

From: stephp@precorp.coop
To: wpsec_docket_filing@wyo.gov
Cc: [Steph Pribilske](#)
Subject: New Filing Submitted
Date: Wednesday, March 14, 2018 9:06:58 AM

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FILING NO: 6348

DATE SUBMITTED: 3/14/2018 9:06:49 AM

FILING DESC: 10014-190-CA-18 CPCN

COMMENTS: Application for Certificate of Public Convenience and Necessity - Little Missouri to Butte 69 kV Line Rebuild

User: Stephanie Pribilske

Business Name: Powder River Energy Corporation



221 Main Street • PO Box 930
Sundance, WY 82729-0930
A Touchstone Energy Cooperative

PLEASE DETACH AND RETAIN

No. 256384

Date: 03/13/2018

DATE	INVOICE	DESCRIPTION	GROSS	NET
03/09/2018	CR030918SP	PSC FILING DOCKET #10014-190-CA-18	5.00	5.00
	Vendor: 1056 WY PUBLIC SERVICE COMMISSION		Totals: 5.00	5.00

THIS CHECK IS VOID WITHOUT A COLORED BACKGROUND AND AN ARTIFICIAL WATERMARK ON THE BACK - HOLD AT ANGLE TO VIEW



221 Main Street • PO Box 930
Sundance, WY 82729-0930
A Touchstone Energy Cooperative

No. 256384

99-97/1023

SUNDANCE STATE BANK
Sundance, Wyoming

FIVE AND NO / 100*****

Void After 180 Days

PAY TO THE ORDER OF
WY PUBLIC SERVICE COMMISSION
HANSEN BUILDING
2515 WARREN AVENUE SUITE 300
CHEYENNE WY 82002

1056

DATE	CHECK NO.	AMOUNT
03/13/2018	256384	\$*****5.00

Michael E. Easter

Joanne Holb

SIGNATURE HAS A COLORED BACKGROUND • BORDER CONTAINS MICROPRINTING

256384 102300970 51616



221 MAIN STREET
P.O. BOX 930
SUNDANCE, WY 82729-0930
FAX: (307) 283-3527

200 GARNER LAKE ROAD
GILLETTE, WY 82718-0937
FAX: (307) 682-0733

1095 BRUNDAGE LANE
SHERIDAN, WY 82801-1387
FAX: (307) 674-9018

1-800-442-3630

March 14, 2018

Mr. Chris Petrie
Chief Counsel
Wyoming Public Service Commission
Hansen Building, Suite 300
2515 Warren Avenue
Cheyenne, WY 82002

Re: Docket No. 10014-190-CA-18

Dear Mr. Petrie:

Please find enclosed one (1) original and four (4) copies of Powder River Energy Corporation's Application and supporting documentation requesting a Certificate of Public Convenience and Necessity to site, design, construct/rebuild, operate and maintain a new 69 KV high voltage distribution power line. Also enclosed is check #256384 in the amount of \$5.00 for the filing fee.

Powder River Energy Corporation respectfully requests approval of this Application from the Commission.

Sincerely,

A handwritten signature in blue ink that reads "Michael E. Easley". The signature is fluid and cursive.

Michael E. Easley
Chief Executive Officer

MEE/sjp

Enclosures

BEFORE THE WYOMING PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF POWDER)	
RIVER ENERGY CORPORATION, SUNDANCE,)	
WYOMING, FOR A CERTIFICATE OF PUBLIC)	
CONVENIENCE AND NECESSITY TO SITE, DESIGN,)	
CONSTRUCT / REBUILD, OPERATE AND MAINTAIN)	DOCKET No. 10014-190-CA-18
A NEW 69 KV HIGH VOLTAGE DISTRIBUTION)	
POWER LINE THAT WILL BE AN ADDITION TO OUR)	
FACILITIES IN CROOK COUNTY, WYOMING)	
(PRECorp WO No. 160228 – LITTLE MISSOURI)	
TO BUTTE 69 KV LINE REBUILD))	

APPLICATION

Powder River Energy Corporation (“PRECorp” or “Applicant” herein), a Wyoming corporation whose Post Office address is P.O. Box 930, Sundance, Wyoming 82729, hereby respectfully requests an order from the Wyoming Public Service Commission (“Commission”) permitting the Applicant to construct the project described below. PRECorp requests said order be effective on or before May 11, 2018.

In support, the Applicant sets forth the following facts and circumstances justifying the granting of the Application:

1. PRECorp is a non-profit cooperative utility organized, existing under and by virtue of the laws of the State of Wyoming.
2. PRECorp is duly authorized to generate, manufacture, purchase, acquire, and transmit electric energy, sell supplies and dispose of electric energy in its certificated territory.
3. The rates charged by PRECorp for its electric service have been established and placed in effect under appropriate Orders of the Commission.

4. PRECorp represents it is a member of Member 1st Power Cooperative and a Class C member of Basin Electric Power Cooperative ("Basin"), Bismarck, North Dakota, and therefore purchases all of its power requirements through agreements and contracts with Member 1st Power Cooperative, and Member 1st Power Cooperative purchases all of its power requirements through agreements and contracts with Basin.
 5. Mark L. Hughes of 113 North 3rd Street, Sundance, Wyoming 82729 is the General Counsel for PRECorp.
 6. Communications in regard to this Application are to be addressed to Michael E. Easley, Chief Executive Officer for the Applicant, Post Office Box 930, Sundance, Wyoming 82729, or Mark L. Hughes, General Counsel for the Applicant, Post Office Box 456, Sundance, Wyoming 82729.
 7. In further support of this Application, PRECorp submits the following information required under Commission Rule Chapter 3, Section 21(c)(i) thorough (ii).
- I. Application Information Pursuant to Section 21 (c)(i)
- (A) *Name and Address of the applicant:*
- Powder River Energy Corporation
- Michael E. Easley, CEO
- Post Office Box 930
- Sundance, Wyoming 82729

(B) *The type of plant, property or facility proposed to be constructed or acquired:*

The purpose of the Little Missouri to Butte 69 kV Line Rebuild (hereafter referred to as the Little Missouri to Butte) project is to rebuild approximately 6.1 miles of existing 69 kV power line with a 556 Aluminum-conductor steel-reinforced cable (ACSR) conductor in a mono-pole configuration and approximately 1.2 miles of 7.2 kV distribution line. Approximately 3.0 miles of the total 6.1 miles will include an underbuilt distribution power line circuit. This will result in no net increase of power line in the area. The rebuilt power line will be constructed to current internal standards and guidelines.

The underbuilt distribution will allow PRECorp to retire the Baker Substation and convert the existing services to 25 kV. The Baker Substation is a single-phase 69/7.2 kV substation serving less than 500 kVA of load for seven (7) services. The Baker feeders and services will be converted to accommodate the new 25 kV service from the Little Missouri Substation. The Little Missouri to Butte project is approximately ten (10) miles west of Hulett, Wyoming. Construction will occur on private and State lands in Crook County; and is anticipated to begin in June 2018 and completed by September 2018.

The Little Missouri to Butte line was originally built as a 34.5 kV radial feed in the mid-1960s. In 1986, to address the load growth in the Rocky Point Oil Field, this line was converted to a 69 kV line to provide multiple sources and to increase the reliability of service. At that time, it was intended to be a reliable, but radial source of power for at least fifteen (15) to twenty (20) years. Since that time, the Wenande Substation has been installed and the Long Range Plan

has identified a need for a 69 kV line between PRECorp's Adon and Little Missouri Substation. The future Adon to Little Missouri 69 kV line will be part of a loop-feed and will allow PRECorp multiple options for splitting and serving loads as well as a secondary source for the Little Missouri Substation. With the planned Adon to Little Missouri 69 kV Line, the 69 kV line between Little Missouri and Butte will be the limiting component of the 69 kV loop system in the Adon, Little Missouri, Butte and Moorcroft system. When the Adon to Little Missouri line is constructed and this segment of line is rebuilt, PRECorp will be able to serve load in the Hulett area from either Adon or Moorcroft and will allow for the retirement of the Baker Substation in lieu of replacing the transformers.

- (C) *A description of the facilities proposed to be constructed or acquired, including preliminary engineering specifications in sufficient detail to properly describe the principal systems and components, and final and complete engineering specifications when they become available:*

The Little Missouri to Butte project includes the rebuild of approximately 6.1 miles of existing power line with a 556 ACSR conductor in a mono-pole configuration. Approximately 3.0 miles of the total 6.1 miles will include an underbuilt distribution power line circuit. There will be 98 structures in all. The basic structure design for structures 1 thru 46 will be TBP-115 and structures 47-98 will be TBP-115-1P. See **Exhibit 1** for the TBP-115 design specification and **Exhibit 2** for the TBP-115-1P design specifications both being a monopole configuration.

The distribution under-build will allow PRECorp to retire the Baker Substation and convert the existing services to 25 kV. The Baker Substation is a single-phase 69/7.2 kV substation serving less than 500 kVA of load for seven services. The Baker feeders and services will be converted to accommodate the new 25 kV service from the Little Missouri Substation. The Little Missouri to Butte project is approximately 10 miles west of Hulett, Wyoming. See **Exhibit 3** for a Vicinity Map that illustrates the route and location of the 69 kV HVD power line.

- (D) *The rates, if any, proposed to be charged for the service that will be rendered because of the proposed construction or acquisition:*

This line rebuild is designed to support all rate classes in the northeast Crook County area.

- (E) *The estimated total cost of the proposed construction or acquisition:*

The estimated total cost of the proposed project is \$1,767,100. The estimate includes the labor materials, and overhead costs to construct 6.1 miles of new 69kV line with 3 miles of distribution underbuilt and retirement of the old 69kV line and Baker substation and feeders. See **Exhibit 4** for a more detailed cost estimate.

- (F) *The manner by which the proposed construction or acquisition will be financed:*

The proposed project will be financed by U.S. Department of Agriculture (USDA) Rural Utility Service (RUS) loan funds after the project is complete.

- (G) *Documentation of the financial condition of the applicant:*

Attached as **Exhibit 5** is PRECorp's 2016 RUS Form 7.

- (H) *The estimated annual operating revenues and expenses that are expected to accrue from the proposed construction or acquisition, including a comparison of the overall effect on the applicant's revenues and expenses:*

It is anticipated that related revenues and expenses will not change as a result of this project.

- (I) *Blank because there is not an "I" category listed in the PSC Procedures.*

- (J) *The estimated start and completion date of the proposed construction or date of acquisition:*

Construction is planned for June 2018 through September 2018.

II. ADDITIONAL MAJOR UTILITY FACILITY INFORMATION (Section 21 (c)(ii))

- (A) *A description of the proposed site, including the county or counties in which the facility will be located, with a metes and bounds description, and a description of the terrain where the facility will be constructed:*

A tract of land located in the Sections 16, 17 and 18 Township 54 North Range 66 West and Sections 13, 14, 15 and 16 Township 54 North Range 67 West of the 6th P.M. Crook County, State of Wyoming.

Commencing at the West Quarter Corner of Section 16 T54N R67W; thence North 88° 03' 02" East, 276.10 feet to the point of beginning. Thence North 77° 50' 07" East, 192.77 feet to a point of non-tangency; thence North 86° 24' 10" East, 6595.12 feet to a point of non-tangency; thence North 86° 29' 35" East, 14,181.42 feet to a point of non-tangency; thence South 84° 21' 08" East, 5,100.13 feet to a point of non-tangency; thence North 84° 19' 23" East,

3,149.61 feet to a point of non-tangency; thence North 69° 05' 47" East, 1,486.95 feet to a point of non-tangency; thence North 85°45'09" East, 352.53 feet to a point of non-tangency; thence North 76° 31' 34" East, 987.88 feet to an ending point, said ending point being located South 1° 34' 18" West, 3,738.83 feet from the Southwest Corner of Section 15 T54N R66W.

*Bearings are based upon NAD 83 Wyoming State Plane, East Central Zone, U.S. Feet.

This project is to rebuild approximately 6.1 miles of existing power line with a mono-pole configuration and will span Sections 16 through 18, Township (T) 54 North (N), Range (R) 66 West (W), and Sections 11 and 13 through 16, T54N: R67W. The proposed project is located in Crook County approximately 9.8 miles west of Hulett, Wyoming. The terrain of the project area is primarily comprised of gently rolling hills with areas of ridgelines that are characterized by steeper terrain and deeply cut draws. Elevations in the area range from 3,900 feet to 4,560 feet above sea level. Refer to **Exhibit 6** for the project Plan & Profiles.

- (B) *A geological report of the proposed site, including foundation conditions, groundwater conditions, operating mineral deposits within a one-mile radius and a topographical map showing the area within a five mile radius:*

It is anticipate that a Geological Report is not necessary for this project as it is a rebuild to replace existing infrastructure.

- (C) *A description of the plans for protecting the surrounding scenic, historical, archeological and recreational locations; natural resources; plant and animal life; and land reclamation, including* ^[SP1]_[SP2]^[SP3]

Scenic - No designated scenic resources are located within the proposed line corridor.

Historical & Archeological – The right-of-way corridor lies on both State lands and privately owned lands. Antiquus Cultural Resource Consulting conducted Class III inventory. Based on the environmental assessment and the results of the previous Class III inventories conducted, the potential for containing significant cultural properties in this area is considered low. Neither site nor isolated findings are considered significant and building the new power line will not adversely affect these materials. More details regarding the historical and archeological finds can be found in the Cultural Resources Inventory Report attached as **Exhibit 7**.

Recreational Locations – No designated recreational areas are located near the proposed project area.

Natural Resources – Current land uses within the project area include residential areas, livestock grazing, hay production, and industry development. Industry development includes oil drilling, electrical substations and a bentonite mine. One county and several private access roads, as well as existing overhead power lines transect the survey area.

Plant and Animal Life – Grassland habitats are found throughout the project area. Several hay fields used for agricultural purposes occur in the area. Open

meadows are common in woodland habitats and are found on flat hilltops and gentler terrain on ridgetops. Woodlands are comprised of Bur Oak, Ponderosa Pine and Mountain Juniper. Riparian areas occurred along the Little Missouri River and a few other tributaries in the area. Cottonwood were the only species noted within this habitat type. Wetland vegetation are found near stock ponds. More detail can be found in the Habitat Assessment and Wildlife Surveys for Threatened & Endangered Species, and Other Species of Concern attached as **Exhibit 8**.

Activities associated with the construction of proposed project may cause temporary displacement of wildlife. Increased human presence in a localized area, as well as increased noise levels associated with construction activities, may cause some species to avoid or change movement patterns to avoid disturbance. Multiple game and non-game species exist around this area and are addressed in the report submitted to the Wyoming Game & Fish Department (WGFD). This document is attached as **Exhibit 9**, WY Game & Fish Managed Species Report.

Land Reclamation – Any areas that need to be reseeded after construction is complete, will be reseeded using native grasses and forbs.

(I) A general description of the devices to be installed at the major utility facility to protect air, water, chemical, biological and thermal qualities:

The major utility facilities installed will consist of poles and wire. No air, water or thermal surrounding properties are expected to be impacted. The poles are treated with pentachlorophenol that is an accepted practice to

extend the life of the wood poles. The pentachlorophenol is a heavy hydrocarbon which breaks down over time with exposure to the elements and especially UV radiation. The structure configurations are safe to avian species which is the only biological impact expected.

(II) The designed and tested effectiveness of such devices; and,

The structure configuration meets or exceeds clearance guidelines in the Avian Power Line Interaction Committee's latest publication. PRECorp meets or exceeds RUS' guidelines on constructing 69 kV lines.

(III) The operational conditions for which the devices were designed and tested.

PRECorp's design criteria is based on NESC Heavy loading in this area. PRECorp has selected a pole variety, which has demonstrated longevity in this region. The lines are designed using 115 kV construction framing & design spacing, which also lends to the longevity of the line.

(D) A description of any potential safety hazards:

Once construction is complete, operating electrical infrastructure will exist. Potential safety hazards associated with the installation, maintenance, and operation of High Voltage Distribution Lines includes aviation safety, fire hazards and electric shock.

Aviation safety – Any potential hazard to area aircraft would relate to the potential for collision in the navigable air space. The proposed line design meets or exceeds the applicable federal regulations and standards that are intended to ensure the appropriate distances and visibility necessary to prevent

such collisions are maintained. There are no known public or private air fields within one mile of the proposed power line.

Fire Hazards – Recognized fire hazards are those that could be caused by sparks from conductors of overhead lines, or that could result from direct contact between the line and nearby trees and other combustible objects. The proposed line is designed to meet or exceed the minimum required separation from vegetation such as trees. PRECorp's maintenance program takes into account the vegetation growth rates in determine inspection intervals. Any clearance concerns identified are addressed promptly.

Electrical Shock – Recognized electrical shock could result from direct or indirect contact between an individual and the energized line. Such shocks are capable of serious physiological harm or death. No design-specific federal or state regulations have been established to prevent hazardous shocks from overhead power lines. Safety is assured within the industry from compliance with the requirements in the National Electrical Safety Code (NESC). These provisions specify the minimum national safe operating clearances applicable in areas where the line might be accessible to the public. They are intended to minimize the potential for direct or indirect contact with the energized line. The proposed line is designed to meet or exceed the requirements specified within the National Electrical Safety Code.

The line will be inspected for loose hardware attributed to typical wood shrinkage that can take place within the first year following construction. Any deficiency noted are corrected at this time. After the first year inspection, the

operation and maintenance of the line is relatively unnoticeable. After the initial line inspection, future inspections and maintenance will be performed by a line crew, in which hardware will be tighten (nuts and bolts) in accordance with PRECorp's maintenance plan. This activity usually lasts roughly ten (10) minutes per pole. Appropriate built-in safety measures and will be followed.

- (E) *A description of the real property, fuel and water requirements, including any source of water along which the major utility facility will be constructed or from which it will obtain or return water:*

The project area contains the Little Missouri River and smaller tributaries. Flowing water was present in the Little Missouri River, but most drainages within the area are mostly dry throughout much of the year and flowing water is intermittent in nature and varies depending on precipitation events throughout the year.

There will be no effect on drainages or wetlands within the project area. The proposed project Right-of-Way will cross over the Little Missouri River one time; however, construction and maintenance vehicles will access the proposed power line from existing roads outside of all drainages and no vehicular or foot traffic will cross any drainage or areas containing water. At no time does PRECorp discharge dredge or fill material into water.

- (F) *The acquisition status, source and location of real property, right-of-way, fuel and water requirements:*

The right of way easements are 60 foot in width (30 feet each side of the centerline of alignment.) Seven (7) private easements and three (3) State of

Wyoming power line easements have been executed. Easements were acquired in Crook County, Wyoming. All required easements have been acquired. A list of all landowners is attached as **Exhibit 10**. The only fuel and water that will be transported on site is for use in the construction equipment. It will be contained in the equipment and not be allowed to be released in the environment.

(G) *The proposed means of transporting fuel and water requirements:*

As indicated in (F), the fuel and water will be for strict use in the vehicles/equipment and will be contained within the equipment when coming onsite.

(H) *A description of all mineral rights associated with the facility and plans for addressing any split-estate issues:*

PRECorp obtained the necessary authorizations to place our equipment on the surface land. No mineral rights or split-estate issues will need to be addressed.

(J) *A statement setting forth the need for the facility in meeting present and future demands for service in Wyoming or other states:*

As indicated, this will be a replacement of facilities that have exceeded their normal lifespan. The new facilities are necessary to continue delivering electricity to the surrounding area.

(K) *A description of the commodity or service the facility will make available:*

This facility will transport electricity for the distribution to our member/owners.

(L) *A statement of the facility's effect on the applicant's and other systems' stability and reliability:*

This rebuild will improve the system reliability as the potential of this line being effected by wind or weather will be greatly reduced with the newer, stronger poles. Additionally, the removal of the Baker transformation station will improve the distribution reliability to the local ranchers. The removal of that 69/7.2kV transformer should eliminate the reliance of a non-standard transformer on PRECorp's system.

- (M) *The status of satisfying local, state tribal or federal governmental agency requirements. The applicant shall immediately file all agencies' final orders.*

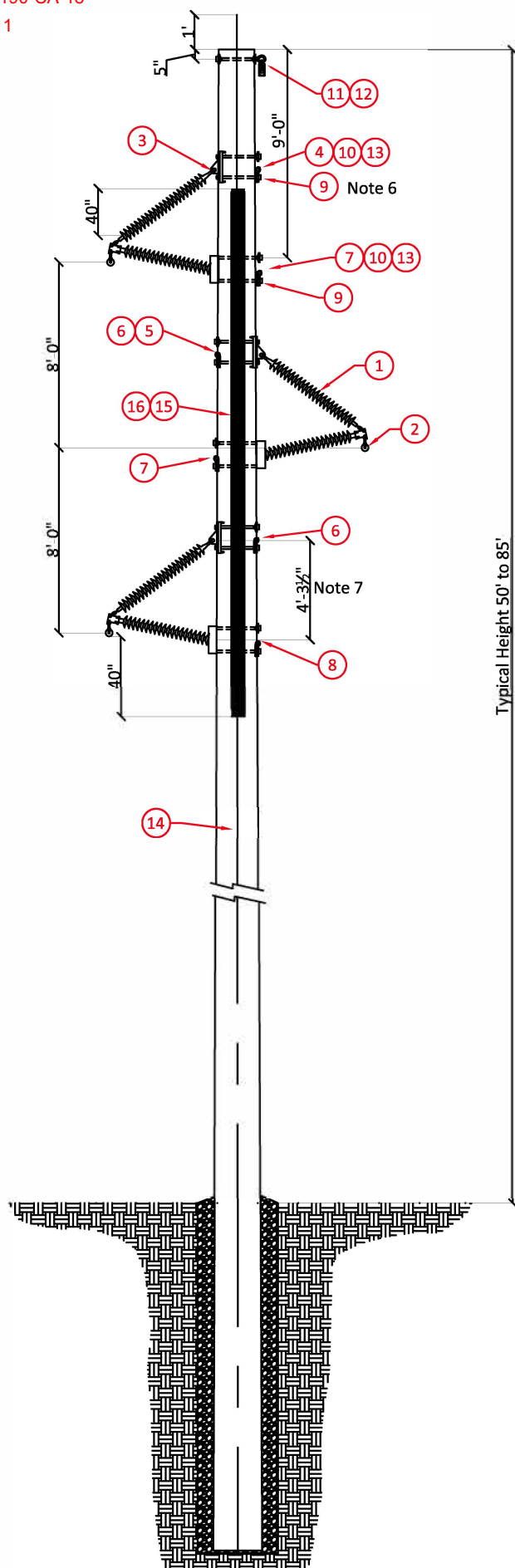
This project was part of PRECorp's 2017/20 Construction Work Plan as code 1001. PRECorp authorized wildlife and cultural surveys during the engineering phase of this project. These reports were submitted to the WGFD in June of 2017. A letter response back from Deputy Director Scott Smith was received shortly after approving the project. This letter is attached as **Exhibit 11**. The USDA Rural Utilities Services (RUS) is our borrower, thus they became the lead federal agent. The project was cleared with the premise that the rebuild would follow the same general alignment and no wetlands would be impacted. RUS also identified that this project is not in the boundaries of any Tribe with a designated Tribal Historic Preservation Officer (THPO) nor does PRECorp require easements from the Tribes.

WHEREFORE, Powder River Energy Corporation respectfully requests this Commission make its Order authorizing PRECorp to construct the proposed project as herein described. The Applicant further requests this permit become effective on or before May 11, 2018.

Dated at Sundance, Wyoming, this 14th day of March, 2018.

POWDER RIVER ENERGY CORPORATION


Michael E. Easley
Chief Executive Officer



ELEVATION VIEW

DIRECT EMBEDDED

Tangent Horizontal Braced Line Post


LIST OF MATERIALS

ITEM	QTY	DESCRIPTION
1	3	Brace Post Insulator Assembly
2	3	AGS Suspension, w/ Y-Clevis Eye
3	3	Deadend Tee, mtg 6", 15/16" hole, galv.
4	1	Machine Bolt, 7/8" x 12", w/ nut
5	2	Machine Bolt, 7/8" x 14", w/ nut
6	3	Machine Bolt, 7/8" x 16", w/ nut
7	4	Machine Bolt, 7/8" x 20", w/ nut
8	2	Machine Bolt, 7/8" x 22", w/ nut
9	6	Washer, spring, 15/16" hole
10	12	Locknut, MF type, 7/8"
11	1	OHGW Assembly, Tangent (TM-4A)
12	1	OHGW Support Assembly (TM-6A)
13	12	Washer, curved, 4" square x 1/4", 15/16" hole
14	1	Grounding Assembly, Wood Pole (TM-9A)
15	3	Guards, Plastic Molding, 8' Long x 3/4" Inside Diam.
16	12	Staples, Cable Guard Mounting

Notes

1. Metal Shims should be used to adjust post insulator when brackets are located on uneven pole surfaces
2. Strength limitation of horizontal post:
 - A. Maximum cantilever load.....2,800 lbs.
 - B. Maximum tensile and compression.....5,000 lbs
 (Loads A and B are simultaneous)
3. For strength limitation of overhead ground wire support assembly, see TM-6
4. Drawing TE-2 gives guidance to subassembly alternatives
5. Do not bond pole ground wire to the insulator attachments. Maintain minimum clearance of 3" from conductor support hardware. OHGW support assembly requires bonding to the pole ground.
6. Install spring washers on lower bolt of horizontal post insulator ground fitting and deadend tees (eye-plates)
7. Braced post insulators should be mounted so that the distance from the suspension Insulator attachment to the horizontal post pole attachment is 51.5 inches according to the separate braced post insulator manufacturer drawing: BLP041G12003. This drawing also shows linkage hardware needed for the bracing suspension insulator.

ISSUED FOR PERMITTING
PURPOSES ONLY



Butte/Little Mo 69 kV Line

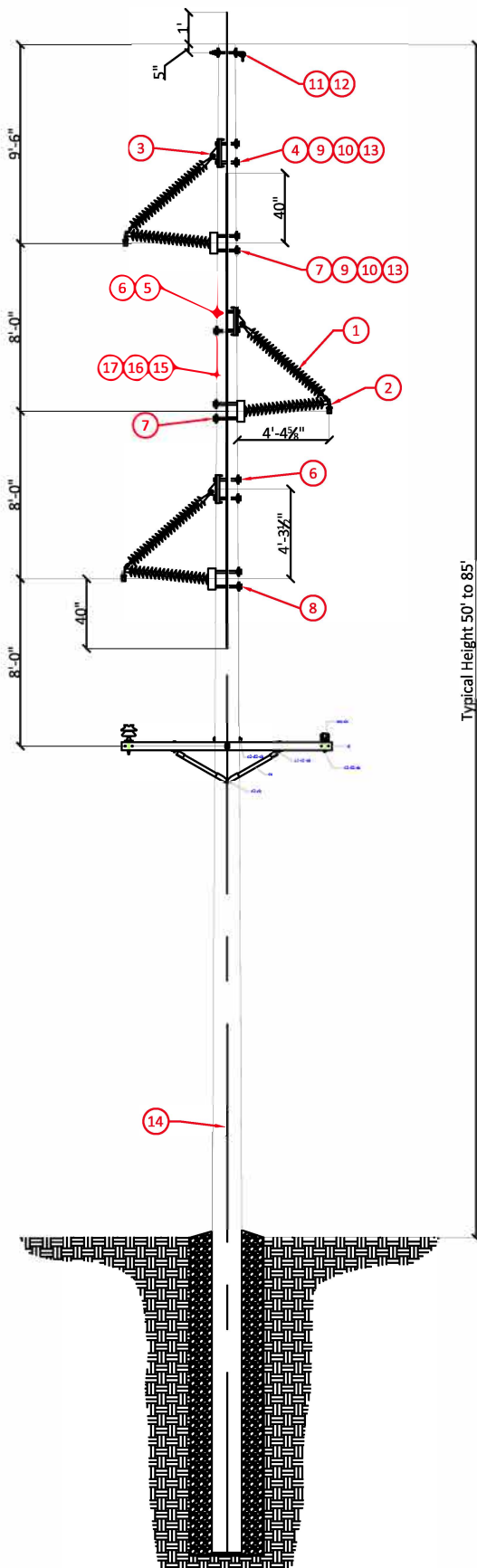
WO:160228

Sundance • Gillette • Sheridan

Tangent Horizontal Braces Line Post

TBP-115

#	Revision Description	Date	By	Date: 4/11/14
0	Issued for Permitting	9.22.17	JR	Drawn: BM
1				Designed: BM
2				Checked: JR
3				Approved: JR
4				Scale: N/A
5				Dwg. No:
6				TBP-115



ELEVATION VIEW
DIRECT EMBEDDED
Tangent Horizontal Braced Line Post


LIST OF MATERIALS

ITEM	QTY	DESCRIPTION
1	3	Brace Post Insulator Assembly
2	3	AGS Suspension, 336 "Merlin", w/ Y-Clevis Eye - 15K
3	3	Deadend Tee, mtg 6", 15/16" hole, galv.
4	1	Machine Bolt, 7/8" x 12", w/ nut
5	2	Machine Bolt, 7/8" x 14", w/ nut
6	3	Machine Bole, 7/8" x 16", w/ nut
7	4	Machine Bole, 7/8" x 20", w/ nut
8	2	Machine Bole, 7/8" x 22", w/ nut
9	6	Washer, spring, 15/16" hole
10	12	Locknut, MF type, 7/8"
11	1	OHGW Assembly, Tangent (TM-4A)
12	1	OHGW Support Assembly (TM-6B) 10"- 12" poles
13	12	Washer, curved, 4" square x 1/4", 15/16" hole
14	1	Grounding Assembly, Wood Pole (TM-9A)
15	3	Guards, Plastic Molding, 8' Long x 3/4" Inside Diam.
16	12	Strap, Cable Guard, Plastic, 3/4" Inside Diam.
17	24	Mounting Hardware for Plastic Molding Guard

Notes

1. Metal Shims should be used to adjust post insulator when brackets are located on uneven pole surfaces
2. Strength limitation of horizontal post:
 - A. Maximum cantilever load.....2,800 lbs.
 - B. Maximum tensile and compression.....5,000 lbs
(Loads A and B are simultaneous)
3. For strength limitation of overhead ground wire support assembly, see TM-6
4. Drawing TE-2 gives guidance to subassembly alternatives
5. Do not bond pole ground wire to the insulator attachments.

**ISSUED FOR PERMITTING
PURPOSES ONLY**



POWDER RIVER

ENERGY CORPORATION

Butte/Little Mo 69 kV Line

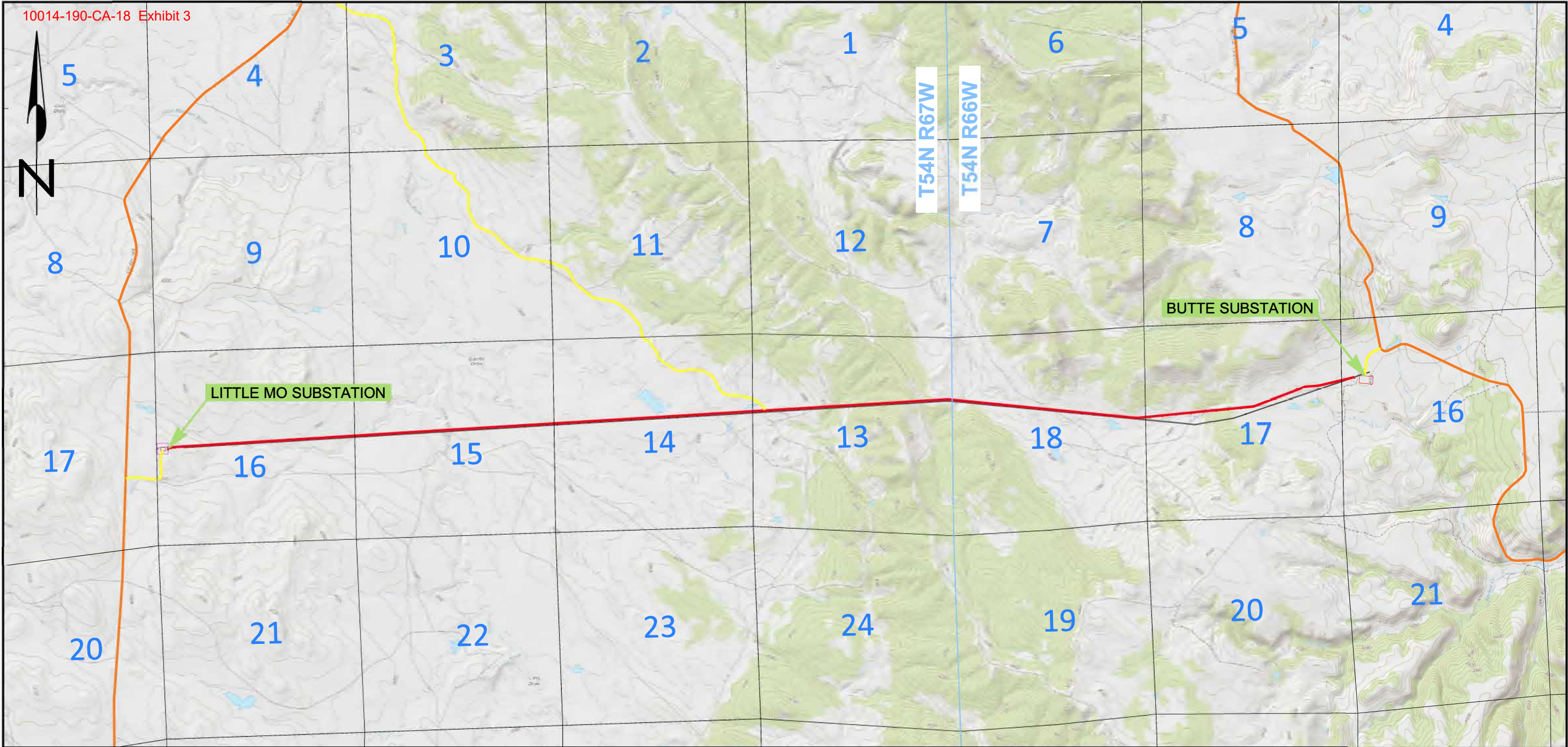
WO:160228

Sundance • Gillette • Sheridan

Tangent Horizontal Braces Line Post

TBP-115-1P

#	Revision Description	Date	By	Date: 11/12/14
0	Issued for Permitting	9.22.17	JR	Drawn: BM
1				Designed: BM
2				Checked: JR
3				Approved: JR
4				Scale: N/A
5				Dwg. No:
6				TBP-115-1P

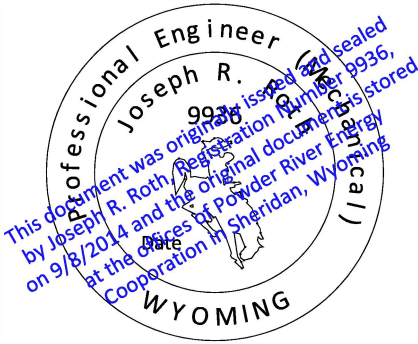


Approximate Alignment Description:

A tract of land located in the Sections 16, 17 and 18 Township 54 North Range 66 West and Sections 13, 14, 15 and 16 Township 54 North Range 67 West of the 6th P.M. Crook County, State of Wyoming.


Commencing at the West Quarter Corner of Section 16 T54N R67W; thence North 88° 03' 02" East, 276.10 feet to the point of beginning. Thence North 77° 50' 07" East, 192.77 feet to a point of non-tangency; thence North 86° 24' 10" East, 6595.12 feet to a point of non-tangency; thence North 86° 29' 35" East, 14,181.42 feet to a point of non-tangency; thence South 84° 21' 08" East, 5,100.13 feet to a point of non-tangency; thence North 84° 19' 23" East, 3,149.61 feet to a point of non-tangency; thence North 69° 05' 47" East, 1,486.95 feet to a point of non-tangency; thence North 85°45'09" East, 352.53 feet to a point of non-tangency; thence North 76° 31' 34" East, 987.88 feet to an ending point, said ending point being located South 1° 34' 18" West, 3,738.83 feet from the Southwest Corner of Section 15 T54N R66W.

*Bearings are based upon NAD 83 Wyoming State Plane, East Central Zone, US Feet



This drawing depicts the approximate power line location.

ISSUED FOR PERMITTING

 Sundance • Gillette • Sheridan		Vicinity Map			WO: 160228			
Butte/Little Mo 69 kV Power Line								
Township: 54 North Ranges: 66 West & 67 West								
#	Revision Description				Date	By	Date:	9.22.17
0	Released for Permitting				9.22.17	JR	Drawn:	JR
1							Designed:	
2							Checked:	
3							Approved:	
4							Scale:	
5							Dwg. No:	
6								160228-P-0001

Legend

- Proposed Alignment
- County Roads
- Township & Range
- Existing Power Lines
- Access Routes
- Sections

USGS Quadrangle Topographcial Names

New Haven (44104-F7) Garland Hill (44104-F8)

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UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

**FINANCIAL AND OPERATING REPORT
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION

WY0025

PERIOD ENDED December, 2016

BORROWER NAME

Powder River Energy Corporation

INSTRUCTIONS - See help in the online application.

This information is analyzed and used to determine the submitter's financial situation and feasibility for loans and guarantees. You are required by contract and applicable regulations to provide the information. The information provided is subject to the Freedom of Information Act (5 U.S.C. 552)

CERTIFICATION

We recognize that statements contained herein concern a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious or fraudulent statement may render the maker subject to prosecution under Title 18, United States Code Section 1001.

We hereby certify that the entries in this report are in accordance with the accounts and other records of the system and reflect the status of the system to the best of our knowledge and belief.

ALL INSURANCE REQUIRED BY PART 1788 OF 7 CFR CHAPTER XVII, RUS, WAS IN FORCE DURING THE REPORTING PERIOD AND RENEWALS HAVE BEEN OBTAINED FOR ALL POLICIES DURING THE PERIOD COVERED BY THIS REPORT PURSUANT TO PART 1718 OF 7 CFR CHAPTER XVII

(check one of the following)

☒ All of the obligations under the RUS loan documents have been fulfilled in all material respects.

☐ There has been a default in the fulfillment of the obligations under the RUS loan documents. Said default(s) is/are specifically described in Part D of this report.

Michael Easley

3/31/2017

DATE

PART A. STATEMENT OF OPERATIONS

ITEM	YEAR-TO-DATE			THIS MONTH
	LAST YEAR (a)	THIS YEAR (b)	BUDGET (c)	
1. Operating Revenue and Patronage Capital	180,891,982	182,150,468	162,000,353	25,804,989
2. Power Production Expense				
3. Cost of Purchased Power	136,811,703	139,898,695	127,042,739	13,719,502
4. Transmission Expense	1,586,600	1,484,053	1,728,928	216,293
5. Regional Market Expense				
6. Distribution Expense - Operation	8,025,211	6,968,966	6,832,517	693,821
7. Distribution Expense - Maintenance	4,968,385	4,057,547	4,368,988	413,419
8. Customer Accounts Expense	4,234,443	2,168,571	2,992,421	257,292
9. Customer Service and Informational Expense	58,775	86,775	118,404	7,343
10. Sales Expense	30,825	28,587	30,970	4,126
11. Administrative and General Expense	6,998,971	6,777,475	7,079,325	1,141,866
12. Total Operation & Maintenance Expense (2 thru 11)	162,714,913	161,470,669	150,194,292	16,453,662
13. Depreciation and Amortization Expense	10,870,923	12,932,219	10,522,150	2,022,182
14. Tax Expense - Property & Gross Receipts	450,312	455,566	501,883	33,933
15. Tax Expense - Other	61,401	63,846	63,298	6,948
16. Interest on Long-Term Debt	6,221,198	6,475,349	6,581,269	571,229
17. Interest Charged to Construction - Credit				
18. Interest Expense - Other	43,245	112,663	108,275	11,993
19. Other Deductions	215,712	181,260	185,748	12,657
20. Total Cost of Electric Service (12 thru 19)	180,577,704	181,691,572	168,156,915	19,112,604
21. Patronage Capital & Operating Margins (1 minus 20)	314,278	458,896	(6,156,562)	6,692,385
22. Non Operating Margins - Interest	2,230,233	2,055,722	1,938,585	164,806
23. Allowance for Funds Used During Construction				
24. Income (Loss) from Equity Investments				
25. Non Operating Margins - Other	372,056	(13,974)	3,181	(9,226)
26. Generation and Transmission Capital Credits	5,818,637	13,648,649	6,350,000	13,894,737
27. Other Capital Credits and Patronage Dividends	286,096	319,906	155,500	23,870
28. Extraordinary Items				
29. Patronage Capital or Margins (21 thru 28)	9,021,300	16,469,199	2,290,704	20,766,572

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION			BORROWER DESIGNATION WY0025		
INSTRUCTIONS - See help in the online application.			PERIOD ENDED December, 2016		
PART B. DATA ON TRANSMISSION AND DISTRIBUTION PLANT					
ITEM	YEAR-TO-DATE		ITEM	YEAR-TO-DATE	
	LAST YEAR (a)	THIS YEAR (b)		LAST YEAR (a)	THIS YEAR (b)
1. New Services Connected	515	381	5. Miles Transmission	678.04	679.24
2. Services Retired	361	426	6. Miles Distribution – Overhead	9,981.20	10,020.48
3. Total Services in Place	33,396	33,351	7. Miles Distribution - Underground	650.75	649.38
4. Idle Services (Exclude Seasonals)	6,308	6,555	8. Total Miles Energized (5 + 6 + 7)	11,309.99	11,349.10
PART C. BALANCE SHEET					
ASSETS AND OTHER DEBITS			LIABILITIES AND OTHER CREDITS		
1. Total Utility Plant in Service	369,196,647		30. Memberships	0	
2. Construction Work in Progress	7,391,740		31. Patronage Capital	196,362,425	
3. Total Utility Plant (1 + 2)	376,588,387		32. Operating Margins - Prior Years	0	
4. Accum. Provision for Depreciation and Amort.	169,059,447		33. Operating Margins - Current Year	14,427,450	
5. Net Utility Plant (3 - 4)	207,528,940		34. Non-Operating Margins	2,041,748	
6. Non-Utility Property (Net)	133,202		35. Other Margins and Equities	3,201,924	
7. Investments in Subsidiary Companies	0		36. Total Margins & Equities (30 thru 35)	216,033,547	
8. Invest. in Assoc. Org. - Patronage Capital	129,748,936		37. Long-Term Debt - RUS (Net)	38,916,367	
9. Invest. in Assoc. Org. - Other - General Funds	0		38. Long-Term Debt - FFB - RUS Guaranteed	125,659,446	
10. Invest. in Assoc. Org. - Other - Nongeneral Funds	2,705,733		39. Long-Term Debt - Other - RUS Guaranteed	0	
11. Investments in Economic Development Projects	0		40. Long-Term Debt Other (Net)	9,321,140	
12. Other Investments	855,566		41. Long-Term Debt - RUS - Econ. Devel. (Net)	0	
13. Special Funds	26,877,446		42. Payments – Unapplied	25,036,893	
14. Total Other Property & Investments (6 thru 13)	160,320,883		43. Total Long-Term Debt (37 thru 41 - 42)	148,860,060	
15. Cash - General Funds	7,507,473		44. Obligations Under Capital Leases - Noncurrent	29,885	
16. Cash - Construction Funds - Trustee	400		45. Accumulated Operating Provisions and Asset Retirement Obligations	4,607,150	
17. Special Deposits	0		46. Total Other Noncurrent Liabilities (44 + 45)	4,637,035	
18. Temporary Investments	38,932,321		47. Notes Payable	0	
19. Notes Receivable (Net)	0		48. Accounts Payable	14,587,357	
20. Accounts Receivable - Sales of Energy (Net)	15,890,444		49. Consumers Deposits	12,156,538	
21. Accounts Receivable - Other (Net)	375,787		50. Current Maturities Long-Term Debt	7,196,761	
22. Renewable Energy Credits	0		51. Current Maturities Long-Term Debt - Economic Development	0	
23. Materials and Supplies - Electric & Other	6,626,794		52. Current Maturities Capital Leases	0	
24. Prepayments	448,464		53. Other Current and Accrued Liabilities	4,071,161	
25. Other Current and Accrued Assets	17,816		54. Total Current & Accrued Liabilities (47 thru 53)	38,011,817	
26. Total Current and Accrued Assets (15 thru 25)	69,799,499		55. Regulatory Liabilities	3,193,634	
27. Regulatory Assets	0		56. Other Deferred Credits	27,676,359	
28. Other Deferred Debits	763,130		57. Total Liabilities and Other Credits (36 + 43 + 46 + 54 thru 56)	438,412,452	
29. Total Assets and Other Debits (5+14+26 thru 28)	438,412,452				

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INSTRUCTIONS - See help in the online application.	PERIOD ENDED December, 2016
PART D. NOTES TO FINANCIAL STATEMENTS	
<p>1. The Cooperative began booking earned but unbilled revenues as of December 31, 2014 following suggested guidelines from RUS and auditors. Revenues were accrued in this manner from January 2015 - September 2016. Starting October 2016 we adjusted our billing cycles to include usage for all cycles for the 1st through the last day of the month, therefore no longer needing to record unbilled revenues.</p>	
<p>2. The Cooperative has a non-contributory defined benefit pension plan for its employees. The plan is administered by the National Rural Electric Cooperative Association (NRECA) through a trustee. The Cooperative makes annual contributions to the plan equal to the amounts accrued for pension expense. In the multi-employer plan, which is available to all members of the NRECA, the accumulated benefits and plan assets are not determined or allocated separately by the individual employers. It is a funded plan and pension cost for the year ended December 31, 2016 is \$3,068,089.</p>	
<p>3. The Cooperative has a 401(k) savings plan for its employees. The Cooperative's 401(k) contribution for the year ended December 31, 2016 was \$628,591.</p>	
<p>4. The Cooperative has a postretirement benefit plan for its employees that will provide health insurance coverage for quasi-retired employees, defined as reaching age 62 or completed 31 years of cooperative service, has completed a minimum of 8 years of continuous service with the Cooperative, and was hired before November 1, 2016. The benefit will be allocated to an employee's Health Reimbursement Arrangement (HRA) and will be calculated based upon the company's average monthly medical insurance plan liability at the actual date of retirement multiplied by either 36 months or the number of months until the retiree reaches age sixty-five. The Cooperative has elected to pay as you go and not fund this benefit. The total liability recognized on the balance sheet as of December 31, 2016 is \$4,568,400.</p>	
<p>5. The Cooperative, with the approval of RUS and its Board of Directors, adopted a Revenue Deferral Plan in 2009, deferring a cumulative amount of \$7,520,000 through 2012. In 2013, \$4,500,000 of the revenue was recognized. In 2014, the Cooperative deferred \$4,200,000, and in 2015 deferred \$2,050,000. In 2016, \$8,375,000 was recognized. The cumulative amount in the Revenue Deferral Plan is now \$895,000. The funds are proposed to be recognized in 2017. The balance of \$895,000 is funded by PRECorp's cushion of credit account.</p>	
<p>6. Tier YTD: 3.54</p>	

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PART D. NOTES TO FINANCIAL STATEMENTS	
7. Margins and equities as a percentage of assets: 49.28%	
8. The Cooperative evaluates the components of the annual test for maintenance of its tax-exempt status under Section 501(c)(12) of the Internal Revenue Code of 1986, as amended. This process includes an analysis of whether the position the Cooperative takes with regard to a particular item of income would meet the definition of an uncertain tax position under FASB Interpretation No. 48, <i>Accounting for Uncertainty in Income Taxes</i> .	
Part A: Statement of Operations	
Line 19 - Other Deductions: \$181,260	
Misc Amort - MT Mine Acquisition:\$5,611	
Scholarships from Unclaimed Capital Credits: \$13,500	
Donations from Unclaimed Capital Credits: \$13,950	
Donations: \$25,757	
Donations - PRECorp Foundation: \$58,115	
Other Deductions:	\$322
Other Deductions - Work Order Abandonment:	\$54,005
Interest on Economic Development Loan:	\$10,000
Line 25 – Non Operating Margins – Other:	\$(13,974)

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PART D. NOTES TO FINANCIAL STATEMENTS	
Revenue – Surge Sales:	\$275
Revenue – Water Heater Sales:	\$29
Expenses – Surge Sales:	\$(239)
Expenses – Surge COGS:	\$(190)
Expenses – Water Heater COGS:	\$(24)
Members 1 st – Acctg Svc – Class C Credit:	\$(17,996)
Members 1 st – Admin Services G&T:	\$(1,321)
Nonoperating Rental Income – WS:	\$1,078
Nonoperating Rental Income – Newcastle Fire:	\$2,493
Misc Nonop Inc – Deferred Comp – 401K:	\$1,921
Part C: Assets and Other Debits	
Line 6 - Non-Utility Property:\$133,202	
Leased Building - Western States (net):	\$118,829
Leased Building – Newcastle Fire (net):	\$14,373
Line 13 - Special Funds: \$26,877,446	
Special Fund - CBM Cost of Retirement:\$18,771,404	
Special Fund - CBM Risk Management Fund:\$6,666,960	

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PART D. NOTES TO FINANCIAL STATEMENTS	
Special Fund - Basin Economic Development Fund: \$1,107,311	
Special Fund - Energy Conservation Loans:\$293,021	
Special Fund - Deferred Compensation & 401K: \$38,750	
Line 25 - Other Current and Accrued Assets:\$17,816	
Interest & Dividends Receivable -	
Short Term Investments:\$14,298	
Interest & Dividends Receivable -	
Basin Economic Development Loan:	\$3,518
Line 28 - Other Deferred Debits:\$763,130	
Preliminary Survey & Investment:\$356,869	
Transportation Expense Clearing:\$421	
Power Op Equipment – Exp – Clearing:\$354	
Miscellaneous Deferred Debit: \$2,005	
Windy Ridge Lease:	\$33,600
Miscellaneous Deferred Debit – COS Fees:\$94,116	
Miscellaneous Deferred Debit – COS Legal Fees:\$216,324	
Miscellaneous Deferred Debit – MSA Fees:	\$7,917
Miscellaneous Deferred Debit – MSA Legal Fees:\$14,861	

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PART D. NOTES TO FINANCIAL STATEMENTS	
Miscellaneous Deferred Debit – PV Grant:\$(1,715)	
Miscellaneous Deferred Debit – Alliance Pmt TE:\$2,655	
Miscellaneous Deferred Debit - Restitution/Damage: \$4,693	
Miscellaneous Deferred Debit- Heat Rate Credit:\$31,030	
Line 44 - Obligations under Capital Leases – Noncurrent:\$29,885	
Obligations under Capital Leases - Pitney Bowes: \$29,885	
Part C: Liabilities and Other Credits	
Line 45 - Accum Operating Prov & Asset Retirement Obligations:\$4,607,150	
Pension Plan:\$4,568,400	
Deferred 401k: \$38,750	
Line 50 - Current Maturities Long Term Debt:\$7,196,761	
RUS: \$2,246,579	
FFB: \$3,319,664	
CFC: \$319,124	
CoBank: \$1,311,394	

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PART D. NOTES TO FINANCIAL STATEMENTS	
Line 53 - Other Current & Accrued Liabilities:\$4,071,161	
Accrued Property Tax:	\$630,117
Accrued Taxes - Federal Unemployment:	\$70
Accrued State Sales Tax:	\$517,401
Accrued Taxes - Franchise:	\$59,704
Accrued Taxes - Montana Wholesale Energy:	\$3,504
Accrued Interest - REA Construction Obligation:\$(2,551)	
Accrued Interest - Long Term Debt:	\$32,566
Interest Accrued - Deposits:	\$119,747
Interest Accrued - Basin Economic Development Loans:\$833	
Accrued Liability - Employee Leave:\$2,012,644	
Accrued Liability - Lineman Scholarship:\$427	
Accrued Liability - Section 125 FSA:	\$5,050
Accrued Liability – Teamshare:\$433,144	
Accrued Payroll:	\$227,930
Accrued Liability - Employee Earned HRA:	\$30,575
Line 55 - Regulatory Liabilities:\$3,193,634	
Other Regulatory Liabilities:\$2,298,634	

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PART D. NOTES TO FINANCIAL STATEMENTS	
Regulatory Liability - Deferred Revenue:\$895,000	
Powder River Energy Corporation has an RUS approved	
revenue deferral plan, inclusive of amendments, which	
provides for the following revenue recognition:	
2016: \$8,375,000	
2017: \$895,000	
Line 56 - Other Deferred Credits:\$27,676,359	
Customer Advance for Construction:\$721,958	
Customer Advance for Construction -	
Risk Management Fund CBM: \$6,666,960	
Customer Advance for Construction -	
Uranium Deposits:\$819,757	
Customer Advance for Construction -	
Oneok:\$230,207	
Other Deferred Credits:\$300	
Deferred Credit - CBM - Upfront CCR:\$117,935	
Deferred Credit - CBM - Prepaid CCR: \$18,026	
CBM Cost of Retirement: \$18,719,011	
Deferred Credit - Prepaid Demand:\$194,094	

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PART D. NOTES TO FINANCIAL STATEMENTS	
Deferred Credit – W.S. Deposits: \$1,200	
Deferred Credit - Prepaid Demand – NON-CBM:\$28,284	
Deferred Credit - Prepaid Demand – CBM: \$158,627	

<div>UNITED STATES DEPARTMENT OF AGRICULTURE</div> <div>RURAL UTILITIES SERVICE</div> <div>FINANCIAL AND OPERATING REPORT</div> <div>ELECTRIC DISTRIBUTION</div>	<div>BORROWER DESIGNATION</div> <div>WY0025</div>
<div>INSTRUCTIONS - See help in the online application.</div>	<div>PERIOD ENDED</div> <div>December, 2016</div>
<div>PART D. CERTIFICATION LOAN DEFAULT NOTES</div>	

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE				BORROWER DESIGNATION WY0025			
FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION				PERIOD ENDED December, 2016			
INSTRUCTIONS - See help in the online application.							
PART E. CHANGES IN UTILITY PLANT							
PLANT ITEM	BALANCE BEGINNING OF YEAR (a)	ADDITIONS (b)	RETIREMENTS (c)	ADJUSTMENTS AND TRANSFERS (d)	BALANCE END OF YEAR (e)		
1. Distribution Plant	254,235,366	8,788,123	2,545,294		260,478,195		
2. General Plant	24,951,699	1,027,005	844,975		25,133,729		
3. Headquarters Plant	9,938,997	175,838			10,114,835		
4. Intangibles	368,367				368,367		
5. Transmission Plant	61,495,556	11,553,746	2,852		73,046,450		
6. Regional Transmission and Market Operation Plant	0				0		
7. All Other Utility Plant	60,684			(5,612)	55,072		
8. Total Utility Plant in Service (1 thru 7)	351,050,669	21,544,712	3,393,121	(5,612)	369,196,648		
9. Construction Work in Progress	16,553,718	(9,161,979)			7,391,739		
10. Total Utility Plant (8 + 9)	367,604,387	12,382,733	3,393,121	(5,612)	376,588,387		
PART F. MATERIALS AND SUPPLIES							
ITEM	BALANCE BEGINNING OF YEAR (a)	PURCHASED (b)	SALVAGED (c)	USED (NET) (d)	SOLD (e)	ADJUSTMENT (f)	BALANCE END OF YEAR (g)
1. Electric	7,468,335	2,030,183	143,957	2,995,080	5,872	(22,020)	6,619,503
2. Other	5,882	2,149			740		7,291
PART G. SERVICE INTERRUPTIONS							
ITEM	AVERAGE MINUTES PER CONSUMER BY CAUSE					TOTAL (e)	
	POWER SUPPLIER (a)	MAJOR EVENT (b)	PLANNED (c)	ALL OTHER (d)			
1. Present Year	2.550	0.000	19.110	172.150	193.810		
2. Five-Year Average	4.705	92.007	35.684	220.757	353.153		
PART H. EMPLOYEE-HOUR AND PAYROLL STATISTICS							
1. Number of Full Time Employees	144	4. Payroll - Expensed				7,132,665	
2. Employee - Hours Worked - Regular Time	307,241	5. Payroll - Capitalized				3,219,613	
3. Employee - Hours Worked - Overtime	10,845	6. Payroll - Other				3,520,502	
PART I. PATRONAGE CAPITAL							
ITEM	DESCRIPTION			THIS YEAR (a)	CUMULATIVE (b)		
1. Capital Credits - Distributions	a. General Retirements			1,832,478	61,461,489		
	b. Special Retirements			449,832	6,509,471		
	c. Total Retirements (a + b)			2,282,310	67,970,960		
2. Capital Credits - Received	a. Cash Received From Retirement of Patronage Capital by Suppliers of Electric Power			103,678			
	b. Cash Received From Retirement of Patronage Capital by Lenders for Credit Extended to the Electric System			85,308			
	c. Total Cash Received (a + b)			188,986			
PART J. DUE FROM CONSUMERS FOR ELECTRIC SERVICE							
1. Amount Due Over 60 Days	\$	65,672	2. Amount Written Off During Year	\$	1,889,835		
ENERGY EFFICIENCY AND CONSERVATION LOAN PROGRAM							
1. Anticipated Loan Delinquency %				4. Anticipated Loan Default %			
2. Actual Loan Delinquency %				5. Actual Loan Default %			
3. Total Loan Delinquency Dollars YTD	\$				6. Total Loan Default Dollars YTD	\$	

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION					BORROWER DESIGNATION WY0025				
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PART K. kWh PURCHASED AND TOTAL COST									
No	ITEM	SUPPLIER CODE	RENEWABLE ENERGY PROGRAM NAME	RENEWABLE FUEL TYPE	kWh PURCHASED	TOTAL COST	AVERAGE COST (Cents/kWh)	INCLUDED IN TOTAL COST - FUEL COST ADJUSTMENT	INCLUDED IN TOTAL COST - WHEELING AND OTHER CHARGES
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Basin Electric Power Coop (ND0045)	1307			2,256,970,931	137,373,123	6.09		(4,167,570)
2	Black Hills Electric Coop, Inc (SD0013)	1769			737,124	51,311	6.96		
3	Basin Electric Power Coop (ND0045)	1307	WAPA	Hydro	82,023,814	2,474,080	3.02		
4	Basin Electric Power Coop (ND0045)	1307	Small Power Production	Wind	2,841	38	1.34		
5	Basin Electric Power Coop (ND0045)	1307	Small Power Production	Solar - photovoltaic	10,591	143	1.35		
	Total				2,339,745,301	139,898,695	5.98		(4,167,570)

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PART K. kWh PURCHASED AND TOTAL COST			
No	Comments		
1			
2			
3			
4	Small Powder Prodcution - Wind refers to the kWh that Powder River Energy bought from a consumer on the Small Power Production rate. The consumer has wind power production facilities.		
5	Small Power Production - Solar - Photovoltaic refers to the kWh that Powder River Energy Corporation bought from consumers on the Small Power Production rate. The consumer has solar power production facilities.		

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PART L. LONG-TERM LEASES			
No	NAME OF LESSOR (a)	TYPE OF PROPERTY (b)	RENTAL THIS YEAR (c)
	TOTAL		

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE		BORROWER DESIGNATION WY0025	
FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION		PERIOD ENDED December, 2016	
INSTRUCTIONS - See help in the online application.			
PART M. ANNUAL MEETING AND BOARD DATA			
1. Date of Last Annual Meeting 8/27/2016	2. Total Number of Members 12,256	3. Number of Members Present at Meeting 154	4. Was Quorum Present? Y
5. Number of Members Voting by Proxy or Mail 181	6. Total Number of Board Members 12	7. Total Amount of Fees and Expenses for Board Members \$ 109,267	8. Does Manager Have Written Contract? Y

RUS Financial and Operating Report Electric Distribution

Revision Date 2014

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PART N. LONG-TERM DEBT AND DEBT SERVICE REQUIREMENTS					
No	ITEM	BALANCE END OF YEAR (a)	INTEREST (Billed This Year) (b)	PRINCIPAL (Billed This Year) (c)	TOTAL (Billed This Year) (d)
1	Rural Utilities Service (Excludes RUS - Economic Development Loans)	38,916,367	1,949,235	2,175,036	4,124,271
2	National Rural Utilities Cooperative Finance Corporation	537,598	61,011	300,377	361,388
3	CoBank, ACB	7,783,541	362,781	1,246,333	1,609,114
4	Federal Financing Bank	125,659,446	4,101,782	3,075,981	7,177,763
5	RUS - Economic Development Loans				
6	Payments Unapplied	25,036,893			
7	Principal Payments Received from Ultimate Recipients of IRP Loans				
8	Principal Payments Received from Ultimate Recipients of REDL Loans				
9	Principal Payments Received from Ultimate Recipients of EE Loans				
10	Basin Economic Development Loan	1,000,000	10,000		10,000
11	Obligations - Capital Lease	29,885	539		539
	TOTAL	148,889,944	6,485,348	6,797,727	13,283,075

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE		BORROWER DESIGNATION WY0025		
FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION		PERIOD ENDED December, 2016		
INSTRUCTIONS - See help in the online application.				
PART O. POWER REQUIREMENTS DATABASE - ANNUAL SUMMARY				
CLASSIFICATION	CONSUMER SALES & REVENUE DATA	DECEMBER (a)	AVERAGE NO. CONSUMERS SERVED (b)	TOTAL YEAR TO DATE (c)
1. Residential Sales (excluding seasonal)	a. No. Consumers Served	14,849	14,901	
	b. kWh Sold			206,915,450
	c. Revenue			19,632,326
2. Residential Sales - Seasonal	a. No. Consumers Served	3,421	3,407	
	b. kWh Sold			10,278,256
	c. Revenue			1,743,559
3. Irrigation Sales	a. No. Consumers Served	241	238	
	b. kWh Sold			5,560,687
	c. Revenue			561,312
4. Comm. and Ind. 1000 KVA or Less	a. No. Consumers Served	8,154	8,248	
	b. kWh Sold			707,000,557
	c. Revenue			60,053,791
5. Comm. and Ind. Over 1000 KVA	a. No. Consumers Served	59	59	
	b. kWh Sold			1,327,527,531
	c. Revenue			89,008,182
6. Public Street & Highway Lighting	a. No. Consumers Served	29	29	
	b. kWh Sold			874,263
	c. Revenue			82,974
7. Other Sales to Public Authorities	a. No. Consumers Served	0	0	
	b. kWh Sold			0
	c. Revenue			0
8. Sales for Resale - RUS Borrowers	a. No. Consumers Served	2	2	
	b. kWh Sold			1,021,286
	c. Revenue			61,052
9. Sales for Resale - Other	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
10. Total No. of Consumers (lines 1a thru 9a)		26,755	26,884	
11. Total kWh Sold (lines 1b thru 9b)				2,259,178,030
12. Total Revenue Received From Sales of Electric Energy (lines 1c thru 9c)				171,143,196
13. Transmission Revenue				0
14. Other Electric Revenue				11,007,271
15. kWh - Own Use				2,407,422
16. Total kWh Purchased				2,339,745,301
17. Total kWh Generated				0
18. Cost of Purchases and Generation				141,382,748
19. Interchange - kWh - Net				0
20. Peak - Sum All kW Input (Metered) Non-coincident ___ Coincident <u>X</u>				347,927

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION				BORROWER DESIGNATION WY0025		
INSTRUCTIONS - See help in the online application.				PERIOD ENDED December, 2016		
PART P. ENERGY EFFICIENCY PROGRAMS						
CLASSIFICATION	ADDED THIS YEAR			TOTAL TO DATE		
	No. of Consumers (a)	Amount Invested (b)	Estimated MMBTU Savings (c)	No. of Consumers (d)	Amount Invested (e)	Estimated MMBTU Savings (f)
1. Residential Sales (excluding seasonal)	14	7,374	38	86	85,966	674
2. Residential Sales - Seasonal						
3. Irrigation Sales						
4. Comm. and Ind. 1000 KVA or Less						
5. Comm. and Ind. Over 1000 KVA						
6. Public Street and Highway Lighting						
7. Other Sales to Public Authorities						
8. Sales for Resale – RUS Borrowers						
9. Sales for Resale – Other						
10. Total	14	7,374	38	86	85,966	674

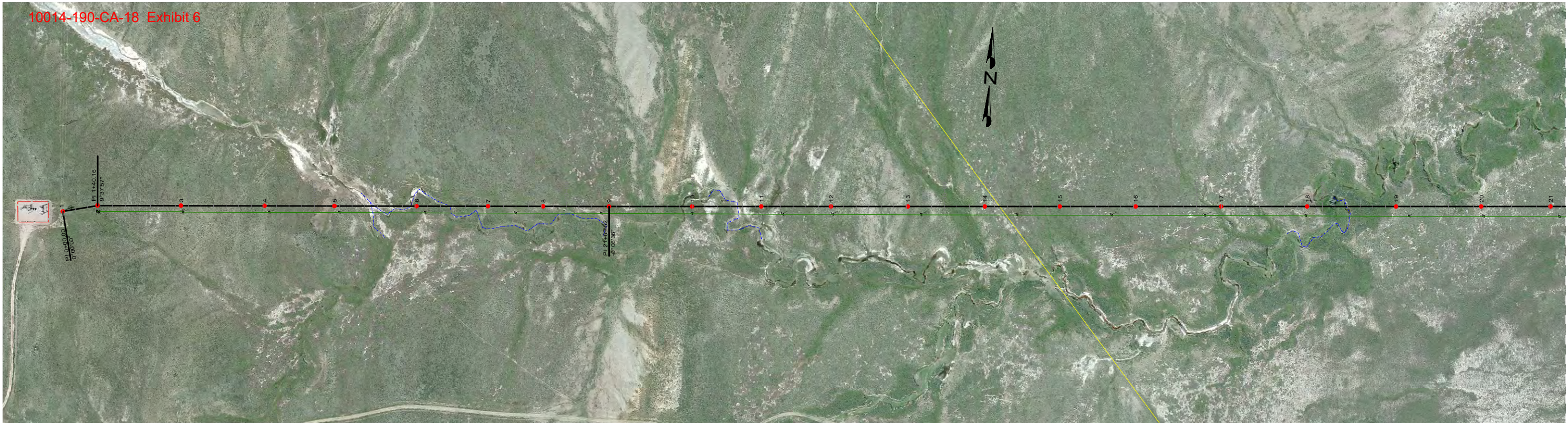
RUS Financial and Operating Report Electric Distribution

Revision Date 2014

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE			BORROWER DESIGNATION WY0025		
FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION INVESTMENTS, LOAN GUARANTEES AND LOANS			PERIOD ENDED December, 2016		
INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part C. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.					
PART Q. SECTION I. INVESTMENTS (See Instructions for definitions of Income or Loss)					
No	DESCRIPTION (a)	INCLUDED (\$) (b)	EXCLUDED (\$) (c)	INCOME OR LOSS (\$) (d)	RURAL DEVELOPMENT (e)
1	Non-Utility Property (NET)				
	HD Supply		118,829		
	Newcastle Fire		14,373		
	Totals		133,202		
2	Investments in Associated Organizations				
	Basin Electric Capital Credits, Membership	500	128,191,227		
	NRUCFC Capital Credits, Membership, CTCs, MCS		2,997,904		
	Range Telephone Capital Credits	269,474			
	Black Hills Electric Capital Credits	46,974			
	Clearwave Capital Credits	1,000			
	Arkansas Electric Capital Credits	1,796			
	NRTC Capital Credits, Membership	1,453			
	NISC Capital Credits, Membership	121,129			
	Johnson Co Coop Capital Credits	1,863			
	NRECA Membership	10			
	CoBank Capital Credits	257,659			
	Federated Insurance Capital Credits	563,650			
	Big Horn Coop Capital Credits	30			
	Totals	1,265,538	131,189,131		
4	Other Investments				
	Energy Conservation Loans	11,393			
	Line Extensions	844,173			
	Totals	855,566			
5	Special Funds				
	COR Fund	1,171,404	17,600,000		
	Risk Management Fund	6,666,960			
	Basin Economic Development Fund	453,087	654,224		
	Home Efficiency Loan Program Fund		293,021		
	Deferred Compensation		38,750		
	Totals	8,291,451	18,585,995		
6	Cash - General				
	Sundance State Bank	6,777,496	250,000		
	Moorcroft - Pinnacle		4,884		
	Newcastle - 1st State		4,259		
	Hulett - Summit		13,177		
	Upton - Firstier		3,043		
	Gillette - 1st Nat'l Bank	247,535	250,000		
	Bank of Sheridan		7,155		
	Working Funds		(50,076)		
	Totals	7,025,031	482,442		
8	Temporary Investments				
	Securities	290			
	CP Investment	38,912,030			
	Rushmore Electric		20,001		
	Totals	38,912,320	20,001		
9	Accounts and Notes Receivable - NET				
	A/R - Other	375,787			
	Totals	375,787			
11	TOTAL INVESTMENTS (1 thru 10)	56,725,693	150,410,771		

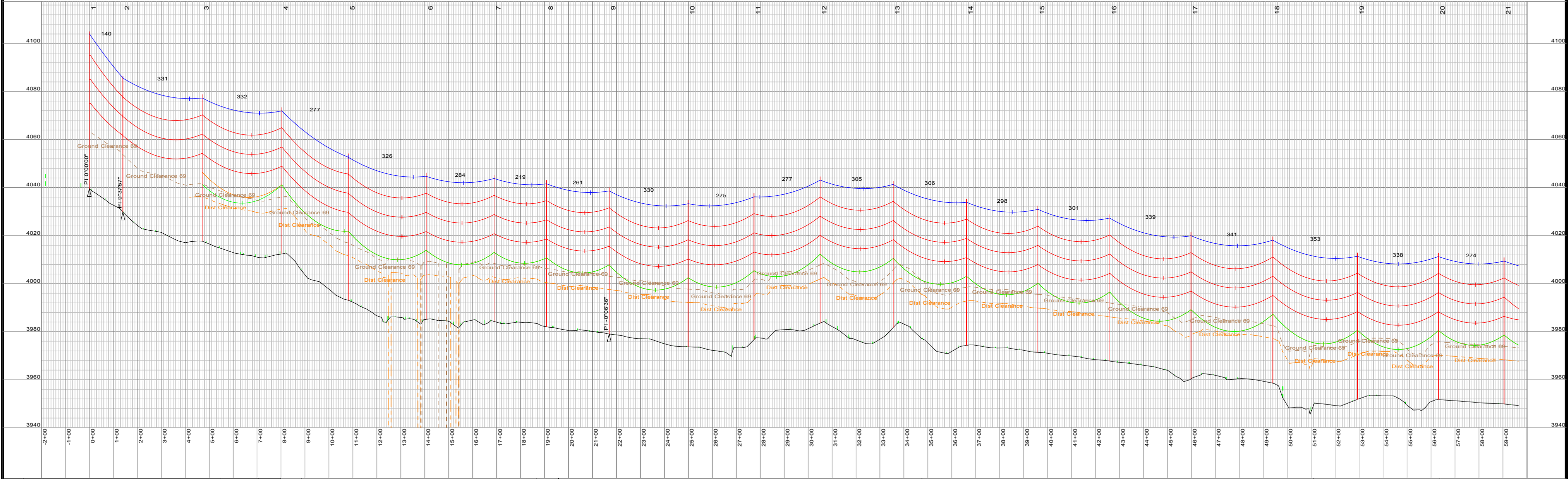
UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE		BORROWER DESIGNATION WY0025			
FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION INVESTMENTS, LOAN GUARANTEES AND LOANS		PERIOD ENDED December, 2016			
INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part C. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.					
PART Q. SECTION II. LOAN GUARANTEES					
No	ORGANIZATION (a)	MATURITY DATE (b)	ORIGINAL AMOUNT (\$) (c)	LOAN BALANCE (\$) (d)	RURAL DEVELOPMENT (e)
	TOTAL				
	TOTAL (Included Loan Guarantees Only)				

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE			BORROWER DESIGNATION WY0025		
FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION INVESTMENTS, LOAN GUARANTEES AND LOANS			PERIOD ENDED December, 2016		
INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part C. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.					
SECTION III. RATIO					
RATIO OF INVESTMENTS AND LOAN GUARANTEES TO UTILITY PLANT [Total of Included Investments (Section I, 11b) and Loan Guarantees - Loan Balance (Section II, 5d) to Total Utility Plant (Line 3, Part C) of this report]					15.06 %
SECTION IV. LOANS					
No	ORGANIZATION (a)	MATURITY DATE (b)	ORIGINAL AMOUNT (\$) (c)	LOAN BALANCE (\$) (d)	RURAL DEVELOPMENT (e)
1	Employees, Officers, Directors		5,236	591	
2	Energy Resources Conservation Loans		26,360	11,393	
	TOTAL		31,596	11,984	



PRELIMINARY

400.0 ft. Horiz. Scale
40.0 ft. Vert. Scale



NO REVISIONS AND RECORD OF ISSUE				NO REVISIONS AND RECORD OF ISSUE			
NO	REVISIONS AND RECORD OF ISSUE	DATE	BY	NO	REVISIONS AND RECORD OF ISSUE	DATE	BY
1	Preliminary Release	2.02.17	BM	6			
2				7			
3				8			
4				9			
5				10			



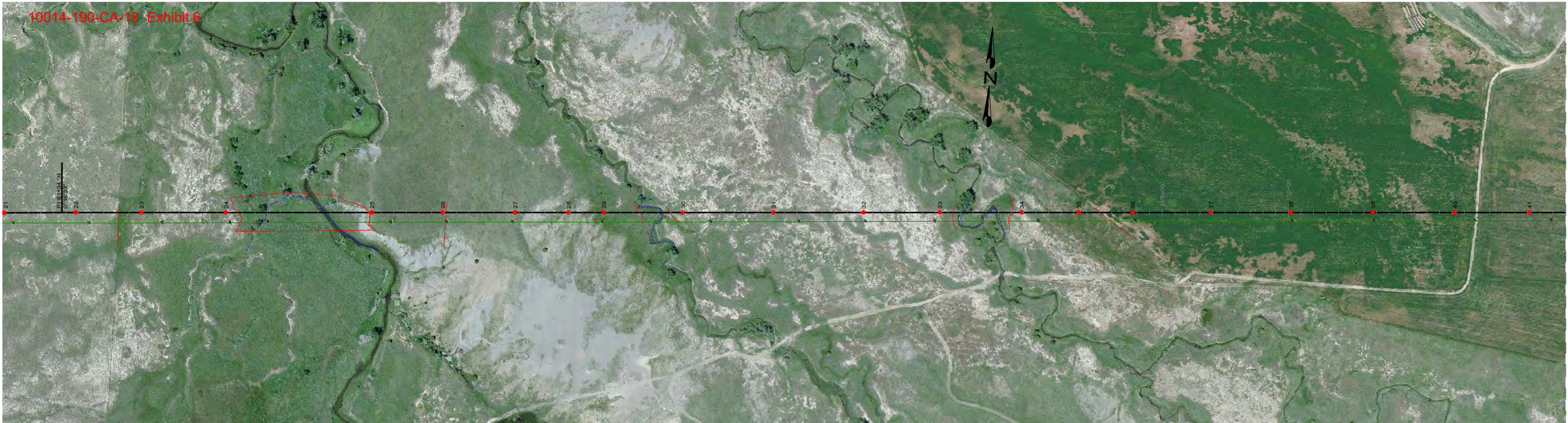
PROJECT NAME Little Missouri - Butte 69 kV Power Line Rebuild
WORK ORDER WO 160228

DESIGN CRITERIA
NESC Heavy (4 lb Wind, 1/2 in Ice); Thermal Load = 167°F
CONDUCTOR 556 26/7 "DOVE" ACSR (35% Max Tension; Sag Shown at 167°F)
1/0 Raven ACSR (41% Max Tension; Sag Shown at 120°F)
OHGW 3/8 EHS (22% Max Tension; Sag Shown at 100°F)

CLEARANCES			
RAILROADS	ROADS & STREETS	CULTIVATED FIELDS	ROW WIDTH
36 ft	30 ft	24 ft	60 - 100 ft

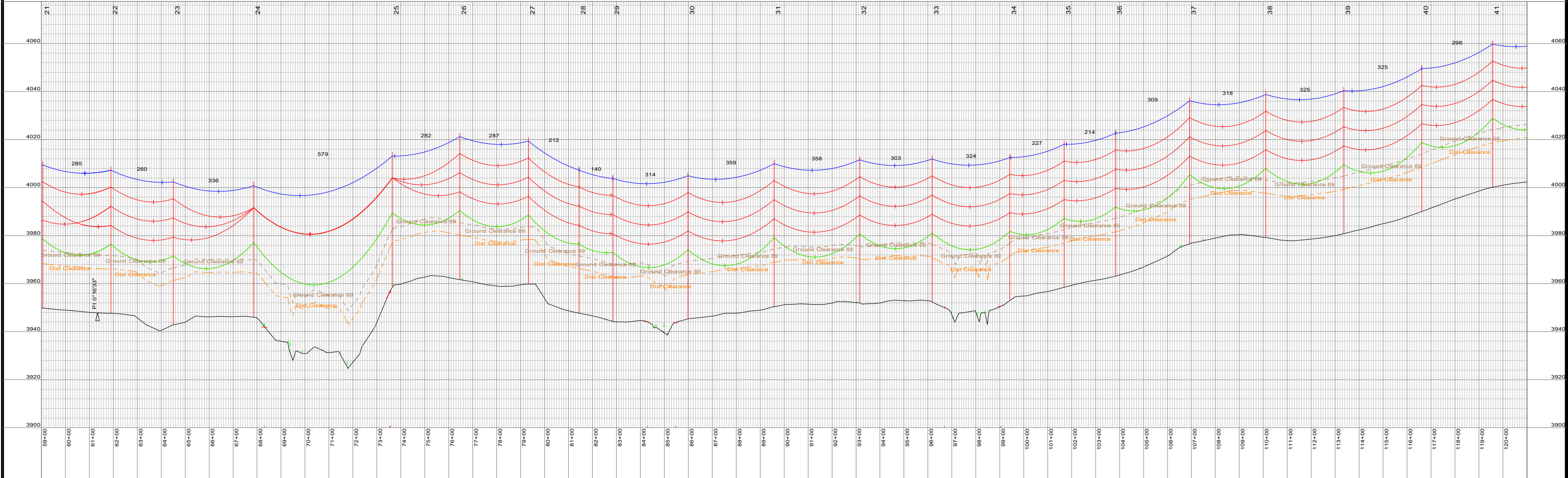
DATE 2/2/2017
DRAWN BY BM
ENGINEER BM
DRAWING NUMBER 160228-1
STA_-2+00 - 59+65

CHECKED BY
APPROVED
SHEET No. 1 of 6



400.0 ft. Horiz. Scale
40.0 ft. Vert. Scale

PRELIMINARY



NO REVISIONS AND RECORD OF ISSUE				NO REVISIONS AND RECORD OF ISSUE			
NO	REVISIONS AND RECORD OF ISSUE	DATE	BY	NO	REVISIONS AND RECORD OF ISSUE	DATE	BY
1	Preliminary Release	2.02.17	BM	6			
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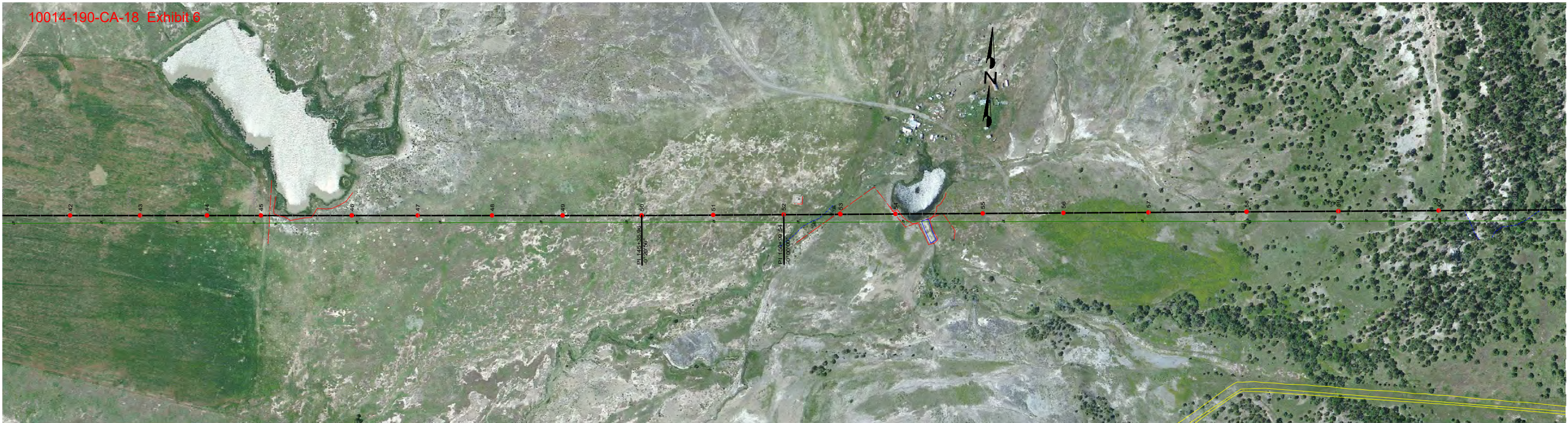
PROJECT NAME Little Missouri - Butte 69 kV Power Line Rebuild
WORK ORDER WO 160228

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CLEARANCES			
RAILROADS	ROADS & STREETS	CULTIVATED FIELDS	ROW WIDTH
36 ft	30 ft	24 ft	60 - 100 ft

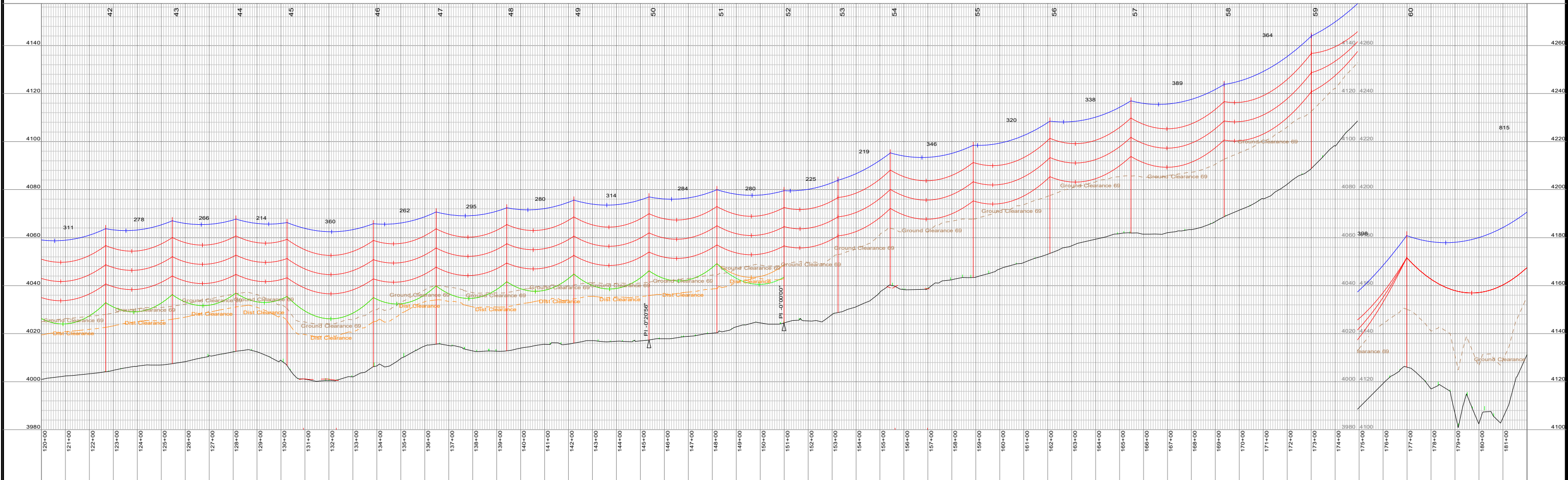
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ENGINEER BM
DRAWING NUMBER 160228-2
STA 59+00 - 121+00

CHECKED BY
APPROVED
SHEET No. 2 of 6



400.0 ft. Horiz. Scale
40.0 ft. Vert. Scale

PRELIMINARY



NO REVISIONS AND RECORD OF ISSUE				NO REVISIONS AND RECORD OF ISSUE			
NO	REVISIONS AND RECORD OF ISSUE	DATE	BY	NO	REVISIONS AND RECORD OF ISSUE	DATE	BY
1	Preliminary Release	2.02.17	BM	6			
2				7			
3				8			
4				9			
5				10			



PROJECT NAME Little Missouri - Butte 69 kV Power Line Rebuild
WORK ORDER WO 160228

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NESC Heavy (4 lb Wind, 1/2 in Ice); Thermal Load = 167°F
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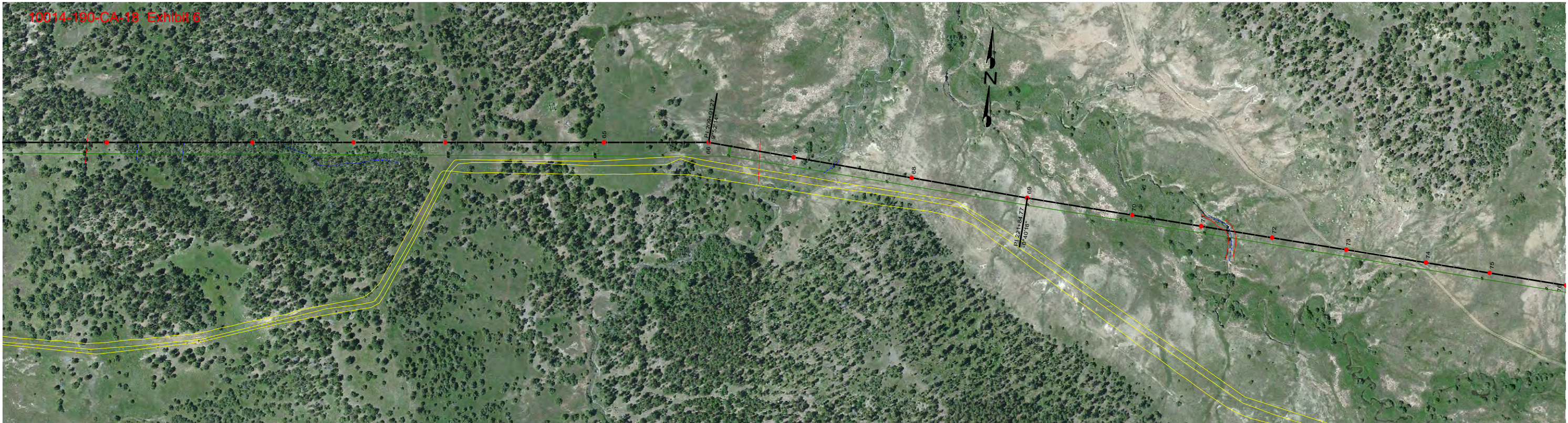
CLEARANCES			
RAILROADS	ROADS & STREETS	CULTIVATED FIELDS	ROW WIDTH
36 ft	30 ft	24 ft	60 - 100 ft

DATE 2/2/2017
DRAWN BY BM
ENGINEER BM

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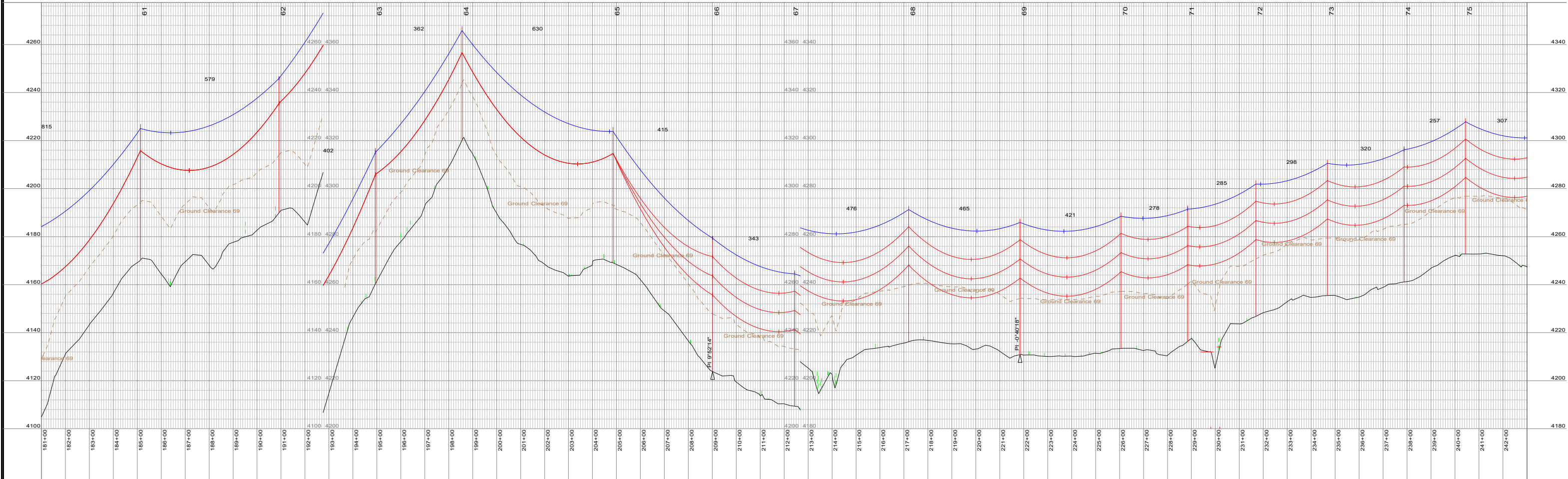
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STA 120+00- 182+00

SHEET No. 3 of 6



400.0 ft. Horiz. Scale
40.0 ft. Vert. Scale

PRELIMINARY



NO REVISIONS AND RECORD OF ISSUE				NO REVISIONS AND RECORD OF ISSUE			
NO	REVISIONS AND RECORD OF ISSUE	DATE	BY	NO	REVISIONS AND RECORD OF ISSUE	DATE	BY
1	Preliminary Release	2.02.17	BM	6			
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3				8			
4				9			
5				10			



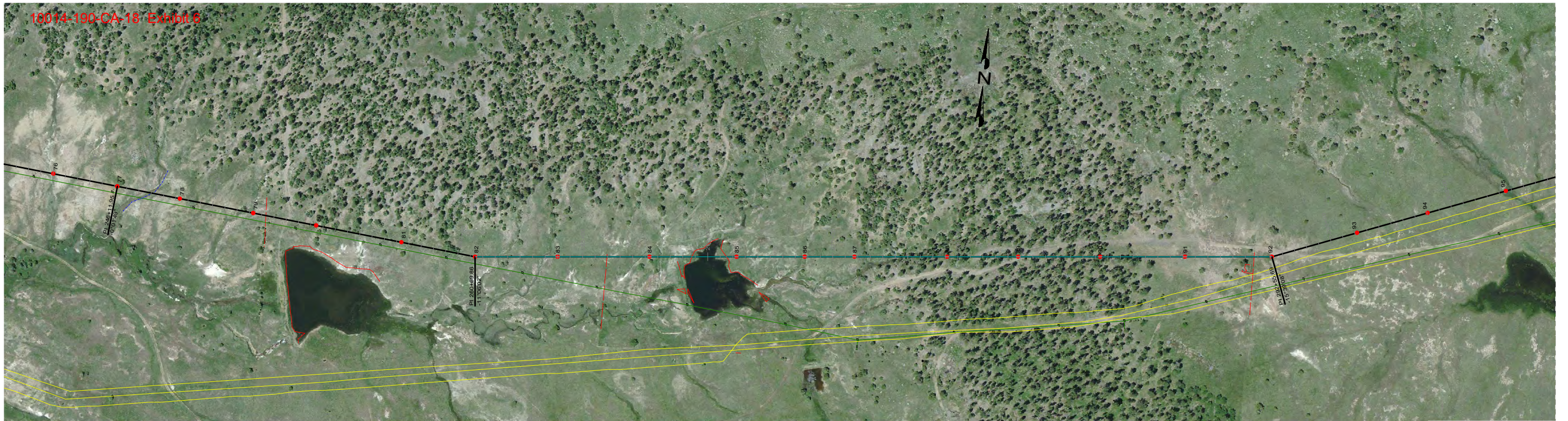
PROJECT NAME Little Missouri - Butte 69 kV Power Line Rebuild
WORK ORDER WO 160228

DESIGN CRITERIA
NESC Heavy (4 lb Wind, 1/2 in Ice); Thermal Load = 167°F
CONDUCTOR 556 26/7 "DOVE" ACSR (35% Max Tension; Sag Shown at 167°F)
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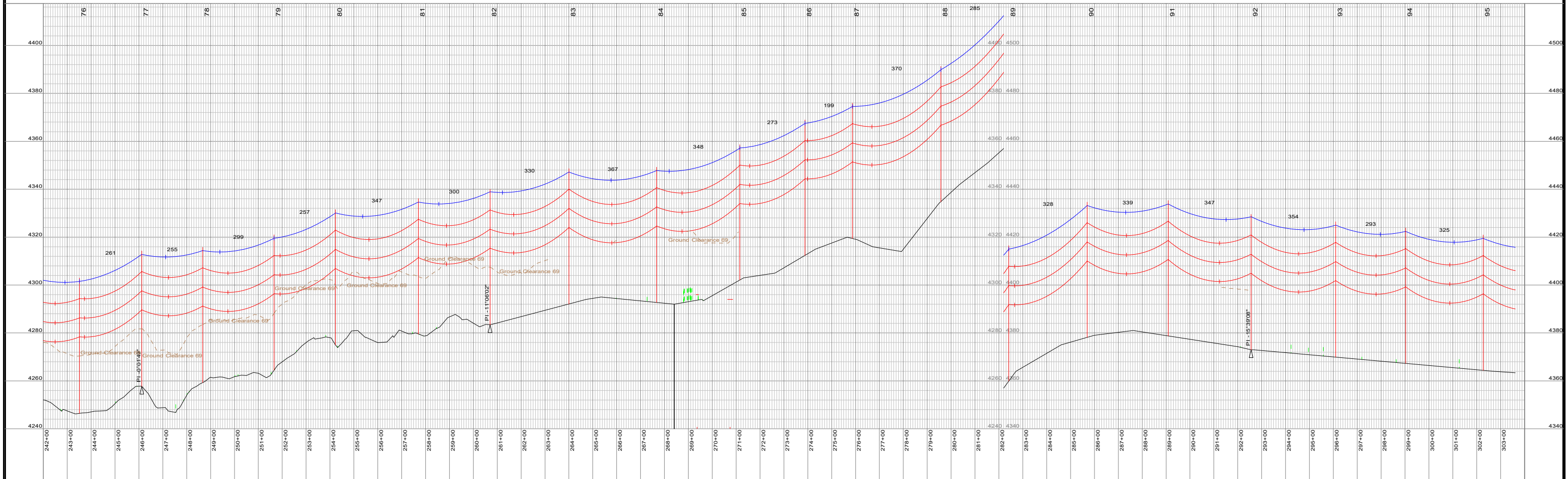
CLEARANCES			
RAILROADS	ROADS & STREETS	CULTIVATED FIELDS	ROW WIDTH
36 ft	30 ft	24 ft	60 - 100 ft

DATE 2/2/2017
DRAWN BY BM
ENGINEER BM
DRAWING NUMBER 160228-4
STA 181+00- 243+02

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SHEET No. 4 of 6



PRELIMINARY



NO	REVISIONS AND RECORD OF ISSUE	DATE	BY	NO	REVISIONS AND RECORD OF ISSUE	DATE	BY
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PROJECT NAME Little Missouri - Butte 69 kV Power Line Rebuild
WORK ORDER WO 160228

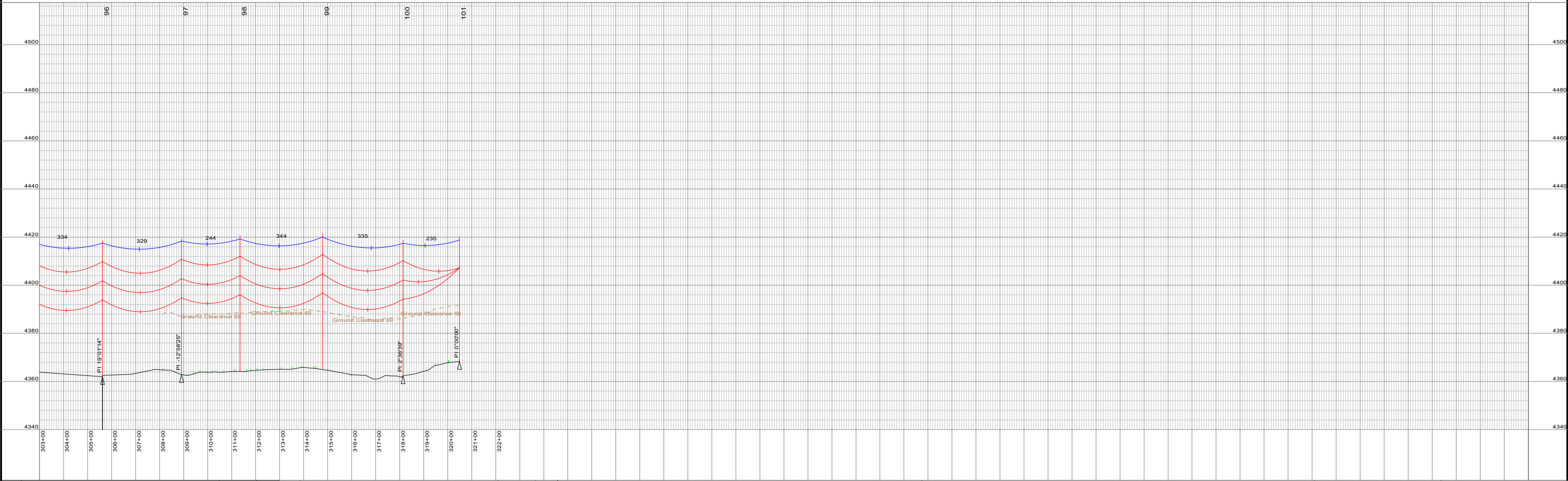
DESIGN CRITERIA			
NESC Heavy (4 lb Wind, 1/2 in Ice); Thermal Load = 167°F			
CONDUCTOR 556 26/7 "DOVE" ACSR (35% Max Tension; Sag Shown at 167°F) 1/0 Raven ACSR (41% Max Tension; Sag Shown at 120°F)			
OHGW 3/8 EHS (22% Max Tension; Sag Shown at 100°F)			
CLEARANCES			
RAILROADS	ROADS & STREETS	CULTIVATED FIELDS	ROW WIDTH
36 ft	30 ft	24 ft	60 - 100 ft

DATE 2/2/2017	
DRAWN BY BM	CHECKED BY
ENGINEER BM	APPROVED
DRAWING NUMBER 160228-5	
STA 242+00- 303+62	SHEET No. 5 of 6




400.0 ft. Horiz. Scale
40.0 ft. Vert. Scale

PRELIMINARY



NO REVISIONS AND RECORD OF ISSUE				DATE	BY	NO REVISIONS AND RECORD OF ISSUE				DATE	BY
1	Preliminary Release	2.02.17	BM	6							
2				7							
3				8							
4				9							
5				10							



PROJECT NAME Little Missouri - Butte 69 kV Power Line Rebuild
WORK ORDER WO 160228

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CLEARANCES			
RAILROADS	ROADS & STREETS	CULTIVATED FIELDS	ROW WIDTH
36 ft	30 ft	24 ft	60 - 100 ft

DATE 2/2/2017
DRAWN BY BM
ENGINEER BM
DRAWING NUMBER 160228-6
SHEET No. 6 of 6

CHECKED BY
APPROVED

POWDER RIVER ENERGY CORPORATION
BUTTE SUBSTATION TO LITTLE MISSOURI SUBSTATION
69kV REBUILD CULTURAL RESOURCE INVENTORY
REPORT CROOK COUNTY, WYOMING

Task Order No. 2017-ANT-0012

Prepared for

Powder River Energy Corporation
P.O. Box 930
Sundance, Wyoming 82729

Special Use Permit Number: 515-WY-SR12

Date: April 20, 2017



CULTURAL RESOURCE CONSULTING

PROJECT DESCRIPTION

At the request of Powder River Energy Corporation (PRECorp) Antiquus conducted a Class III inventory of approximately six miles of overhead power line right-of-way (ROW) crossing Wyoming state lands and privately owned lands in central Crook County, Wyoming. The ROW runs almost due east west crossing portions of sections 16, 17 and 18 of T54N R66W and parts of sections 13, 14, 15 and 16 T54N R67W. PRECorp plans to replace the existing line with a new, 69kV power line. The location of the ROW is shown as a solid line on the project map (Figures 1, 2 and 3). Coordinate locations in NAD 83 of the ROW are provided in Appendix 1. A 100-foot wide corridor encompassing about 72.7 acres was inventoried for cultural resources. One site, 48CK2357, and three isolated find were recorded by this study. The site is not considered significant and is not eligible for listing on the National Register of Historic Places.

The area of potential effects (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the geographic area, the scale and nature of the undertaking, and the effects (physical, visual, auditory, atmospheric). In defining the APE of the current undertaking, one must consider the direct physical effects and visual effects. There are no significant sites reported from the sections crossed by the ROWs so there are no known properties that might be affected by the visual APE of the undertaking. The ROW inventoried by this study comprises about 31,690 feet equating to 72.7 acres (31,680 feet X 100 feet/43,560). In total, about 21.8 (31,680 X 30/ 43,560) acres will be lightly disturbed by overland travel associated with the removal of the retire line and construction of the new line. Impacts associated with the power line will be limited to the movement of trucks for field crews and the movement of medium-weight machinery used to install poles, install hardware on the poles, and lay out or string the line.

Recognizing that the APE is dynamic, the federal agency, in consultation with the State Historic Preservation Office (SHPO) will establish the final APE in the event that Traditional Cultural Property (TCP) areas are discovered, socio-cultural effects are re-considered, effects on culturally sensitive natural resources emerge, or indirect or secondary effects (erosion, public use) are determined. Determination of the APE is based on the best information available with regard to proposed impacts associated with continued long-term maintenance of the proposed power line, and the best available data for archaeological and historic property locations at the time of the writing of this report

The study areas are located about 7 miles northeast of Oshoto, Wyoming and can be found on the Garland Hill (PE 1984) and New Haven (PE 1984) topographic maps. Antiquus holds Special Use Permit 515-WY-SR16 (expires 4/1/18) to conduct cultural resource studies on these lands. Gregory S. Newberry served as the Principal Investigator. Mr. Newberry conducted the fieldwork on April 15 and 17, 2017.

ENVIRONMENTAL SETTING

The ROW begins at the Butte Substation, which is located in the Black Hills, and runs almost due west to the Little Missouri Substation which is located on the northwestern periphery of the uplift. The underlying geology on the eastern half study area is composed of the Inya Kara Group which consists of the Fall River and Lakota Formations. These formations consist of rusty to light gray sandstones containing a pebble chert conglomerate interbedded with a variegated bentonitic claystone. The underlying geology on the western half of the study area is the Newcastle Sandstone.

The eastern half of the study area is an area of uplands that slopes west toward the Little Missouri River. The area crossed by ROW is a Ponderosa pine parkland. Specifically, the ROW crosses a half mile wide valley created by the south fork of Poison Creek. The creek is deeply incised in the underlying bentonitic claystone bedrock and flows generally northwest. This valley floor is a grassland which supports the occasional juniper. Juniper, cottonwood and box elder and a variety of shrubs are present along stream channels. The valley is fringed by a mixed juniper-Ponderosa pine forest which gives way, at higher elevations, to a pure Ponderosa pine forest. Sediments are generally residual in origin and consist of shallow to moderately deep silty clays. Colors range from light brown to reddish brown. Sub-angular pieces of yellow sandstone, iron concretions, gravels and cobbles are mixed in with these sediments. The gravels and cobbles are sub-angular to round in shape and represent a wide variety of rock types including silicified wood, chalcedony and chert. These materials come in a wide variety of colors and are derived from the weathering of Fall River and Lakota members of the Inya Kara Group. The surface densities of these materials can be very high and, in some areas, the density is high enough to form pavement like surfaces within deflation pans. Elevations range from 4,200 feet to 4,380 feet above mean sea level (amsl).

The western half of the study area is a plane dissected by the Little Missouri River and its tributaries. Major, first order tributaries include Gumbo and Long Draws (2002 Wyoming Geographic Landform Map). This area west of the river slopes east-northeast toward the river. The area east of the river slopes gently west-northwest toward the river. Except for the deep alluviums associated with the terraces of the Little Missouri and its larger tributaries, sediments are generally residual in origin and consist of shallow to moderately deep silty clays. Colors range from light brown to grayish brown. Sub-angular pieces of yellow sandstone, iron concretions, gravels and cobbles are mixed in with these sediments. The gravels and cobbles are sub-angular to round in shape and represent a wide variety of rock types including silicified wood, chalcedony and chert. These materials come in a wide variety of colors and are derived from the weathering of Fall River and Lakota members of the Inya Kara Group.

Except for the river all of the streams on the study area are ephemeral in character. At least two non-paired terraces are associated with the Little Missouri River and single terraces are associated with Gumbo and Long Draws. West of the Little Missouri River the streams form a trellis pattern with larger drainages flowing almost due west toward the river. East of the river stream flow is either east or northeast. The river and its major tributaries are highly sinuous, and moderately incised within narrow floodplains. Native

vegetation in the area west of the hills consists of a patchy mosaic of sagebrush, short grasses, forbs and prickly pear cactus. The area is erosional active and sheet washing has produced large, irregularly-shaped deflation pans. Elevation ranges from 3,940 to 4,100 feet amsl.

The built environment includes reclaimed bentonite pits, a single pole electrical transmission line, check dams, four and five strand barbed wire fence lines, two track roads for access to pastures, an oil pipeline and a two ranches. Based on stump height and tree diameters, the forest has been harvested for timber on at least two occasions. The longer stumps tend to be smaller in diameter and they may have been cut specifically to serve as fence posts. The area west of Gumbo Draw in Section 14 T54N R67W has been plowed and is in cultivation in either crested wheat grass or a combination of crested wheat and alfalfa. Two ranches are present north of the ROW in this section and there are a of variety of outbuildings associated with houses. Outbuildings include: garages, barns, stables, hay corrals and corral complexes for handling animals.



Typical topography and vegetation on the study area.
Looking west along ROW from photo point in Section 13, T54N R67W. G. Newberry 4-16-17
Unaltered photograph

Figure 4



Typical topography and vegetation in Black Hills on the study area.
Looking east along ROW in Section 13, T54N R67W. G. Newberry 4/17/17
Unaltered photograph

Figure 5

BACKGROUND RESEARCH

A files search (#33,185) was conducted through the Wyoming State Historic Preservation Office (SHPO) and revealed 5 previous inventories conducted in the sections of interest (Table 1). One was for a done for a timber sale, one for a telephone line, one for a power line and two are associated with bentonite mining. In total, about 360 acres have been inventoried in the sections of interest prior to this survey.

Table 1. Previous Cultural Resource Inventories Conducted in the Colony Rebuild Project Area

SHPO #	Consultant	Company	Inventory Type	Township, Range: Section(s)
79-1772-0	Office of the Wyoming State Archaeologist	Harner White Ecological Consultants	Mine block	54N 67W Sections 13 and 14
83-473-0	BLM	BLM	Timber sale	54N 67W Section 18
95-1047-0	Aaberg Cultural Resource Consulting	RT Communications	Telephone line	54N 66W Section 16

Table 1 (continued). Previous Cultural Resource Inventories Conducted in the Colony Rebuild Project Area

SHPO #	Consultant	Company	Inventory Type	Township, Range: Section(s)
00-1021-0	John Albanese	Black Hills Bentonite	Mine block	54N 67W Section 14
03-1161-2	Little Missouri Substation powerline	Powder River Energy Corporation	Powerline	54N R67W Section 16

Seven sites; 48CK342, 48CK343, 48CK508, 48CK994, 48CK995, 48CK1840 and 48CK2178 are reported from the sections crossed by the ROW. All seven are prehistoric scatters of burned stone and lithic debitage. Only one, 48CK994 is considered eligible for listing on the National Register of Historic Places. The ROW does not cross any of the previously recorded sites.

The original 1882 plat for T54N R66W shows a road entering section 17 in the SW/SE and running west crossing the SW/ SW of the section where it drops south into section 20. The road enters Section 18 in the southeast corner of section and proceeds northwest crossing its SE and NE quarters 18. The road continues northwest crossing the NE/NE of Section 13 T54N R67W. The road continues northwest into section 12 and then loops southwest crossing the N/N/NW of Section 13. The road drops just west of southwest crossing the N/N/NE. It then turns northwest and exits section 14 in the NW/NW/NE. No other features are present on the plat.

METHODS

The ROW is shown as solid line on the project maps. Previously inventoried areas are demarked with a dotted line. Parts of the survey area have been disturbed by cultivation, a pipeline, ranch roads, fence lines, a power line and bentonite mining. 100-foot ROW was inventoried using two sinuous transects, with each transect extending 50 feet off the center line of the ROW.

Ground visibility was generally fair owing to vegetative cover (0-50%) (Figure 6). In areas of lower ground visibility an effort was made to examine areas where visibility was highest. These included anthills, cattle trails, game trails, deflation pans, and stream cuts. Weather on the days of the inventory was good. Air temperature was in the middle 50s, winds were light, and the sky was clear to partially cloudy. Approximately 72.7 acres were inventoried for cultural resources.



Typical ground visibility in survey area. G. Newberry 4-17-17
Unaltered photograph

Figure 6

RESULTS

One site, 48CK2357, and three isolated finds were recorded as a result of this study.

SUMMARY AND RECOMMENDATIONS

Based on an environmental assessment and the results of previous Class III inventories conducted in the sections of interest, the area's potential for containing significant cultural properties is considered low. Most of the ROW crosses a level plain that lacks overviews and is at some distance from water. The potential for sites in these areas is very low. Sites potential on the terraces of the Little Missouri River and its larger tributary streams is moderate to high. However, sites located in this context are frequently destroyed by erosion as the streams deep its channels and moves across their floodplains. In addition, sites in this context can be buried by deposition or obscured by heavy vegetation. Although buried sites may be present on the terraces and floodplains of the streams crossed by the ROWs, no buried A horizons were observed in the eroding edges of terraces or in the steam cuts. Large areas that have been deflated down to the underlying clays strongly suggests that the local geomorphic regime is, and has been, unstable and erosional active rather than stable and depositional. An erosional active geomorphic regime is considered antithetical to the preservation of spatially intact cultural properties.

The site and all of the isolated finds recorded by this study may represent limited activity areas that are most likely associated with the procurement and processing of plant materials.

Although vegetation cover was moderate, Antiquus is confident that any significant cultural properties would have been found had they been present in the ROW. Antiquus is confident that the results of the inventory are accurate, and recommends that the project be allowed to proceed as planned without any additional work. However, if human remains or unanticipated cultural materials are encountered during construction, activities will be halted in the vicinity of the discovery and an archaeologist will be notified immediately.

REFERENCES CITED

Wyoming Geographic Landform Map. 2002. Available from the Wyoming State Historic Preservation Office Web site.

Appendix 1
UTMs for the Butte Substation to Little Missouri Substation Rebuild power line ROWs
in NAD 1983

<i>Description</i>	<i>Easting</i>	<i>Northing</i>
Begin line at Butte Substation	515927	4946020
PI	514937	4945716
PI	514613	4956670
PI	512605	4945922
End of line at Little Missouri Substation	506222	4945715

POWDER RIVER ENERGY CORPORATION

**HABITAT ASSESSMENT AND WILDLIFE SURVEYS FOR
THREATENED & ENDANGERED SPECIES, AND OTHER SPECIES OF
CONCERN**

Little Missouri to Butte 69 kV Line Rebuild
(CWP 2009-2012 TO# 2017-ICF-001)



Submitted to: Powder River Energy Corporation, P.O. Box 930, Sundance, WY 82729

Prepared by: ICF, 405 West Boxelder Road, Suite A-5, Gillette, WY 82718

May 2017

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BACKGROUND AND INTRODUCTION

Powder River Energy Corporation (PRECorp) intends to rebuild approximately 7.3 miles of existing power line with a mono-pole configuration. Approximately 3.0 miles of the total 7.3 miles will have underbuilt distribution power line. The rebuild power line will be constructed to current internal standards and guidelines.

The proposed project is referred to as the Little Missouri to Butte 69 kV Line Rebuild (hereafter referred to as Little Missouri to Butte; Figure 1) and is located approximately 9.8 miles west of Hulett, Wyoming. Construction will occur on private and State lands in Crook County; and is anticipated to begin in July 2017 and be completed by September 2017.

Federal funds will be used to finance this project and, as such, the U.S. Fish and Wildlife Service (USFWS) requires surveys for federal species of concern and their habitats prior to initiating construction activities. Such species of concern include: those protected under the Endangered Species Act (ESA) or listed as candidate, proposed, or petitioned for listing under the ESA; raptors and other avian species listed on the 2008 USFWS Birds of Conservation Concern list; and species listed by the Wyoming Game and Fish Department (WGFD) as Species of Greatest Conservation Need (SGCN). In keeping with its commitment to responsible project development, PRECorp will use the information presented in this report to minimize impacts to wildlife by adhering to federal and state agencies' spatial and timing limitation stipulations for identified wildlife features.

Information and data available from the WGFD, Bureau of Land Management (BLM) – Newcastle Field Office (NFO), Wyoming Interagency Spatial Database and Online Management System (WISDOM), and the State of Wyoming's Natural Resource and Energy Explorer (NREX) were compiled and used to supplement clearance surveys for wildlife species of concern and their habitats conducted by ICF biologists. General habitat assessments for threatened and endangered (T&E) plant species were also performed during the clearance surveys. Survey results and compiled information for this project are summarized and included in this report.

PROJECT DESCRIPTION

A detailed description of the Little Missouri to Butte project was provided in PRECorp's full application package submitted for this project. The project will consist of rebuilding 7.3 miles of existing power line with a mono-pole configuration. Approximately 3.0 miles of the rebuilt line will have underbuilt distribution power line. There will be no net increase of power line mileage in the area.

Construction is scheduled to begin in July 2017 and conclude by September 2017. All construction activities will occur primarily on private and State surface in grassland, shrubland, and woodland habitats as well as rural residential areas. The construction design will consist of wooden poles in a standard mono-pole configuration (i.e., no crossarms). Pole and hardware designs will meet or exceed current guidelines and recommendations outlined by the Avian Power Line Interaction Committee (APLIC, 2006, 2012). Those standards are preferred by the USFWS to minimize the potential for avian electrocutions and collisions.

The construction right-of-way (ROW) will be approximately 30 feet wide (15 feet on either side of the centerline), and the construction process will consist of a series of brief (approximately 6-8 hours, total) disturbances at each pole location as crews drive along the ROW corridor to distribute materials, frame structures, set poles, and string the new line, as well as remove the existing power line and associated materials. Vegetation will typically be impacted in a 3-foot diameter area at each new pole site during the boring process; most of that disturbance will consist of dirt overlay from digging rather than actual vegetation removal.

Equipment and vehicular access to the project area will be confined to existing roads and the project's ROW corridors. Where existing roads do not provide adequate access, vehicles will travel along the most direct route to minimize surface disturbance. No new road construction will occur. Furthermore, PRECorp does not permit project related vehicles or equipment operations on water-saturated ground in the ROW for safety purposes and to minimize the creation of rutted roads.

Short-term surface disturbance will affect a maximum of 26.5 acres in the ROW and long-term surface disturbance will affect 13.3 acres (Table 1). Short-term surface disturbance will consist primarily of overland travel along existing roads and within the project ROW. Long-term disturbance will be limited to the areas affected by each new borehole and those associated with occasional overland travel to maintain and service the line.

SURVEY AREA

Description

The Little Missouri to Butte project spans Sections 16 through 18, Township (T) 54 North (N) and Range (R) 66 West (W), and Sections 11 and 13 through 16, T54N:R67W. The proposed project is located in Crook County approximately 9.8 miles west of Hulett, Wyoming. The wildlife survey area encompasses approximately 18.4 square miles and includes all project ROWs and surrounding 1.0-mile perimeter (hereafter, survey area; Figure 1).

Table 1. Calculation of disturbance associated with the proposed Little Missouri to Butte project.

Proposed Action	Total Length (feet)	ROW Width (feet)	Potential Surface Disturbance within ROW Corridor (acres)	
			Short-term ¹	Long-term ²
Rebuild of an existing overhead power line	38,480	30	26.5	13.3

¹ Short-term surface disturbance within the ROW will be caused primarily by overland vehicular traffic during transport of materials and line construction, and will be limited to the ROW width (30 feet) multiplied by the length of the line (also represented in feet) and then converted to acres (divided by a factor of 43,560 square feet per acre).

² Long-term surface disturbance associated with the new power line will consist of the bore hole for each power pole plus the disturbance associated with overland maintenance travel in the ROW. The surface disturbance for each power pole is the area (7 square feet) removed for each new bore hole multiplied by a factor of 20 (the number of poles needed for each mile of new line); that factor is multiplied by the length of the new line (in miles) and then converted to acres (divided by a factor of 43,560 square feet per acre). The surface disturbance associated with overland maintenance travel is the wheelbase (15 feet) of the vehicles multiplied by the length of the ROW (feet) and converted to acres (divided by a factor of 43,560 square feet per acre).

Due to legislation passed in early 2015, documented permission must be obtained from private landowners prior to conducting any biological surveys (*Trespassing to collect data*, 2015). Access was granted to approximately 94% of the survey area and these areas were covered during the 2017 clearance surveys. Permission was denied by landowners owning approximately 6% of the survey area; and therefore, no information was gathered in these areas (Figure 1). However, those areas were surveyed to the extent possible from neighboring properties and public roads.

Based on historical data, the regional climate is semi-arid, averaging approximately 16.8 inches of precipitation annually, with the highest monthly precipitation occurring between May and July. The 90-year mean minimum and maximum temperatures in January and July were 8.0° and 86.0° F, respectively (Western Regional Climate Center, n.d.).

Topography within the survey area was primarily comprised of gently rolling hills in the western portion which were associated with the Little Missouri River floodplain. A ridgeline present in the central portion of the survey area was characterized by steeper terrain and deeply cut draws. The eastern portion of the survey area was characterized by steep hills. Elevations in the area ranged from 3,900 feet to 4,560 feet above sea level. The lowest elevations were located in the western portion of the survey area and associated with the Little Missouri River flood plain. The highest elevations were found in the eastern portion of the survey area.

Habitats

The Little Missouri to Butte survey area is comprised of mixed habitats with approximately 40% grassland, 29% shrubland, 26% woodland, 4% riparian, and 1% development. Soils within the survey area were predominately clays.

Grassland habitats were found throughout the survey area, but were more common in the lower elevations in the western portion of the survey area. Several haylands used for agricultural purposes also occurred in these areas. Open meadows were common in woodland habitats and were found on flat hilltops and gentler terrain on ridgetops. Due to survey timing, identification of grass species in this habitat type was difficult, but noted species included: blue grama (*Bouteloua gracilis*) and little bluestem (*Schizachyrium scoparium*), which occurred on slopes throughout the survey area. Other species known to occur in the area include: western wheatgrass (*Pascopyrum smithii*), sideoats grama (*Bouteloua curtipendula*), and sedges (*Carex filifolia*). Herbaceous cover was moderate to dense throughout the grasslands, with little exposed bare ground. Grass heights ranged from 2 to 8 inches. Shorter grasses were noted in the areas where grazing occurred and in the few haylands and prairie dog colonies in the area.

Shrublands were interspersed through the survey area and occurred intermixed with grassland and woodland habitats. Shrublands were predominately comprised of big sagebrush (*Artemisia tridentata*). Shrublands were moderately dense throughout the area with moderate to dense herbaceous understory with almost no bare ground noted. Shrub heights ranged from 6 inches in higher elevations and to 24 inches in lower elevations.

Woodlands were located in the central and eastern portions of the survey area and were associated with the higher elevations and steeper terrain. Woodlands were comprised of bur oak (*Quercus macrocarpa*), ponderosa pine (*Pinus ponderosa*), and mountain juniper (*Juniperus scopulorum*). Ponderosa pine dominated slopes and ridgelines and scattered mountain juniper was noted scattered throughout and along woodland edges. Bur oak was found on gentler slopes and in areas where ponderosa pine stands were less dense. Tree heights in these areas varied. Ponderosa pines averaged 30 feet and were generally young stands with very few mature trees or standing snags. Juniper heights averaged 12 feet and bur oak averaged 10 feet in height. The understory within woodlands was mostly comprised of moderately dense grasses and forbs, and leaf litter predominately occurred in bur oak stands. Due to survey timing identification of grass species in these areas was not possible.

Riparian habitat occurred along the Little Missouri River and a few other tributaries in the area. Cottonwoods (*Populus* spp.) were the only noted species in this habitat type, but American elm (*Ulmus americana*) and willow (*Salix* spp.) are also known to occur. Flowing water only occurred in the Little Missouri River. Standing water was noted throughout the survey area in stock ponds from dammed draws and standing pools of water from spring precipitation. Wetland vegetation was noted near stock ponds and included cattails (*Typha* spp.) and prairie cordgrass (*Spartina pectinata*).

Developed areas included rural residential areas and industry development. Conventional oil development was noted in the western portions of the survey area and two electrical substations were found in the eastern and western ends of the survey area. Additional development in the survey area included one county road, several private access roads, and an old bentonite mine located in the south central portion of the survey area. Existing overhead power lines that service the area were also present.

Management Areas

Designated areas of influence are defined by the USFWS as areas where potential projects could have direct and indirect effects to species listed under the ESA or in the listing process and their habitats (USFWS, 2015). The entire survey area is encompassed by the northern long-eared bat (*Myotis septentrionalis*) area of influence (USFWS, 2014).

Designated crucial priority areas and enhancement priority areas are habitats in which WGFD concentrates habitat protection and management activities (WGFD, 2015). Habitats found along the Little Missouri River are designated as an aquatic crucial habitat area (Office of Governor Matthew H. Mead & Wyoming Geographic Information Science Center, 2016). These riparian habitats contain features with significant biological and ecological value. Habitat communities within this crucial priority area provide food and shelter for a variety of species as well as support fish migrations (WGFD, 2014). Additionally, several areas scattered throughout the survey area are designated as freshwater emergent wetlands or freshwater ponds in the National Wetlands Inventory (USFWS, n.d.-c). Most of these areas are associated with stock ponds that occur in the area.

Current Land Use

Current land uses within the survey area include residential areas, livestock grazing, hay production, and industry development. Industry development includes oil drilling, electrical substations, and a bentonite mine. One county and several private access roads, as well as existing overhead powerlines, also transect the survey area.

METHODS

Prior to initiating the clearance surveys, maps were generated and known wildlife information were compiled for the survey area. PRECorp provided ICF with a map and associated GIS files of the project footprint and 1.0-mile wildlife survey area. ICF obtained the Crook County USFWS Natural Resources of Concern list, which includes listed T&E species and candidate species for ESA listing, as well as the 2008 USFWS Birds of Conservation Concern list for Region 17-Prairies and Badlands (USFWS, 2017). ICF also reviewed BLM-NFO, WGFD, and NREX records to compile information regarding known and potential wildlife occurrences in the area.

ICF biologists (see Qualifications) conducted the habitat assessment and wildlife clearance surveys on April 24 through May 14, 2017. ICF characterized all habitat types present in the survey area and documented all species of concern and specific wildlife features, including raptor nests, black-tailed prairie dog (*Cynomys ludovicianus*) colonies, and potential sites for bald eagle (*Haliaeetus leucocephalus*) winter roosts. All wildlife features and species observed during the clearance surveys were recorded, including notes on species, number of individuals, habitat, activity, and location (Universal Transverse Mercator [UTM] North American Datum 1983, Zone 13N).

RESULTS

Federally Listed Species

The Ute ladies'-tresses (*Spiranthes diluvialis*) (threatened) and northern long-eared bat (threatened) are included on the current federal list of T&E, candidate, proposed, and petitioned species in Crook County, Wyoming (USFWS, 2017). No critical habitats for federally listed species have been designated by the USFWS in the wildlife survey area (USFWS, 2017).

No populations of Ute ladies'-tresses are known to exist within the Little Missouri to Butte survey area or elsewhere in Crook County (Fertig & Heidel, 2007). The closest known population is located along Wind Creek in Converse County, Wyoming, approximately 95 miles southwest of the project site. Riparian habitats within the survey area do not provide suitable habitat for the Ute ladies'-tresses. Persistent water was present within the survey area within the Little Missouri River and in several stock tanks scattered throughout the survey area; however, primarily clay soil conditions make these areas unsuitable to sustain Ute Ladies'-tresses.

The northern long-eared bat is a year-round resident in northeastern Wyoming, possibly occurring in Campbell, Crook, and Weston counties (Keinath, Andersen, & Beauvais, 2010; WGFD, 2010) However, the only known occurrences have been documented in dense woodland habitats of

the Bear Lodge Mountains in Crook County near Sundance, Wyoming (ICF International, 2013; WGFD, 2010). The Little Missouri to Butte project does occur in the suspected range for this species (Keinath et al., 2010).

The northern long-eared bat primarily inhabits wooded riparian areas and conifer and deciduous woodlands at higher elevations. Typical roost sites include crevices and cavities of trees and under loose bark, and hibernacula include caves and abandoned mine sites. The northern long-eared bat utilizes diverse habitats for foraging including riparian woodlands and vegetation found on hillsides and ridge tops (Schmidt, 2003). There is no suitable roosting habitat for this species present in the survey area. The woodlands in the survey area are comprised of large stands of young ponderosa pines intermixed with bur oak and juniper. Suitable roosting habitat such as large snags, exposed rock crevices, rocky ridgelines, or caves was lacking in the survey area. However, wooded draws or areas along the Little Missouri River may be suitable for foraging activities.

Raptors

All raptor species are protected under the Migratory Bird Treaty Act (MBTA); eagles receive additional protection under the Bald and Golden Eagle Protection Act (USFWS, n.d.-a, n.d.-b). These laws afford special protections for raptors by safeguarding individuals as well as nests, eggs, and young. During the 2017 clearance surveys, ICF biologists observed four raptor species within the wildlife survey area. Several American kestrels (*Falco sparverius*) were noted over several days flying and hunting in riparian and grassland habitats in the western portions of the survey area. One northern harrier (*Circus cyaneus*) was seen flying in Section 10, T54N:R67W. Red-tailed hawks (*Buteo jamaicensis*) were common and noted throughout the survey area in shrubland, riparian, and woodland habitats. Golden eagles (*Aquila chrysaetos*) were also present within the survey area and most sightings occurred near an active nest site located in Section 15, T54N:R67W.

One raptor nest, ICF Nest 22655, had previously been identified in the survey area (BLM, 2014; Office of Governor Matthew H. Mead & Wyoming Geographic Information Science Center, 2016); and five new nests were documented during the 2017 clearance surveys (Table 2 and Figure 1). Two nests were active and four were inactive. Due to the active status of these two nests, the reported UTM locations are approximations and were generated based on field notes and aerial photos. It was not possible to identify the species of inactive nests within the survey area; however, where possible nests were assigned a species based on nest placement, nest structure, and nest material typical of the indicated species.

Two nests were active during the 2017 clearance surveys. ICF Nest 21055 was active with a golden eagle pair. The pair was documented in the nesting area throughout the 2017 clearance surveys and on April 28 at least one young nestling was viewed in the nest. ICF Nest 21057 was active with a red-tailed hawk pair. On April 27, a pair was seen tending the nest site. Additionally, the nest condition ICF Nest 22655 was not obtained in order to reduce disturbance of the nearby active ICF Nest 21057.

No raptor nests will be physically disturbed by the Little Missouri to Butte project, but two nests could be affected by construction activities if construction occurs during the USFWS seasonal buffers for raptor species in Wyoming (USFWS, 2009). The USFWS designates a 0.5-mile spatial buffer for active golden eagle nests, and disturbance associated with the project could occur within this buffer for both ICF Nests 21055 (active in 2017) and 21056 (inactive in 2017). However, the new power line will be built in the existing powerline ROW and therefore no new permanent disturbance will be created. Surface disturbance from the proposed project will not occur within the USFWS-recommended spatial buffers for any of the remaining raptor nests (USFWS, 2009). To minimize potential impacts to nesting raptor species, PRECorp will authorize raptor nest checks to be conducted during the raptor breeding season prior to construction activities and will modify construction schedules as needed to avoid disturbing active raptor nests within the USFWS species-specific spatial and seasonal buffers.

Table 2. Raptor nest locations, current status, and condition within the Little Missouri to Butte survey area in April-May 2017.

ICF Nest ID ¹	Species ²	Substrate	UTM X	UTM Y	¼ ¼ Section, T(N):R(W)	Status	Condition ³	Distance ⁴
			UTM NAD83, Zone 13N					
21055	GOEA	Cottonwood, live	508357^	4945820	SE NW 15, 54:67	Active	Excellent	0.02 (120 feet)
21056	GOEA	Cottonwood, live	508377	4945837	SE NW 15, 54:67	Inactive	Good	0.03 (173 feet)
21057	RTHA	Cottonwood, live	505146 ^	4944392	SE NW 20, 54:67	Active	Excellent	1.0
21058	BUOW	Burrow	507791	4944424	SW NW 22, 54: 67	Inactive	Unknown	0.83
21856	GHOW	Cottonwood, live	508673	4946407	NW NE 15, 54:67	Inactive	Poor	0.38
22655	UNK	Cottonwood, live	505388	4944229	SW NE 20, 54:67	Inactive	Unknown	1.0

¹ Nests are assigned a unique number to assist tracking in the ICF database

² BUOW = burrowing owl, GHOW = great horned owl, GOEA = golden eagle, RTHA = red-tailed hawk, UNK = unknown raptor species

³ Excellent = nest bowl in intact and in usable condition, Good = nest is in need of only minor attention in order for it to be used, Poor = nest is dilapidated and in need of significant repair to be used, Unknown = nest condition was not determined because the nest cannot be viewed because of substrate (i.e. within a burrow or cavity) or was in close proximity to an active nest

⁴ Distance from the ROW in miles

[^] UTM's are an approximation based on field notes and aerial photos

Bald and Golden Eagles

Nesting and roosting habitat is present within the survey area for eagles. Several large mature cottonwood trees occur as lone individuals or in small groups along the Little Missouri River which are typical nesting and roosting substrates for bald eagles. Potential foraging areas for bald eagles also exist within the survey area as the Little Missouri River is a fish bearing stream and the presence of black-tailed prairie dog colonies and sheep ranching provide adequate foraging habitat throughout the year. Adequate nesting and roosting habitat is also present in the mature cottonwoods for golden eagles. Additionally, golden eagles primarily forage on small mammals and adequate year-round foraging habitat is found throughout the survey. No known eagle winter roosting sites occur within the survey area. One known golden eagle nest and one unknown eagle nest occurs within the survey area. Due to the characteristics of the unknown eagle nest and its close proximity to the active golden eagle nest it is assumed it is a second golden eagle nest site.

USFWS Birds of Conservation Concern

The USFWS maintains a Birds of Conservation Concern List that identifies species, subspecies, and populations of all migratory nongame birds that without additional conservation actions are likely to become candidates for listing under the ESA. The USFWS has also delineated Birds of Conservation Regions across North America, with each representing an ecologically distinct region with similar bird communities, habitats, and resource management issues (USFWS, 2008). The Little Missouri to Butte project is within Region 17- Prairies and Badlands, which includes southeast Montana, southwest North Dakota, northwest South Dakota, and northeast Wyoming (USFWS, 2008). There are 28 bird species listed for Region 17, and two avian species included on this list were documented within the survey area during the 2017 clearance surveys. As previously stated in the *Raptors* section, golden eagles were documented within the survey area in 2017. Additionally, one upland sandpiper (*Bartramia longicauda*) was documented in Section 16, T54N:R66W on April 27.

WGFD Species of Greatest Conservation Need

The WGFD list of SGCN includes 131 vertebrate species across 11 terrestrial habitats (WGFD, 2010); no fisheries will be affected by the proposed project. Three of the 131 WGFD species of concern have historically occurred in the survey area, including ferruginous hawk (*Buteo regalis*), greater sage-grouse (*Centrocercus urophasianus*), and golden eagle (Wyoming Natural Diversity Database, 2012). During the 2017 clearance surveys, ICF biologists documented four WGFD species of concern including: American kestrel, golden eagle, upland sandpiper, and northern leopard frog (*Lithobates pipiens*).

Greater Sage-grouse

Due to the level of concern and management status of greater sage-grouse and its habitats across federal and state agencies, the greater sage-grouse is designated as a Tier II SGCN by the WGFD. As such, the species is managed by the WGFD under special rules and regulations as outlined in Executive Order 2015-4 (2015).

Impacts to greater sage-grouse were assessed using a 4.0-mile buffer area around leks, as approximately 80% of females stay within this area to breed, nest, and raise young (Executive Order No. 2015-4, 2015). No occupied leks exist within 4.0 miles of the Little Missouri to Butte project, but one lek with an undetermined status is located 3.5 miles north of the project site in Section 28, T55N:R67W (WGFD, 2016). The Williams lek was discovered in 2003 with a peak male count of 9. The lek has been checked at least once in every year since 2003 and no activity has been documented at this site (WGFD, 2016). No observations of greater sage-grouse were documented within the survey area in 2017.

Shrubland habitats within the western portion of the survey area have some suitability to support greater sage-grouse; however the close proximity to woodlands and treed areas with high raptor activity makes these areas less suitable for general greater sage-grouse use. Additionally, the survey area does not occur in designated Core or Connectivity Areas (Executive Order No. 2015-4, 2015).

Black-tailed Prairie Dog

The black-tailed prairie dog is a species of interest due to dramatic population fluctuations resulting from man-made and natural forces, and because their colonies provide habitat and foraging resources for numerous species, including raptors and other migratory birds included on the various conservation lists mentioned above. Three prairie dog colonies were documented and mapped during

the 2017 clearance surveys (Figure 1). The largest colony is mostly located in Section 22, T54N:R67W and spans approximately 136 acres. The second colony is located in Section 17, T54N:R67W and covers approximately 33 acres. The third colony is located in Section 18, T54N:R66W and is approximately 17 acres in size.

CONCLUSION

The Little Missouri to Butte project will have little to no impact on wildlife populations within the survey area. Given the rebuild project will occur entirely within the existing ROW, the construction design, and the proposed project's location; species composition and overall diversity is not expected to change as a result of this project. Several factors combine to either preclude or minimize potential direct and indirect impacts of the proposed Little Missouri to Butte project on federally listed species or other vertebrate species of concern. Those factors include:

- The limited nature of project related disturbance (26.5 short term acres; 13.3 long term acres);
- The consolidation of the rebuild power line in existing disturbance and corridors (i.e., residential development and roads), minimizing overall surface and view-shed disturbance in the area and a no net increase of power line mileage in the area;
- The absence of current T&E species in the project area;
- The location of the proposed project outside designated USFWS critical habitats for current T&E species;
- The lack of quality wetland habitat for Ute ladies'-tresses that intersects the proposed project ROW;
- The rebuild will occur in existing corridors and therefore no tree removal will occur;
- The proposed power line will be constructed using designs that meet or exceed current APLIC recommendations (APLIC, 2006, 2012), thus minimizing any risks of avian electrocutions or collisions on those structures;
- The construction schedule (July 1 to September 30) will occur outside the majority of the raptor nesting season (USFWS, 2009);
- The commitment by PRECorp to honor federal and state timing and spatial stipulations, as well as to conduct follow-up surveys as needed and adjust the timing and location of project activities based on those surveys.

Given the nature of the Little Missouri to Butte project and its location within an area comprised of existing infrastructure and residential development, the area's greatest value to wildlife

is predominantly for the most common wildlife species. As noted, if construction activities are scheduled to overlap sensitive wildlife timelines, PRECorp will ensure that additional wildlife surveys are conducted prior to initiating construction within wildlife-specific spatial buffer areas and the timing and location of project activities will be scheduled based on those survey results.

QUALIFICATIONS

The clearance surveys were conducted by Stephanie Kane and David Waller. This report was written and background information was compiled by Amanda Nicodemus.

Stephanie Kane is a project manager and wildlife biologist with ICF and has worked with ICF since 2013. She earned an M.S. degree in Biology from Ft. Hayes State University (2011) and a B.S. degree in Zoology from Colorado State University (2005). She has conducted biological surveys for universities in Oregon, Mississippi, and Kansas, and started working as a consultant for energy industries in Wyoming and Montana in 2013. Her experience includes: productivity and occupation surveys for northern spotted owl (*Strix occidentalis caurina*); surveys and habitat assessments for the black rail (*Laterallus jamaicensis*) and other wetland birds; mist-netting passerine birds and assessing associated habitats; wild bird rehabilitation; volunteer work with big game and chronic wasting disease; and vegetative surveys. In addition, she has extensive experience in environmental education, including time as a guide in Grand Teton and Yellowstone National Parks.

David Waller is an on-call wildlife biologist with ICF and has worked with ICF since 2012. He earned a BS degree in Wildlife Science from Utah State University (1973). He worked as a natural resource professional for over 40 years with the U. S. Department of the Interior (USDI) BLM, USDI Bureau of Reclamation, and U. S. Department of Agriculture - Forest Service. His professional experience includes a wildlife biologist position for the BLM field office in Price, Utah with extensive experience in Utah, Nevada, Montana, North Dakota, and Idaho. His training includes: wetland delineation, riparian inventory, timber inventory, bird point counts, raptor identification, sage grouse monitoring, desert tortoise surveying, and endangered species management. He has been involved with land use planning regarding livestock grazing, oil and gas drilling, coal mining, outdoor recreation, power and pipeline rights-of-ways, and wildlife habitat management. In addition, he has written resource management plans, environmental assessments, biological assessments, and management plans for mountain plovers.

Amanda Nicodemus is a project manager and wildlife biologist with ICF and has worked in the Gillette office since 2011. She earned an M.S. degree in Biology from Villanova University (2009) and a B.S. degree in Biology from Delta State University (2003). Amanda is responsible for

designing, planning, and conducting both aerial- and ground-based biological field surveys; designing and implementing GIS based databases; and writing technical reports, biological assessments/biological evaluations, and third-party NEPA documents. She currently manages projects for clients in energy industries in northeastern Wyoming and participates as the wildlife lead on several NEPA projects in Montana, Wyoming, and Texas. Her experience includes behavioral and genetic research on chickadee (*Poecile spp.*) hybridization in Pennsylvania, analysis of foraging behavior of the Golden-cheeked warbler (*Dendroica chrysoparia*) in central Texas, and behavioral studies of the yellow-bellied marmot (*Marmota flaviventris*) in central Colorado. In addition, she has experience in mist netting and banding T&E avian species, vegetation monitoring, prescribed burning, and small mammal surveys.

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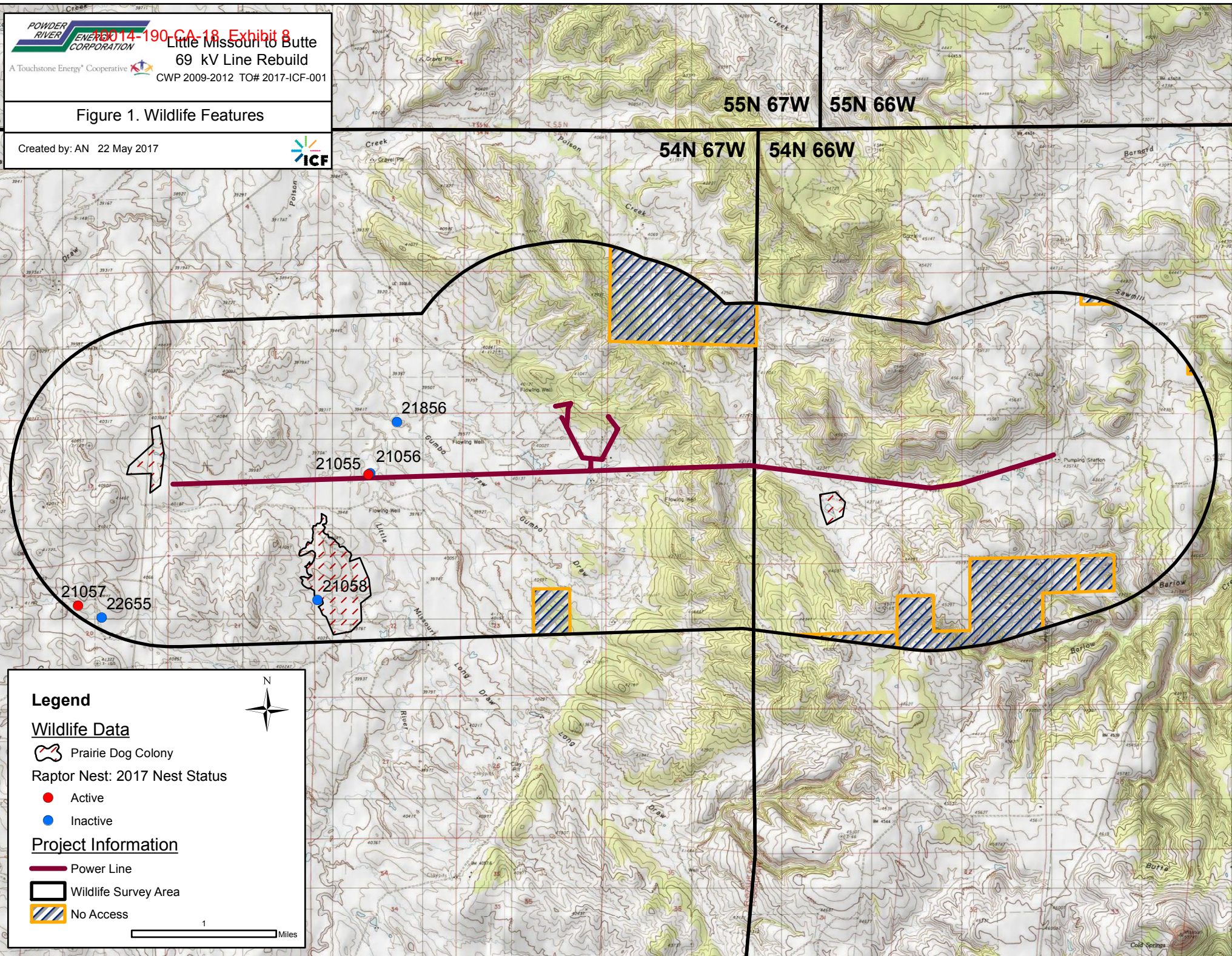
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Figure 1. Wildlife Features

Figure 1. Wildlife Features

Created by: AN 22 May 2017





221 MAIN STREET
P.O. BOX 930
SUNDANCE, WY 82729-0930
FAX: (307) 283-3527

200 GARNER LAKE ROAD
P.O. BOX 937
GILLETTE, WY 82718-0937
FAX: (307) 682-0733

1095 BRUNDAGE LANE
P.O. BOX 5087
SHERIDAN, WY 82801-1387
FAX: (307) 674-9018

1-800-442-3630

June 16, 2017

Ms. Mary Flanderka / Ms. Nancy Stange
Wyoming Game & Fish Department
Habitat Protection Coordinator's Office
5400 Bishop Blvd.
Cheyenne, Wyoming 82006

RE: Little Missouri to Butte 69 kV Line Rebuild

To whom it may concern:

Powder River Energy Corporation (PRECorp) is requesting comments from the Wyoming Game & Fish Department (WGFD) in support of this project. The attached report titled Impacts of Project on Wyoming Game & Fish Department Managed Species should provide the support we used to conclude that our project would have minimal impact to species managed by the WGFD.

If you have any questions about this project, I can be reached at the contact information below.

Sincerely,

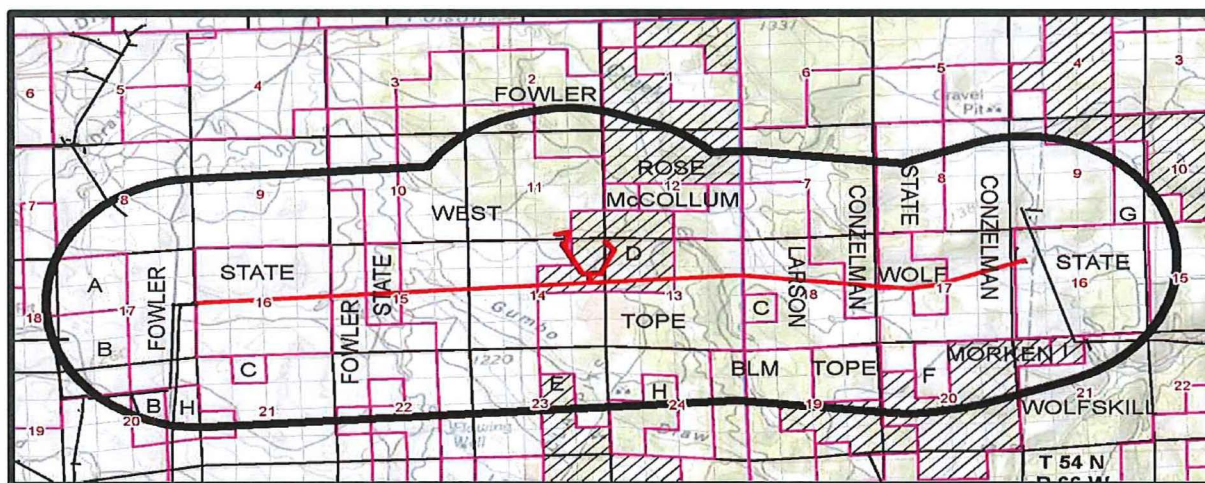
A handwritten signature in blue ink that reads "Darice Hodge". The signature is written in a cursive style with a large, looped "D" at the beginning.

Darice Hodge
Land & Environmental Specialist
(307)283-4951 direct
(307)290-2237 cell

Cc: Project file

Impacts of Project on Wyoming Game & Fish Department Managed Species

Little Missouri to Butte 69 kV Line Rebuild



Powder River Energy Corporation



June, 2017

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1.0 INTRODUCTION

1.1. Purpose and Need

Powder River Energy Corporation (PRECorp) intends to solicit funds from the Rural Utilities Service (RUS) to rebuild a 69 kilovolt (kV) High Voltage Distribution (HVD) overhead power line in Crook County, Wyoming. Table 1 provides the project summary and contact information for this project.

The Little Missouri to Butte 69 kV Line Rebuild project is listed in PRECorp's Construction Work Plan (CWP) as 740c Code 1001. The purpose of the Little Missouri to Butte 69 kV Line Rebuild (hereafter referred to as the Little Missouri to Butte) project is to rebuild approximately 7.3 miles of existing power line. Approximately 3.0 miles of the total 7.3 miles will have underbuilt distribution power line. This will result in a no net increase of power line in the area. The Little Missouri to Butte line was originally built as a radial feed in 1985 to address the load growth in the Rocky Point Oil Field. At that time, it was intended to be a reliable, but radial source of power for at least 15 to 20 years. Since that time, the Wenande Substation has been installed and PRECorp's Long Range Plan identified a need for a 69 kV line between Adon and Little Missouri. The future Adon to Little Missouri 69 kV line will be part of a loop feed and will allow PRECorp multiple options for splitting and serving loads as well as a secondary source for the Little Missouri Substation. With the planned Adon to Little Missouri 69 kV Line, the 69 kV line between Little Missouri and Butte will be the limiting component of the 69 kV loop system in the Adon, Little Missouri, Butte and Moorcroft system. When this segment of line is rebuilt, PRECorp will be able to serve load in the Hulett area from either Adon or Moorcroft and will allow for the retirement of the Baker Substation in lieu of replacing the transformers.

1.2. Project Area

PRECorp uses a buffer around the project of one-mile to conduct surveys and background checks. This buffer area is indicated on the map attached to the Clearance Surveys for Threatened & Endangered Species, and Other Wildlife Species of Concern in Appendix A.

1.3. Background

The main purpose of interfacing with the Wyoming Game & Fish Department (WGFD) is so that PRECorp can seek opinions/advice regarding how projects may or may not interfere with wildlife or their habitat.

This section provides a summary of the information on which the Impacts of Project on Wyoming Game & Fish Department Managed Species is based. To initiate this project ICF International was contracted to perform the wildlife surveys of this route. The following table provides more details:

Table 1

Company Initiating Project:	Powder River Energy Corporation
Company Primary Contact:	Darice Hodge, Land & Environmental Services, Environmental Specialist
Project Name:	Little Missouri to Butte 69 kV Line Rebuild
RUS 740c Code	1001
Construction Work Plan (CWP):	2017-2020
Location of Project:	T54-R66-S 7-9, 16-18; T54-R67-S 8-17, 20-24
County	Crook (Wyoming)
Supplementary Wildlife Documentation (Appendix A)	Amanda Nicodemus, ICF (contractor)
Current Land Use(s):	Livestock grazing, hay production, rural residential, oil development
Waterways on Site:	Little Missouri River

2.0 PROJECT DESCRIPTION

This project consists of constructing a new power line using timber poles, cable, anchors, auguring equipment, trenching equipment, tamping equipment, nuts & bolts, insulators and insulator pins. After the new line is erected, the old line will be removed using the same equipment used to construct the new line. The project is broken into distinct sequences. These sequences are major project milestones which comprise, or make up the project. The project milestones are as follows:

- Material Staging & Lay-down
- Construction
- Retirement
- Demobilization
- Operation
- Maintenance

2.1. Project Area Sequencing

2.1.1. Material Staging & Lay-down

The material staging and lay-down consists of mobilizing the materials to the job site and laying out the poles and equipment where they will be placed in the ground during construction. Most likely, this task happens immediately before the construction activity starts. The materials will be delivered to the location via county access roads on flatbed trucks. The disturbance will consist of laying materials down on the ground and will last approximately 2 to 5 minutes per structure. There will be a total of 106 poles, so this activity is expected to last about a day. The lay-down is usually done immediately before the construction is anticipated to begin.

2.1.2. Construction

The construction occurs in an orderly fashion. The first activity that occurs is the crews move from pole to pole to attach the pins, cross arms and insulators to the poles. This is soon followed by revisiting each pole site with an auger truck to bore a hole in the staked location. Each site is visited again to pick the pole up with the auger truck and place it in the hole. The soil tailings from the boring are tamped around the base of the pole with a hydraulic tamper powered from the truck. Any excess soil is compacted around the pole so that water runs away from the base of the pole. The crew moves on to the next pole to be placed. This repetition occurs until all the poles are set in the ground. The cumulative visits and activity to each pole is estimated to take a total of about 30 to 40 minutes from start to finish for each location. The conductor is run from pole to pole using a truck for pulling and a person to climb the poles to string the cable through the insulators properly. When the last structure has been strung, tension is placed on the conductor to 60% of the ultimate breaking strength of that particular cable. This reduces the cable swing and sag to prevent incidental faults. Each pole is visited one last time to tie off the conductor to the insulator mounted on top of the pole. The conductor stringing takes approximately 3 to 5 minutes per structure.

2.1.3. Retirement

The retirement of the old line occurs immediately following the construction and energization of the new line. Similar to construction, only in reverse, the crew first removes the tap wires, which de-energizes the line leaving a power line that is safe to work on. The crews remove the old conductor by moving from pole to pole to loosen or remove the conductor ties to the insulators. The conductor is then pulled from one side of the line using a reel similar to winding up a garden hose. This process is done very slowly to ensure the loose ends do not get tangled up or injure someone on the ground. After the conductor is removed, each pole is pulled, or plucked, from the ground by the bucket truck using large pinchers on the end of the boom. The pole is rotated on its side and laid on the ground. The pole is then stripped of any bolts, nuts, and loose wire or cross arms before being transported back into the warehouse. The void in the ground is filled with loose material around the base of the pole. In the event there is not enough loose material at the base of the pole to back fill the hole,

loose material will be gathered from nearby to fill the hole. Collecting material from the area will ensure no non-indigenous or non-native materials will be introduced to the area due to human activity. This disturbed location is about 3' in diameter when completed. The retirement process takes approximately 5-7 minutes per structure.

2.1.4. Demobilization

During the demobilization phase, the crews gather up all loose or excess materials and make sure nothing is left that was not there when they started the construction process. Additionally, if any ground destruction in the form of ruts or vegetation removal occurs, crews prepare the area for re-seeding. The demobilization takes about 2 minutes per pole unless habitat destruction occurs then additional preparation time is needed to reclaim those areas.

2.1.5. Operation & Maintenance

The operation of the line is relatively unnoticed after the poles are standing. Electricity is something that is not visible. The energy running through the cables does not need people in the field to operate. The maintenance is virtually nonexistent as well for the first 10 years. The line maintenance program is set up, theoretically, to have a crew come around to each pole every three years to tighten hardware (nuts & bolts). This activity usually lasts for roughly 10 minutes per pole.

2.2. Mitigation and Monitoring

It is anticipated that construction on this project will commence in September 2017. Construction is estimated to take approximately ten weeks after initiation. If activities overlap sensitive wildlife timelines, PRECorp will ensure that additional wildlife clearance surveys are conducted prior to construction activities within species specific buffer areas. The timing and location of project activities will be scheduled centered on those survey results. No known bald eagle nests or winter roosting sites have been documented in or within 1.0 mile of the projects right of ways. Nesting and roosting habitat is present within the survey area for eagles. An active golden eagle nest and red-tailed hawks nest was documented in the 2017 survey efforts. No raptor nests will be physically disturbed by this project, but two nests could be affected by the construction activities if construction occurs during the seasonal buffers for raptor species in Wyoming. There is existing power line in the area of this rebuild project and therefore, no new permanent disturbance will be created.

PRECorp is committed to honoring timing stipulations and additional surveys for eagles and raptors will be completed prior to construction as well as during construction as warranted. The new line being constructed is designed to meet or exceed current guidelines and recommendations outlined by the Avian Power Line Interaction Committee (APLIC, 2006). During the maintenance of this line, linemen are trained to report any wildlife impacts. If any negative wildlife impacts are anticipated, activity will halt immediately until the next course of action is determined and notification made to the Wyoming Game and Fish Department.

3.0 ENVIRONMENTAL BASELINE

3.1. Existing Baseline Conditions

The existing baseline conditions include effects of past and ongoing human and natural factors in the immediate vicinity of the project area. As identified in section 1.2, this area is chiefly used for livestock grazing, oil development, hay production, electrical substations, residential development activities and an old bentonite mine. Farm machinery operation, vehicle usage, gas production equipment, human presence and domestic animals roaming make up the baseline conditions. Many gravel and two track roads transect the area. Existing overhead transmission and distribution power lines are also present. The consistent and frequent use of farm machinery, oil production equipment, vehicle use and human presence in this area has either forced the wildlife to habituate or avoid the area during use.

3.1.1. Haying Operations

Approximately 450 acres of the project area are used for haying operations. During a normal moisture year, the land can produce one hay cutting per year. Haying lasts for about one to two weeks, depending on the weather, while the baling and stacking activity can last another two weeks.

3.1.2. Rural Electrical Services

Approximately 7 services exist in the project area that will be impacted by the retirement of the Baker Substation and will be served by the Little Missouri Substation once the rebuild project is complete.

3.2. WGFD Managed Wildlife Species

There are several species managed by the WGFD. The following are known to frequent this area:

Large Mammals: mule & white-tailed deer, coyote, mountain lion and pronghorn.

Small Mammals: bobcat, badger, raccoon, porcupine, fox, striped skunk and rabbits.

Upland Birds: sharp-tailed grouse, mourning dove, crow and Hungarian partridge.

Waterfowl: geese, duck

Non-game Species: raptor species (eagles, hawks, owls, etc.)

4.0 NATURAL HISTORY AND SPECIES OCCURRENCE

4.1 Large Mammals

This area has historically played home to various large mammal species. Mule deer, antelope, mountain lion and whitetail deer frequent this area. They are not the only large mammal species managed by the WGFD, but they make up the largest quantities of large mammals in the area.

Small Mammals

Various small mammals also call this area home. Bobcat, badger, raccoon, porcupine, fox, skunk and rabbit are prevalent throughout this area.

4.3

Upland Birds

Mourning dove, crow and hungarian partridge make up the largest quantities of upland birds in the area. No sign of sage grouse was documented during the 2017 clearance survey. No known sage-grouse leks exist within 4.0 miles of the project site (WGFD 2015a). The location of the project is outside of designated sage-grouse core areas and connectivity corridors. For more information on the grater sage-grouse the Clearance Surveys for Threatened & Endangered Species and Other Wildlife Species of Concern is attached as Appendix A.

4.4

Waterfowl

Geese and duck may use this area on occasion. This mainly occurs immediately after run-off where water is abundant and pooled in low-lying areas.

4.5.

Non-game, Rare, Protected or Endangered Species

There are currently two species that are candidate, proposed or listed as endangered species.

Species Common Name	Scientific Name	Status	Habitat
Ute Ladies-tresses	Spiranthes diluvialis	Threatened	Seasonally moist Soils and wet meadows of drainages below 7,000 ft. elevation
Northern long-eared bat	Myotis septentrionalis	Threatened	Cracks, crevices, cavities and under bark of live or dead trees; caves or mines

5.0

ANALYSIS OF EFFECT OF THE PROJECT

5.1

Direct Effects

The direct effects of this project include: driving vehicles on access roads, human presence, vegetation damage, topsoil disturbance, small mammal disturbance and sound disturbance. The proximity of the effects is isolated to the immediate area around where the power line will be erected. The specific definition of each effect is as follows:

- Driving vehicles on access roads: this effect may occasionally disturb wildlife that may be crossing over, traveling on or feeding on the access road by disrupting their current activity. The responses will most likely be annoying to the wildlife and could alarm them at times. This disruption does not typically have a fatal effect. Vehicles currently frequent these accesses year round. The existing wildlife has been habituated to this activity.
- Human presence: the human activity that occurs will most likely cause a startling or alarming response in any of the wildlife species of concern here. This activity can vary from walking around to human conversations that occur during the project.
- Vegetation damage: the vegetation damage that could occur would happen with equipment movement, hole boring and repeat traffic over the undisturbed areas when work has to be done off the access roads. Any of these activities will damage vegetation. The most damage occurs during off-road travel with vehicles during wet conditions. This will be avoided when possible.
- Topsoil disturbance: the topsoil disturbance happens during the same activities that may damage the vegetation. Topsoil disturbance happens during the auguring process, trenching process and during equipment movement when the soil contour or surface-soil is altered.
- Small mammal disturbance: small mammal disturbance occurs if linemen come across any type of wildlife and that encounter alters the wildlife's activity or natural behavior. This may occur along this route with rodents, small game or birds. It is anticipated that raptors will be encountered. However, this intrusion should have a minimal impact on any of these species. Most of these coincidences will be alarming or annoying to wildlife as they are used to seeing varying types of activity now.
- Sound disturbance: sound disturbance will occur regularly from small human conversation to loud machinery. Every day that construction occurs, there will be linemen talking to each other, tools creating metal-on-metal sounds, trencher equipment operating and trucks making noise. The intensity of these noises ranges from normal conversation (60-70 dB) to the loudest of the noises which is the hydraulic impact tamper (85-95 dB) used to firm up the loose ground around the new pole (GC Audio, 2007). The longevity of the noises is directly proportional to the noise intensity. The linemen converse frequently to coordinate while the hydraulic tamper only happens when the poles are being set. The tamping occurs for about 1 minute per structure.

The duration (cumulatively) of these effects will last approximately ten weeks after initiation. The frequency of disturbances will be Monday through Friday between the hours of 7:00 a.m. and 6:00 p.m. during the construction period. The distribution of the disturbances will move along the line where the crews happen to be and typically will not occur along the entire length of the line at any one given time.

6.0 AVOIDANCE, MINIMIZATION AND CONSERVATION MEASURES

6.1. Standard Specifications

PRECorp follows suggestions and guidelines where available for environmental protection. In support of this objective, PRECorp developed its first Avian Protection Plan (APP) in 2005. Since that time PRECorp's Board of Directors has adopted a restructured APP in December, 2010. PRECorp follows construction standards that are RUS standard designs (RUS Specifications, 2000), but modified and approved by RUS for avian protection. The specific bulletins for the original standards followed are:

- Bulletin 1728F-803 December 1998 Specifications and Drawings for 24.9/14.4 kV Line Construction
- Bulletin 1728F-806 June 2000 1998 Specifications and Drawings for Underground Electric Distribution

The PRECorp modified standards are published on the website at:

<http://www.precorp.coop/FileStruct.cfm> (PRECorp, 2015).

PRECorp follows the National Electric Safety Code (NESC) rules. These rules are updated approximately every five years, but the latest version can be found at the following link: <http://standards.ieee.org/about/nesc/> (NESC, 2012).

6.2. Non-contractual Obligations and Agreements

PRECorp does have non-contractual obligations with the USFWS (Law Enforcement) regarding avian protection and how the old antiquated system is to be retrofitted to make it raptor safe. These obligations surround what PRECorp is doing to minimize impacts on avian species. PRECorp has entered into a non-obligatory Avian Protection Plan to outline their commitments to avian species.

PRECorp has a commitment with the Wyoming Public Service Commission to adhere to the Wyoming Governor's Executive Order #2011-5. This order lays out the guidelines to minimize impacts on the greater sage-grouse.

PRECorp has committed to use avoidance and rerouting of power lines to minimize impact on wildlife. PRECorp will reclaim any areas where vegetation is destroyed, causing premature erosion and degradation of topsoil.

7.0 WETLANDS AND RIPARIAN AREAS

The project area contains the Little Missouri River and smaller tributaries found throughout the project area. Flowing water was present in the Little Missouri River, but most drainages within the project area are mostly dry throughout much of the year and flowing water is intermittent in nature and varies depending on precipitation events throughout the year. Ponds were present in some areas resulting from dammed draws for stock tanks which provide a permanent water source and were found throughout the project area. Emergent vegetation was noted in a few areas along the Little Missouri River and around some of the larger ponds consisting of sedges (*Carex* or *Eleocharis* spp.), cattails, and prairie cordgrass.

There will be no effect on drainages or wetlands within the project area. The proposed project ROW will cross over the Little Missouri River one time; however, construction and maintenance vehicles will access the proposed power line from existing roads outside of all drainages and no vehicular or foot traffic will cross any drainage or areas containing water. Furthermore, PRECorp will not drill any new power pole holes in wet areas to preserve the structural integrity of the poles.

More information regarding riparian corridors and bottomland areas can found in Appendix A.

8.0 IMPACTS TO WGFD MANAGED WILDLIFE

8.1. Large Mammals

No additional impacts to large mammal or big-game species are anticipated. These animals have become habituated to the consistent and frequent use of farm machinery, oil production and gravel pit activity as well as human presence in the area. The activity associated with building this line will indeed have some annoyances to the wildlife, but the overall impact is minimal to these animals. Further information on the habitat priority areas within the area of this project is available in Appendix A.

8.2. Small Mammals

The black-tailed prairie dog is of management concern at the State level. Three (3) prairie dog colonies were documented and mapped within the survey area during the 2017 survey. Various other small mammals call this area home but have habituated to the use of farm machinery, oil production activity as well as human presence in the area. Further information on the habitat priority areas within the area of this project is available in Appendix A.

8.3. Upland Birds

There are no sage-grouse leks located within 4.0 miles of the project ROW. The nearest known lek is located approximately 3.5 miles north of this project site. The Williams lek was documented in 2003 and has been checked at least once a year since

2003. No activity has been documented at this site since 2003. Neither the proposed or retired power line ROWs overlap the core population area or connectivity corridor. No observation of grouse or their sign were documented with the survey area during the 2017 spring survey. For more information on the greater sage-grouse the Clearance Surveys for Threatened & Endangered Species and Other Wildlife Species of Concern Report is attached as Appendix A.

8.4. Waterfowl

No impacts to waterfowl are anticipated due to the fact that most of these wetland habitats are intermittent in nature.

8.5. Non-game, Rare, Protected or Endangered Species

As stated in section 8.2., three (3) prairie dog colonies were documented within the survey area during the 2017 spring survey. The rebuilt power line will not be route through any of these colonies. If activities overlap sensitive wildlife timelines, PRECorp will ensure that additional wildlife clearance surveys are conducted prior to construction activities within species specific buffer areas. The timing and location of project activities will be scheduled centered on those survey results. No known bald eagle nests or winter roost sites exist within the project area. Six (6) raptor nests were documented within the project area during the 2017 spring surveys. PRECorp is committed to honoring timing stipulations and additional surveys for eagles and raptors will completed prior to construction as well as during construction as warranted. The new line being constructed is designed to meet or exceed current guidelines and recommendations outlined by the Avian Power Line Interaction Committee (APLIC, 2006). During the maintenance of this line, linemen are trained to report any wildlife impacts. If any negative wildlife impacts are anticipated, activity will halt immediately until the next course of action is determined and notification made to the WGFD. For more information on Non-game, Rare, Protected or Endangered Species the Clearance Surveys for Threatened & Endangered Species and Other Wildlife Species of Concern Report is attached as Appendix A.

9.0 ALTERNATIVES TO THE PROPOSED PROJECT

One alternative would be to modify the Baker Substation to address clearance issues. This would be a significant investment for the 500 KVA load being served by the Baker Substation with no system benefit for balancing and/or shifting loads on PRECorp's system.

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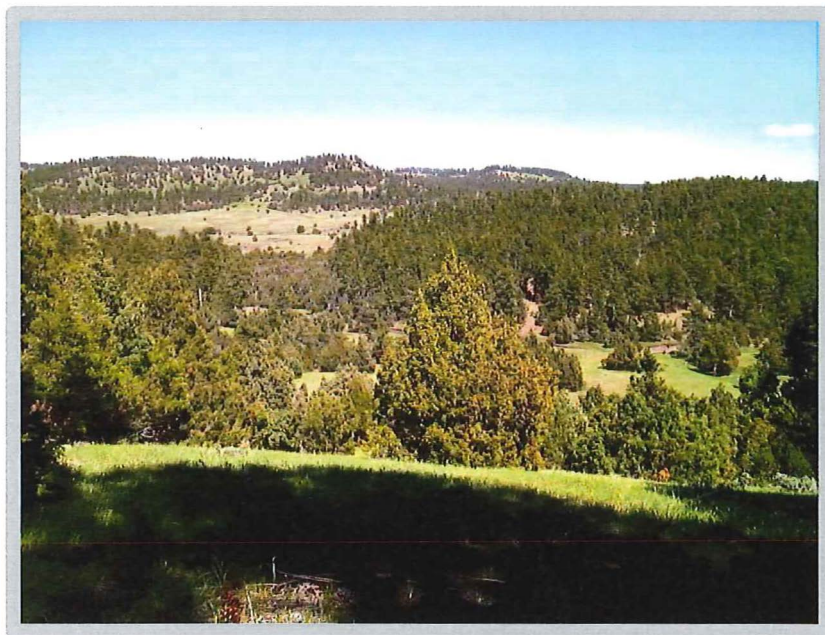
APPENDIX

Appendix A

POWDER RIVER ENERGY CORPORATION

**HABITAT ASSESSMENT AND WILDLIFE SURVEYS FOR
THREATENED & ENDANGERED SPECIES, AND OTHER SPECIES OF
CONCERN**

Little Missouri to Butte 69 kV Line Rebuild
(CWP 2009-2012 TO# 2017-ICF-001)



Submitted to: Powder River Energy Corporation, P.O. Box 930, Sundance, WY 82729

Prepared by: ICF, 405 West Boxelder Road, Suite A-5, Gillette, WY 82718

May 2017

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BACKGROUND AND INTRODUCTION

Powder River Energy Corporation (PRECorp) intends to rebuild approximately 7.3 miles of existing power line with a mono-pole configuration. Approximately 3.0 miles of the total 7.3 miles will have underbuilt distribution power line. The rebuild power line will be constructed to current internal standards and guidelines.

The proposed project is referred to as the Little Missouri to Butte 69 kV Line Rebuild (hereafter referred to as Little Missouri to Butte; Figure 1) and is located approximately 9.8 miles west of Hulett, Wyoming. Construction will occur on private and State lands in Crook County; and is anticipated to begin in July 2017 and be completed by September 2017.

Federal funds will be used to finance this project and, as such, the U.S. Fish and Wildlife Service (USFWS) requires surveys for federal species of concern and their habitats prior to initiating construction activities. Such species of concern include: those protected under the Endangered Species Act (ESA) or listed as candidate, proposed, or petitioned for listing under the ESA; raptors and other avian species listed on the 2008 USFWS Birds of Conservation Concern list; and species listed by the Wyoming Game and Fish Department (WGFD) as Species of Greatest Conservation Need (SGCN). In keeping with its commitment to responsible project development, PRECorp will use the information presented in this report to minimize impacts to wildlife by adhering to federal and state agencies' spatial and timing limitation stipulations for identified wildlife features.

Information and data available from the WGFD, Bureau of Land Management (BLM) – Newcastle Field Office (NFO), Wyoming Interagency Spatial Database and Online Management System (WISDOM), and the State of Wyoming's Natural Resource and Energy Explorer (NREX) were compiled and used to supplement clearance surveys for wildlife species of concern and their habitats conducted by ICF biologists. General habitat assessments for threatened and endangered (T&E) plant species were also performed during the clearance surveys. Survey results and compiled information for this project are summarized and included in this report.

PROJECT DESCRIPTION

A detailed description of the Little Missouri to Butte project was provided in PRECorp's full application package submitted for this project. The project will consist of rebuilding 7.3 miles of existing power line with a mono-pole configuration. Approximately 3.0 miles of the rebuilt line will have underbuilt distribution power line. There will be no net increase of power line mileage in the area.

Construction is scheduled to begin in July 2017 and conclude by September 2017. All construction activities will occur primarily on private and State surface in grassland, shrubland, and woodland habitats as well as rural residential areas. The construction design will consist of wooden poles in a standard mono-pole configuration (i.e., no crossarms). Pole and hardware designs will meet or exceed current guidelines and recommendations outlined by the Avian Power Line Interaction Committee (APLIC, 2006, 2012). Those standards are preferred by the USFWS to minimize the potential for avian electrocutions and collisions.

The construction right-of-way (ROW) will be approximately 30 feet wide (15 feet on either side of the centerline), and the construction process will consist of a series of brief (approximately 6-8 hours, total) disturbances at each pole location as crews drive along the ROW corridor to distribute materials, frame structures, set poles, and string the new line, as well as remove the existing power line and associated materials. Vegetation will typically be impacted in a 3-foot diameter area at each new pole site during the boring process; most of that disturbance will consist of dirt overlay from digging rather than actual vegetation removal.

Equipment and vehicular access to the project area will be confined to existing roads and the project's ROW corridors. Where existing roads do not provide adequate access, vehicles will travel along the most direct route to minimize surface disturbance. No new road construction will occur. Furthermore, PRECorp does not permit project related vehicles or equipment operations on water-saturated ground in the ROW for safety purposes and to minimize the creation of rutted roads.

Short-term surface disturbance will affect a maximum of 26.5 acres in the ROW and long-term surface disturbance will affect 13.3 acres (Table 1). Short-term surface disturbance will consist primarily of overland travel along existing roads and within the project ROW. Long-term disturbance will be limited to the areas affected by each new borehole and those associated with occasional overland travel to maintain and service the line.

SURVEY AREA

Description

The Little Missouri to Butte project spans Sections 16 through 18, Township (T) 54 North (N) and Range (R) 66 West (W), and Sections 11 and 13 through 16, T54N:R67W. The proposed project is located in Crook County approximately 9.8 miles west of Hulett, Wyoming. The wildlife survey area encompasses approximately 18.4 square miles and includes all project ROWs and surrounding 1.0-mile perimeter (hereafter, survey area; Figure 1).

Table 1. Calculation of disturbance associated with the proposed Little Missouri to Butte project.

Proposed Action	Total Length (feet)	ROW Width (feet)	Potential Surface Disturbance within ROW Corridor (acres)	
			Short-term ¹	Long-term ²
Rebuild of an existing overhead power line	38,480	30	26.5	13.3

¹ Short-term surface disturbance within the ROW will be caused primarily by overland vehicular traffic during transport of materials and line construction, and will be limited to the ROW width (30 feet) multiplied by the length of the line (also represented in feet) and then converted to acres (divided by a factor of 43,560 square feet per acre).

² Long-term surface disturbance associated with the new power line will consist of the bore hole for each power pole plus the disturbance associated with overland maintenance travel in the ROW. The surface disturbance for each power pole is the area (7 square feet) removed for each new bore hole multiplied by a factor of 20 (the number of poles needed for each mile of new line); that factor is multiplied by the length of the new line (in miles) and then converted to acres (divided by a factor of 43,560 square feet per acre). The surface disturbance associated with overland maintenance travel is the wheelbase (15 feet) of the vehicles multiplied by the length of the ROW (feet) and converted to acres (divided by a factor of 43,560 square feet per acre).

Due to legislation passed in early 2015, documented permission must be obtained from private landowners prior to conducting any biological surveys (*Trespassing to collect data*, 2015). Access was granted to approximately 94% of the survey area and these areas were covered during the 2017 clearance surveys. Permission was denied by landowners owning approximately 6% of the survey area; and therefore, no information was gathered in these areas (Figure 1). However, those areas were surveyed to the extent possible from neighboring properties and public roads.

Based on historical data, the regional climate is semi-arid, averaging approximately 16.8 inches of precipitation annually, with the highest monthly precipitation occurring between May and July. The 90-year mean minimum and maximum temperatures in January and July were 8.0° and 86.0° F, respectively (Western Regional Climate Center, n.d.).

Topography within the survey area was primarily comprised of gently rolling hills in the western portion which were associated with the Little Missouri River floodplain. A ridgeline present in the central portion of the survey area was characterized by steeper terrain and deeply cut draws. The eastern portion of the survey area was characterized by steep hills. Elevations in the area ranged from 3,900 feet to 4,560 feet above sea level. The lowest elevations were located in the western portion of the survey area and associated with the Little Missouri River flood plain. The highest elevations were found in the eastern portion of the survey area.

Habitats

The Little Missouri to Butte survey area is comprised of mixed habitats with approximately 40% grassland, 29% shrubland, 26% woodland, 4% riparian, and 1% development. Soils within the survey area were predominately clays.

Grassland habitats were found throughout the survey area, but were more common in the lower elevations in the western portion of the survey area. Several haylands used for agricultural purposes also occurred in these areas. Open meadows were common in woodland habitats and were found on flat hilltops and gentler terrain on ridgetops. Due to survey timing, identification of grass species in this habitat type was difficult, but noted species included: blue grama (*Bouteloua gracilis*) and little bluestem (*Schizachyrium scoparium*), which occurred on slopes throughout the survey area. Other species known to occur in the area include: western wheatgrass (*Pascopyrum smithii*), sideoats grama (*Bouteloua curtipendula*), and sedges (*Carex filifolia*). Herbaceous cover was moderate to dense throughout the grasslands, with little exposed bare ground. Grass heights ranged from 2 to 8 inches. Shorter grasses were noted in the areas where grazing occurred and in the few haylands and prairie dog colonies in the area.

Shrublands were interspersed through the survey area and occurred intermixed with grassland and woodland habitats. Shrublands were predominately comprised of big sagebrush (*Artemisia tridentata*). Shrublands were moderately dense throughout the area with moderate to dense herbaceous understory with almost no bare ground noted. Shrub heights ranged from 6 inches in higher elevations and to 24 inches in lower elevations.

Woodlands were located in the central and eastern portions of the survey area and were associated with the higher elevations and steeper terrain. Woodlands were comprised of bur oak (*Quercus macrocarpa*), ponderosa pine (*Pinus ponderosa*), and mountain juniper (*Juniperus scopulorum*). Ponderosa pine dominated slopes and ridgelines and scattered mountain juniper was noted scattered throughout and along woodland edges. Bur oak was found on gentler slopes and in areas where ponderosa pine stands were less dense. Tree heights in these areas varied. Ponderosa pines averaged 30 feet and were generally young stands with very few mature trees or standing snags. Juniper heights averaged 12 feet and bur oak averaged 10 feet in height. The understory within woodlands was mostly comprised of moderately dense grasses and forbs, and leaf litter predominately occurred in bur oak stands. Due to survey timing identification of grass species in these areas was not possible.

Riparian habitat occurred along the Little Missouri River and a few other tributaries in the area. Cottonwoods (*Populus* spp.) were the only noted species in this habitat type, but American elm (*Ulmus americana*) and willow (*Salix* spp.) are also known to occur. Flowing water only occurred in the Little Missouri River. Standing water was noted throughout the survey area in stock ponds from dammed draws and standing pools of water from spring precipitation. Wetland vegetation was noted near stock ponds and included cattails (*Typha* spp.) and prairie cordgrass (*Spartina pectinata*).

Developed areas included rural residential areas and industry development. Conventional oil development was noted in the western portions of the survey area and two electrical substations were found in the eastern and western ends of the survey area. Additional development in the survey area included one county road, several private access roads, and an old bentonite mine located in the south central portion of the survey area. Existing overhead power lines that service the area were also present.

Management Areas

Designated areas of influence are defined by the USFWS as areas where potential projects could have direct and indirect effects to species listed under the ESA or in the listing process and their habitats (USFWS, 2015). The entire survey area is encompassed by the northern long-eared bat (*Myotis septentrionalis*) area of influence (USFWS, 2014).

Designated crucial priority areas and enhancement priority areas are habitats in which WGFD concentrates habitat protection and management activities (WGFD, 2015). Habitats found along the Little Missouri River are designated as an aquatic crucial habitat area (Office of Governor Matthew H. Mead & Wyoming Geographic Information Science Center, 2016). These riparian habitats contain features with significant biological and ecological value. Habitat communities within this crucial priority area provide food and shelter for a variety of species as well as support fish migrations (WGFD, 2014). Additionally, several areas scattered throughout the survey area are designated as freshwater emergent wetlands or freshwater ponds in the National Wetlands Inventory (USFWS, n.d.-c). Most of these areas are associated with stock ponds that occur in the area.

Current Land Use

Current land uses within the survey area include residential areas, livestock grazing, hay production, and industry development. Industry development includes oil drilling, electrical substations, and a bentonite mine. One county and several private access roads, as well as existing overhead powerlines, also transect the survey area.

METHODS

Prior to initiating the clearance surveys, maps were generated and known wildlife information were compiled for the survey area. PRECorp provided ICF with a map and associated GIS files of the project footprint and 1.0-mile wildlife survey area. ICF obtained the Crook County USFWS Natural Resources of Concern list, which includes listed T&E species and candidate species for ESA listing, as well as the 2008 USFWS Birds of Conservation Concern list for Region 17-Prairies and Badlands (USFWS, 2017). ICF also reviewed BLM-NFO, WGFD, and NREX records to compile information regarding known and potential wildlife occurrences in the area.

ICF biologists (see Qualifications) conducted the habitat assessment and wildlife clearance surveys on April 24 through May 14, 2017. ICF characterized all habitat types present in the survey area and documented all species of concern and specific wildlife features, including raptor nests, black-tailed prairie dog (*Cynomys ludovicianus*) colonies, and potential sites for bald eagle (*Haliaeetus leucocephalus*) winter roosts. All wildlife features and species observed during the clearance surveys were recorded, including notes on species, number of individuals, habitat, activity, and location (Universal Transverse Mercator [UTM] North American Datum 1983, Zone 13N).

RESULTS

Federally Listed Species

The Ute ladies'-tresses (*Spiranthes diluvialis*) (threatened) and northern long-eared bat (threatened) are included on the current federal list of T&E, candidate, proposed, and petitioned species in Crook County, Wyoming (USFWS, 2017). No critical habitats for federally listed species have been designated by the USFWS in the wildlife survey area (USFWS, 2017).

No populations of Ute ladies'-tresses are known to exist within the Little Missouri to Butte survey area or elsewhere in Crook County (Fertig & Heidel, 2007). The closest known population is located along Wind Creek in Converse County, Wyoming, approximately 95 miles southwest of the project site. Riparian habitats within the survey area do not provide suitable habitat for the Ute ladies'-tresses. Persistent water was present within the survey area within the Little Missouri River and in several stock tanks scattered throughout the survey area; however, primarily clay soil conditions make these areas unsuitable to sustain Ute Ladies'-tresses.

The northern long-eared bat is a year-round resident in northeastern Wyoming, possibly occurring in Campbell, Crook, and Weston counties (Keinath, Andersen, & Beauvais, 2010; WGFD, 2010). However, the only known occurrences have been documented in dense woodland habitats of

the Bear Lodge Mountains in Crook County near Sundance, Wyoming (ICF International, 2013; WGFD, 2010). The Little Missouri to Butte project does occur in the suspected range for this species (Keinath et al., 2010).

The northern long-eared bat primarily inhabits wooded riparian areas and conifer and deciduous woodlands at higher elevations. Typical roost sites include crevices and cavities of trees and under loose bark, and hibernacula include caves and abandoned mine sites. The northern long-eared bat utilizes diverse habitats for foraging including riparian woodlands and vegetation found on hillsides and ridge tops (Schmidt, 2003). There is no suitable roosting habitat for this species present in the survey area. The woodlands in the survey area are comprised of large stands of young ponderosa pines intermixed with bur oak and juniper. Suitable roosting habitat such as large snags, exposed rock crevices, rocky ridgelines, or caves was lacking in the survey area. However, wooded draws or areas along the Little Missouri River may be suitable for foraging activities.

Raptors

All raptor species are protected under the Migratory Bird Treaty Act (MBTA); eagles receive additional protection under the Bald and Golden Eagle Protection Act (USFWS, n.d.-a, n.d.-b). These laws afford special protections for raptors by safeguarding individuals as well as nests, eggs, and young. During the 2017 clearance surveys, ICF biologists observed four raptor species within the wildlife survey area. Several American kestrels (*Falco sparverius*) were noted over several days flying and hunting in riparian and grassland habitats in the western portions of the survey area. One northern harrier (*Circus cyaneus*) was seen flying in Section 10, T54N:R67W. Red-tailed hawks (*Buteo jamaicensis*) were common and noted throughout the survey area in shrubland, riparian, and woodland habitats. Golden eagles (*Aquila chrysaetos*) were also present within the survey area and most sightings occurred near an active nest site located in Section 15, T54N:R67W.

One raptor nest, ICF Nest 22655, had previously been identified in the survey area (BLM, 2014; Office of Governor Matthew H. Mead & Wyoming Geographic Information Science Center, 2016); and five new nests were documented during the 2017 clearance surveys (Table 2 and Figure 1). Two nests were active and four were inactive. Due to the active status of these two nests, the reported UTM locations are approximations and were generated based on field notes and aerial photos. It was not possible to identify the species of inactive nests within the survey area; however, where possible nests were assigned a species based on nest placement, nest structure, and nest material typical of the indicated species.

Two nests were active during the 2017 clearance surveys. ICF Nest 21055 was active with a golden eagle pair. The pair was documented in the nesting area throughout the 2017 clearance surveys and on April 28 at least one young nestling was viewed in the nest. ICF Nest 21057 was active with a red-tailed hawk pair. On April 27, a pair was seen tending the nest site. Additionally, the nest condition ICF Nest 22655 was not obtained in order to reduce disturbance of the nearby active ICF Nest 21057.

No raptor nests will be physically disturbed by the Little Missouri to Butte project, but two nests could be affected by construction activities if construction occurs during the USFWS seasonal buffers for raptor species in Wyoming (USFWS, 2009). The USFWS designates a 0.5-mile spatial buffer for active golden eagle nests, and disturbance associated with the project could occur within this buffer for both ICF Nests 21055 (active in 2017) and 21056 (inactive in 2017). However, the new power line will be built in the existing powerline ROW and therefore no new permanent disturbance will be created. Surface disturbance from the proposed project will not occur within the USFWS-recommended spatial buffers for any of the remaining raptor nests (USFWS, 2009). To minimize potential impacts to nesting raptor species, PRECorp will authorize raptor nest checks to be conducted during the raptor breeding season prior to construction activities and will modify construction schedules as needed to avoid disturbing active raptor nests within the USFWS species-specific spatial and seasonal buffers.

Table 2. Raptor nest locations, current status, and condition within the Little Missouri to Butte survey area in April-May 2017.

ICF Nest ID ¹	Species ²	Substrate	UTM X	UTM Y	¼ ¼ Section, T(N):R(W)	Status	Condition ³	Distance ⁴
			UTM NAD83, Zone 13N					
21055	GOEA	Cottonwood, live	508357^	4945820	SE NW 15, 54:67	Active	Excellent	0.02 (120 feet)
21056	GOEA	Cottonwood, live	508377	4945837	SE NW 15, 54:67	Inactive	Good	0.03 (173 feet)
21057	RTHA	Cottonwood, live	505146 ^	4944392	SE NW 20, 54:67	Active	Excellent	1.0
21058	BUOW	Burrow	507791	4944424	SW NW 22, 54: 67	Inactive	Unknown	0.83
21856	GHOW	Cottonwood, live	508673	4946407	NW NE 15, 54:67	Inactive	Poor	0.38
22655	UNK	Cottonwood, live	505388	4944229	SW NE 20, 54:67	Inactive	Unknown	1.0

¹ Nests are assigned a unique number to assist tracking in the ICF database

² BUOW = burrowing owl, GHOW = great horned owl, GOEA = golden eagle, RTHA = red-tailed hawk, UNK = unknown raptor species

³ Excellent = nest bowl in intact and in usable condition, Good = nest is in need of only minor attention in order for it to be used, Poor = nest is dilapidated and in need of significant repair to be used, Unknown = nest condition was not determined because the nest cannot be viewed because of substrate (i.e. within a burrow or cavity) or was in close proximity to an active nest

⁴ Distance from the ROW in miles

[^] UTM's are an approximation based on field notes and aerial photos

Bald and Golden Eagles

Nesting and roosting habitat is present within the survey area for eagles. Several large mature cottonwood trees occur as lone individuals or in small groups along the Little Missouri River which are typical nesting and roosting substrates for bald eagles. Potential foraging areas for bald eagles also exist within the survey area as the Little Missouri River is a fish bearing stream and the presence of black-tailed prairie dog colonies and sheep ranching provide adequate foraging habitat throughout the year. Adequate nesting and roosting habitat is also present in the mature cottonwoods for golden eagles. Additionally, golden eagles primarily forage on small mammals and adequate year-round foraging habitat is found throughout the survey. No known eagle winter roosting sites occur within the survey area. One known golden eagle nest and one unknown eagle nest occurs within the survey area. Due to the characteristics of the unknown eagle nest and its close proximity to the active golden eagle nest it is assumed it is a second golden eagle nest site.

USFWS Birds of Conservation Concern

The USFWS maintains a Birds of Conservation Concern List that identifies species, subspecies, and populations of all migratory nongame birds that without additional conservation actions are likely to become candidates for listing under the ESA. The USFWS has also delineated Birds of Conservation Regions across North America, with each representing an ecologically distinct region with similar bird communities, habitats, and resource management issues (USFWS, 2008). The Little Missouri to Butte project is within Region 17- Prairies and Badlands, which includes southeast Montana, southwest North Dakota, northwest South Dakota, and northeast Wyoming (USFWS, 2008). There are 28 bird species listed for Region 17, and two avian species included on this list were documented within the survey area during the 2017 clearance surveys. As previously stated in the *Raptors* section, golden eagles were documented within the survey area in 2017. Additionally, one upland sandpiper (*Bartramia longicauda*) was documented in Section 16, T54N:R66W on April 27.

WGFD Species of Greatest Conservation Need

The WGFD list of SGCN includes 131 vertebrate species across 11 terrestrial habitats (WGFD, 2010); no fisheries will be affected by the proposed project. Three of the 131 WGFD species of concern have historically occurred in the survey area, including ferruginous hawk (*Buteo regalis*), greater sage-grouse (*Centrocercus urophasianus*), and golden eagle (Wyoming Natural Diversity Database, 2012). During the 2017 clearance surveys, ICF biologists documented four WGFD species of concern including: American kestrel, golden eagle, upland sandpiper, and northern leopard frog (*Lithobates pipiens*).

Greater Sage-grouse

Due to the level of concern and management status of greater sage-grouse and its habitats across federal and state agencies, the greater sage-grouse is designated as a Tier II SGCN by the WGFD. As such, the species is managed by the WGFD under special rules and regulations as outlined in Executive Order 2015-4 (2015).

Impacts to greater sage-grouse were assessed using a 4.0-mile buffer area around leks, as approximately 80% of females stay within this area to breed, nest, and raise young (Executive Order No. 2015-4, 2015). No occupied leks exist within 4.0 miles of the Little Missouri to Butte project, but one lek with an undetermined status is located 3.5 miles north of the project site in Section 28, T55N:R67W (WGFD, 2016). The Williams lek was discovered in 2003 with a peak male count of 9. The lek has been checked at least once in every year since 2003 and no activity has been documented at this site (WGFD, 2016). No observations of greater sage-grouse were documented within the survey area in 2017.

Shrubland habitats within the western portion of the survey area have some suitability to support greater sage-grouse; however the close proximity to woodlands and treed areas with high raptor activity makes these areas less suitable for general greater sage-grouse use. Additionally, the survey area does not occur in designated Core or Connectivity Areas (Executive Order No. 2015-4, 2015).

Black-tailed Prairie Dog

The black-tailed prairie dog is a species of interest due to dramatic population fluctuations resulting from man-made and natural forces, and because their colonies provide habitat and foraging resources for numerous species, including raptors and other migratory birds included on the various conservation lists mentioned above. Three prairie dog colonies were documented and mapped during

the 2017 clearance surveys (Figure 1). The largest colony is mostly located in Section 22, T54N:R67W and spans approximately 136 acres. The second colony is located in Section 17, T54N:R67W and covers approximately 33 acres. The third colony is located in Section 18, T54N:R66W and is approximately 17 acres in size.

CONCLUSION

The Little Missouri to Butte project will have little to no impact on wildlife populations within the survey area. Given the rebuild project will occur entirely within the existing ROW, the construction design, and the proposed project's location; species composition and overall diversity is not expected to change as a result of this project. Several factors combine to either preclude or minimize potential direct and indirect impacts of the proposed Little Missouri to Butte project on federally listed species or other vertebrate species of concern. Those factors include:

- The limited nature of project related disturbance (26.5 short term acres; 13.3 long term acres);
- The consolidation of the rebuild power line in existing disturbance and corridors (i.e., residential development and roads), minimizing overall surface and view-shed disturbance in the area and a no net increase of power line mileage in the area;
- The absence of current T&E species in the project area;
- The location of the proposed project outside designated USFWS critical habitats for current T&E species;
- The lack of quality wetland habitat for Ute ladies'-tresses that intersects the proposed project ROW;
- The rebuild will occur in existing corridors and therefore no tree removal will occur;
- The proposed power line will be constructed using designs that meet or exceed current APLIC recommendations (APLIC, 2006, 2012), thus minimizing any risks of avian electrocutions or collisions on those structures;
- The construction schedule (July 1 to September 30) will occur outside the majority of the raptor nesting season (USFWS, 2009);
- The commitment by PRECorp to honor federal and state timing and spatial stipulations, as well as to conduct follow-up surveys as needed and adjust the timing and location of project activities based on those surveys.

Given the nature of the Little Missouri to Butte project and its location within an area comprised of existing infrastructure and residential development, the area's greatest value to wildlife

is predominantly for the most common wildlife species. As noted, if construction activities are scheduled to overlap sensitive wildlife timelines, PRECorp will ensure that additional wildlife surveys are conducted prior to initiating construction within wildlife-specific spatial buffer areas and the timing and location of project activities will be scheduled based on those survey results.

QUALIFICATIONS

The clearance surveys were conducted by Stephanie Kane and David Waller. This report was written and background information was compiled by Amanda Nicodemus.

Stephanie Kane is a project manager and wildlife biologist with ICF and has worked with ICF since 2013. She earned an M.S. degree in Biology from Ft. Hayes State University (2011) and a B.S. degree in Zoology from Colorado State University (2005). She has conducted biological surveys for universities in Oregon, Mississippi, and Kansas, and started working as a consultant for energy industries in Wyoming and Montana in 2013. Her experience includes: productivity and occupation surveys for northern spotted owl (*Strix occidentalis caurina*); surveys and habitat assessments for the black rail (*Laterallus jamaicensis*) and other wetland birds; mist-netting passerine birds and assessing associated habitats; wild bird rehabilitation; volunteer work with big game and chronic wasting disease; and vegetative surveys. In addition, she has extensive experience in environmental education, including time as a guide in Grand Teton and Yellowstone National Parks.

David Waller is an on-call wildlife biologist with ICF and has worked with ICF since 2012. He earned a BS degree in Wildlife Science from Utah State University (1973). He worked as a natural resource professional for over 40 years with the U. S. Department of the Interior (USDI) BLM, USDI Bureau of Reclamation, and U. S. Department of Agriculture - Forest Service. His professional experience includes a wildlife biologist position for the BLM field office in Price, Utah with extensive experience in Utah, Nevada, Montana, North Dakota, and Idaho. His training includes: wetland delineation, riparian inventory, timber inventory, bird point counts, raptor identification, sage grouse monitoring, desert tortoise surveying, and endangered species management. He has been involved with land use planning regarding livestock grazing, oil and gas drilling, coal mining, outdoor recreation, power and pipeline rights-of-ways, and wildlife habitat management. In addition, he has written resource management plans, environmental assessments, biological assessments, and management plans for mountain plovers.

Amanda Nicodemus is a project manager and wildlife biologist with ICF and has worked in the Gillette office since 2011. She earned an M.S. degree in Biology from Villanova University (2009) and a B.S. degree in Biology from Delta State University (2003). Amanda is responsible for

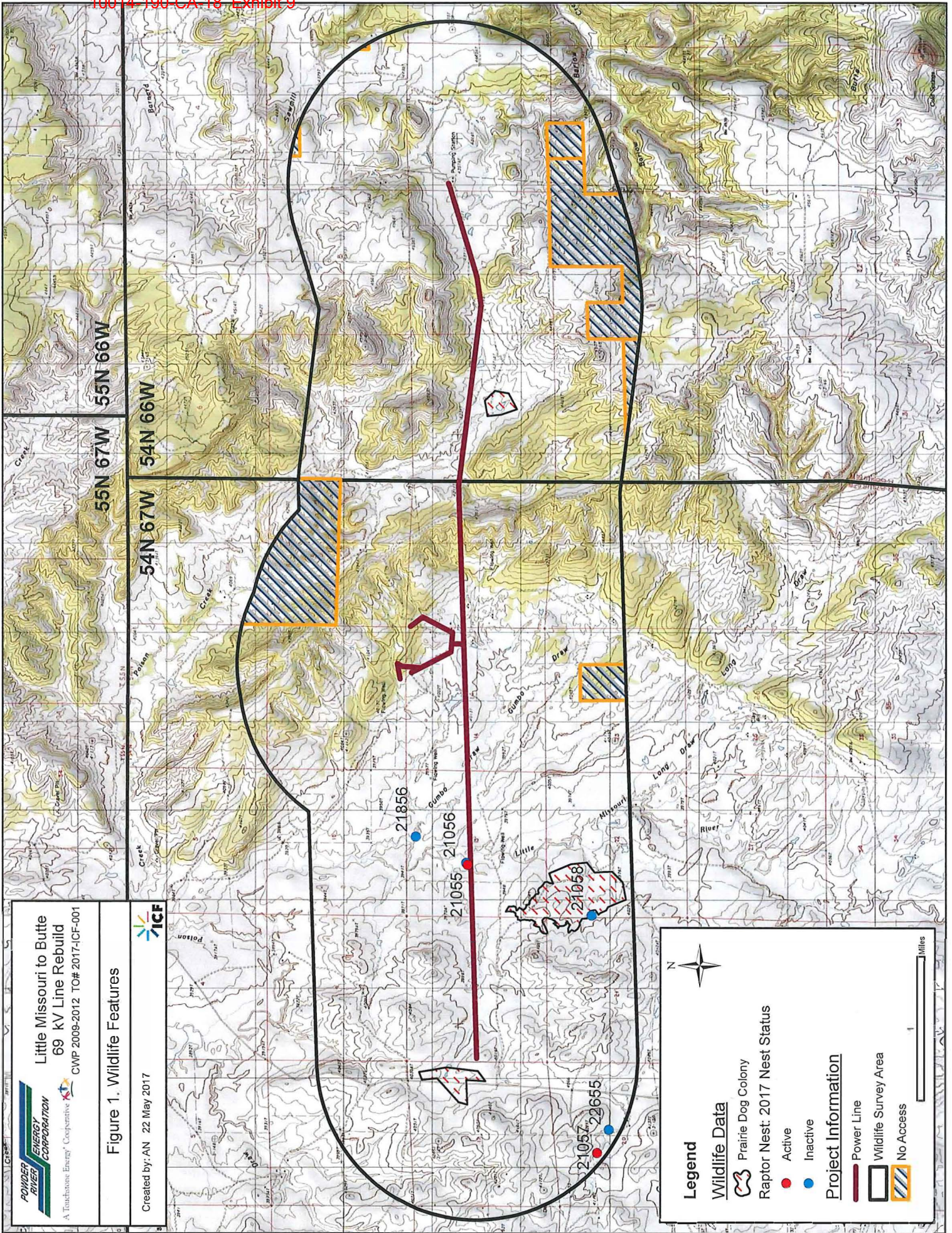
designing, planning, and conducting both aerial- and ground-based biological field surveys; designing and implementing GIS based databases; and writing technical reports, biological assessments/biological evaluations, and third-party NEPA documents. She currently manages projects for clients in energy industries in northeastern Wyoming and participates as the wildlife lead on several NEPA projects in Montana, Wyoming, and Texas. Her experience includes behavioral and genetic research on chickadee (*Poecile* spp.) hybridization in Pennsylvania, analysis of foraging behavior of the Golden-cheeked warbler (*Dendroica chrysoparia*) in central Texas, and behavioral studies of the yellow-bellied marmot (*Marmota flaviventris*) in central Colorado. In addition, she has experience in mist netting and banding T&E avian species, vegetation monitoring, prescribed burning, and small mammal surveys.

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Figure 1. Wildlife Features



Landowner Contact List

Little Missouri to Butte 69 kV Line Rebuild (PRECorp WO# 160228)

Becky Ann
Christianson
PO Box 151
Spearfish, SD 57783-0151

Dickie & Evva Conzelman
895 Barlow Canyon Road
Hulett, Wyoming 82720

Linda N McGuire, et al
1260 Birth
Douglas, Wyoming 82633

JLL Properties LLC
11064 East Natal Ave
Mesa, Ariz. 85209

Mildred Tope, Robert Tope & Jay Tope
306 Osloond Road
Belle Fourche, SD 57717-8207

William & Darla West
2040 New Haven Road
Oshoto, Wyoming 82724

Thomas and Donna Wolf
279 New Haven Road
Hulett, Wyoming 82720

Office of State Lands and Investments
122 West 25th Street, 3W
Herschler Building
Cheyenne, Wyoming 82002-0600



WYOMING GAME AND FISH DEPARTMENT

5400 Bishop Blvd. Cheyenne, WY 82006

Phone: (307) 777-4600 Fax: (307) 777-4699

wgfd.wyo.gov

GOVERNOR
MATTHEW H. MEAD

DIRECTOR
SCOTT TALBOTT

COMMISSIONERS
KEITH CULVER – President
MARK ANSELM – Vice President
GAY LYNN BYRD
PATRICK CRANK
PETER J. DUBE
DAVID RAE
MIKE SCHMID

June 22, 2017

WER 13959.00

PRECorp

Missouri to Butte 69 kV Line Rebuild

(WO No. 160228)

Crook County

Darice Hodge

Environmental & Land Specialist

Powder River Energy Corporation

221 Main Street

PO Box 930

Sundance, WY 82729-0930

Dear Ms. Hodge,

The staff of the Wyoming Game and Fish Department (Department) has reviewed the proposed Missouri to Butte 69 kV Line Rebuild in Crook County. We offer the following comments for your consideration.

Terrestrial Considerations:

We have no terrestrial wildlife concerns regarding the proposed project. We recommend monitoring the project area post-construction and treating any invasive and noxious weeds that may establish due to ground disturbance associated with project construction. If not already a preventative best management practice, PRECorp may consider cleaning equipment before and after construction to limit the spread of invasive and noxious weeds on the project site.

Aquatic Considerations:

To minimize impacts to the aquatic resources of nearby waterways, we recommend the following:

- Accepted best management practices be implemented to ensure that all sediments and other pollutants are contained within the boundaries of the work area. Disturbed areas that are contributing sediment to surface waters as a result of project activities should be promptly re-vegetated to maintain water quality.

Darice Hodge

June 22, 2017

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- Equipment should be serviced and fueled away from streams and riparian areas. Equipment staging areas should be at least 500 feet from riparian areas.
- Preventing the spread of aquatic invasive species (AIS) is a priority for the State of Wyoming, and in many cases, the intentional or unintentional spread of organisms from one body of water to another would be considered a violation of State statute and Wyoming Game and Fish Commission Regulation. To prevent the spread of AIS, the following is required:
 1. If equipment has been used in a high risk infested water [a water known to contain Dreissenid mussels (zebra/quagga mussels)], the equipment must be inspected by an authorized aquatic invasive species inspector recognized by the state of Wyoming prior to its use in any Wyoming water during all times of year.
 2. Any equipment entering the state by land from March through November (regardless of where it was last used), must be inspected by an authorized aquatic invasive species inspector prior to its use in any Wyoming water.
 3. If aquatic invasive species are found, the equipment will need to be decontaminated by an authorized aquatic invasive species decontaminator.
 4. Any time equipment is moved from one 4th level (8-digit Hydrological Unit Code) watershed to another within Wyoming, the following guidelines are recommended:
 DRAIN: Drain all water from watercraft, gear, equipment, and tanks. Leave wet compartments open to dry.
 CLEAN: Clean all plants, mud, and debris from vehicle, tanks, watercraft, and equipment.
 DRY: Dry everything thoroughly. In Wyoming, we recommend drying for 5 days in summer (June - August); 18 days in Spring (March - May) and Fall (September - November); or 3 days in Winter (December - February) when temperatures are at or below freezing.
 5. Any equipment used in a Wyoming water that contains AIS, must be inspected before use in another water. Species currently found in Wyoming waters include New Zealand mudsnail, Asian clam, and curly pondweed. Information on currently affected waters can be found at:
http://wgfd.wyo.gov/web2011/Departments/Fishing/pdfs/AIS_WYWATER_MONITOR130005236.pdf.

*A list of high risk infested waters and locations in Wyoming to obtain an AIS inspection can be found at: wgfd.wyo.gov/AIS.

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June 22, 2017
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Thank you for the opportunity to comment. If you have any questions or concerns please contact Erika Peckham, Gillette Wildlife Biologist, at (307) 670-8164, or Rick Huber, Staff Aquatic Biologist, at (307) 777-4558.

Sincerely,



Scott G. Smith
Deputy Director

SS/aw

cc: USFWS
Erika Peckham, WGFD
Dan Thiele, WGFD
Paul Mavrakis, WGFD
Chris Wichmann, Wyoming Department of Agriculture