015) also identifies areas that are important winter range for big game species including bighorn sheep, mule deer, elk and pronghorn. Approximately 20 miles of the proposed project area falls within pronghorn winter range while 14 miles falls within mule deer winter range. Approximately 12.5 miles and 7 miles, respectively, cross BLM surface.

3.2.4.2 Environmental Impacts – Alternative A (No Action)

Under a No Action alternative there would be no impacts beyond what was analyzed in the Keystone EIS.

3.2.4.3 Mitigation and Residual Effects

There would be no residual effects as there would be no surface disturbance.

3.2.4.4 Cumulative Impacts

There would be no cumulative impacts as there would be no surface disturbance.

3.2.4.5 Environmental Impacts – Alternative B (Proposed Action)

Jakes (2015) reported that pronghorn responded negatively to road densities and Beckmann et al. (2012) showed that oil and gas production and supporting infrastructure also influence pronghorn distribution and habitat use. The construction of new transmission lines within pronghorn and mule deer winter range may impact habitat of both species but to what degree is difficult to elucidate. Sawyer et al (2019) point out the difficulty of identifying behavioral changes in highly mobile species, especially in regions prone to variable weather events, such as Phillips County. While both Sawyer et al (2019) and Beckmann et al. (2012) found an avoidance behavior of pronghorn in oil and gas fields the density of the disturbance on landscape is much greater than that seen in the proposed project area. Jakes (2015) found a negative influence of road density on pronghorn habitat use. What is less clear is the impact of power lines that occur along roads and whether perceived impacts from the power line would be additive or compensatory. The most likely impact to big game would be disruptive activities that occur during the construction phase if they coincide with migration and winter periods.

3.2.4.6 Mitigation and Residual Effects

The addition of a new transmission line would contribute to an overall increase in anthropogenic features on the landscape that would remain for the lifetime of the project.

3.2.4.7 Cumulative Impacts

Other past, present and reasonably foreseeable future action that have or could occur within the area of action is the construction of the KXL pipeline, the construction of the remaining overhead power lines not occurring on federal lands, the burying of existing overhead power lines described in the section above for sage grouse, as well as existing anthropogenic features. The construction of the KXL pipeline could have some disruptive impacts if activity occurs at the same time as fall and spring migration and during the winter. Once construction of the pipeline is completed, the overall disruption would be limited to vehicle traffic maintaining Pump Station 9. The design features include erosion and invasive species control measures as

well as a construction/disturbance timing avoidance of December 1 through May 15 means impacts to big game winter range and migration corridors would be negligible.

3.2.5 Resource Issue 5 – Visual Resources:

3.2.5.1 Affected Environment

The BLM uses a visual resource management (VRM) system to protect and maintain the physical integrity of the visual environment on public lands. The VRM system uses four classes to describe the different degrees of modification allowed to the basic elements of the landscape (i.e., line, form, color, and texture; BLM 1986).

Except for a 1 ½ mile section along the south end of the corridor, the proposed project route falls within a VRM Class IV area. The objective of this class is to provide for management activities which require major modification of the existing character for the landscape. The level of change to the characteristic landscape can be high and these management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance and repeating the basic elements of form, line, color, and texture in the natural characteristic landscape.

Along the south end of the corridor is a VRM Class III area. Within this classification, approximately 1.5 miles of the proposed route traverses BLM-administered lands. VRM classifications apply only to BLM-administered lands. The objective of Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

3.2.5.2 Environmental Impacts – Alternative A (No Action)

Under a No Action alternative there would be no impacts beyond what was analyzed in the Keystone EIS.

3.2.5.3 Mitigation and Residual Effects

There would be no cumulative impacts as there would be no surface disturbance.

3.2.5.4 Cumulative Impacts

There would be no cumulative impacts as there would be no surface disturbance.

3.2.5.5 Environmental Impacts – Alternative B (Proposed Action)

Short- and long-term alteration to the visual setting of the project area would occur during and after construction activities. Construction-related impacts to visual resources would be short-term reductions in scenic quality from construction-related surface disturbances, vegetation removal, construction vehicles, construction equipment, and dust resulting from construction activity. The form, line, color, and texture of the Proposed Action would contrast with the existing visual characteristics of the landscape. The moderate effects come from the introduction of large vertical, human made elements into the largely stationary landscape. Impact to Visual

Resources would most likely be minimal overall as only 1.5 miles of the proposed project falls within the VRM III classification which allows for moderate change to the landscape.

3.2.5.6 Mitigation and Residual Effects

Every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance and repeating the basic elements of form, line, color, and texture in the natural characteristic landscape.

3.2.5.7 Cumulative Impacts

Other past, present, and reasonably foreseeable actions that have or could occur within the area of action is the construction of KXL pipeline and other associated infrastructures such as the NorVal transmission line in Valley County.

3.2.6 Resource Issue 6–Surface Water, Groundwater, Wetlands, Riparian Areas:

3.2.6.1 Affected Environment

Wetlands are areas inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support (and under normal circumstances do support) a prevalence of vegetation typically adapted for life in saturated soil conditions. A riparian area is the transition between adjacent upland areas and the aquatic area of streams and rivers. These areas exhibit vegetation or physical characteristics reflective of prolonged saturation attributed to channelized flow events and reflective of a higher groundwater level adjacent to the drainages.

Riparian areas can either be lotic or lentic wetlands. Lotic systems are associated with flowing water, examples include rivers, streams, and coulees. They contain a defined channel and floodplain. Within the proposed action area, riparian characteristics can be found along Whitewater Creek, the East Fork of Whitewater Creek, the Milk River, Beaver Creek, and Second Creek. Lentic wetlands are associated with still water and include lakes, wet meadows, reservoirs, springs and potholes. They typically lack a defined channel and floodplain. Prairie potholes are the most common seasonal lentic wetlands present within the area of the proposed action.

Wetlands within the proposed action have been mapped using the National Wetland Inventory (NWI) established by the U.S. Fish and Wildlife Service. The inventory is used to classify wetlands using aerial imagery and provides the BLM with information on the distribution of wetlands to aid in wetland conservation efforts.

Riparian-wetland areas within the proposed action area are dominated by herbaceous plants and plant communities. These would include grasses and grass-like plants (sedges, rushes and bulrushes), and for many riparian-wetland zones, the plants are often tolerant of alkaline soil conditions. The vegetation of riparian-wetland zones within the proposed action area are dominated almost totally by graminoids. There are limited areas that have the capability to support woody plant communities containing shrubs and trees; the Milk River and portions of Beaver Creek do support Peachleaf Willow (*Salix amygdaloides*), Great Plains Cottonwood (*Populus deltoids subsp. monilifera*), and Silver Buffaloberry (*Shepherdia argentea*). The riparian wetland zone is often narrow strips of streambank directly adjacent to saturated soil

and/or standing water. Between pools along highly intermittent flowpaths, riparian-wetland vegetation often grows completely across the stream channel.

The area of the proposed action consists of unique and complex hydrologic systems of stream, prairie wetland, and lake features that vary in hydrologic permanence from ephemeral, to intermittent, to permanent.

Depressional wetlands on this landscape were formed during glaciation time. Many are shallow wetlands, while a few are much deeper. Some may actually be deep enough to be considered a small pond or lake. During wet years, all will hold water for extended periods of time. During dry years, the shallow wetlands may become dry by early summer while others may last into late summer. Those considered to be small ponds or lakes will typically hold water year-round, unless there is a prolonged drought.

On relatively undisturbed sites, shallow wetlands will be dominated by Common Spikesedge (*Eleocharis palustris*) in the wetter portions, with the edges dominated by Tufted Hairgrass (*Deschampsia cespitosa*) and Western Wheatgrass (*Agropyron smithii*). With disturbance, such as excessive livestock pressure or de-watering, other species will invade or become more prominent where already present. These species may include Kentucky Bluegrass (*Poa pratensis*), Foxtail Barley (*Hordeum jubatum*), Bottlebrush Squirreltail (*Sitanion hystrix*), and/or Curlycup Gumweed (*Grindelia squarrosa*). In deeper wetlands, stands of Common Cattail (*Typha latifolia*), Bulrushes (*Schoenoplectus* species), and Water Smartweed (*Polygonum amphibium*) will dominate the shallow water.

Livestock watering reservoirs that intercept water moving down the drainage during spring runoff and rain events, and other small impoundments attributed to road development across drainages, were developed on this landscape due to human activity. Some man-made impoundments are quite deep, while others are very shallow. All of them are temporary and will either fill in over time with sediment, or the dam will fail due to a water event or lack of maintenance. On relatively undisturbed sites, the edges of reservoirs may be dominated by Common Cattail, Bulrushes, and Water Smartweed in deeper water. In the shallow, upstream end (inlet), the site will be dominated by Common Spikesedge in the wetter portions, with the edges dominated by Tufted Hairgrass and Western Wheatgrass. Also associated with the site could be woody species, such as Peachleaf Willow, Sandbar Willow (*Salix exigua subsp. Interior*), Yellow Willow (*Salix lutea*), and Great Plains Cottonwood. Highly disturbed sights typically have their woody component eliminated and are often dominated by Kentucky Bluegrass, Foxtail Barley, Bottlebrush Squirreltail, and Curlycup Gumweed. When dams fail, severe erosion/headcutting occurs and sites become dewatered. This may eventually change the site from a wetland to an upland site dominated by upland vegetation.

Wetland mapping has been conducted by the U.S. Fish & Wildlife Service (USFWS) following federal Wetland Mapping Standards and classifying wetlands according to the Cowardin classification system of the National Wetlands Inventory (NWI). Mapped wetlands do not represent precise wetland boundaries, and digital wetland data cannot substitute for an on-site determination of jurisdictional wetlands. The following wetland types have been inventoried by the USFWS where power poles have been proposed on BLM Administered Land:

PEMA - Temporarily flooded depressions dominated by herbaceous vegetation. PEMAh - Palustrine, Emergent, Temporarily Flooded, Diked/Impounded PEMJ - Intermittently flooded depressions dominated by herbaceous vegetation. PSSJ - Intermittently flooded scrub-shrub areas

R3UBG - Riverine, Upper Perennial (i.e., some water flows all year, except during years of extreme drought; fauna is characteristic of running water; there is very little floodplain development), Unconsolidated Bottom, Intermittently Exposed (i.e., water covers the substrate throughout the year except in years of extreme drought).

The following additional wetland types have been inventoried by the USFWS where power poles have been proposed on private land:

- PABFx Palustine, Aquatic Bed, Semipermanently Flooded, Excavated
- PEMAx Palustrine, Emergent, Temporarily Flooded, Excavated
- PEMC Palustrine, Emergent, Seasonally Flooded, Excavated
- PEMCh Palustrine, Emergent, Seasonally Flooded, Diked/Impounded
- PEMCx Palustrine, Emergent, Seasonally Flooded, Excavated
- R4SBA Riverine, Intermittent, Streambed, Temporarily Flooded
- Rp1EM Riparian area adjacent to a stream or river system with intermittent or perennial water flow; area has erect, rooted herbaceous vegetation during most of the growing season.
- Rp1SS Riparian area adjacent to a stream or river system with intermittent or perennial water flow; riparian area is dominated by woody vegetation that is less than 6 meters (20 feet) tall; woody vegetation could include tree saplings and trees that are stunted due to environmental conditions.
- Rp2EM Riparian area that borders a Palustrine or Lacustrine wetland; area has erect, rooted herbaceous vegetation during most of the growing season.

The following additional wetland types have been inventoried by the USFWS where power poles have been proposed on State managed land:

- PEMAf Palustrine, Emergent, Temporarily Flooded; Wetland has been altered by farming practices such as plowing or cropping.
- Rp1FO Riparian area adjacent to a stream or river system with intermittent or perennial water flow; Wetlands dominated by woody vegetation greater than 6 meters (20 feet) tall.

Wetland status refers to species that have exhibited an ability to develop to maturity and reproduce in an environment where all or portions of the soil within the root zone become, periodically or continuously, saturated or inundated during the growing season. The ability to grow and reproduce in wet areas is due to morphological and or physiological adaptations and or reproductive strategies of the plant. Obligate (OBL), Facultative Wet (FACW), Facultative (FAC), and Facultative Upland (FACU) species exist in riparian-wetland areas:

OBL - a species that almost always occurs under natural conditions in a wetland FACW - a species that usually occurs in wetland but is occasionally found in a non-wetland FAC - a species that is equally likely to occur in a wetland or a non-wetland FACU - a species that usually occurs in a non-wetland but is occasionally found in a wetland.

Vegetative species found growing in the bottom of the channels, at the water's edge, or between pools often includes Common Spikesedge and Baltic Rush (*Juncus balticus*). Common Spikesedge occupies wet portions of the riparian-wetland zones where there is at least seasonal flooding. Baltic Rush is most commonly found in the channel bottom in areas that are slightly drier than where Bulrush (*Schoenoplectus Spp.*) and Common Spikesedge become established. Clustered Field Sedge (*Carex praegracilis*), Wild Mint (*Mentha arvensis*), and Horsetail species (*Equisetum spp.*) are found in areas intermediate in soil moisture content; between the very wet areas at the water's edge and the dry areas near the riparian-upland boundary.

A large percentage of flowpaths have alkaline soils where Inland Saltgrass (*Distichlis spicata*) occupies dry portions of the upper streambank.

Yellow Sweet Clover (*Melilotus officinalis*) and American Licorice (*Glycyrrhiza lepidota*) are often found growing together on well drained embankments at about the elevation of the highwater lines.

Western Wheatgrass (*Elymus smithii*) occupies dry portions of riparian-wetland zones and is influenced by standing water in pools and spring flow between pools. Western Wheatgrass usually extends to the riparian-wetland boundary in locations that are not occupied by Western Snowberry.

Other dominant plant species that provide flood-flow-energy dissipation outside of flowpath channels include Crested Wheatgrass (*Agropyron cristatum*), Smooth Brome (*Bromus inermis*), Needle-and-Thread (*Stipa comata*), Cudweed Sagewort (*Artemisia ludoviciana*), Golden Rod (*Solidago*), Sunflower species (*Helianthus spp.*), and Silver Sagebrush (*Artemisia cana*).

Heavy, alkaline soils which do not support much vegetation, tends to be a source of much of the bare ground along flowpaths. Other causes of bare ground along riparian reaches include natural processes of erosion/deposition and the man-induced process of grazing. The surface area of gravels and cobbles is also considered bare ground.

Riparian areas are complex, dynamic ecosystems incorporating biological, physical, and chemical processes. The BLM uses the Proper Functioning Condition Assessment methodology for both lotic and lentic wetlands (Technical Reference 1737-15, 2015 and Technical Reference 1737-16, 1999). The proper functioning condition (PFC) assessment method was created to qualitatively evaluate the foundation of these processes; specifically, the functionality of the physical processes occurring on a stream. PFC refers to how well physical processes are functioning at a point in time. These physical processes include the interactions of hydrology, stabilizing vegetation, and geomorphology (soils and landform).

PFC is an assessment and is not intended to be a monitoring tool because it generally lacks the sensitivity to detect incremental changes in riparian condition. PFC assessments are conducted by an interdisciplinary (ID) team and the stream reaches or lentic wetlands are placed in one of three rating categories: Proper Functioning Condition (PFC), Functional at Risk (FAR), or Nonfunctional (NF).

Lotic riparian areas are functioning properly when adequate vegetation, landform, or woody material is present to:

- Dissipate stream energy associated with high waterflow, thereby reducing erosion and improving water quality.
- Capture sediment and aid floodplain development.
- Improve floodwater retention and ground-water recharge.
- Develop root masses that stabilize streambanks against erosion.
- Maintain channel characteristics.

Lentic riparian-wetland areas are functioning properly when adequate vegetation, landform, or debris is present to:

- Dissipate energies associated with wind action, wave action, and overland flow from adjacent sites, thereby reducing erosion and improving water quality.
- Filter sediment and aid floodplain development.
- Improve flood-water retention and ground-water recharge.
- Develop root masses that stabilize islands and shoreline features against cutting action.
- Restrict water percolation.
- Develop diverse ponding characteristics to provide the habitat and water depth, duration, and temperature necessary for fish production, waterbird breeding, and other uses.
- Support greater biodiversity.

Water Quality

The Montana Department of Environmental Quality (MDEQ) has classified streams within the proposed action area as B-3. Designated beneficial uses for B-3 streams are bathing; swimming and recreation; and growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl, and furbearers. The quality of B-3 stream water is naturally marginal for drinking, culinary and food processing purposes, agriculture, and industrial water supply.

Nonpoint Source (NPS) pollution can be generated by most land use activities. NPS pollution is caused by rainfall and snowmelt moving over and through the ground while picking up and carrying away natural and human-made pollutants, which eventually get deposited into lakes, rivers, wetlands, and underground sources of drinking water. Common NPS pollutants include sediment, pesticides, heavy metals, nutrients, pathogens, and salt.

Water quality measurements are conducted by the State of Montana and include biological data, habitat data, and water chemistry data. The BLM's Proper Functioning Condition assessments lend insight into the quality of the water that is flowing off of, onto, into, and within watersheds.

The proposed 115 kV transmission line would cross Whitewater Creek, tributaries to Whitewater Creek, the Milk River, tributaries to the Milk River, Beaver Creek, and tributaries to Beaver Creek.

Whitewater Creek is not supporting the drinking water standard. A probable cause is Mercury and the source is unknown. The Milk River is not supporting the drinking water standard either due to heightened concentrations of Mercury. The MDEQ has identified a potential source of mercury in the Milk River as a dam or impoundment, agriculture, and/or natural sources.

Beaver Creek is water quality impaired due to the Aquatic Life and Drinking Water standards not being fully supported. The existing water quality impairments have been negatively impacted by physical substrate habitat alterations and alteration in stream-side or littoral vegetative covers.

3.2.6.2 Environmental Impacts – Alternative A (No Action)

Under a No Action alternative there would be no impacts beyond what was analyzed in the Keystone EIS.

3.2.6.3 Mitigation and Residual Effects

There would be no residual effects as there would be no surface disturbance.

3.2.6.4 Cumulative Impacts

There would be no cumulative impacts as there would be no surface disturbance.

3.2.6.5 Environmental Impacts – Alternative B (Proposed Action)

Regional groundwater resources in the project area would be avoided by using an aerial transmission line. Therefore, negative impacts to groundwater resources are not expected.

Installation of power poles under the proposed action would not cause notable direct or indirect effects to the function or condition of floodplains or lotic-riparian zones on BLM administered land. All work within floodplains would include surface contour and roughness restoration to approximate the pre-construction configuration as well as soil protection. There would be no fill or other permanent or temporary impacts to Waters of the U.S..

The power line would make an aerial crossing of the following streams on BLM administered land:

- East Fork of Whitewater Creek in T. 35 N., R. 31 E., section 24 NENW
- East Fork of Whitewater Creek in T. 36 N., R. 32 E., section 4 E¹/₂E¹/₂NE
- Whitewater Creek in T. 35 N., R. 31 E., section 23 S^{1/2}SESWNE
- Whitewater Creek in T. 35 N., R. 31 E., section 23 SWSESW

Only one pole would reside within 50 ft. of the riparian zone of a stream on BLM administered land, and that would be on stream-right at the Whitewater Creek crossing in T. 35 N., R. 31 E., section 23 SWSESW. The riparian zone along this reach of Whitewater Creek exhibited properly functioning conditions when last evaluated by the BLM.

With adherence to applicable mitigation, any ground disturbance from equipment operation proximate to the riparian zone of Whitewater Creek would be rapidly restored and no notable erosive issues associated with the proposed action should arise.

The ground disturbance that could be expected under a scenario where a ROW was issued for the construction of electrical power lines could impact wetland resources when poles are installed within and proximate to wetlands. As presented within Appendix 6, power pole installation has been proposed at 16 locations within wetlands and within 3 ft. to 50 ft. of 17 wetland edges on BLM administered land.

The total surface area of disturbance per pole installation would be roughly 0.02 acres. Approximately 5 of the power pole installations proximate to wetlands on BLM administered land could yield roughly 0.01 acres of disturbance each within wetlands; making for a sum total surface disturbance of roughly 0.37 acres in wetlands on BLM administered land.

Disturbance (i.e., puncture) to any geologic retaining lens below a wetland floor during installation could lead to slight wetland drainage and a diminished extent of wetland values overtime. Pothole features especially are vulnerable to dewatering by inadvertent drainage when the confining layers become perforated through mechanical disturbance. No power poles have been proposed immediately within aquatic bed wetlands and no power poles would be constructed at a low point of a wetland. Any inadvertent wetland drainage is likely to be nearly undetectable but could consist of a shift in mesic conditions to a dominance of facultative-upland and upland vegetation around the wetland fringe.

The surface water flow regime from upland terrain to wetlands is not expected to be altered by the short-term surface compaction associated with vehicles and construction equipment utilized to install power poles. Vehicular and equipment wheel and track compaction can decrease water infiltration rates and channelize flow into vehicle tracks. A series of freeze/thaw cycles in conjunction with required mitigation procedures to restore surface conditions would yield negligible implications on water quality, accelerated erosion, or sediment transport due to altered upland-to-wetland runoff hydraulics. Water erosion issues decrease as slope angle decreases. The grade on which power pole installation has been proposed is relatively level, therefore accelerated erosion rates are not expected and would be short-term (1 to 5 years); returning to natural rates once vegetation was re-established.

Water quality within wetlands could be impacted by fluid spills. The materials associated with vehicle and equipment operation and maintenance (i.e., diesel fuel, gasoline, hydraulic fluid, antifreeze, Freon, and other non-petroleum products) are hazardous to humans, wildlife, and sensitive environments. Potential causes of vehicle fluid spills include: emergency ruptures in fuel tanks or construction equipment; overflow of fuel from the tank during the refueling of equipment; seepage of fuel or lubricants during operation; spills of materials during on-site vehicle and equipment servicing; vehicle accidents; and natural disasters. In the absence of required mitigation, hazardous materials that have been spilled hold the potential to contaminate surface water in streams.

The project proponent's adherence to the guidance set forth for power pole installation would ensure minimal affects to surface water quality and surface water flow. The holder of the proposed ROW would be responsible for controlling and cleaning up all hazardous material that is a result of installation and maintenance activity.

3.2.6.6 Mitigation and Residual Effects

- Design features are contained within this EA to address erosion control, sediment containment, and soil stability reclamation.
- The BLM will review all construction contracts to assure that they contain a specification that requires the handling, containment, and disposal of any hazardous material in conformance with typical construction safety practices and applicable State regulations.
- Vehicle and equipment servicing and refueling activities would take place 500 feet from the outer edge of riparian areas, wet areas, and drainages.

3.2.6.7 Cumulative Impacts

The primary disturbance vector of wetlands, riparian zones, and water quality within the proposed action area is livestock grazing. Livestock seek out water, succulent forage, and shade in wetland and riparian areas. The presence of livestock can lead to trampling and removal of vegetation on streambanks and streambeds, soil erosion, loss of streambank and streambed stability, an altered composition of wetland vegetation, declines in wetland function, and a decline in water quality. When upland and riparian vegetation is removed by livestock, and as hillsides and streambanks are compacted by their hooves, less rainwater enters the soil and more flows overland into streams, creating larger peak flows and heightened sediment volume delivery to streams and wetlands surrounding water catchments. Moderate and high runoff and rainfall events in grazed sites are more likely to result in high energy and erosive floods, which can induce erosion and cause channel downcutting or incision.

The ground restoration techniques coinciding with any surface disturbance of the proposed action should serve to aid in sediment retention and minimization of existing erosion problems where livestock grazing has occurred.

As depicted in Appendix 6, the proposed power pole installation locations are within roughly 50 ft. of 20 riparian-wetland edges on private land and 1 riparian-wetland edge on State managed land. The aspect of the proposed plan that calls for installation of power poles within wetlands would directly impact riparian-wetland areas at 14 locations on private land and 3 locations on State managed land. It is expected that there would be a cumulative impact of 0.82 acres of wetland disturbance on all surface ownership tied to the power pole installation component of the proposed action.

Implementation of required mitigation where riparian and wetland vegetation exist will ensure the most minimal effects on water quality and hydrophytic vegetation. Implementation of design considerations near the Beaver Creek crossing on private land should yield no contributions to the existing water quality impairment in either the short- or long-term. Water quality within Whitewater Creek and the Milk River would not be affected by the proposed action as the known impairments are associated with heightened concentrations of Mercury which would not be intensified by the proposed action.

CONSULTATION AND COORDINATION

3.3 Introduction

Notice of this project was posted in the NEPA Register on the BLM's ePlanning website on October 1, 2019: <u>https://eplanning.blm.gov/epl-front-office/eplanning/lup/lup_register.do</u>. The completed EA was posted on the ePlanning website on November 30, 2020.

3.4 Persons, Groups, and Agencies Consulted

Public Involvement: Public participation and issues identified in the SEIS were considered in this project. E-planning was initiated on November 30, 2020 and a news release will be issued when the decision is made on this proposed action.

Western Area Power Association (WAPA): On September 26, 2018, WAPA formally requested to be a cooperating agency status on the BLM's NEPA review based on their specialist expertise of transmission line and substation construction and operation, as well as their jurisdiction by law regarding interconnection into the federal grid system.

Montana State Historic Preservation Office: The BLM conducted consultation with the Montana SHPO under Section 106 of the National Historic Preservation Act (NHPA) and the Montana Programmatic Agreement (PA) between the State Historic Preservation office and the BLM. Class III surveys were completed in 2014 for the entire alignment (regardless of ownership) and the results of the surveys were sent to the SHPO. NRHP Site eligibility and mitigation/avoidance strategies were reviewed by SHPO and concurred with September 3, 2014.

Tribal Consultation: The BLM initiated Government-to-Government consultation with 9 interested Native American Tribes on June 2, 2014. These Native American Tribes included the Northern Cheyenne, Chippewa Cree, Little Shell Band of Chippewa, Blackfeet, Fort Peck, Fort Belknap, Crow, Salish-Kootenai and the Nez Perce. No concerns were raised through the consultation process.

Montana Sage Grouse Habitat Conservation Program: The Montana Sage Grouse Habitat Conservation received the request for consultation and review of the proposed project and activity on April 24, 2018. The Montana Sage Grouse Oversight Team (MSGOT) approved a Mitigation Plan for the project in December 2018. The Montana Sage Grouse Habitat Conservation Program (MSGHCP) Review is attached as Appendix 1 of this document.

United States Fish and Wildlife Service (USFWS): USFWS was consulted and provided consultation (06E11000-2020-SLI-0120) on June 30, 2020, to identify species list of threatened, endangered, proposed and candidate species as well as proposed and final designated critical habitat that may occur within the boundary of the proposed project. The review is attached as Appendix 3 of this document. The species list fulfills the requirements of the U.S. Fish and

Wildlife Service under section 7(c) of the Endangered Species Act of 1973, as amended (16. U.S.C 1531 *et seq.*).

Name	Title	Resource Area
Josh Sorlie	Soil Scientist	Malta Field Office
Kathy Tribby	Wildlife Biologist	Malta Field Office
Jason Snellman	Outdoor Recreation Planner	Malta Field Office
Tyler Bain	Rangeland Management Specialist	Malta Field Office
Josh Chase	Archeologist	Havre Field Office
Thomas Probert	Hydrologist	Glasgow Field Office
Micah R Lee	Realty Specialist	Havre Field Office

3.5 List of Preparers

3.6 References

- Beckmann, J.P., K. Murray, R.G. Seidler, J. Berger. 2012. Human-mediated shifts in animal habitat use: sequential changes in pronghorn use of a natural gas filed in Greater Yellowstone. Biological Conservation, 147:222-233.
- Kohl MT, Messmer TA, Crabb BA, Guttery MR, Dahlgren DK, Larsen RT, et al. (2019) The effects of electric power lines on the breeding ecology of greater sage-grouse. PLoS ONE 14(1):e0209968. <u>https://doi.org/10.1371/journal.pone.0209968</u>
- Jakes, A.F. 2015. Factors influencing seasonal migrations of pronghorn across the northern sagebrush steppe. Dissertation. University of Calgary. 259pp.
- Montana Natural Heritage Program (MNHP). 2020. Natural Heritage Map Viewer Point Observations. Accessed July 2020. Retrieved from: <u>http://mtnhp.org/mapviewer/</u>.
- Sawyer, H., J.P. Beckmann, R.G. Seidler, J. Berger. 2019. Long-term effects of energy development on winter distribution and residency of pronghorn in the Greater Yellowstone Ecosystem. Conservation Science and Practice, 83:1-11.
- United States Department of State (USDoS) Bureau of Oceans and International Environmental and Scientific Affairs. 2014. Final Supplemental Environmental Impact Statement for the Keystone XL Project, 4.2-15.
- United States Department of State (USDoS) Bureau of Oceans and International Environmental and Scientific Affairs. 2019. Supplemental Environmental Impact Statement for the Keystone XL Project, 6-28.

APPENDICIES

Appendix 1 - The Montana Sage Grouse Habitat Conservation Program (MSGHCP) Review

Appendix 2 - The Montana Natural Heritage Program Environmental Summary

Appendix 3 - US Fish & Wildlife Service Montana Ecological Services Species List for the PS09 Big Flat Electric Transmission Line

Appendix 4 - US Fish & Wildlife Service ESA Section 7 Determinations and Service Concurrence

Appendix 5 - Complete Legal Description of BLM and WAPA proposed projects

Phillips County, Montana PMM T. 37 N., R. 32 E. sec. 5, S¹/₂SE¹/₄, S¹/₂SW¹/₄; sec. 7, lots 1-4, NW¹/₄NE¹/₄, NE¹/₄NW¹/₄; sec. 30, lots 1-2; sec. 31, lot 3, N¹/₂SE¹/₄, SE¹/₄SE¹/₄, NE¹/₄SW¹/₄; T. 36 N., R. 32 E. sec. 4, SW¹/₄SW¹/₄; sec. 5, lot 1, $E^{1/2}SE^{1/4}$; sec. 8, E¹/₂NE¹/₄, E¹/₂SE¹/₄; sec. 9, NW¹/₄NW¹/₄; sec. 21, W¹/₂NW¹/₄, W¹/₂SW¹/₄; sec. 28, W¹/₂NW¹/₄, W¹/₂SW¹/₄, sec. 29, NE¹/₄NE¹/₄; sec. 32, E¹/₂NE¹/₄, N¹/₂SE¹/₄, SW¹/₄SE¹/₄, NW¹/₄SW¹/₄; sec. 33, NW¹/₄NW¹/₄; T. 35 N., R. 32 E. sec. 5, lots 2-3, SE¹/₄NW¹/₄, SW¹/₄SW¹/₄; sec. 6, N¹/₂SE¹/₄, NE¹/₄SW¹/₄, E¹/₂SW¹/₄; sec. 7, lot 2-4, NE¹/₄NW¹/₄; T. 35 N., R. 31 E. sec. 12, SE¹/₄SE¹/₄; sec. 13, E¹/₂NE¹/₄, SW¹/₄NE¹/₄, E¹/₂SE¹/₄; sec. 23, S¹/₂NE¹/₄, E¹/₂SW¹/₄, SW¹/₄SW¹/₄, NW¹/₄SE¹/₄; sec. 24, NW¹/₄NE¹/₄, N¹/₂NW¹/₄, SW1/4NW1/4; sec. 26, W¹/₂SW¹/₄; sec. 35, W¹/₂SW¹/₄; T. 34 N., R 31 E. sec. 2, lot 4, SW¹/₄NW¹/₄, W¹/₂SW¹/₄; sec. 10. $SE^{1/4}NE^{1/4}$; sec. 11, W¹/₂NW¹/₄; sec. 13, SE¹/₄SW¹/₄, SW¹/₄SE¹/₄; sec. 14, S¹/₂SW¹/₄; sec. 15, E¹/₂SE¹/₄; WAPA Bowdoin Substation MTM-102768

Phillips County, Montana, MPP T. 29 N., R. 32 E., sec. 4, lots 1-3. T. 34 N., R 32 E. sec. 18, lot 4; sec. 19, lot 1-3, E¹/₂SW¹/₄, SW¹/₄SE¹/₄; sec. 29, SW¹/₄SW¹/₄; T. 33 N., R 32 E. sec. 6, SE¹/₄NE¹/₄, E¹/₂SE¹/₄; sec. 7, $E^{1/2}NE^{1/4}$, sec. 8, SW¹/₄NW¹/₄, W¹/₂SW¹/₄; sec. 17, W¹/₂NW¹/₄, W¹/₂SW¹/₄, SE¹/₄SW¹/₄, SW1/4SE1/4; sec. 20, NE¹/₄NE¹/₄; sec. 26, SW¹/₄SW¹/₄; sec. 35, SE¹/₄SE¹/₄; T. 31 N., R. 33 E., sec 3, NW¹/₄SW¹/₄; sec. 4, lots 5-6, and 8, NE¹/₄SE¹/₄; sec. 5, lots 5 and 10, SE¹/₄SE¹/₄; sec. 7, lots 6-7 and 10, SE¹/₄SE¹/₄; sec. 8, lots 1 and 3, $SE^{1/4}NW^{1/4}$, NW1/4SW1/4; sec. 18, lots 3-5 and 7; sec. 19, SE¹/₄SW¹/₄; sec. 30, SE¹/₄NE¹/₄, W¹/₂NE¹/₄, NE¹/₄NW¹/₄; T. 30 N., R. 32 E., sec. 27, N¹/₂SW¹/₄; sec. 28, SE¹/₄SE¹/₄; sec. 33, E¹/₂NE¹/₄, N¹/₂SE¹/₄, SW¹/₄SE¹/₄; T. 30 N., R. 33 E., sec. 5, E¹/₂SW¹/₄; sec. 8, $E^{1/2}NW^{1/4}$; sec. 17, NE¹/₄NE¹/₄, SE¹/₄SE¹/₄; sec. 20, S¹/₂NW¹/₂; T. 29 N., R. 32 E.,

sec. 4, lot 2.

		Wetland Type in Which Pole Installation Has Been Proposed on
Latitude	Longitude	<u>BLM</u> Land
48.866491	-107.556609	PEMA
48.806374	-107.597709	PEMA
48.796919	-107.603471	PEMA
48.788079	-107.608856	PEMA
48.786128	-107.610044	PEMA
48.782731	-107.617261	PEMA
48.780202	-107.626259	PEMA
48.735431	-107.643675	PEMJ
48.700228	-107.642279	PEMA
48.698830	-107.607473	PSSJ
48.698827	-107.605991	PSSJ
48.671873	-107.577694	PEMA*
48.646270	-107.580607	PEMJ
48.640039	-107.579902	PEMJ
48.636333	-107.578447	PEMA
48.611934	-107.570878	PEMAh**

Appendix 6 - Power Pole Installation Proposals Within and Proximate to Wetlands

*31 ft. from PABFx type wetland ** On the edge of wetland and non-wetland; 44 ft. from PABFh type wetland

		Approximate Distance	Wetland Type Proximate to
		from Wetland	Proposed Pole Installation
Latitude	Longitude	Boundary/Edge (ft.)	Location on <u>BLM</u> Land
48.920051	-107.574787	10	PEMAh
48.920046	-107.573294	50	PEMA
48.920037	-107.570413	29	PEMA
48.871329	-107.556615	7	PEMA
48.865442	-107.556608	29	PEMA
48.805446	-107.598275	29	PEMA
48.787092	-107.609457	33	PEMA
48.783087	-107.615993	3	PEMA
48.772297	-107.637813	26	R3UBG
48.748030	-107.643719	39	PEMA
48.725579	-107.643641	14	PEMJ
48.698892	-107.636098	31	PEMA
48.698812	-107.599578	18	PEMJ
48.637286	-107.578821	5	PEMA
48.624919	-107.577527	28	РЕМЈ
48.623981	-107.577749	24	PEMJ
48.622904	-107.577750	22	PEMJ

		Wetland Type in Which Pole
Latitude	Longitude	Instantation Has Been Proposed on <u>Private</u> Land
48.769450	-107.643711	Rp1EM
48.698883	-107.631748	PEMA
48.698823	-107.604452	PSSJ
48.698816	-107.601275	PEMJ
48.657868	-107.577710	PEMJ
48.576430	-107.500625	PEMA
48.561562	-107.483879	PEMAh
48.558818	-107.481005	PEMCh
48.557891	-107.480034	Rp2EM
48.557076	-107.479181	Rp2EM
48.556187	-107.478250	PEMC
48.508086	-107.432065	PEMAh
48.496701	-107.426946	Rp1SS
48.413843	-107.475481	PEMA

		Approximate Distance	Wetland Type Proximate to
Latitude	Longitude	Boundary/Edge (ft.)	Location on <u>Private</u> Land
48.925453	-107.576080	12	PEMA
48.768817	-107.645209	14	PEMA
48.662346	-107.577705	40	Rp2EM
48.603611	-107.535506	12	PEMA
48.574576	-107.498497	20	PEMJ
48.560518	-107.482786	15	PEMAh
48.559662	-107.481890	9	PABFx
48.554480	-107.476462	40	PEMAh
48.549381	-107.469494	31	PEMAx
48.548704	-107.468524	32	PEMA
48.506123	-107.430227	2	PEMA
48.504811	-107.428105	12	PEMAx
48.501908	-107.426868	6	PEMCx
48.496220	-107.428202	7	PEMA
48.495747	-107.429435	19	PEMA
48.339135	-107.503717	21	R4SBA
48.341120	-107.516070	7*	PEMA
48.342030	-107.520693	17	R4SBA
48.342627	-107.523727	26	PEMA
48.344099	-107.531211	32	R4SBA

* 28 ft. from R3UBG type wetland

Latitude	Longitude	Wetland Type in Which Pole Installation Has Been Proposed on <u>State</u> Land
48.985509	-107.532376	PEMAf
48.960788	-107.576017	PEMC*
48.536456	-107.453464	Rp1FO**

*18 ft. from PABFx type wetland **On the edge of wetland and non-wetland

		Approximate Distance from Wetland	Wetland Type Proximate to Proposed Pole Installation
Latitude	Longitude	Boundary/Edge (ft.)	Location on <u>State</u> Land
48.879635	-107.556625	13	R4SBA