

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Big Hole River Boring Project
Proposed Implementation Date:	Summer 2009
Proponent:	Southern Montana Telephone Company
Location:	SE ¼, SW1/4, NW1/4 Section 26 Township 1North – Range 14 West
County:	Beaverhead County

I. TYPE AND PURPOSE OF ACTION

Install underground telecommunications cables under the Big Hole River bed by boring under the river.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

The following groups and or people were contacted concerning this project;

Skyline Sportsmen's Association Inc Butte Montana (Leroy Mehring)
Anaconda Deerlodge Planning Department, (Connie Daniels)
Montana Fish Wildlife and Parks, (Jim Olson, Fisheries Biologist)
Christiansen East Bench Ranch, Ted Christiansen (adjoining property owner)
Bob and Diane Hutton, (adjoining property owner)
Montana Action for Access, Tony Schoonen
George Grant Chapter of Trout Unlimited, Josh Vincent
Bureau of Land Management, Dillon Field Office
Paul Olson, (adjoining property owner)
Beaverhead Conservation District
Anaconda Deer lodge Conservation District
National Historical Society
Montana DNRC Archeologist (Patrick Rennie)
Montana DNRC Hydrologist (Tom Hughes)

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Army Corps of Engineers
Beaverhead Conservation District (310 Permit) June 18, 2008
Anaconda Deerlodge Conservation District (310 Permit) April 14, 2009

3. ALTERNATIVES CONSIDERED:

Alternative A: No Action Alternative; selecting this alternative DNRC would deny Southern Montana Telephone Company an Easement to bore under the Big Hole River to install an underground telecommunication cables.

Alternative B: Attach the underground telecommunications cables to the existing highway bridge. In so doing no disturbance to the river bank would occur. Heberly and Associates Consulting Engineers for Southern Montana Telephone Company submitted the following cost estimates for attaching the cables to the bridge. \$16,904.00

Alternative C: Approve as originally proposed with slight modifications based on the scour report from the Montana Department of Transportation. Bore under the river to a depth of 84 inches and install approximately 220' of 72 fiber optic cable and 25 pair 22 AWG copper cable in a 4 inch plastic duct for this crossing. The cost estimate for boring under the river and placing the cable under the river will cost \$7,030.00. This estimate was based on Southern Montana Telephones Companies original proposal of a 42" depth of boring. The scour report submitted to the DNRC indicates that the cable will need to be buried at 84 inches.

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 any cumulative impacts to soils.

There are two soils types identified in the project area. The first in Beaverhead County on the south side of the river is a fine –loamy alluvium called Nana-Zelda-Foolhen complex. The soils are found in flood plains and are poorly drained. They have a land capability classification of 7s and are sub- irrigated.

On the north side of the river soils are Danielvil Loam which is a coarse-loamy alluvium that is well drained with a land capability classification of 6e. Soils at the depth of this proposed project are stratified sandy loam to sandy clay loam on the north side of the river and cobbly sandy loam on the south side of the river.

None of the proposed alternatives would have much effect on the soils on either side of the Big Hole River. The no action alternative would have the least impact for no disturbance would occur. Boring would cause some soil disturbance during the boring procedure but it would be contained in a small area outside of the high water mark of the stream.

Attaching the cables to the bridge would cause some soil disturbance as well. A 50' trench would need to be dug to a depth of 42" to reach the bridge. This would be directly above the river and would require mitigation measures such as a filtration fence to be constructed, and the disturbed area seeded with native grasses. The filtration fence would reduce the amount of soil erosion that would reach the river.

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 cumulative effects to water resources.

The Big Hole River is a free flowing river for its entire length and is listed as a "Blue Ribbon" fishery by the Fish Wildlife and Parks. The Montana Fisheries Information System rates the river a "2" on a scale of six, with one being the highest rating. Currently the Montana DEQ has not completed Total Maximum Daily Load (TMDL) levels for the Big Hole River so TMDL information is currently not available. The Environmental Protection Agency (EPA) in their most recent report (2006) on the river states that: TMDL's are needed for copper and lead levels as well as for the water temperature for the Big Hole River.

This proposed project has a small foot print no matter which alternative is chosen. The boring alternative has the possibility of introducing bentonite into the river during the boring process. The mineral bentonite is used as a drilling fluid and is pumped through the drill head during the drilling and pulling process. The drilling fluids main objective is to avoid collapse of the drilled cavity. None of the proposals however should affect the TMDL referenced above by the EPA for the project should have no effect on copper, or lead levels and the proposal won't effect water temperatures.

The NRCS soil survey indicates that the soils at the proposed depth of the boring proposal, (84") are sandy loams and cobbly sandy loams on the south side of the river. This would indicate that leakage of the bentonite at this location is limited.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

None of the proposed alternatives would have any measurable effects on air quality.

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 cumulative effects to vegetation.

The dominant range species in this area include Richardson needlegrass, Threadleaf sedge, Idaho fescue, and Willows. There is no endangered or rare plant communities located within this proposed projects location. The two action alternatives have small footprints and neither of them will cause much ground disturbance or damage to vegetation on the site. An NRIS search revealed two sensitive species that are located near this proposal,

Eriogonum soliceps, Railroad Canyon Wild Buckwheat is listed as a sensitive species by the BLM and is located within 1 mile of the proposed project. This proposal will have no measurable effects on the Wild Buckwheat due to its distance from this sensitive species.

Penstemon lemhiensis, Lemhi Beardtongue is listed as a sensitive species by the BLM and Forest Service. An NRIS search indicates that the plant is within ¼ mile of the project area. Attaching the cables to the bridge or boring under the river would not affect the plant in its current location. Before either alternative was selected and implemented however a close inspection of the area should occur to determine if Lemhi Beardtongue has moved in to the proposed project area. If present at the time of installation a DNRC representative would need to be contacted prior to the cable being installed to determine if damage to the plant community would occur.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

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

An NRIS search revealed the following species;

Bufo boreas, Western Toad, Listed as a sensitive species by the Forest Service and BLM. The toad has been observed approximately 2 miles from the project area. Neither of the action alternatives would have any measurable effect on the Western Toad due to the projects location and small impact of the alternatives.

Numenius americanus, Long –billed Curlew, Listed as a sensitive species by the BLM has been observed within 1mile of the project area. The DNRC is not aware of any nesting habitat within the project area, because of this neither action alternative would have any measurable effects on Curlews in the area.

Spizella breweri, Brewer's Sparrow, are listed as a sensitive species by the BLM. An NRIS search revealed that the sparrow has had activity within ¼ mile of this proposal. Currently there are no known nests in the proposal area and the communications cables will be located either underground or attached to the bridge where no long term effects to the sparrow are anticipated. There may be disturbance of the species during the construction phase of this project which should only last a couple of days.

Thymallus arcticus, Arctic Grayling, are found in the Big Hole River at the location of this proposed crossing. The Fish Wildlife and Parks has been working on increasing the number of Grayling in the river for the past 17 years. Because neither alternative will affect river flow, heat up the river, or introduce appreciable amounts of sediment none of the alternatives will have measurable impacts on the arctic grayling and no long term effects

are anticipated by either alternative. A scour report that was done by the Montana Department of Transportation for the bridge that was constructed in 1960 found that the pier footings for the bridge needed to be at least 7 feet (84inches) below the surface of the bed of the river. Subsequent inspections of the bridge every two years since revealed that little scour around the bridge piers has occurred. Dick Oswald fisheries biologist for the FWP indicated that if the boring alternative is chosen the cables should be buried at least 84" below the surface of the river bed. Conservatively speaking this should allow the cables to remain buried under the river bottom even if a catastrophic event occurred. The scour report that was received is attached and made part of this Environmental Assessment.

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 cumulative effects to these species and their habitat.

No threatened or endangered species have been documented within the project area. Occasional use of the area by gray wolf could potentially occur but is generally considered outside of their normal occupied habitat. Preferred habitat for lynx and wolverine is not present within the project area however these species could be seen crossing the river in the location where the cable will be buried or attached. No effects to endangered species are foreseen by either action alternatives.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

Patrick Rennie, Montana DNRC Archeologist was contacted about this proposal and determined that no additional archaeological investigative work was required because the original proposal was below the high water mark of the Big Hole River.

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 cumulative effects to aesthetics.

The cables will be either below ground or connected to the bridge so little aesthetic values will be compromised. Once vegetation has grown back it will be difficult to see where the cables are located.

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 cumulative effects to environmental resources.

No cumulative effects are anticipated from this project to land, water or air.

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.

The DNRC has approved a post and rail permit for the area near this project in Section 36, T 1N – R 14W. In addition two Timber sales have occurred near this proposed site. The first timber sale has regenerated and the site is considered fully stocked. This proposal will have no long term cumulative impacts on the area.

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.

Both alternatives would occur near a state highway where traffic is minimal. Both action alternatives however could cause safety concerns with traffic using the road. Men working signs should be posted to Montana DOT standards prior to either action alternative being implemented.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

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

None of the alternatives will effect commercial activities in the area.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

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

None of the alternatives will provide any long term employment opportunities.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

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

None of the alternative will have any measurable affect on the county or state tax base or revenues.

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 cumulative effects of this and other projects on government services.

None of the alternatives will affect the need for additional government services.

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.

There are no zoning ordinances associated with this type of project in either Beaverhead or Anaconda Deerlodge County.

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 cumulative effects to recreational and wilderness activities.

This proposal will not affect the quality of recreational activities in this area.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

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

This proposal may effect population and housing in the area. With the introduction of high speed internet access this project may allow additional population to live in a rural area and work from home.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

None of the alternatives will disrupt traditional lifestyles or the local communities.

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

None of the alternatives will have any measureable impacts on the cultural uniqueness of the area.

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 cumulative economic and social effects likely to occur as a result of the proposed action.

Both action alternatives would provide approximately the same amount of income to trust. There is approximately 0.13 acres of state land which will be crossed @\$1000.00/ acre would generate \$130.00 of income.

EA Checklist Prepared By:	Name: Timothy Egan	Date: May 12, 2009
	Title: Dillon Unit Manager	

V. FINDING

25. ALTERNATIVE SELECTED:

I have selected Alternative C, recommend an easement be issued to Southern Montana telephone Company for an underground communications cable at a minimum depth of 84 inches.

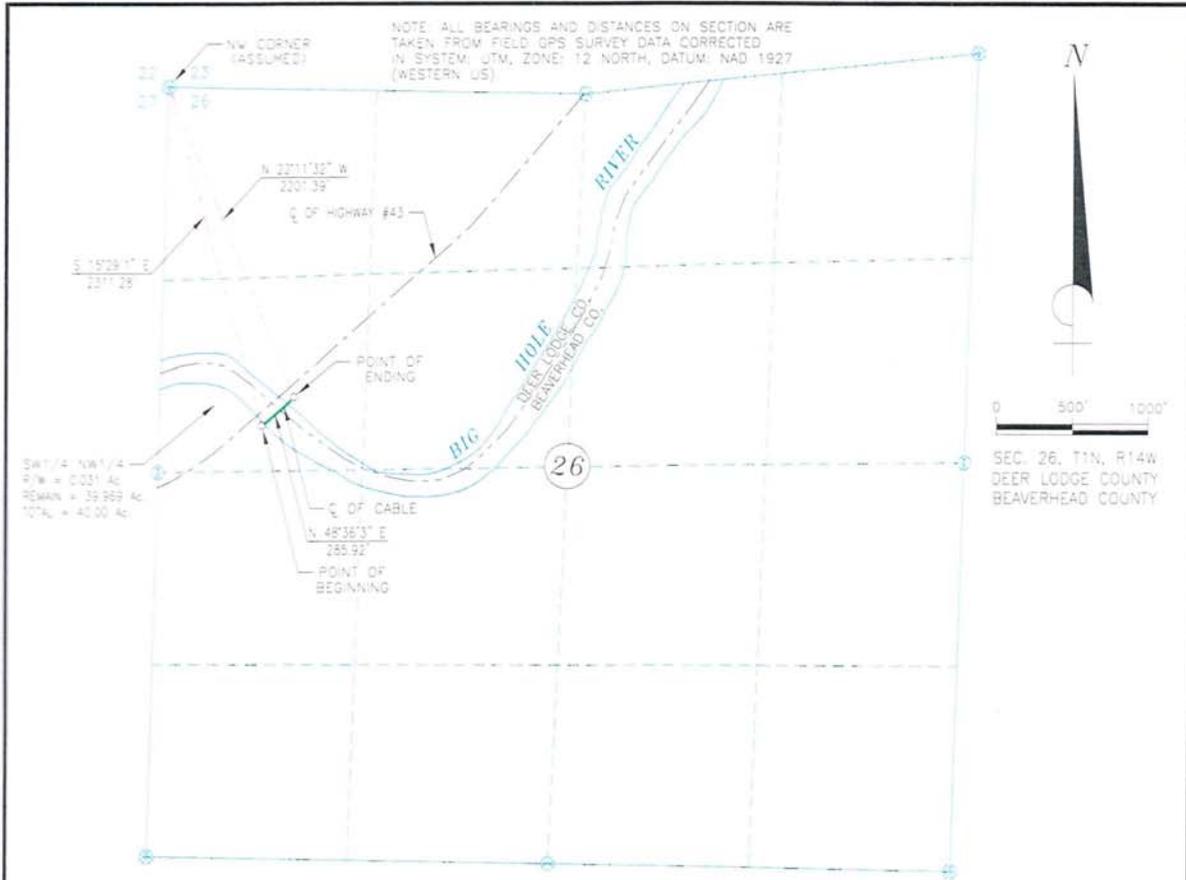
26. SIGNIFICANCE OF POTENTIAL IMPACTS:

I have reviewed the EA and determined significant impacts are not likely to occur as a result of the proposed action. Burying communications cables beneath river crossings is a common and proven successful practice throughout the state. The minimum depth of 84" will prevent impacts to the river provided the operation is conducted in compliance with other regulatory permits (310 and 404). The area impacted would have a very small footprint and unlikely to have potential for significant impacts.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS More Detailed EA No Further Analysis

EA Checklist Approved By:	Name: Garry Williams
	Title: Area Manager, Central Land Office
Signature: /S/ Garry Williams	Date: May 13, 2009



NOTE: ALL BEARINGS AND DISTANCES ON SECTION ARE TAKEN FROM FIELD GPS SURVEY DATA CORRECTED IN SYSTEM: UTM, ZONE: 12 NORTH, DATUM: NAD 1927 (WESTERN US)



SEC. 26, T1N, R14W
DEER LODGE COUNTY
BEAVERHEAD COUNTY

SW 1/4 NW 1/4
R/W = 0.031 Ac
REMAIN = 39.969 Ac
TOTAL = 40.00 Ac

DESCRIPTION

A RIGHT-OF-WAY FOR AN UNDERGROUND TELEPHONE COMMUNICATIONS CABLE EXTENDING 10.0 FEET ON EACH SIDE OF A CENTERLINE ALL WITHIN THE SW 1/4 NW 1/4 OF SECTION 26, TOWNSHIP 1 NORTH, RANGE 14 WEST OF THE PRINCIPAL MERIDIAN, MONTANA, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST QUARTER CORNER OF SAID SECTION 26; THENCE SOUTH 15°29'1" EAST A DISTANCE OF 2311.28 FEET TO THE POINT OF BEGINNING OF THE RIGHT-OF-WAY CENTERLINE; THENCE ON AND ALONG THE RIGHT-OF-WAY CENTERLINE ON A BEARING OF NORTH 48°36'3" EAST A DISTANCE OF 285.92 FEET TO THE POINT OF ENDING OF THE RIGHT-OF-WAY CENTERLINE; THENCE NORTH 22°11'32" WEST A DISTANCE OF 2201.39 FEET TO THE NORTHWEST CORNER OF SAID SECTION 26

CONTAINED WITHIN THE ABOVE DESCRIBED NEW CONSTRUCTION RIGHT-OF-WAY IS 0.031 ACRES MORE OR LESS.

AFFIDAVIT



JAMES J. [Name] DOULY SWORN, SAYS, THAT HE IS THE CONSULTING ENGINEER FOR SOUTHERN MONTANA TELEPHONE COMPANY WHOSE PRINCIPAL OFFICE IS LOCATED AT WISDOM, MONTANA; THAT THE ABOVE PLAT AND DESCRIPTION WAS PREPARED UNDER HIS SUPERVISION FROM AN ACCURATE SURVEY OF THE RIGHT-OF-WAY CENTERLINE BY SURVEY CREWS UNDER HIS SUPERVISION. THE ABOVE PLAT CORRECTLY SHOWS THE QUANTITY OF LAND REQUIRED FOR THE RIGHT-OF-WAY IN EACH FORTY-FOUR TRACT AND ALSO THE AMOUNT OF LAND REMAINING IN EACH PORTION