CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	161kV 434C Reserve St – Target Range Transmission Line Relocation & Redesign
Proposed Implementation Date:	Spring 2019
Proponent:	Northwestern Energy
Location:	Clark Fork River Crossing within W2 of Govt. Lot 2 (SWNW), Section 19, T13N-R19W
County:	Missoula

I. TYPE AND PURPOSE OF ACTION

Northwestern Energy has submitted an easement application (60' wide X 216' long - 0.30 acres) for the installation and use of a 161 KV electric transmission line over the Clark Fork River. This proposed installation (relocation & redesign) is intended to eliminate future power outages associated with the river damaging the current (existing) power line, thereby providing an increased level of reliability as well as a reduced need for repairs associated with spring flooding. This line is extremely important to the operation of the electric grid within the area, providing redundancy needed to operate the transmission system in western Montana. Following construction of the proposed new river crossing, the existing power line (located approximately 700 feet downstream) would be abandoned and the cleared power line corridor on each side of the river would be reclaimed and disturbed areas revegetated.

Montana Code (MCA 70-16-201) provides for state ownership from the low water mark to the low water mark on navigable water bodies. Based on historical evidence, the Clark Fork River is commercially navigable from Deer Lodge, Montana to the Idaho state line. Therefore, the state claims ownership of the riverbed below the low water mark between these two points.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:
Provide a brief chronology of the scoping and ongoing involvement for this project. List number of individuals contacted, number of responses received, and newspapers in which notices were placed and for how long. Briefly summarize issues received from the public.

Affected landowners along the proposed relocation route of the powerline have been contacted. The City of Missoula owns the land on both sides of the river at the proposed new crossing and is currently using the site as a city park. Northwestern Energy has been working closely with City Parks Department employees Morgan Valliant and Elizabeth Erickson. In addition, the proposal has gone before the City Conservation Committee and has received unanimous support from the Parks and Recreation Board. The proposal still needs the final approval of the Missoula City Council

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:
Examples: cost-share agreement with U.S. Forest Service, 124 Permit, 3A Authorization, Air Quality Major Open Burning Permit.

Missoula City – floodplain permit (south bank of river)
Missoula County - floodplain permit, (north bank of the river)
Missoula County Conservation District – 310 Permit
US Army Corps of Engineers – 404 Permit

3. ALTERNATIVE DEVELOPMENT:
Describe alternatives considered and, if applicable, provide brief description of how the alternatives were developed. List alternatives that were considered but eliminated from further analysis and why.

Two alternatives are being considered:

1) No Action – continue to utilize the existing power distribution infrastructure at its current location.

2) Proposed Action – Relocate and redesign a segment of existing aerial transmission line, including a new crossing of the Clark Fork River approximately 700 feet upstream of the current transmission line (see attached aerial photo of existing and proposed routes). The relocated crossing is in a more stable reach of the river. As part of this proposal, the new transmission line supports would be single pole structures located further back (approximately 350') from the edge of the river to minimize the risk of future river bank scour. In addition, proposed support poles would be mounted on 8 to 10 feet diameter concrete pedestals (piers) rising 4' above ground level and extending approximately 30 feet below ground level. This design is intended to protect the structures from floodwater and debris.
   Following construction, the original segment of line would be removed, the corridor reclaimed and the easement abandoned. The location of the proposed rerouted segment of transmission line was a cooperative effort between Northwestern Energy and the City of Missoula (landowner on both sides of the river).

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify direct, indirect, and cumulative effects to soils.

Existing Conditions: The proposed action occurs in an area within the Missoula Valley that has filled with Quaternary unconsolidated deposits greater than 200 feet thick (see Montana Bureau of Mines and Geology July 2007 publication – Montana Ground-Water Assessment Atlas 4, Part B, Map 3, by Larry N. Smith). The transmission line relocation project is within a broad floodplain of the Clark Fork river. The state land involved is located below the low water marks of this navigable river.

No Action: No effects; however, there would remain an elevated risk of future flood damage which could result in power outages and require additional repairs.

Proposed Action: Proposed ground excavations would be limited to areas where existing transmission line support poles would be removed and areas where new support poles would be installed. Equipment operations would not occur during high soil moisture conditions and tracking of equipment outside of existing road and trail prisms would be limited to what is necessary for completing the project.

The State property lies below the low water marks of the Clark Fork River. Soil/mineral resources under the river would not be directly affected by the proposed project.

Impacts to soil quality, stability, and moisture are not anticipated with this project.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify direct, indirect, and cumulative effects to water resources.

No Action: No effects; however, there would remain an elevated risk of future flood damage which could result in power outages and require additional repairs.

Proposed Action: Surface water would not be encountered by the proposed action. The nearest surface water is the Clark Fork River. Proposed ground excavations would be limited to areas where existing transmission line support poles would be removed and where installation of the new support poles would occur. The support pole removal sites would be closest to the river, while the new transmission line pole locations would be located approximately 350 feet back from the river bank, thereby limiting the risk of sediment delivery that could affect water quality. The project proponent (Northwestern Energy) would acquire a Montana Natural Streambed and Land Preservation Act (310) permit from the local Conservation District prior to initiating the project. This permitting program includes a review of the proposed activities to minimize soil erosion and sedimentation.

Excavated waste from the removal of the existing transmission line supports would be disposed of at a waste facility. Soils excavated for the new support piers would be stabilized such that the material cannot deliver to surface waters, thereby preventing risk of effect to water quality.

Groundwater may be encountered when and where the new support piers would be excavated prior to pouring the concrete tower bases. Impacts to groundwater quality, quantity, and distribution are not expected.

Impacts to water quality, quantity, and distribution are not anticipated with this project.

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6. AIR QUALITY:

What pollutants or particulate would be produced (i.e. particulate matter from road use or harvesting, slash pile burning, prescribed burning, etc)? Identify the Airshed and Impact Zone (if any) according to the Montana/Idaho Airshed Group. Identify direct, indirect, and cumulative effects to air quality.

No Action: No effects; however, there would remain an elevated risk of future flood damage which could result in power outages and require additional transmission line repairs.

Proposed Action: A minor amount of emissions associated with the operation of motorized equipment would be produced during power line construction and removal. These operations would not be expected to take more than a few weeks to complete.

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7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify direct, indirect, and cumulative effects to vegetation.

No Action: No effects.

Proposed Action: The State property lies below the low water marks of the Clark Fork river and does not support terrestrial vegetation. The proposal involves an aerial transmission line suspended over the river bed, Installation of the transmission lines would be done by helicopter, thus there would be no impact to either terrestrial or aquatic vegetation on state trust land.

The proposed relocation would involve some right-of-way clearing of a new transmission line corridor on adjacent city-owned land as well as reclamation/revegetation of the old transmission line corridor.

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8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify direct, indirect, and cumulative effects to fish and wildlife.

Existing Conditions: Terrestrial and Avian Wildlife
Limited habitats for terrestrial wildlife exist in the project area. Surrounding uplands and riparian habitats likely support a variety of wildlife species, but human disturbance in the vicinity has reduced overall species use of these habitats through time.

No Action: No disturbance to terrestrial wildlife would occur. No changes to existing habitats would be anticipated. Collectively, no effects to terrestrial wildlife would be anticipated.

Proposed Action: Some short-duration disturbance to terrestrial wildlife could occur outside of the breeding or nesting periods when individuals are less sensitive to disturbance. No appreciable changes to existing habitats on DNRC-managed lands would be anticipated, small changes to habitats on other ownerships would occur. Collectively, negligible effects to terrestrial wildlife would be anticipated.

Existing Conditions: Fisheries
The Clark Fork River supports a diverse fishery. Species present include bull-trout, westslope cutthroat trout (WCT), mountain whitefish, northern pike minnow, longnose dace, longnose sucker, slimy sculpin, brown trout, rainbow trout, brook trout, northern pike and other minor species (MFISH 2016). Both westslope cutthroat trout and bull trout are considered sensitive species by DNRC. Bull trout is a federally threatened species and potential for impacts to this species are discussed in detail in Section 9 below.

No Action: No disturbance to fisheries would occur. No changes to existing habitats would be anticipated. Collectively, no effects to fisheries would be anticipated. There would remain an elevated risk of future flood damage which could result in power outages and require additional repairs

Action Alternative: The proposed activities would occur above the channel of the river and there would be no disturbance to channel banks or bed. A Storm Water Pollution Prevention Plan would be in place during construction to prevent sedimentation impacts to the river.

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9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify direct, indirect, and cumulative effects to these species and their habitat.

Existing Conditions: Terrestrial and Avian Wildlife
Limited habitats for terrestrial wildlife exist in the project area. Some use of the project area by bald eagles could occur. Surrounding riparian habitats likely support a variety of wildlife species, including common species as well as less common species such as great blue herons, yellow-billed cuckoos, and pileated woodpeckers. Proximity to human developments and numerous other forms of human disturbance likely limits some wildlife use of the vicinity.

No Action: No disturbance to terrestrial wildlife would occur. No changes to existing habitats would be anticipated. Collectively, no effects to terrestrial wildlife would be anticipated.

Proposed Action: Some short-duration disturbance to terrestrial wildlife could occur. Proposed activities would largely occur outside of the bald eagle nesting season, but some disturbance to foraging bald eagles could occur. The proposed activities would occur during the fall and early winter, which would be expected to occur outside of the nesting period for numerous sensitive avian species that could be using habitats on adjacent ownerships. No appreciable changes in bald eagle prey species would be anticipated. No appreciable changes to existing habitats for other species would be anticipated. Collectively, negligible effects to terrestrial threatened, endangered, or sensitive wildlife species would be anticipated.

Bull Trout: Bull trout is a federally threatened species. This reach of the Upper Clark Fork River is considered occupied by bull trout habitat.

Bull Trout- No Action: No disturbance to fisheries would occur. No changes to existing habitats would be anticipated. Collectively, no effects to fisheries would be anticipated.

Bull Trout Action: The project would not impact the bed or banks of the Clark Fork River. There would be no direct, indirect or cumulative impacts to bull trout, with the proposed relocation (construction and abandonment) of this aerial transmission line.

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10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine direct, indirect, and cumulative effects to historical, archaeological or paleontological resources.

No Action: No effects; however, there would remain an elevated risk of future flood damage which could result in power outages and require additional repairs

Proposed Action: A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the area of potential effect (APE). This entailed inspection of project maps, DNRC's sites/site leads database, land use records, General Land Office Survey Plats, and control cards. The Class I search revealed that no cultural or paleontological resources have been identified in the APE. Because the area of potential effect on state land is the bed of the Clark Fork River, no cultural resources are present. No additional archaeological investigative work will be conducted in response to this proposed development. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

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11. AESTHETICS:

Determine if the project is located on a prominent topographic feature,or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify direct, indirect, and cumulative effects to aesthetics.

Existing Conditions: The proposed action is within the City of Missoula. The riparian river corridor provides a break from adjacent urban development. The City has recently focused attention towards preserving open space along the river corridor and has developed a recreational trail system on the south bank of the river.

No Action: No effects; however, there would remain an elevated risk of future flood damage which could result in power outages and require additional repairs

Proposed Action: The proposal to relocate the existing power transmission line approximately 700 feet upstream would not be expected to cause additional impacts to the aesthetics of the river corridor.

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12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify direct, indirect, and cumulative effects to environmental resources.

No Action: There would continue to be a greater potential for extended power outages associated with spring flooding damage to the existing power transmission line. Northwestern Energy would continue to experience a higher than normal cost associated with recurrent repairs to this existing line.

Proposed Action: The proposal is to relocate a segment of an existing power transmission line. A segment of the existing line would be removed, reclaimed and the easement abandoned upon completion of line relocation. The proposed new line location is in an area with a narrow river channel that is less susceptible to flooding damage. Unlike the current line, support poles on the new line have been designed to accommodate spring flooding. The total length of the proposed power line relocation is approximately 240 feet less than the existing line proposed to be abandoned. The area of land below the low water mark of the river (ownership claimed by the State) on the proposed route is significantly less than the current route (0.30 acres versus 1.86 acres).

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

None

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

No Action: There would continue to be a greater potential for extended power blackouts associated with spring flooding damage to the existing power transmission line. Potential loss of power could have public safety implications.

Proposed Action: Implementation would provide an increased level of reliability and redundancy important to the operation of the electric grid system in western Montana Missoula. Improved power supply reliability would reduce potential public safety issues.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

No Action: Potential loss of power could have adverse economic effects for existing and future industrial, commercial and agricultural operations.

Proposed Action: Implementation would provide an increased level of reliability to industrial, commercial and agricultural customers. Additional reliability in power supply would reduce the potential for lost service, production and potential safety issues. There would be a benefit to the community associated with a reduction in the frequency and duration of power outages.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify direct, indirect, and cumulative effects to the employment market.

No Action: No effect

Proposed Action: The installation and removal of power transmission lines crossing the Clark Fork river (state trust land) would be done by helicopter. It is anticipated this work could be done in approximately two days and would involve a support crew of approximately 10 people.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify direct, indirect, and cumulative effects to taxes and revenue.

No Action: No effect.

Proposed Action: Relocation of the proposed transmission line is not expected to appreciably change the taxable value of Northwestern Energy property.

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18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify direct, indirect, and cumulative effects of this and other projects on government services

No Action: No effect

Proposed Action: By improving the reliability of the power transmission system, there may be a reduction in the need for government services to deal with the impacts of power outages.

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19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

No Action: No effect

Proposed Action: The City of Missoula has been acquiring lands adjacent to the Clark Fork River as open space for the community. Northwestern Energy has been working closely with Missoula City Parks Department employees Morgan Valliant and Elizabeth Erickson to locate the route of the power transmission line in a location that would minimize impacts to City-owned property. In addition, the proposal has gone before the City Conservation Committee and has received unanimous support from the Parks and Recreation Board. The proposal will need final approval from the Missoula City Council. This proposal would be subject to permitting by the Missoula County Conservation District (310 Permit), the Montana Department of Environmental Quality (SWPPP), by both the City of Missoula and Missoula County (Floodplain Permits) as well as by the US Army Corps of Engineers (404 Permit).

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20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify direct, indirect, and cumulative effects to recreational and wilderness activities.

No Action: No effect

Proposed Action: No effect.
The area adjacent to the state ownership (below low water mark of the river) is owned by the City of Missoula and is managed as an open space river corridor within an urban setting. There is a public parking area at the north end of Tower Street that accesses a developed trail system on the south bank of the river. This trail system receives a moderate level of recreational use (100 people/day estimate). The lands on the north bank of the river are also city-owned and receive a minor amount of recreational use (5 people/day estimate) The property does not provide access to wilderness.

The proposal to relocate the aerial transmission line is not expected to appreciably effect recreational use of the property.

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21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify direct, indirect, and cumulative effects to population and housing.

No Action: No effect

Proposed Action: The proposal is intended to improve the reliability of electrical service. There could be a slight (likely unmeasurable) growth inducing effect to population and housing associated with improved electrical service to the area served by this powerline.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

No Action: No effect

Proposed Action: No effect

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

No Action: No effect

Proposed Action: No effect

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify direct, indirect, and cumulative economic and social effects likely to occur as a result of the proposed action.

No Action: No effect

Proposed Action: An easement approximately 216' long and 60' wide involving .30 acres of land would be granted to Nothwestern Energy Corporation for an aerial power transmission line. The cost of this easement would be calculated at ½ the value similar adjacent properties. The revenue collected would be deposited in the permanent fund for the Public Lands Navigable Waters Trust account. This trust is for the support of public schools (K-12) facilities and technology needs.

EA Checklist Prepared By:	**Name:**	Robert H Storer	**Date:**	November 21, 2018
	Title:	SW Land Office Trust Lands Program Manager		

V. FINDING

25. ALTERNATIVE SELECTED:

I select the proposed Action Alternative.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

I find that implementation of this alternative will not cause significant environmental impacts. The proposed improvements/relocation of the existing powerline will serve to reduce the potential for impacts to the powerline during flood events and will provide increased stability to the power grid in Missoula.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ] EIS	[ ] More Detailed EA	[X] No Further Analysis

EA Checklist Approved By:	**Name:**	Jonathan Hansen
	Title:	Missoula Unit Manager
Signature: Jonathan Hansen	**Date**: November 30, 2018	

Existing (green) and Proposed (red) 161kV line segments that cross the Clark Fork River at the north end of Tower St.