**Final
Environmental Assessment**

Wolf Point Substation

Roosevelt County, Montana

**U.S. Department of Energy
Western Area Power Administration
Billings Area Office
Billings, Montana**

DOE/EA 0477.

May 1991

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**FINAL
ENVIRONMENTAL ASSESSMENT**

**WOLF POINT SUBSTATION
ROOSEVELT COUNTY, MONTANA**

**U.S. DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION
BILLINGS AREA OFFICE
BILLINGS, MONTANA**

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EXECUTIVE SUMMARY

PURPOSE AND NEED

The Western Area Power Administration (Western) is proposing to construct a new 115-kilovolt (kV) substation called Wolf Point Substation near Wolf Point, Montana. The cost of the proposed project is \$5,958,000, with the award of the project scheduled for August 1991 and completion by December 1992. This action is based on the following operation and reliability issues: (1) faults involving 115-kV lines and transformer loads terminating at Wolf Point can be isolated; (2) maintenance of relays, control, and circuit breakers will be possible without removing lines or load from service; (3) control and switching of facilities can be accomplished from the dispatch office without help of a Fort Peck switchman; and (4) interruption of service to load centers can be minimized during facility outages caused by adverse weather and quality of service will be improved.

The new substation will also provide for the orderly expansion of the Wolf Point Substation to serve future potential area load increases. The load in the area is presently served by Northern, Valley, and McCone Electric Cooperatives, which are Western customers. Basin Electric Cooperative (another Western customer) and the Montana-Dakota Utility Company (a privately owned utility) also have load in the area. Load growth may occur in areas served by several of these suppliers. Loading changes as far away as Miles City or Williston may affect how much power flows through Wolf Point Substation.

The environmental review of the proposed project took into account the removal of the old Wolf Point Substation, rerouting of the five Western lines and four lines from the Cooperatives and Montana-Dakota Utilities Company, and the new road into the proposed substation. Reference to the new proposed Wolf Point Substation in the EA includes these facilities as well as the old substation site. The environmental review looked at the impacts to all resource areas in the Wolf Point area.

PROPOSED ACTION

The proposed action is to build a new 115-kV substation resulting in operational and reliability improvements and providing for future 230-kV expansion of the substation. In a separate project, the Fort Peck-Wolf Point section of the Fort Peck-Wolf Point-Dawson County 115-kV line will be rebuilt beginning in 1992 to 230-kV standards. The line will be initially operated at 115 kV and converted to 230-kV operation in the year 1999.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The climate of the area is semiarid. Average annual rainfall is 11.6 inches. Due to the lack of industrial or urban development, remoteness of the area, and nearly constant air movement, air quality is very good. All potential impacts to air quality from the proposed project will be low in magnitude and short-term since the impacts will occur only during construction. Elevation at the Wolf Point Substation Site is approximately 2,100 feet with a gentle

slope to the south. All potential impacts to soils will be avoided or reduced to low, short-term levels with proper mitigation. Project construction and operation will not have any adverse effect on geology or topography.

The project area is located within the Missouri River Basin. There will be no project-related impact to water resources. There are no floodplains or wetlands affected by the project.

Vegetation is extremely sparse, creating barren conditions. Overall residual impacts to vegetation will be low. No sensitive vegetation areas will be impacted.

Land jurisdiction in the study area is administered by the Bureau of Indian Affairs (BIA) who in turn has allotted this land to a member of the Fort Peck Tribe. No significant impacts to land use will result from construction or operation of Western's proposed project.

The Roosevelt County economy is dependent primarily on agriculture. The proposed project will have no effect on local tax bases in the project area. The direct and indirect effects of construction on public and retail services would be minimal. The labor force required will cause no adverse effect on area communities, transportation, public works facilities, or law enforcement capabilities. Area communities would benefit slightly from the increased sale of goods and services during construction. There will be no effect on the agricultural economic base in the area.

The history of human occupation in northeastern Montana may date back as far as 10,000 years. Archaeological evidence in northeastern Montana consists of surface finds of projectile points (arrowheads). These may indicate the presence of early big game hunters. The first known non-aboriginal visitors to the area were Lewis and Clark who passed south of the area during the exploration to the Pacific Ocean. There will be no impacts to known cultural resources from the proposed project.

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CHAPTER 1

PURPOSE AND NEED

The Western Area Power Administration (Western), an agency of the United States Department of Energy, is proposing to construct the 115-kV Wolf Point Substation near Wolf Point in Roosevelt County, Montana (Figure 1). As part of the construction project, Western's existing Wolf Point Substation would be taken out of service. The existing 115-kV Wolf Point Substation is located approximately 3 miles west of Wolf Point, Montana (Figure 2). The substation was constructed in 1949.

The existing Wolf Point Substation serves as a "Switching Station" for the 115-kV transmission in the region. The need for substation improvements is based on operational and reliability issues. These issues are:

1. Presently, the transmission system around Wolf Point has 150 miles of 115-kV line exposed to faults. Western plans to install a breaker on each of the four lines that terminate at Wolf Point Substation reducing exposure on each line. Protective relays will remove the faulted section of line from service, minimizing the impact upon the transmission system.
2. The proposed new Wolf Point Substation will facilitate maintenance of equipment at the remote end of the transmission lines as well as at the new substation. The increased flexibility will minimize both maintenance and fault related customer outages. In the event that a transmission line or piece of equipment is in a permanent fault condition, the proposed substation will allow Western to open the appropriate breakers to isolate the faulted line or equipment from service.
3. Control of the facility by Western's Dispatch Center will enhance our response to system wide problems as well as provide quick response to local problems in service at Wolf Point. In the event that the radial customer feeds are opened due to faults, Western will be able to test and close the breakers without necessarily having personnel at the substation.
4. The proposed new Wolf Point Substation will enhance Western's service to load centers in the area, improving response during adverse weather. Quality of power is becoming an important customer issue. The Wolf Point Substation will greatly improve such problems as flicker, low voltage, high voltage, and excessive number of customer outages.

Wolf Point Substation will also provide for the orderly expansion of the Wolf Point Substation to serve future potential area load increases. The load in the area is presently served by Northern, Valley, and McCone Electric Cooperatives, which are Western customers. Basin Electric Cooperative (another Western customer) and the Montana-Dakota Utility Company (MDU) (a privately owned utility) also have load in the area. Load growth may occur in areas served by several of these suppliers. Loading changes as far away as

Miles City, Montana, or Williston, North Dakota, may affect how much power flows through Wolf Point Substation. Electrical load demand can change significantly in a short time.

Western is proposing to rebuild the existing Fort Peck-Wolf Point section of the Fort Peck-Wolf Point-Dawson County 115-kV line in two stages beginning in FY92. The first stage will be the reconstruction of the Fort Peck-Wolf Point section at 230-kV standards with 115-kV operation. The second stage will be conversion to 230-kV operation when needed. We are planning to start the conversion to 230-kV operation in 1999.

Fig. 1

This topographic map displays the Wolf Point area, featuring contour lines and a grid. The map includes a legend in the bottom right corner:

- Proposed substation (indicated by a solid line)
- Existing substation (indicated by a dashed line)
- Alternative locations (indicated by a dotted line)

The map shows the Wolf Point area, including the Wolf Point Creek and the Wolf Point area. The map is oriented with North at the top. The grid lines are labeled with coordinates: 105°45' and 105°40' longitude, and 48°00' and 47°55' latitude. The map also shows the Wolf Point area, including the Wolf Point Creek and the Wolf Point area. The map is oriented with North at the top. The grid lines are labeled with coordinates: 105°45' and 105°40' longitude, and 48°00' and 47°55' latitude.

Proposed substation	Existing substation	Alternative locations

	<u>Existing Transmission Lines to</u>	<u>Existing Transmission Lines to</u>	<u>New Transmission Lines</u>

2015

FIGURE 3

A vertical scale of feet, ranging from 0 to 40. The scale is marked with horizontal lines and numbers at intervals of 10 (0, 10, 20, 30, 40). The text "SCALE OF FEET" is written vertically along the right side of the scale.

FIGURE 4

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SWITCHING DIAGRAM	---	---	---	WP	0001
11SV BAYS Y2, Y4 & CONTROL					
BUILDING AREA PLAN					WP 1010
11SV BAYS Y1, AND Y3 AREA PLAN					WP 1011
11SV BAYS Y6, AND Y8 AREA PLAN					WP 1012
11SV BAYS Y5, AND Y7 AREA PLAN					WP 1013
STAIR STYLIA, 34, 35V AND 12, 12SV AREA PLAN					WP 1014

UNITED STATES DEPARTMENT OF ENERGY
WESTLING AREA POWER ADJUNCT STATION

WOLF POINT SUBSTATION

INTRODUCTION

ARRANGEMENT PLAN

[illegible]

BEARINGS AND DISTANCES ARE BASED ON MONTANA
COORDINATE SYSTEM NORTH ZONE. ELEVATIONS ARE
BASED UPON 1985 DATUM. AREA A FOUR 3 1/2"
H.C.S. BRASS CAP STAMPED "65-2 1980 VERTICAL
CONTROL MARK" IN CLUMP OF SOUTHWEST BUTTRESS OF
HIGHWAY 2 BRIDGE OVER ROLF CREEK, 1.2 MI. WILLES
WEST OF ROLF POINT, MONTANA. ELEVATION IS
614.06355 UNADJUSTED METERS. (2014, 640 FEET)
(3, 2003 FACTOR)

2. GRADING ELEVATIONS ARE TO SUBGRADE.
3. SLOPE GRADE UNIFORMLY BETWEEN ELEVATIONS.
4. SUBSTATION, PAVING AREA, AND ACCESS ROAD TO HAVE GRAVEL SURFACING.
5. 150 SQ FT RIPRAP BED CONSISTS OF 1-9 BED RIPRAP AND 0-9 UNDERLYING SAND AND GRAVEL.
7. @ DESIGNATES SOIL BORING LOCATIONS.

REFERENCE DRAWINGS

TOPOGRAPHY.....	WP 0017 THRU WP 0019
LOCATION MAP.....	WP
LOADING - SECTION AND DETAILS.....	WP
SOIL DETENTION STRUCTURE.....	WP
ACCESS ROAD - PLAN AND PROFILE.....	WP

PRELIMINARY

NOV 20 1990 *6228*

**UNITED STATES DEPARTMENT OF JUSTICE
WESTERN AREA POWER ADMINISTRATION**

WOLF POINT SUBSTATION

GRADING AND PLOT PLAN

[illegible]

FIGURE 6

NOTES

1. BEARINGS AND DISTANCES ARE BASED ON MONTANA COORDINATE SYSTEM. NORTH TOWNS ELEVATIONS ARE BASED ON MONTANA STATE PLAT 127. W.G. MASS CO. STAMPED "ROAD 1900" VERTICAL CURVE MARK IN CURVE OF SOUTHWEST BUTTRESS OF HIGHWAY 2 BRIDGE OVER WOLF CREEK. 1.34 MILES WEST OF WOLF POINT, MONTANA. ELEVATION IS 12014.00. HORIZONTAL DISTANCE IS 12014.00 FEET.
2. PROFILE ELEVATION ARE TO CENTERLINE OF ROAD SURFACE.
3. SLOPE GRADE UNIFORMLY BETWEEN ELEVATIONS.

REFERENCE DRAWINGS

TOPOGRAPHY.....WP 0017 THRU WP 0019
 GRADING AND PLOT PLAN.....WP 2000

PRELIMINARY

NOV 20 1990

WESTERN POWER ADMINISTRATION
 MISSOULI, MONTANA

WOLF POINT SUBSTATION
 MONTANA

ACCESS ROAD PLAN AND PROFILE

DESIGNED BY	BLACK & VEATCH
CHECKED BY	BLACK & VEATCH
DATE	FEBRUARY 28, 1990
PROJECT NO.	WP 2000

PLAN

PROFILE

TYPICAL FILL SECTION
 (ACCESS ROAD)

TYPICAL CUT SECTION
 (ACCESS ROAD)

CHAPTER 2

DESCRIPTION OF ALTERNATIVES

General:

Western did not want to develop a new substation site south of the existing Highway 2 because this would require numerous line crossings of the highway. Western wanted to stay within a relatively short distance of the existing substation in order to minimize costs of new transmission line approaches.

Alternative 1: The "no-action" alternative.

This is the operation of the existing Fort Peck-Wolf Point-Dawson County 115-kV line as a three-terminal line. The consequence of the no-action alternative would be that the present Northern Electric Cooperative (NEC) 69-kV delivery to Headdress, the 115/34.5-kV transformer delivery, and the delivery at Circle Substation to the McCone Cooperative loads, would continue to operate as deliveries from the Fort Peck to Poplar, and Fort Peck to Dawson County transmission system. This alternative is unacceptable because of the exposure to customer outages from the long distance between breakers and the requirement for increasingly better quality of power to the customer.

Alternative 2: Expansion of substation at existing site.

The existing Wolf Point Substation is located north of Highway 2, above a steep slope. There are ravines west and east of the existing substation that are quite deep (up to 20 feet) and limit expansion in those directions. Removal of the old substation equipment would require an outage of the substation before construction of the new facilities could begin, greatly complicating the whole construction process and increasing costs. This alternative was eliminated due to inadequate physical property and construction considerations.

Alternative 3: Building a new substation northwest of existing substation.

A substation site on the north end of the cultivated field was initially selected. This would have required more than a total of two miles of additional 115-kV transmission line. It would also require a new access road over half a mile long. This alternative was eliminated based upon costs and landowner input.

Alternative 4: Build a new substation west of the existing substation, north of old Highway 2 roadbed and on the east edge of the cultivated field.

This site would be the most cost effective alternative due to the length of transmission line reroutes. However, a stock pond east of this site indicated a possible drainage contamination problem. Environmental and landowner concerns eliminated this alternative from further consideration.

Alternative 5: Building a new substation in the southwest corner of cultivated field (west of existing substation)

This site eliminated the environmental problems associated with Alternative 4. It requires longer transmission approach changes than Alternative 4. The cumulative 115-kV line requirements are about one mile total. The landowner also favors this site. Therefore, this is the site selected by Western (proposed action).

CHAPTER 3

THE PROPOSED ACTION

Western is proposing to remove and replace the existing Wolf Point Substation with a new substation to be located approximately one-fourth mile to the west of the existing substation (Alternative 5). The new substation would be named "Wolf Point". Figure 3 shows the proposed major power facilities.

Wolf Point Substation will include the following features (see figure 4):

- A. Installation of a low profile, eight (8) bay 115-kV switchyard with a 20-megavolt ampere (mVA), 115/34.5-kV transformer and a main transfer bus including five (5) 115-kV power circuit breakers (PCBs), seventeen (17) 115-kV disconnect switches, four (4) 115-kV ground switches, one (1) set of wound voltage transformers of metering quality for the main bus, one (1) capacitor coupled voltage transformer (CCVT) for each of the lines, and the transfer bus resulting in a total of five (5) CCVTs.
- B. Installation of a four (4) bay 34.5-kV switchyard fed from the 20-MVA, 34.5-kV winding of the transformer and a main and transfer bus including two (2) 34.5-kV line breakers, and a 34.5-kV transfer breaker, one (1) bay without a breaker that ties the transfer bus to the main bus, eleven (11) 34.5-kV disconnect switches, two (2) line grounding switches, one (1) set of three (3) wound voltage transformers of metering quality for the main bus, a set of three (3) wound metering current transformers (CT) for the MDU line, one (1) CCVT for the transfer bus, and one (1) CCVT for the 34.5-kV Fort Peck line.
- C. Installation of a three (3) bay 12.47-kV switchyard with three (3) 12.47-kV PCBs, ten (10) disconnect switches, and one set of wound voltage transformers of metering quality for the main bus. Each line will require a set of wound metering CTs.
- D. Substation and grading sufficient to accommodate a future installation of a low profile 230-kV switchyard in a ring bus arrangement with the capability to be expanded into four (4) breaker-and-half bays.
- E. Installation of a 300-kilovolt ampere (kVA), 3-phase, 240/120-volt outdoor metal enclosed double-ended station service switchgear system. One side fed from the 12.47-kV bus, the other from a future 230/115-kV autotransformer tertiary bus. The switchgear will be located near the service building, and the high voltage feeders will be underground.
- F. Installation of a control building complete with heating, ventilating, and air conditioning equipment, switchboard panels, 125 volt direct current (vdc) station battery, battery chargers, alternating current (AC) and direct current (DC) distribution boards, and an electric toilet.

- G. Purchasing approximately 20 acres of land (figure 1) and obtaining easements for relocating transmission lines and constructing an access road. This access trail will be upgraded (figure 5) and will total approximately one-half acre (1/2 ac.). Installation of a chain link security fence around the substation site. During construction, this area will become the equipment and material storage yard (figure 3).
- H. The approach spans for four (4) 115-kV, two (2) 34.5-kV and three (3) 12.47-kV lines will need to be relocated. Western will be responsible for the relocation of the 115-kV lines and the 34.5-kV Fort Peck line. The 12.47-kV lines will be relocated by the Rural Electric Cooperatives and the remaining 34.5-kV line by Montana Dakota Utilities.
- I. Microwave communications will be established between Wolf Point and the existing Western microwave system in one link. The tower to be installed at Wolf Point is less than 30 feet high. Western will use an eight foot diameter antenna to shoot a link directly to an existing site. The tower will be installed adjacent to the control building (see figure 4) inside the fenced substation yard. Federal Aviation Administration regulations will be complied with.
- J. The transformer in Wolf Point Substation requires mineral oil to electrically insulate the high voltage windings. This transformer will contain about 5,000 gallons. Western plans to install an oil retention structure near the southeast corner of the substation (see figure 5) in order to contain any mineral oil spilled in the event of a catastrophic failure of the transformer shell.
- K. Northern Electric Cooperative (NEC) has a small substation located on Western property that could, along with a suitable buffer, be turned over to NEC, or retained by Western for NEC's use (figure 3).
- L. If the former landowner does not want various portions of the old substation, Western will remove these facilities. This will include complete removal of foundations and backfilling the excavations. All other equipment will be removed and disposed of per Federal and State regulations. The remaining land will be returned to as close to natural condition as is practical.

CHAPTER 4

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This chapter provides a description of the human environment that would be affected by the proposed project. It also describes potential project impacts to environmental resources, and identifies mitigation measures and expected residual impacts. For this project, an environmental impact is defined as a modification in the status of the environment, as it presently exists or was anticipated to be, brought about by an outside action.

Impacts can be positive (beneficial) or negative (adverse), as a primary result of the action (direct), or as a secondary result (indirect), and can be permanent or long lasting (long-term) or temporary or of short duration (short-term). Impacts can vary in degree from no change, or only slightly discernible change, to a total change in the environmental condition or system.

Short-term impacts are those changes or stresses made to the environment during construction which would generally revert to preconstruction conditions at the conclusion of the construction phase. Although short in duration, such impacts are normally obvious and disruptive in nature. Long-term impacts are changes or stresses made to the environment during construction and operation that would substantially remain for the life of the proposed project and beyond (50 years or more).

EARTH RESOURCES

Climate and Air Quality

The nearest sources of climatological data for the project area are from Wolf Point, Montana. The overall climate of the area is semiarid. Average annual rainfall for Wolf Point is 11.6 inches.

Potential Impacts

The primary types of impacts on air resources are increased total suspended particulate (TSP) levels from construction activities, and increased emissions of nitrogen oxides, hydrocarbons, carbon monoxide and sulfur dioxide from construction and maintenance vehicles. Of these pollutants, TSP will be produced in the greatest quantities. However, it is unlikely that TSP would exceed Federal standards.

Substations are not significant sources of air emissions. While some ozone and nitrous dioxide emissions might be expected to result from the operation of the transmission line, tests have shown the amount to be below the detectable limits of most modern-day instrumentation, and within the normal background levels.

Impacts of increased dust during construction would be minimal and short term. Dispersion of pollutants produced by construction activities should be good, due to the windy conditions common in the study area. It should be noted that during dry, windy periods, the TSP level may also be elevated due to natural causes.

Principal air resource impacts associated with the operational phase of the project include dust and gaseous emissions resulting from scheduled and emergency maintenance activities. Air resource impacts during maintenance would be highly transient and of short duration.

Mitigation and Residual Impacts

All potential impacts on air quality from the proposed project would be low in magnitude due to their short-term, temporary nature. During dusty conditions, dust control methods would be utilized in addition to Western's standard construction procedures. This will minimize the potential for adverse effects on air quality.

Geology, Paleontological Resources, Topography, and Soils

Wolf Point Substation site is located on a gently sloping upland surface that is bordered on the east by the Wolf Creek drainage and which overlooks the Missouri River floodplain directly to the south. The margin of the upland surface has been dissected by numerous small drainages that feed onto this floodplain. The general topography of the upland surface has been defined by surface soils that are glacial till with numerous glacial cobbles. Native vegetation was originally short grass prairie with mixed prairie forbs. This is preserved along portions of the powerline corridors. The substation location is currently being farmed.

Potential Impacts

The potential for adverse impacts on geology and topography is negligible, because substation construction requires only surface and near-surface disturbance. The proposed site will be leveled with a balanced cut and fill program (see figures 5 and 6).

Potential adverse effects on soils from project construction include:

- Increased soil erosion at a rate higher than that occurring naturally
- Soil pollution from chemicals
- Soil removal or soil profile mixing
- Soil compaction

Soil disturbances such as removal, profile mixing, and extensive accelerated water and wind erosion would be minor in degree and extent. These impacts would be low largely due to the proposed use of existing access roads.

Soil compaction may occur where heavy equipment traverses cross country. Compaction lowers the value of soil as a plant medium and may result in increased erosion.

The potential for paleontological resources to be present at the proposed location is remote and if found would be dealt with per Western's standard practices (Appendix A).

Mitigation and Residual Impacts

Project construction and operation would not have any adverse effect on geology or topography in the study area. During the design phase of the project, Western would conduct a soils/geology field study.

All potential impacts to soils would be avoided or reduced to low, short-term levels using Western's "Standard Practices" (see Appendix A).

Minor, temporary soil erosion may occur during construction. Revegetation of disturbed areas would preclude any long-term erosion potential. Soil pollution potential would be minimized by careful handling of oils, fuel, and other chemicals. Residual impacts to soils would be low, short-term, and minor in extent.

Water Resources

The project area is located within the Missouri River Basin and is approximately one and one-half miles north of the Missouri River. The Wolf Creek drainage is approximately one and one-half miles to the east of the proposed site.

Potential Impacts

Impacts to surface water resources can result from physical damage due to soil erosion and sedimentation. Spillage of oils, lubricants, fuel, and other chemicals can affect both surface and ground-water in the construction area.

Mitigation and Residual Impacts

There is one intermittent stream located adjacent to the substation site. Revegetation and reseedling (if necessary) for soil erosion control is part of Western's Standard Mitigative Practices listed in Appendix A, and would prevent potential sedimentation effects on water quality. Storage, use, and disposal of chemicals would be handled in accordance with Federal and State guidelines, preventing accidental spillage and resultant adverse effects on surface water or ground-water quality. Therefore, project construction will not cause significant impacts to water resources.

FLOODPLAIN AND WETLANDS

Floodplain and wetlands were delineated through interpretation of aerial photographs, U.S. Geological Survey maps, and field observation.

In addition to the National Environmental Policy Act of 1969, other laws and regulations require the review of floodplain and wetlands: Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands) and the Department of Energy (DOE) Compliance with Floodplain/Wetlands Environmental

Review Requirements (10 CFR Part 1022). The intent of this study was to identify and minimize potential impacts to floodplain and wetlands. Floodplains are lowlands adjoining inland waters including, at a minimum, that area inundated by a 1 percent or greater chance of flood in any given year (100-year flood). The DOE defines wetlands as those areas that are inundated by surface or ground-water with a frequency sufficient to support vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

Potential Impacts

Any project action that would physically alter wetland or floodplain habitat and/or physically impact wetland or floodplain plant species is a potentially significant impact.

Mitigation and Residual Impacts

There are no floodplains or wetlands affected by this project. No construction will occur in a 100-year floodplain, nor would construction of the Wolf Point Substation affect any surface waters or wetlands. There would be no impact to floodplains or wetlands.

BIOLOGICAL RESOURCES

An inventory of the biological resources within the study area was conducted. The purpose of the study was to identify biological resources (plants and wildlife) that may be affected by project activities. Rather than attempt to identify and describe all species of plants and wildlife within the study area, the inventory described only general vegetation communities (habitats) with associated characteristic species and species and habitats of particular concern. Sensitive features, such as, special status plants and wildlife species and highly diverse, important habitats, received special emphasis.

In order to document the occurrence of animal and plant species and habitats, several existing secondary sources were consulted and include data from previous studies, project aerial photographs, pertinent regional literature, and contacts with the U.S. Fish and Wildlife Service (USFWS). In addition, a field reconnaissance was conducted in October 1989 and again in August 1990.

Vegetation

The Wolf Point Substation site consists of surface soils that are glacial till with numerous glacial cobbles. Vegetation is extremely sparse; native vegetation originally was shortgrass with mixed prairie forbs. The substation location is currently wheat stubble and fallow ground.

Potential Impacts

Potential impacts to vegetation include vegetation removal primarily during construction of the Wolf Point Substation. Vegetative communities having the highest sensitivity to construction are unique habitats (e.g., native or

relict short-grass prairie communities, wetlands associated with ponds, marshes, sloughs, and floodplains/shrublands). Within the project area, there are no sensitive communities that would be affected. Of the 20 acres of land that Western will procure, approximately 8 acres will be permanently denuded of vegetation and 12 acres will be seeded with grasses or left in its present cover.

Mitigation and Residual Impacts

Overall residual impacts to vegetation would be low. Proper revegetation after construction of Wolf Point Substation would allow disturbed areas to return to their original habitat condition within one or two growing seasons after construction. No sensitive vegetation areas would be impacted.

Wildlife

Due to the agricultural activities at the location of the proposed project, no important wildlife resources are present.

Potential Impacts

None expected.

Mitigation and Residual Impacts

No mitigation measures are proposed other than those found in Western's Standard Mitigative Practices (Appendix A). There would be no known residual impacts.

Special-Status Species

Informal consultation with the USFWS revealed that threatened or endangered species may occur in the project area. These species include the bald eagle (Haliaeetus leucocephalus) and peregrine falcon (Falco peregrinus) which may occur in the area as spring and/or fall migrants. In addition, least tern (Sterna antillarum), piping plover (Charadrius melodus), and the black-footed ferret (Mustela nigripes) may also occur in the project area.

A field reconnaissance was undertaken on October 11, 1989, and again on August 7, 1990. No prairie dog colonies or raptor nests were observed within 1.0 mile of the proposed substation site.

Potential Impacts

Based on the nature of the proposed action and the specific location of the project, no project related impacts to threatened or endangered species are expected (refer to Appendix B, USFWS letter).

Mitigation Measures and Residual Impacts

No mitigation measures are proposed other than those found in Western's Standard Mitigative Practices (Appendix A). There would be no known residual impacts.

LAND USE

An investigation of existing and future land use was conducted to identify conflicts with the construction, operation, and maintenance of the proposed project.

The Wolf Point Substation Site is located on cultivated farmland that is on the Fort Peck Reservation.

There are four (4) 115-kV transmission lines, two (2) 35.5-kV lines, and three (3) 12.47-kV lines that presently traverse the Wolf Point Substation Site. Adjacent to the site there is a gravel pit. The nearest railroad is one-half mile south of the proposed substation site with U.S. Highway 2 located between the substation and the railroad.

Potential Impacts

The proposed action will not affect current land use resources with the exception of taking approximately 20 acres out of crop production. This farmland is not prime or unique agricultural land subject to the Farmland Protection Policy Act (according to the Soil Conservation Service).

The following criteria were integrated to determine significant impact to land uses:

1. Potential conflicts with existing land use plans or zoning ordinances;
2. Proximity to "sensitive" area (such as residential area or parks);
3. Land use incompatibility; and
4. A general characteristic of impact type (including duration, quantity, and quality of the impact).

Mitigation Measures and Residual Impacts

No significant impacts to land use would result from construction or operation of Western's proposed project.

VISUAL RESOURCES

The visual resource investigation was conducted in compliance with guidelines specified in the BLM Manual, Section 8411, Upland Visual Resource Inventory and Evaluation (BLM 1980). The investigations addressed a study area within a viewshed of the proposed facilities and activities associated with the construction and operation of the project.

There are numerous man-made changes (cultural modifications) to the natural environment in the project area. These consist of 9 transmission lines, U.S. Highway 2, the Burlington Northern Railroad line, residences, billboards, and the modification of the native prairie to crop production.

Scenic quality at Wolf Point Substation Site is rated "C" or in which the features are common to the physiographic region (i.e., areas including landscape features of concern within views of major use areas, such as highways, urban areas, and recreation areas). Through a standardized matrix combination process, the results of the scenic quality and viewer conditions are used to determine levels of resource value. These are referred to as Visual Resource Management (VRM) Classes because each of the five class levels identifies objectives for managing the visual resource on lands of that designation. Only management Class V occurs in the project area. The BLM management guidelines for Class V are as follows:

Class V: Applies to areas where the natural character of the landscape has been greatly disturbed.

Potential Impacts

We anticipate no significant impact due to the disturbed nature of the site.

Mitigation Measures and Residual Impacts

The proposed substation has been designed to be low profile. The old Wolf Point Substation will have the high profile structures removed when the substation is no longer needed.

SOCIOECONOMIC

The 1988 population of Roosevelt County was 11,100, or six percent above the 1980 population of 10,500. The 1980 population of the largest towns in the county were: 3,050, Wolf Point; 1,090 Culbertson; and 1,060, Poplar. Based on 1980 census data, the total county workforce was 4,709, with a total employment figure of 4,242. This was equivalent to a 1980 unemployment figure of 9.9 percent.

Employment by category is shown below for 1980. The largest categories of employment in Roosevelt County are Services, Agriculture, and Retail Trade.

Category	1980 Employment	Percent of Total Employment
Agriculture	742	17 percent
Construction	222	5 percent
Mining	133	3 percent
Manufacturing	331	8 percent
Retail Trade	563	13 percent
Services	1,202	28 percent
Transportation	305	7 percent
All Other	744	18 percent
Total	4,242	100 percent

Potential Impacts

Socioeconomic impacts can be adverse or beneficial, and short- or long-term in nature. Generally, socioeconomic effects are an indirect, rather than direct, result of project implementation and include effects on: (1) public services; (2) retail services; (3) the economic base of the project area; and (4) energy costs to area consumers.

Potential impacts to public and retail services are short-term, lasting only until project construction is complete. The movement of heavy construction equipment could damage public roads and bridges. The influx of a labor force can overburden existing retail services, such as motels and restaurants, and public services such as law enforcement and public works. The labor force can also provide beneficial effects, such as increasing retail sales in area communities, or providing short-term employment to local residents.

Project construction can result in higher energy costs for local or regional consumers if these costs are not shared among all customers.

Mitigation Measures and Residual Impacts

Western is an agency of the Federal Government and, as such, is not subject to property taxes. Western is not authorized to make payments in lieu of taxes. Therefore, the proposed project would have no effect on local tax bases in the project area.

The effects of construction on the local infrastructure and economy would be minor. Western expects that the peak labor force for the proposed construction would not exceed 10 individuals, over an approximate 9 month construction period. Roughly two-thirds of the workforce would be expected to come from the local area. Some of the individuals locally hired would probably include Native Americans from the Fort Peck Tribes. With such a small temporary influx of construction workers (perhaps only three or four

individuals from outside the local area), impacts to the infrastructure would be positive but insignificant. Area communities would benefit slightly from increased sales of goods and services during construction.

Costs for facilities such as the proposed project are shared among all of Western's preference customers. Therefore, the actual increase in cost of electrical service to area customers would be very small.

CULTURAL RESOURCES

The history of human occupation in northeastern Montana may date as far back as 10,000 years. Surface finds of projectile points in northeastern Montana may indicate the presence of early big game hunters. Archaeological investigations in northeastern Montana have shown that subsequent aboriginal groups practiced a generalized hunting strategy focusing on bison. This strategy persisted until the arrival of European trade goods and horses in the mid to late 18th century. Prehistoric sites in northeastern Montana have been classified into four functional types. These are: habitation sites (sites characterized by the presence of cultural features and material which indicate everyday domestic activities such as manufacturing clothing, tools, and ornaments, preparing food or medicine, cooking, and securing warmth and shelter); procurement sites (sites characterized by cultural features that represent task-specific subsistence activities such as hunting, fishing, or collecting plants); industrial sites (sites where only technological tasks such as quarrying for stone tool manufacture were performed); and ritual sites (sites such as petroglyphs and boulder effigies that were used in ceremonies, social events, or other ideological or political activities). The most commonly recorded sites in the region are habitation sites consisting of stone circles (tipi rings), cairns, and quartzite lithic debris (Ruebelmann 1983).

Historical aboriginal groups identified in northeastern Montana at the time of European contact and later arrivals into the study area are discussed in Albers and James (1984). Today, the study area is occupied by the Assiniboine and Sioux Tribes of the Fort Peck Reservation. Archaeological sites dating to the early contact period in northeastern Montana are rare, but not unknown. Less rare, are historic aboriginal sites dating to the late 19th and early 20th centuries. Among these are several culturally sensitive site types such as burials, vision quests, and Sun Dance locations.

The first documented non-aboriginal visitors to northeastern Montana were Lewis and Clark, who passed south of the study area on their way to the Pacific Ocean in 1805. They were followed by fur trappers and traders. However, little physical evidence of their activity in northeastern Montana remains. Aside from the fur trade and use of the Missouri River to the south as a transportation corridor, little documented historic activity took place in the study area until the late 19th century. This is largely due to almost all of northern Montana having been set aside as Indian Territory by the 1855 Stevens Treaty and the presence of hostile Native American groups in the area, particularly in the 1860's and 1870's. An agency was established at Poplar in 1877 to supply Native American groups residing in the area. This replaced Fort Peck that had been built in 1867 as a fur trade post and used as an Indian agency since 1873 (Van West 1986).

The Fort Peck Reservation was created in 1886 when the vast northern Montana Reservation was broken into three smaller reservations to allow the construction of the Great Northern Railroad. The Fort Peck Reservation was allotted in 1908 and open to non-aboriginal occupation in 1913. The town of Wolf Point was established in 1917 as a division point for the Great Northern Railroad. Hard times followed after the division point was closed in 1925. The hard times lasted until the discovery of oil in the region in the early 1950's. Today, Wolf Point is the major economic center of northeastern Montana and serves as the county seat for Roosevelt County (Van West 1986).

Potential Impacts and Mitigation of Undetected Cultural Resources

Cultural resources are sensitive to construction related activities and increased access created by the addition or upgrading of roads. Western is mandated by Section 106 of the National Historic Preservation Act to take these resources into consideration prior to committing to a construction program. A file search from the Montana State Historic Preservation Office (SHPO) revealed that no archaeological investigations had been previously conducted in the vicinity of the project area. The lack of recorded sites was thought to reflect a lack of prior survey rather than an absence of sites (Howser 1990). Powers Elevation Co. Inc. performed a cultural resource inventory of the proposed substation for Western, three associated powerlines, and a new access road. The inventory covered an area of 20 acres for the substation and approximately 21.5 acres for the three powerline segments and new access road. No cultural resources were located in the inventoried areas (Olson 1990). Based on the lack of cultural resources within the inventoried area, Western has determined that the project will have no effect on historic properties (36CFR800.5(b)).

Western has consulted with the Billings Area Office, Bureau of Indian Affairs (BIA), and the SHPO concerning this project. Both parties have agreed that the project will have no affect on historic properties. However, if previously undetected cultural resources are uncovered during construction, all work that might impact the discovery will cease until Western can evaluate and, if necessary, mitigate impacts to the new discovery. Evaluation and mitigation will be carried out in consultation with the SHPO, BIA, and the Fort Peck Tribes.

ELECTRICAL CHARACTERISTICS

Electrical effects associated with transmission lines and substations include ozone generation, radio and television interference, and audible noise. These potential effects are caused by corona, which is the electrical breakdown of air into charged particles created by the electrical field at the surface of the conductors.

Corona effects are generally associated with transmission lines operating at voltages of 345 kV or above. For the proposed action (a substation with transformers at 230 kV and below) corona effects would be minor; ozone generation would be negligible; and radio and television interference is not expected to be a problem. However, mitigative techniques do exist, and, if a problem occurred, Western would take corrective action. Noise may be

noticeable directly adjacent to the substation fence. The majority of the noise generated will be due to mechanical transformer vibration rather than corona. We expect this noise to be about 40 dBA except for short-term effects (less than 30 seconds) due to faults on the transmission lines. Due to the remoteness of the site, audible noise is not expected to be an impact. Two other electrical effects are the electric and magnetic field (EMF) strength. Both of these effects are inherent characteristics of the power system. Electric field strength is a function of the configuration of the conductors and the voltage on the conductors and the distance from the conductors to the measurement point. Magnetic field strength is a function of configuration of the conductor and the current on the conductors and the distance from the conductors to the measurement point.

The State of Montana has EMF strength standards that Western adheres to for transmission lines. Although these standards do not apply to substations, we will be below the levels required at the edge of the right of way for transmission lines in urban areas at our substation fence, with the exception of the fence directly below a transmission line which will still be below the States guidelines for transmission lines. The EMF profile under the transmission lines will follow State EMF requirements within the transmission line right of way. Since the substation is in a relatively isolated rural area, the effects of EMF should be minimal.

SUMMARY OF IMPACTS

The construction, operation, and maintenance of the proposed project would cause some unavoidable low level, short term impacts to the area environment.

Construction activities and traffic would create short-term air quality impacts due to fugitive dust and vehicle emissions.

Heavy vehicle and equipment movement during construction and maintenance would promote soil compaction and potential soil erosion. Small amounts of vegetation would be removed for substation replacement.

There would be no impact to floodplains or wetlands.

None of the impacts expected from the proposed project are considered to be significant or irreversible.

Approximately 20 acres of farmland will be taken out of crop production; however, this farmland is not prime or unique agricultural land subject to the Farmland Protection Policy Act. Areas that are not to be occupied will be seeded into grasses that are native to the area or left in the farming operation.

CHAPTER 5

AGENCIES AND ORGANIZATIONS CONSULTED

Federal

Bureau of Indian Affairs - Billings, Montana

Bureau of Indian Affairs - Poplar, Montana

U.S. Fish and Wildlife Service - Helena, Montana

U.S. Department of Agriculture - Soil Conservation Service - Billings, Montana

State

Department of Natural Resources and Conservation - Helena, Montana

Montana State Historic Preservation Officer - Helena, Montana

Tribal Council

Fort Peck Tribes - Poplar, Montana

Assinniboine and Sioux

CHAPTER 6

REFERENCES CITED

- Albers, Patricia and William R. James
1984 A History Of Joint Migrations, Water And Land-Use By The Assinniboine, Cree, Chippewa, And Metis In The Northern Plains From Prehistoric Times to 1879. A Report Presented To The Bureau Of Indian Affairs, Billings Area Office.
- Bureau of Land Management. 1980. Visual resource management program. U.S. Department of the Interior. Bureau of Land Management. U.S. Government Printing Office, Washington, D.C.
- Department of Energy. Western Area Power Administration. 1990 Engineering Manual 6402.1.
- Howser, Tammy
1990 Personal communications. Letter to Marcia Tate dated August 15, 1990, concerning file search results.
- Olson, Byron
1990 Cultural Resource Management Report: Western Area Power Administration, Wolf Point Substation, Roosevelt County, Montana. Report prepared for Western Area Power Administration, Billings Area Office, by Powers Elevation, Aurora, Colorado
- Ruebelmann, George
1983 An Overview of the Archaeology and Prehistory of the Lewistown BLM District, Montana. Archaeology in Montana, 24(3):1-165.
- Van West, Carol
1986 A Traveler's Companion To Montana History. Montana Historical Society Press, Helena, Montana.

APPENDIX A
Western's Standard Construction Practices

WESTERN'S STANDARD CONSTRUCTION PRACTICES

1. The contractor shall limit the movement of his crews and equipment to the right-of-way (ROW), including access routes. The contractor shall limit movement on the ROW so as to minimize damage to grazing land, crops, orchards, and property, and shall avoid marring the lands.
2. When weather and ground conditions permit, the contractor shall obliterate all contractor-caused deep ruts that are hazardous to farming operations and to movement of equipment. Such ruts shall be leveled, filled and graded, or otherwise eliminated in an approved manner. In hay meadows, alfalfa fields, pastures, and cultivated productive lands, ruts, scars, and compacted soils shall have the soil loosened and leveled by scarifying, harrowing, disking, or other approved methods. Damage to ditches, tile drains, terraces, roads, and other features of the land shall be corrected. At the end of each construction season and before final acceptance of the work in these agricultural areas, all ruts shall be obliterated, and all trails and areas that are hard-packed as a result of contractor operations shall be loosened and leveled. The land and facilities shall be restored as nearly as practicable to their original condition.
3. Water turnoff bars or small terraces shall be constructed across all ROW access on hillsides to prevent water erosion and to facilitate natural revegetation on the trails.
4. The contractor shall comply with all federal, state, and local environmental laws, orders, and regulations. Prior to construction, all supervisory construction personnel will be instructed on the protection of cultural and ecological resources. To assist in this effort, the construction contract will address: (a) federal and state laws regarding antiquities and plants and wildlife, including collection and removal, and (b) the importance of these resources and the purpose and necessity of protecting them.
5. The contractor shall exercise care to preserve the natural landscape and shall conduct his construction operations so as to prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work. Except where clearing is required for permanent works, approved construction roads, or excavation operations, vegetation shall be preserved and shall be protected from damage by the contractor's construction operations and equipment.
6. On completion of the work, all work areas except access trails shall be scarified or left in a condition which will facilitate natural revegetation, provide for proper drainage, and prevent erosion. All destruction, scarring, damage, or defacing of the landscape resulting from the contractor's operations shall be repaired by the contractor.

7. Construction roads not required for maintenance access shall be restored to the original contour and made impassable to vehicular traffic. The surfaces of such construction roads shall be scarified as needed to provide a condition which will facilitate natural revegetation, provide for proper drainage, and prevent erosion.
8. Construction staging areas shall be located and arranged in a manner to preserve trees and vegetation to the maximum practicable extent. On abandonment, all storage and construction materials and debris shall be removed from the site. The area shall be regraded as required so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.
9. Borrow pits shall be so excavated that water will not collect and stand therein. Before being abandoned, the sides of borrow pits shall be brought to stable slopes, with slope intersections shaped to carry the natural contour of adjacent undisturbed terrain into the pit or borrow area giving a natural appearance. Waste piles shall be shaped to provide a natural appearance.
10. Construction activities shall be performed by methods that will prevent entrance, or accidental spillage, of solid matter, contaminants, debris, and other objectionable pollutants and wastes into streams, flowing or dry watercourses, lakes, and underground water sources. Such pollutants and wastes include, but are not restricted to, refuse, garbage, cement, concrete, sanitary waste, industrial waste, radioactive substances, oil and other petroleum products, aggregate processing tailings, mineral salts, and thermal pollution.
11. Dewatering work for structure foundations or earthwork operations adjacent to, or encroaching on, streams or watercourses shall be conducted in a manner to prevent muddy water and eroded materials from entering the streams or watercourses by construction of intercepting ditches, bypass channels, barriers, or settling ponds, or by other approved means.
12. Excavated material or other construction materials shall not be stockpiled or deposited near or on stream banks, lake shorelines, or other watercourse perimeters where they can be washed away by high water or storm runoff or can in any way encroach upon the watercourse itself.
13. Waste waters from concrete batching or other construction operations shall not enter streams, watercourses, or other surface waters without the use of such turbidity control methods as settling ponds, gravel-filter entrapment dikes, approved flocculating processes that are not harmful to fish, recirculation systems for washing of aggregates, or other approved methods. Any such waste waters discharged into surface waters shall be essentially free of settleable materials. Settleable material is defined as the material which will settle from the water by gravity during a one-hour quiescent detention period.

14. The contractor shall utilize such practicable methods and devices as are reasonably available to control, prevent, and otherwise minimize atmospheric emissions or discharges of air contaminants.
 15. The emission of dust into the atmosphere will not be permitted during the manufacture, handling, and storage of concrete aggregates, and the contractor shall use such methods and equipment as are necessary for the collection and disposal, or prevention, of dust during these operations. The contractor's methods of storing and handling cement and pozzolans shall also include means of eliminating atmospheric discharges of dust.
 16. Equipment and vehicles that show excessive emissions of exhaust gases due to poor engine adjustments, or other inefficient operating conditions, shall not be operated until corrective repairs or adjustments are made.
 17. Burning or burying of waste materials on the ROW or at the construction site will not be allowed. The contractor shall remove all waste materials from the construction area. All materials resulting from the contractor's clearing operations shall be removed from the ROW.
 18. The contractor shall make all necessary provisions in conformance with safety requirements for maintaining the flow of public traffic and shall conduct his construction operations so as to offer the least possible obstruction and inconvenience to public traffic.
 19. WESTERN will apply necessary mitigation to eliminate problems of induced currents and voltages onto conductive objects sharing a ROW, to the mutual satisfaction of the parties involved. WESTERN will install fence ground on all fences that cross or are parallel to the proposed line.
 20. If evidence of prehistoric, historic, or paleontological sites is discovered during construction, all activities within a 50-foot radius would cease immediately, and appropriate personnel within WESTERN would be notified to assure proper handling of the discovery by qualified archaeological or paleontological personnel.
-

APPENDIX B

U.S. Fish and Wildlife Service Letter

UNITED STATES
DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

Fish and Wildlife Enhancement
Federal Bldg., U.S. Courthouse

301 South Park

P.O. Box 10023

Helena, Montana 59626

IN REPLY REFER TO:

FWE-61130-Billings
M.35(I)

Mr. Robert J. Harris
Western Area Power Administration
Billings Area Office
2525 4th Ave. North, P.O. Box 35800
Billings, Montana 59107-5800

SPECIAL FILE COPY

NOV 6 '89

NOT NECESSARY

November 3, 1989

B2000 RM
B2000 DM

B2204 TRA 11/7

Dear Mr. Harris:

We have reviewed the information submitted with your October 30, 1989 letter concerning a proposed new 115 kV switchyard near Wolf Point, Montana. Our comments follow.

The Federally-listed endangered and threatened species which occur or may occur in the project area are the bald eagle (Haliaeetus leucocephalus), peregrine falcon (Falco peregrinus), least tern (Sterna antillarum), piping plover (Charadrius melodus), and black-footed ferret (Mustela nigripes). Pursuant to Section 7 of the Endangered Species Act of 1973 as amended, the Western Area Power Administration (Western), as the responsible Federal agency, must determine if the proposed installation may affect these endangered species. If you determine that any of these species may be affected, it will be necessary to initiate formal consultation with this office. The following information and recommendations may aid you in that determination.

Considering the specific location, size, and nature of the proposed switchyard facility, we would not anticipate any adverse impacts to the least tern or piping plover.

While we foresee no substantive bald eagle or peregrine falcon concerns with the proposed work, to protect these species and other large raptors protected by Federal law, we recommend that, for any powerlines to be constructed or modified, such lines be raptor-proofed following the criteria and techniques outlined in the Raptor Research Report No. 4, "Suggested Practices for Raptor Protection on Powerlines - The State of the Art in 1981". A copy may be obtained for \$5.00 by writing to:

Jim Fitzpatrick, Treasurer
Raptor Research Foundation
Carpenter St. Croix Nature Center
12805 St. Croix Trail
Hastings, Minnesota 55033

Prairie dog (Cynomys sp.) towns are considered potential habitat for black-footed ferrets. If prairie dog towns are found to occur within project rights-of-way, surveys for black-footed ferrets may need to be conducted and survey reports submitted to this office for review and concurrence within one year prior to disturbance to the towns. Please contact us for guidelines for conducting ferret surveys if you determine that prairie dog towns or ferrets may be affected by your proposed project.

We appreciate your efforts to consider and conserve endangered species and their habitats. If you have additional questions regarding endangered species, please contact Gary Wood of my staff at (406) 657-6750.

Sincerely,

Kemper McMaster
Acting State Supervisor
Montana State Office

cc: Suboffice Coordinator, Fish and Wildlife Enhancement (Billings, MT)

GWOOD/dc/clh

"Take Pride in America"

APPENDIX C

State Historic Preservation Officer Letter

State Historic Preservation Office

Montana Historical Society

NOV 17 1989

Mailing Address: 225 North Roberts • Helena, MT 59620-9990

Office Address: 102 Broadway • Helena, MT • (406) 444-7715

November 16, 1989

Robert J. Harris
WAPA Billings Area Office
2525 4th Avenue North
P.O. Box 35800
Billings, MT 59107-5800

DATE	INITIALS	FILE
11/16/89	RSH	
11/16/89	DK	

RE: Wolf Point Substation

Dear Mr. Harris:

Thank you for your letter requesting our comments on the above cited undertaking. A review of our site file records indicates that no cultural resources are currently record in the project area.

The environmental and topographic qualities of the project area, and the record of archaeological and historic sites recorded in the local vicinity suggest a high potential for cultural resources. The proposed undertaking might possibly impact significant cultural resources. Therefore, we recommend that a professional cultural resource survey be conducted in the areas of environmental impact before disturbance activities are initiated.

We further recommend that you consult with the Fort Peck Tribe and the Billings Area Office BIA for their comments and suggestions about addressing possible impacts to cultural resources in the project area.

Thank you for consulting with us.

Sincerely,

David Schwab
State Archaeologist

File: DOE/WAPA

B2204

Department of Energy
Western Area Power Administration
Billings Area Office
2525 4th Avenue North
P.O. Box 35800
Billings, MT 59107-5800

SEP 04 1990

Ms. Marcella Sherfy
State Historic Preservation Officer
Montana Historical Society
225 North Roberts Street
Helena, MT 59620-9990

Dear Ms. Sherfy:

Enclosed is the cultural resources survey report for the Wolf Point Substation. Also enclosed are copies of Western's letter of November 3, 1989, to you and your response dated November 16, 1989. Western plans on continuing with the environmental process and considers the cultural resource concerns to be taken care of based upon your file search and results of the enclosed survey report. Western has determined that the project will have no effect to historic properties. If Western encounters archaeological/cultural resources during the process of construction, all work that might adversely impact the resources will cease until Western can evaluate and if necessary mitigate impacts to the new discovery. Evaluation and mitigation will be carried out in consultation with you as expeditiously as possible.

We request your concurrence with our determination.

If you have any questions on the above information, please contact Theodore R. Anderson at (406) 657-6525.

Sincerely,

Robert J. Harris

Robert J. Harris
Assistant Area Manager for Engineering,
Operations and Maintenance

Enclosures

cc's on attached page.

CONCUR
NO PROPERTIES ON OR ELIGIBLE
FOR NHP APPEAR LIKELY TO
EXIST WITHIN PROJECT IMPACT AREA
MONTANA
DATE 9/11/90 SIGNED *[Signature]*
[Signature] CHPO

END

**DATE
FILMED**

12/17/91