CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Haymaker Wind LUL
Proposed Implementation Date:	August 2022
Proponent:	Haymaker Energy Project, LLC
Location:	Martinsdale Area (See table below and attached map for specific State Trust Land Parcels)
County:	Wheatland County, Meagher County
Trust:	Common Schools, Pine Hills School, School for the Deaf and Blind

I. TYPE AND PURPOSE OF ACTION

Haymaker Energy Project, LLC is applying for a Land Use License to access and/or utilize State Trust Land for the following purpose(s): Conduct archaeological, wetland, and related environmental surveys to support agency review of a proposed wind energy project; Electrical resistivity testing will occur in addition to geotechnical boring (utilizing air rotary drilling techniques) to support transmission line structure installation; Conduct site reconnaissance for engineering or wildlife surveys, if needed; Access will be via a combination of 4-wheel drive passenger vehicle, utility or all-terrain vehicle, support pickups, and buggy-mounted or track mounted drill rig, or by foot (pedestrian). Only a portion of the areas described below will be surveyed. See Attachment B-"Q & A Response" provided by the Proponent for a more detailed scope of work.

DNRC Trust Parcels Within Project Area

County/LO	Acres (App.)	Actual Acres	Section	Township	Range	Partial (App.) vs Full Legal Description	Trust
Meagher/CLO	~160	640	16	7N	11E	NW ¼ vs ALL	CS
Meagher/CLO	~160	636.96	4	7N	11E	SE ¼ vs LOTS 1_2_3_4_ S2N2_S2	CS
Meagher/CLO	~160	640	10	7N	11E	NW ¼ vs ALL	P. Hills
Wheatland/NELO	~160	320	16	8N	12E	NW ¼ vs N2	CS
Wheatland/NELO	~320	640	36	9N	12E	S ½ vs ALL	CS
Wheatland/NELO	~160	320	28	9N	12E	S ½ of S ½ vs S2NW4_S2SE4_SW4	D&B
Wheatland/NELO	~160	640.35	30	9N	12E	NE ¼ vs LOTS 1_2_3_4_ E2W2_E2	D&B
Wheatland/NELO	~480	640	32	9N	12E	N ½, SE ¼ vs ALL	D&B
Total:	~1,760	4,477.31					

Appendixes:

Appendix A-Map
Appendix B- Q & A – Scope of Work

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 DNRC did not perform any formal public scoping for this project as this activity is preliminary to the larger renewable energy project which will be analyzed as a result of the activities and the resulting information derived from this project.

Agencies, Groups or Individuals Scoped:	Response:
DNRC, Landowner	Neutral
Haymaker Energy Project, LLC	Proponent/Licensee is in favor of the project.

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

Wheatland County and Meagher County

3. ALTERNATIVES CONSIDERED:

Alternative A (No Action) – Deny the proposal to issue a Land Use License (LUL) to Haymaker Energy Project, LLC to authorize the completion of environmental, cultural, engineering surveys including geotechnical boring. Information necessary to complete an environmental analysis for a proposed renewable energy project will not be collected.

Alternative B (Proposed action) – Approve the proposal to issue a Land Use License (LUL) to Haymaker Energy Project, LLC to authorize the completion of environmental, cultural, engineering surveys including geotechnical boring to collect necessary information for a proposed renewable energy project.

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.

The topography of the lands considered in this project consists of gentle rolling pasture and agricultural lands, coulee breaks, and foothills. According to the NRCS soil survey, soil classifications are many and varied in the project area. These soils occur on various slopes from 2% in rolling pastureland and agricultural lands to 45% in the foothills south of Gordon Butte. Without specific bore locations, soil classifications are difficult to identify. Most of the survey work will not require surface disturbance with the exception of the geotechnical boring. Therefore, mitigations will be developed and listed in the Land Use License based on the expected ground disturbance to address any impacts to soils and geology in the project area.

Alternative A (No Action) – No work will occur. Existing conditions will persist. No direct impacts to geology and soils will occur.

Alternative B (Proposed Action) – The proposed alternative would create short-duration impacts to the geology and soil quality associated with the proposed activities. The proponent will be required to complete reclamation as directed by the stipulations or special conditions listed in the Land Use License. Due to the mitigations described, no cumulative effects to geological features, soils or minerals would occur as a result of the project.

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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.

There are no significant groundwater resources present. The surface water resources in the project area consist of scattered springs. Project activities should require no permitting. These activities will be subject to mitigations and/or avoidance stipulated in special conditions on the Land Use License where they pertain to groundwater resources.

Alternative A (No Action) – No work will occur. Existing conditions will persist. No impacts to water quality, quantity and distribution will result.

Alternative B (Proposed Action) – The proposed alternative will not create impacts to groundwater resources associated with the geotechnical boring or other proposed actions. No cumulative effects to water quality, quantity and distribution would occur as a result of the project.

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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.

The project area is located in the Martinsdale area in Wheatland County and Meagher County. Livestock grazing and farming on the surrounding pasture and agricultural land, rural residential, and recreation are the main uses adjacent to and on these parcels. There may be an a very minor increase in particulate introduced to the air during the boring process.

Alternative A (No Action) – No work will occur. Existing conditions will persist. No impacts to air quality will result.

Alternative B (Proposed Action) – The proposed alternative would create temporary impacts to the air quality associated with the proposed actions. No cumulative effects to air quality are anticipated.

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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 cumulative effects to vegetation.

This general area consists of typical farming, ranching, rural residential areas. These state parcels consist of vegetative groundcover including native and introduced grass species, shrubs, etc. typically found in this part of Central Montana. A review of Natural Heritage data conducted for Township 7 North, Range 11 East, Township 8 North, Range 12 East, and Township 9 North, Range 12 East lists no plant species of concern or special status.

Alternative A (No Action) – No work will occur. Existing conditions will persist. No impacts to vegetation cover, quantity and quality will result.

Alternative B (Proposed Action) – Implementation of this alternative would create short-term, localized impacts to vegetative cover. The proponent will be required to implement remediation recommended by the Department in the Land Use License to mitigate and rehabilitate these short-term, localized impacts. Due to the mitigations described, no cumulative impacts to cover will occur as a result of the proposed actions on state managed lands.

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.

The project area provides fair to good habitat used by birds and wildlife. This project will not greatly diminish the available habitat in this area.

Alternative A (No Action) – No work will occur. Existing conditions will persist. No impacts to terrestrial, avian and aquatic life and habitat will result.

Alternative B (Proposed Action) – Implementation of this alternative would create short-term, localized impacts to terrestrial and avian habitat. No cumulative impacts to life and habitat will occur as a result of the proposed actions on state managed lands.

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.

A review of Natural Heritage data conducted for Township 7 North, Range 11 East, Township 8 North, Range 12 East, and Township 9 North, Range 12 East lists the following animal species of concern in the report: Grizzly Bear, Wolverine, Little Golden Eagle, Great Blue Heron, Ferruginous Hawk, Mountain Plover, Long-Billed Curlew, Thick-billed Longspur. Zero potential species of concern were listed. Zero special status species were listed. None of the State Trust Land parcels are in Core or General Sage Grouse habitat.

Alternative A (No Action) – No work will occur. Existing conditions will persist. No direct impacts to unique, endangered, fragile or limited resources will occur.

Alternative B (Proposed Action) – Due to the low impact and short duration of the proposed actions, no direct, indirect, or cumulative impacts to unique, endangered, or fragile species will occur as a result of the proposed actions on state managed lands

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

One of the purposes of the proposed activities is to identify historical, archaeological or paleontological resources and the resulting impacts of a proposed wind energy project.

Alternative A (No Action) – No work will occur. Existing conditions will persist. No direct impacts to historical and archaeological sites or resources will occur.

Alternative B (Proposed Action) – No impacts to cultural resources are expected.

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 lands considered in this project consist of gentle, rolling pasture, agricultural lands, coulee breaks, and foothills.

Alternative A (No Action) – No work will occur. Existing conditions will persist. No direct impacts to aesthetics will occur.

Alternative B (Proposed Action) – Due to the low impact and short duration of the proposed actions, no direct, indirect, or cumulative impacts to aesthetics will occur as a result of the proposed actions on state managed lands

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.

The area does not contain limited resources. Nearby activities consist mostly of residential, farming, and ranching operations.

Alternative A (No Action) – No work will occur. Existing conditions will persist. No direct impacts to demands on environmental resources will occur.

Alternative B (Proposed Action) – Implementing the Proposed Alternative is not expected to result in any significant impact on environmental resources.

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 is not aware of other projects or plans being considered in the project area regarding this Environmental Assessment Checklist.

Alternative A (No Action) – No work will occur. Existing conditions will persist. No direct impacts to demands on environmental resources will occur.

Alternative B (Proposed Action) – Implementing the Proposed Alternative is not expected to result in any significant impacts to existing plans, studies or projects.

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.

The proposed project would not create human health and/or safety risks associated with the project's activities outside of the normal hazards resulting from the proponent's employees or contractors doing the work.

Alternative A (No Action) – No work will occur. Existing conditions will persist. No direct impacts to Hunan Health and Safety will occur.

Alternative B (Proposed Action) – Implementing the Proposed Alternative is not expected to result in detrimental impacts on Human Health and Safety.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

Nearby activities are typical farming, ranching, rural residential uses.

Alternative A (No Action) – No impacts to industrial, commercial and agricultural activities/production will occur.

Alternative B (Proposed Action) – Implementing the Proposed Alternative is not expected to result in any detrimental impacts to industrial, commercial and agricultural activities and production.

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.

The project would be completed in a relatively short timeframe, and it would not create permanent jobs.

Alternative A (No Action) – No impacts to quantity and distribution of employment will occur.

Alternative B (Proposed Action) – No lasting impacts to quantity and distribution of employment are anticipated.

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.

The land is exempt from property taxation and would continue to generate no revenue for local taxing jurisdictions.

Alternative A (No Action) – No impacts to the state tax base and/or tax revenues will occur.

Alternative B (Proposed Action) – The project may or may not increase local or state tax revenues resulting from potentially increased energy development.

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

Currently, the parcels have a very low demand for government services except for wildfire risk. The area roads are private ranch roads, driveways, county roads, state highways, etc. Increases to traffic will be very minor.

Alternative A (No Action) – No impacts to traffic, road uses, or government services will occur.

Alternative B (Proposed Action) – Implementing the Proposed Alternative is not expected to result increased demand for 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.

DNRC is not aware of other plans or projects in the area.

Alternative A (No Action) – No impacts to local environmental plans and goals will occur.

Alternative B (Proposed Action) – No impacts to local environmental plans and goals are anticipated occur.

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.

Some State Trust parcels may offer recreational opportunities. Temporary disruptions to recreational activities like hunting may occur.

Alternative A (No Action) – No impacts to the quality of recreational and wilderness activities will occur.

Alternative B (Proposed Action) – No lasting impacts to the quality of recreational and wilderness activities are anticipated to occur.

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

The proposal will not include changes to housing or developments adjacent to the State Trust Land or in the area around Martinsdale. The results of the project may provide energy relief to existing development locally or in other areas.

Alternative A (No Action) – No impacts to the density and/or distribution of population and housing will occur.

Alternative B (Proposed Action) – Implementing the Proposed Alternative is not expected to result in impacts to the density or distribution of population or housing.

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

There are no native, unique or traditional lifestyles or communities in the vicinity.

Alternative A (No Action) – No impacts to social structures, native/traditional lifestyles, or communities will occur.

Alternative B (Proposed Action) – No impacts to the area's social structures, native/traditional lifestyles, or communities are anticipated to occur

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

The project area is not distinguished as unique or diverse.

Alternative A (No Action) – No impacts to cultural uniqueness and diversity will occur.

Alternative B (Proposed Action) – No impacts to the area's cultural uniqueness and/or diversity are anticipated to occur.

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.

The purpose of the project is to provide information and data to support agency review, including environmental analysis, of a proposed wind energy project along with gauging feasibility of the proposed wind energy project. The LUL will generate a small amount of revenue for the trust beneficiary while authorizing the activities set forth in the LUL application.

EA Checklist Prepared By:	**Name:**	Andy Burgoyne	**Date:**	March 18, 2022
	Title:	TLMD Program Manager, Central Land Office		

V. FINDING

25. ALTERNATIVE SELECTED:

Action, Alternative B

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

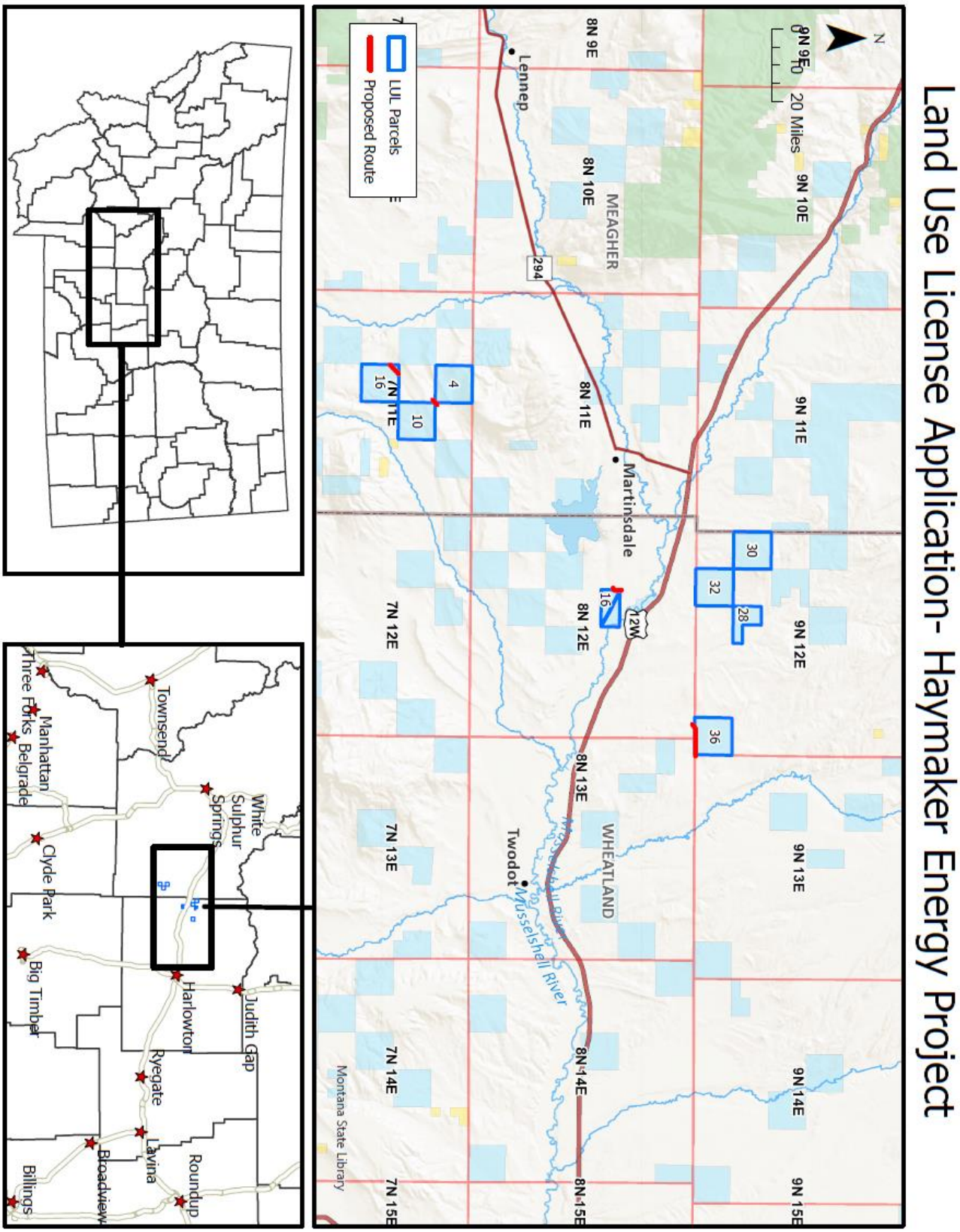
No significant impact

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

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

EA Checklist Approved By:	**Name:Clive Rooney** **Title:NELO Area Manager**
Signature: s/Clive Rooney/s	**Date**: 8/22/2022

Appendix A


Land Use License Application- Haymaker Energy Project
LUL Parcels
Proposed Route
0 10 20 Miles
Lennep
Martinsdale
Twodot
MEAGHER
WHEATLAND
Musselshell River
Montana State Library
9N 9E
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8N 15E
7N 11E
7N 12E
7N 13E
7N 14E
7N 15E
294
12W
Townsend
Manhattan
Three Forks
Belgrade
White Sulphur Springs
Clyde Park
Big Timber
Harlowton
Judith Gap
Ryegate
Lavina
Roundup
Broadview
Billings

Appendix B-"Q &A" scope of work:

- ***What equipment will used?***

  - **<u>Drill Rig and Crew (each crew):</u>**
    - One buggy-mounted or track-mounted drill rig
    - One support truck (typically Ram 4500 or Ram 5500 or heavy-duty pickup truck of similar size). Support trucks will be towing air compressor to each investigation location to facilitate air rotary drilling techniques.
    - Barr representative support truck (typically Ram 2500 or similar)

  - **<u>Geophysical Investigation:</u>**
    - One or two support trucks (typically Ram 2500 or similar)

  - **<u>Electrical Resistivity Testing:</u>**
    - One or two support trucks (typically Ram 2500 or similar)

- ***What is the size of the disturbed area?***

    - Temporary workspace with approximately 50-ft radius around each geotechnical boring location. Actual equipment dimensions are less than the workspace listed, as some additional area is necessary for setup space and navigation.
    - Ground disturbance path approximately 10 feet wide to each investigation location. Where possible, the crews will utilize existing trails and paths to minimize ground disturbance. To the extent possible, the same ground disturbance paths will be utilized during each investigation type (drilling, geophysical testing, electrical resistivity testing, etc.).
    - Geophysical arrays will be approximately 100-ft in length, disturbance along geophysical arrays will be fairly minimal (foot traffic). Geophysical testing anticipated at approximately 10% of proposed wind turbine locations.
    - Substation and switchyard electrical resistivity arrays will be approximately 1,000 to 1,500 feet in length in two perpendicular directions, disturbance along survey will be fairly minimal (foot traffic). Proposed wind turbine electrical resistivity arrays will be approximately 200 feet in length in two perpendicular directions, disturbance along survey will be fairly minimal (foot traffic). Electrical resistivity testing anticipated at approximately 10% to 20% of proposed wind turbine locations.

- ***Depth and width of the bored hole?***

    - Borehole will be approximately 8-12 inches in diameter. Borehole depths anticipated to be approximately 50 to 60 feet at proposed wind turbine locations, 30 to 40 feet deep along proposed transmission line alignment, and 30 to 35 feet deep at proposed substation, 20 to 30 feet deep at other site ancillary locations (O&M building, meteorological towers, etc.), if applicable.

- ***What constitutes a suitable location to do the boring?***

- All locations being considered for proposed infrastructure require geotechnical investigation. Each investigation location needs to be accessible by standard 4WD support (pickup) truck with trailer and needs to be fairly level to allow drill rig to be set up with vertical alignment.

- ***How many of these boring sites are there likely to be?***

  - A minimum of one geotechnical boring at each proposed and alternate wind turbine location. Currently approximately 140 turbines are proposed, but quantities my change pending selection of the wind turbine machine type.
  - Approximately one geotechnical boring per mile along tangent portions of the transmission line alignment and one boring at each transmission alignment turning structure.
  - Approximately 3 to 5 geotechnical borings within the footprint of the proposed substation and switchyard.
  - Approximately 2 geotechnical borings within footprint of proposed O&M building (if applicable).
  - One boring at each proposed meteorological tower location (if applicable).

- ***What condition are these boring sites left in when the process is complete?***

  - Boreholes will be backfilled with cuttings to approximately 5 to 10 feet below grade, followed by bentonite chips from approximately 5 to 10 feet below existing grade to the ground surface.
  - Remaining borehole cuttings, if any, will be spread out near the borehole. To the extent possible, conditions will be returned to pre-investigation.
  - Survey stakes will be left in place unless directed otherwise.

- ***Is there any other information regarding the process you think is pertinent in regard to ground disturbance and the methods used?***

  - Some degree of ground rutting should be anticipated during wet ground conditions (i.e., after precipitation events, following snowmelt and/or freeze/thaw, etc.).
  - Isolated areas throughout the project site, particularly along the proposed transmission line alignment, appear to have vegetation based on a review of site aerial imagery. If geotechnical boring locations are selected in areas inaccessible with a standard 4WD support (pickup) truck, some degree of clearing and grubbing may be necessary to facilitate access and testing.