August 2003
DOE/EA-1401

DEPARTMENT OF ENERGY
Western Area Power Administration
Finding of No Significant Impact and
Floodplain Statement of Findings
Wolf Point, Montana to Williston, North Dakota Transmission Line Rebuild

Summary -- Western Area Power Administration (Western) proposes to rebuild a 95-mile segment of the Wolf Point-to-Williston 115-kilovolt (kV) Transmission Line to 230-kV standards and expand its existing Williston Substation to accommodate the voltage upgrade. Western's maintenance forces would rebuild the transmission line over several construction seasons. The rebuild and substation expansion would be completed in 201 1. A number of environmental protection measures are included with the proposed action to minimize potential adverse environmental effects.

The availability of the environmental assessment (EA) entitled, Wolf Point, Montana - Williston, North Dakota Transmission Line Rebuild (DOE/EA-1401) was announced for a preapproval public and agency review on January 22, 2003. The EA was revised based on comments received, and the EA was approved in August 2003. Based on the EA, Western has determined that the proposed transmission line rebuild and substation expansion would not result in any significant environmental impacts, and the preparation of an environmental impact statement (EIS) will not be required. The basis for this determination is described in this Finding of No Significant Impact (FONSI).

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Additional information and copies of the EA and FONSI are available to all interested persons and the public from the person named above. For general information on DOE National Environmental Policy Act (NEPA) activities contact:

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Purpose and Need - The existing- Wolf Point-to-Williston II5-kV Transmission Line is approaching the end of its useful service life. There is a need to rebuild the existing II5-kV transmission line to 230-kV design standards to reduce outage rates due to equipment failures, reduce lightning induced flashovers, improve transmission reliability, and provide load serving capability should transmission outages occur elsewhere in the Montana transmission system.

Project Description -- Western proposes to rebuild a 95-mile segment of its existing 115-kV transmission line between Wolf Point, Montana and Williston, North Dakota to 230-kV design standards, and construct a new 230-kV substation adjacent to its existing Williston Substation, near Williston. The transmission line would be rebuilt by Western's maintenance forces in a sequential manner over several seasons and completed in 2011. The transmission line would be rebuilt within the existing I 00-foot wide transmission line right-of-way (ROW), except for two proposed reroutes with a cumulative length of about 5 miles that would straighten the transmission line alignment and reduce the overall number of structures. The reroutes would reduce ranch and highway ROW encroachments.

Construction activities for the proposed transmission line rebuild would include replacing the existing 115-kV wood-pole, H-frame structures with 230-kV wood- pole, H-frame structures; replacing the existing conductor; and replacing the two overhead ground wires with one steel overhead ground wire and one ground wire with 24-count fiber optic cable for communications. During structure replacement activities, Western's maintenance forces would use an area about 200 feet wide around each structure to facilitate structure replacement. Landowners would be compensated for any land and/or crop damages caused by the structure replacements and reconductoring within the existing ROW and the 200-foot wide area near each structure needed for construction.

Prior to the completion of the transmission line rebuild, Western would construct a new 230-kV substation near its existing Williston Substation. The new substation would occupy an area about 400 feet by 500 feet. The proposed project would be constructed using the environmental protection measures described as part of the proposed action in the EA.

The Public Process -- To allow an early and open process for determining the scope of issues and concerns related to the proposed action (40 CFR 1501.7), public scoping was provided by Western. Western notified Federal and state agencies, tribes and affected landowners of its determination to prepare an EA and invited comments in a letter dated October 2, 2001. In a letter dated January 22, 2003, Western notified Federal and state agencies, tribes and affected landowners about the availability of a preapproval version of the EA. In response to this notification, 97 EAs were distributed for review. Comments received on the EA have been incorporated and considered in this determination on whether or not to prepare an EIS. No agencies requested to become a cooperating agency. However, Western entered into an agreement with the Montana Department of Environmental Quality to ensure that its requirements for

transmission line construction are addressed and implemented for the Proposed transmission line rebuild.

Western has met its obligations under the Endangered Species Act (7 U.S.C. 136; 16 U.S.C. 460 et seq., 1973), and the National Historic Preservation Act (NHPA, 16 U.S.C. 470 et seq., 2000).

Alternatives -- DOE's NEPA regulations require that an EA include a discussion of the no action alternative (IO CFR 1O21.321(c)). Under the no action alternative, the proposed action would not be implemented. The existing Wolf Point-Williston 115-kV transmission line would be maintained and operated at its current voltage. Deteriorated structures and fatigued hardware on the existing line would be repaired or replaced when required.

Environmental Impacts -- Western's conclusions about the proposed project's environmental impacts are based on information contained in the EA issued in August 2003. The EA is available upon request. In reaching conclusions about the proposed project's environmental impacts, Western has considered the proposed project, including the environmental protection measures proposed with the project.

The existing environment and the potential environmental impacts were identified and evaluated for the following resources:

- Geology and soil
- Air resources
- Water resources
- Vegetation
- Wetlands and floodplains
- Wildlife
- Threatened, endangered, and proposed species
- Socioeconomics
- Land use
- Visual resources
- Electric and magnetic fields
- Cultural resources
- Native American religious concerns
- Recreation
- Environmental justice

Based on the EA, Western has concluded that, with the environmental protection measures proposed for the project, the construction and operation of the proposed Wolf Point-Williston Transmission Line Rebuild would not result in any significant environmental impacts. The basis for these conclusions is summarized below.

Geology and Soil. There are no fossil-bearing outcrops or economic mineral deposits in the project area. Potential adverse impacts to soil from the proposed project include increased erosion from runoff and wind due to compaction and loss

of vegetation. With the implementation of the environmental protection measures proposed with the project, Western has concluded that the proposed transmission line rebuild and new substation would not cause the loss of highly productive soil. Therefore, a direct, indirect, or cumulative significant impact to geology and soil would not occur.

Air Resources. The proposed transmission line rebuild and construction of the new substation have the potential to adversely affect air resources due to fugitive dust generation and the operation of construction equipment. The limited duration of construction, along with implementation of environmental protection measures proposed for the project, are expected to mitigate air quality effects to levels below Federal and state standards. As a result, Western has concluded that no direct, indirect, or cumulative significant impacts to air resources would occur from the construction and operation of the proposed project.

Water Resources. The proposed transmission line rebuild and new substation have the potential to degrade water resources due to stormwater discharges during construction, increased erosion causing sediments to reach water courses, and fuel and/or oil spills. However, considering the environmental protection measures proposed for the project, including requirements for securing permits to discharge stormwater runoff and construction and post-construction erosion control measures, Western has concluded that no direct, indirect, or cumulative significant impacts to surface water would occur. Based on proper fuel handling and storage, and appropriate spill contingencies as specified by the environmental protection measures, all fuel spills would be remediated. Thus, no significant impact to groundwater resources would occur during construction and operation of the proposed project.

Vegetation. Construction activities for the proposed rebuild and new substation would cause temporary and permanent loss of vegetation. An unmitigated loss of wetland or native prairie vegetation, or uncontrolled introduction of noxious weeds would be a significant impact. Measures would be implemented to minimize vegetation loss including, seeding with native prairie species, siting new 230-kV transmission structures to avoid wetlands, and implementing noxious weed control plans. If wetlands cannot be avoided, Western would obtain permits for work in wetlands that fall under the jurisdiction of the U.S. Army Corps of Engineers and the Montana Department of Environmental Quality, and implement measures to minimize wetland loss. Considering the environmental protection measures planned for the proposed project, Western has concluded that there would not be an unmitigated loss of wetland or native prairie, or uncontrolled introduction of noxious weeds. Therefore, there would not be any direct, indirect, or cumulative significant impacts to vegetation or wetlands from the proposed project.

Floodplain Statement of Findings. The Wolf Point-Williston Transmission Line traverses the floodplains of Wolf and Big Muddy creeks and the Poplar River. A Notice of Floodplain/Wetlands Involvement was issued July 24, 2001, and published in the Federal Register on August 1, 2001 (66 FR 39753). No comments

were received. The EA includes a floodplain assessment as required by DOE's Floodplain/Wetlands Environmental Review Requirements (1 0 CFR part 1022). Work within the boundaries of the floodplains would be required as the proposed transmission line rebuild would require replacing existing transmission line structures located within the floodplains. The new structures would withstand flood occurrences. The floodplains are wider than the average span proposed for the transmission line rebuild. Alternative structures considered and dismissed from analysis also would not have sufficient span length to span the floodplains. The no action alternative would still require action within the floodplains. All activity proposed within the floodplains would be conducted in accordance with Montana Department of Natural Resources and Conservation floodplain protection requirements, and coordinated with the county floodplain administrators. Significant impacts to one of these floodplains could occur if water flow characteristics were altered such that property downstream was damaged by the altered flow. Based on the measures proposed for the transmission line rebuild, including replacing transmission line structures within the floodplains during the winter, no direct, indirect or cumulative impacts are expected from the proposed project.

Wildlife. The proposed project would cause both direct and indirect impacts to wildlife. Significant impacts to wildlife could include: 1) adversely affecting a federally listed species or designated Critical Habitat; 2) a major loss of economically important wildlife population; or 3) the loss to any population of wildlife that would require the species to become listed as endangered or threatened. Impacts to big game species are not anticipated as these animals are mobile. Disturbance to small wildlife from noise, vehicles, and human presence during construction would be localized and short in duration. Some small mammals, reptiles, and small ground nesting birds could be killed by construction activities. However, impacts would be short term and likely not result in mortality that substantially reduces wildlife populations. Thus, Western has concluded that the proposed project would not cause any direct, indirect, or cumulative significant impacts to mammals, reptiles, and small birds.

The proposed project has the potential to impact birds and waterfowl that use the Muddy Creek drainage as a flyway during migrations, and disturb nesting raptors. However, since waterfowl and raptor mortalities from the existing line have not been evident and Western would install bird-strike diverters at the drainage crossings and near wetlands as part of the proposed project, increased bird mortalities are not expected from the proposed transmission line rebuild. In addition, Western has proposed curtailing construction near any occupied raptor nests based on preconstruction surveys. Thus, bird mortalities are not likely to increase and no significant impact to birds would occur.

Threatened and Endangered Species. The endangered pallid sturgeon (Scaphirhynchus albus) does not occur within the proposed project area and would not be affected by the proposed project. The endangered piping plover (Charadrius melodus) may fly through the Big Muddy drainage, but Western's use of bird-strike

diverters would reduce the risk of piping plovers striking the rebuilt transmission line. The mountain plover (Charadrius montanus) is proposed for listing as threatened. If mountain plovers are found in the project area, construction would be curtailed during the spring nesting season and any potential impact would be avoided. The endangered interior least tern (Sterna antillarum athalassos) has been documented near the project area. Western's use of bird-strike diverters would reduce the risk of an interior least tern colliding with the proposed rebuilt transmission line. Threatened bald eagles (Haliaeetus leucocephalus) are frequently observed along the Missouri River south of the proposed project area. The potential for bald eagle collisions with the rebuilt transmission line would be similar to or less than that of the existing 115-kV transmission line, due to the addition of more visible, larger diameter fiber optics to one of the ground wires and the use of marking devices. The endangered whooping crane (Grus americana) may migrate through the project area. Since whooping cranes are not resident in the vicinity of the proposed project, no direct impacts to these species are expected from construction of the proposed project. Migrating whooping cranes could use wetlands in the vicinity of the proposed project for feeding or roosting. While it is possible that a whooping crane could collide with the proposed rebuilt transmission line during spring or fall migration, such collisions would be unlikely with the addition of more visible, larger diameter fiber optics to one of the ground wires and the proposed bird-strike diverters. The endangered black-footed ferret (Mustela nigripes) is not present in the proposed project area, and thus would not be affected. Based on the above, Western determined in a December 9, 2002, letter to the U.S. Fish and Wildlife Service that the proposed project would not affect pallid sturgeons or black-footed ferrets, and that the proposed project may affect, but is not likely to adversely affect, piping plovers, mountain plovers, whooping cranes, interior least terns or bald eagles. Based on this determination, and USFWS's concurrence in a January 23, 2003, letter, Western has concluded that the proposed project would not cause a significant direct, indirect, or cumulative impact to any threatened or endangered species.

Socioeconomics. The proposed transmission line rebuild would be rebuilt by Western's maintenance forces. The proposed Williston 230-kV Substation would be constructed under contract, and would provide a short-term economic benefit. Considering the short duration proposed for construction, these effects would not constitute a significant impact on area schools, services or businesses.

Land Use. Land use along the proposed transmission line rebuild is predominantly agriculture. Agricultural uses would be affected by the proposed project, primarily from construction of the structure replacements. Western would compensate landowners for damages, including crop losses, due to construction activities. The two proposed reroutes would eliminate two crossings of U.S. Highway 2 and move the transmission line further away from an existing ranch house, respectively. The latter reroute would conflict with two proposed center pivot irrigation systems. Western would negotiate a ROW agreement with the affected landowner with the understanding that the future irrigation systems would need to be redesigned or relocated. Based on the compensation proposed for landowners for damages from construction and Western's discussions with landowners on siting the proposed reroutes, Western has concluded

that the proposed project would not cause a direct, indirect, or cumulative significant impact to land use.

Visual Resources. The proposed transmission line rebuild parallels U.S. Highway 2 and 22 miles of the transmission line are within ¼ mile of the highway. The proposed transmission line rebuild would continue to be in or near the existing ROW. The proposed reroutes would move the line further from U.S. Highway 2, resulting in an improvement to visual resources. Because an existing transmission line would be rebuilt and the area contains no highly distinctive or important landscape features, the proposed project would not significantly impact visual resources.

Electric and Magnetic Field Effects. The EA includes an analysis of the potential impacts of the proposed transmission line on radio-frequency interference, photochemical oxidant generation, audible noise, nuisance shocks, hazardous shocks, and electric and magnetic field exposure. The long-term, mostly residential magnetic exposure, which is the root of the present health concern, would be insignificant for the proposed transmission line rebuild given the general absence of residences along the proposed transmission line. Public exposures would be short term and at levels expected for similar Western designs and current carrying capacity. Such exposures are well understood and have not been established as posing a health hazard to humans. The potential for nuisance shocks would be minimized through grounding and other field-reducing measures to be implemented in keeping with common industry practices. The use of low-corona line design, together with appropriate corona-minimizing construction practices, would minimize the potential for corona noise and its related interference with radio-frequency communication. Based on the above, Western has concluded that the proposed transmission line would not cause significant adverse impacts related to safety, radio-frequency interference, audible noise, nuisance shocks, hazardous shocks or electric and magnetic field exposure.

Cultural Resources. Literature and pedestrian surveys were completed for the project area. No cultural resources were identified in the project area within North Dakota. Twenty cultural resources sites were identified in Montana, and 15 of the 20 resources were located on Fort Peck Indian Reservation land. Fifteen of the cultural resources are recommended as ineligible for listing on the National Register of Historic Places (NRHP). Two sites are recommended as eligible for listing on the NRHP: the Chelesa Church and the U.S. Highway 2 road segment and bridge over Tule Creek. The Chelesa Church would be avoided during construction and maintenance of the transmission line rebuild. The Tule Creek Bridge would be located before construction and the site would be avoided during construction. No recommendation for eligibility for listing on the NRHP has been provided for 3 sites: a rectangle alignment of about 55 stones, a tipi ring, and a lithic scatter, but these sites would be treated as eligible. These 3 sites would be located before construction and they would be avoided and monitored during construction.

Western determined that the proposed project would not have an adverse effect on any sites listed or eligible for listing on the NRHP. Western's determination was

provided to the Fort Peck Tribes, the Trenton Indian Services Area, and the Montana and North Dakota State Historic Preservation Offices (SHPO). The Fort Peck Tribes concurred with Western's determination in a letter dated January 15, 2003. The Montana SHPO and North Dakota SHPO concurred in letters dated February 12, and April 2, 2003, respectively. The Trenton Indian Services Area did not respond to Western's letter.

The cultural sites identified through literature and/or pre-construction surveys would be avoided, and as a result, no significant impact to these sites would occur. Tribal representatives will monitor construction activity near known prehistoric cultural sites. If historic or prehistoric materials are discovered during monitoring of earth disturbing construction activities, construction would be halted and Western would initiate procedures outlined in 36 CFR part 800, Protection of Historic Properties. These procedures include evaluating the find for eligibility and determining appropriate treatment with the Tribes, and the Montana and/or the North Dakota SHPO. With this provision, no significant impact to cultural resources is expected as a result of construction, maintenance, or operation of the proposed project.

Native American Religious Concerns. An unmitigated adverse effect to a traditional cultural property or a burial site would constitute a significant adverse impact. Consultation with the Fort Peck Tribes and the Trenton Indian Ser-vice Area has not revealed any sensitive cultural, religious, or traditional use areas that would be adversely impacted by the proposed project. Therefore, no significant impact would occur to Native American Religious concerns.

Recreation. Significant impacts would occur if developed recreational opportunities suffered long-term disruption or displacement. Effects on dispersed recreational opportunities in the project area would be minor and short-term, due to project length and area. Western anticipates no impacts on area campgrounds or recreational destinations in the area. No significant impact on recreation resources in the project area would occur.

Environmental Justice. About 52 miles of the proposed transmission line rebuild lie within the exterior boundaries of the Fort Peck Indian Reservation in Montana. Western has involved the Fort Peck Tribes in the environmental review and planning activities for the project. No potential impacts to human health or the environment have been identified that would constitute a disproportionate impact to Fort Peck Tribal members. Therefore, there are no significant environmental justice impacts.

Determination -- Based on the analysis in the EA, Western has determined that securing permits to discharge stormwater runoff, avoiding any discovered mountain plover nesting areas, and monitoring and avoiding known cultural resource sites to avoid impacts during construction are mitigation measures needed to reduce the potential for a significant environmental impact. The implementation of these measures is addressed in a mitigation action plan (MAP) issued concurrently with the EA. The analyses contained in the EA, along with the mitigation commitments in the MAP,

indicate that the proposed action is not a major Federal action significantly affecting the quality of the human environment. Western has determined that preparation of an EIS is not required.

Issued: August 25, 2003.

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Administrator