

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Climbing Arrow Water Well & Water Line – LUL-307-2300002
Proposed Implementation Date:	Summer 2022
Proponent:	Climbing Arrow Ranch LLC
Location:	W2, Section 36, T5N, R5E
County:	Gallatin
Trust:	Common Schools (CS)

I. TYPE AND PURPOSE OF ACTION

Climbing Arrow Ranch, LLC installed a private well and water line on state land in 1988, referred to herein as the “Project”. The location of the Project is within the W2 of Section 36, T5N, R5E. The Project resulted in a temporary disturbance on approximately 0.66 acres and was reseeded to native grass mix. See **Exhibit A**, Project Location Map. The water well and water pipeline are used for stockwater and domestic purposes on the Climbing Arrow Ranch, LLC’s private land east of the Project.

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 Project is located on state-owned land and Climbing Arrow Ranch LLC is the proponent. Agencies involved in the permitting process include the Montana Department of Natural Resources and Conservation, (DNRC) – Trust Land Management Division

Surface Lessee:
ALL, Section 36, T5N, R5E – Lease No. 3917 – Climbing Arrow Ranch LLC

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

DNRC is not aware of any other agencies with jurisdiction or other permits needed to complete this Project. The Project will be permitted under a Land Use License (LUL).

3. ALTERNATIVES CONSIDERED:

Alternative A (No Action) – Deny Climbing Arrow Ranch LLC the requested LUL and permission to operate and maintain the water well and water pipeline.

Alternative B (the Proposed action) – Grant Climbing Arrow Ranch LLC the requested LUL and permission to operate and maintain the water well and water pipeline.

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.

Soil Properties:

There are two types of soils found within the Project footprint.

(393E) Rocko cobbly loam, 15 to 45 percent slopes, stony

These soils consist of very deep (more than 80 inches), well-drained soils. These soils are found within mountain landforms. Available water supply, 0 to 60 inches is about 5.9 inches; the mean annual precipitation for the region is 20 to 24 inches (MT622 – Soil Survey of Gallatin County Area, Montana, Part 1, 2002).

(860E) Bacbuster-Wilsall-Castner complex, 15 to 45 percent slopes

These soils are shallow with Bacbuster being 20 to 40 inches to paralithic bedrock, Wilsall being 10 to 20 inches to paralithic bedrock, and Castner being 10 to 20 inches to lithic bedrock. All soil components are well-drained. These soils are found within hills. Available water supply, 0 to 60 inches is about 6.6 inches (Bacbuster), about 1.9 inches (Wilsall), and about 1.4 inches (Castner); the mean annual precipitation for the region is 15 to 19 inches (MT622 – Soil Survey of Gallatin County Area, Montana, Part 1, 2002).

Soil Stability:

K – Factor:

Soils identified within the Project footprint have a Soil Erodibility (K) Factor of 0.24 (MT622 – Soil Survey of Gallatin County Area, Montana, Part 1, 2002). The K Factor range is 0.02 to 0.69 (0.69 being the most susceptible to sheet and rill erosion by water.) The K Factor is low to moderate for the Project site which indicates a low to moderate susceptibility to erosion by water.

Wind Erodibility Group:

Soils identified within the Project footprint have a Wind Erodibility Group (WEG) of 6 – 7, see **Table 1** below for additional information (MT622 – Soil Survey of Gallatin County Area, Montana, Part 1, 2002). The WEG range is 1 – 8 (1 being the most susceptible to wind erosion and 8 being the least susceptible). The WEG is low to moderate for the Project site which indicates a low to moderate susceptibility to erosion by wind.

Table 1 – WEG Rating by Soil Type

	Soil	Rating
393E	Rocko cobbly loam, 15 to 45 percent slopes, stony	7
860E	Bacbuster-Wilsall-Castner complex, 15 to 45 percent slopes	6

Suitabilities and Limitations for Use:

Shallow Excavations:

Soils identified within the Project footprint were identified as being “very limited” for shallow excavations. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected. (MT622 – Soil Survey of Gallatin County Area, Montana, Part 1, 2002).

Determination:

Effect, Likely to Adversely Effect. The Project resulted in a temporary disturbance on approximately 0.66 acres and was reseeded to native grass mix. The soils have a low susceptibility to erosion but were found to be “very limited” for shallow excavations with a high amount of maintenance expected. There is potential for cumulative impacts to soils.

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.

Surface or Groundwater Resources:

The Project is adjacent to the Unnamed Tributary of Sixteenmile Creek. There are two known water rights within the Project location (411 13775 00 and 411 8162 00). For additional information see

<http://wrqs.dnrc.mt.gov/default.aspx>. The water well was installed in 1988 and has water right of 411 69610-00, for additional information see <http://mbmaggwic.mtech.edu/sqlserver/v11/reports/SiteSummary.asp?gwicid=16796&agency=mbmg&session=1166815&>

Determination:

Effect, Not Likely to Adversely Effect. It is unlikely that the Project will have an impact on the Unnamed Tributary of Sixteenmile Creek through operation and maintenance of the waterline and well. Therefore, the Project is not expected to have negative cumulative effects on water quality.

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.

Air Quality:

There are no Nonattainment areas located on or near the Project, per the Environmental Protection Agency (EPA) Nonattainment area maps (NEPAssist, 2022). The proposed activities will not result in any new air emissions.

Determination:

No Effect. It is not anticipated that the Project would result in negative cumulative 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.

Vegetative Community:

Vegetation around the Project site consists of native rangeland and contains Bluebunch Wheatgrass (*Pseudoroegneria spicata*), Green Needlegrass (*Nassella viridula*), Western Wheatgrass (*Pascopyrum smithii*), Idaho Fescue (*Festuca idahoensis*), Prairie Junegrass (*Koeleria macrantha*), Sandberg Bluegrass (*Poa secunda sandbergii*), Threadleaf Sedge (*Carex filifolia*), Kentucky Bluegrass (*Poa pratensis*), Timothy (*Phleum pratense*), Big Sagebrush (*Artemisia tridentata*), Juniper (*Juniperus*), Douglas Fir (*Pseudotsuga menziesii*), and various forbs. The Natural Heritage Program database did not indicate any plant species of concern within T5N, R5E.

Determination:

Effect, Not Likely to Adversely Effect. The Project resulted in a temporary disturbance on approximately 0.66 acres and was reseeded to native grass mix. Operation and maintenance of the water line and water well will be restricted to the adjacent road and licensed area, therefore negative cumulative effects on vegetative resources are not expected.

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.

Habitat:

The Project site is not considered Critical Habitat per the EPA. The surrounding area provides habitat for a variety of big game species, predators, upland game birds, other non-game mammals, birds of prey, and various songbirds.

Determination:

Effect, Not Likely to Adversely Effect. The Project has the potential to impact wildlife temporarily through the operation of maintenance equipment if the water line and water well require repairs. However, the Project does not impact wildlife forage, cover, or travel corridors. Nor does this action change the juxtaposition of wildlife forage, water, or hiding and thermal cover. Overall, the Project is not expected to have negative cumulative effects on wildlife or habitat.

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.

Species of Concern/Threatened/Endangered:

Federally listed mammal species that occur in Montana include Black-footed Ferret (*Mustela nigripes*), Canada Lynx (*Lynx canadensis*), Grizzly Bear (*Ursus arctos horribilis*), and Northern Long-eared Bat (*Myotis septentrionalis*). Federally listed avian species that occur in Montana include Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), Whooping Crane (*Grus americana*), and Yellow-billed Cuckoo (*Coccyzus americanus*). For additional information and additional species (fish, plants, & insects) see <https://ecos.fws.gov/ecp/report/species-listings-by-state?stateAbbrev=MT&stateName=Montana&statusCategory=Listed>

The National Heritage Program database identifies the Wolverine (*Gulo gulo*) and Lewis's Woodpecker (*Melanerpes Lewis*) as species of concern within T5N, R5E.

Wetlands:

The National Wetland Inventory (NWI) identifies a Freshwater Emergent Wetland adjacent to the Project footprint. For a complete description of wetland classification codes, go to <https://www.fws.gov/wetlands/data/Mapper.html>.

Determination:

Effect, Not Likely to Adversely Effect. The Project has the potential to impact wildlife temporarily through the operation of maintenance equipment if the water line and water well require repairs. However, the Project does not impact wildlife forage, cover, or travel corridors. Nor does this action change the juxtaposition of wildlife forage, water, or hiding and thermal cover. The Project does not propose any soil disturbance and therefore the Project is not expected to impact wetlands through stormwater runoff of disturbed soils. The Project is not expected to have negative cumulative effects on wildlife or habitat.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

Historical and Archeological Sites:

A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the 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.

Determination:

Because the area of potential effect on state land is cultivated, because the Holocene age soils in the APE are relatively thin, and because the local geology is not likely to produce caves, rock shelters, or sources of tool stone, 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.

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.

Visual and Noise:

The Project is located approximately 18 miles east of Toston, Montana (population 36) and 18 miles northeast of Clarkston, Montana (population 1,977).

Determination:

No Effect, Not Likely to Adversely Effect. The Project is not legally accessible or near any city, and does not result in any above ground structures, therefore it is not expected to have cumulative impacts on aesthetics.

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 on environmental resources.

No Effect. The Project does not propose the use of limited natural resources and is not expected to have cumulative impacts 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.

Surrounding land is owned by the state with a surface use of grazing under State Lease No. 3917. Any future development in the area will likely be restricted to utility or mineral development, with minimal impacts to the surface. Future development of projects are not expected to have negative cumulative effects.

IV. IMPACTS ON THE HUMAN POPULATION
<ul style="list-style-type: none">• <i>RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.</i>• <i>Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.</i>• <i>Enter "NONE" if no impacts are identified or the resource is not present.</i>

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

No Effect. Any risk to human health and safety will be restricted to Climbing Arrow Ranch LLC personnel during the normal day-to-day operations of managing the water line and water well.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

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

Land Use:

The current land use on which the water line and water well are placed of consists of 627 grazing acres and 13 unsuitable acres.

Production:

The Project will benefit the Common School Trust in terms of an annual fee of \$1,000.00. The Project will not impede the existing production of State Leases No. 3917

Determination:

Effect, Beneficial Effect. The Project is expected to increase production through an annual fee to the Common Schools Trust. The Project is not expected to have negative cumulative effects on future land use activities.

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.

Determination:

No Effect. The Project would not result in any new jobs nor eliminate any, therefore negative cumulative effects to the employment market are not expected.

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.

Revenues:

See **Section 15** above.

Determination:

Effect, Beneficial Effect. The Project is expected to increase production through an annual fee to the Common Schools Trust. The Project is not expected to have negative cumulative effects on taxes and/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

Demand for Government Services:

The Project is accessed by a dirt two track that is not legally accessible to the Public. Additional government services (e.g. fire protection, police, schools, etc.) are not required for the operation and maintenance of a water line and water well. This Project was of a small scale and is funded by Climbing Arrow Ranch LLC. There will be no excessive stress placed on the existing infrastructure of the area.

Determination:

No Effect. Future Project activities are not expected to impact traffic, increase demand for government services, or place excessive stress on the existing infrastructure of the area. Therefore, the Project is not expected to have negative cumulative effects on 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.

Determination:

No Effect. The Project is in compliance with State and County laws. The Project will be granted under an LUL issued by the DNRC. No other management plans are in effect for the area.

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.

Legal Access and Recreation Opportunities:

The Project is not located on legally accessible land. Recreation potential consists of hunting.

Determination:

No Effect. The Project will not result in any new permanent impacts to the surface of the land, impact access, or recreational opportunities. The Project is not expected to have negative cumulative effects on recreational and wilderness activities.

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

Determination:

No Effect. The Project will not require additional housing and is not expected to have negative cumulative effects on population and housing.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

Social Structures:

The Project is not located within 10 miles of an Hutterite Colony nor a Native American Nation. No archeological sites were identified within the Project footprint.

Determination:

No Effect. The Project is consistent with the surrounding land use, therefore, negative cumulative effects on native or traditional lifestyles or communities are not expected.

23. CULTURAL UNIQUENESS AND DIVERSITY:

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

Determination:

No Effect. The Project will not result in any new activities to occur in the area and therefore it is not expected to have negative cumulative effects on the unique quality 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.

The Project will benefit the Common School Trust in terms of an annual fee of \$1,000.00. The Project will not impede the existing production of State Lease No. 3917.

Any future development in the area will likely be restricted to utility or mineral development, with minimal impacts to the surface. Future development of projects is not expected to have negative cumulative effects.

EA Checklist Prepared By:	Name: Michaela Hanson	Date: 8/3/2022
	Title: Land Use Specialist, Conrad Unit, Central Land Office	

V. FINDINGS

25. ALTERNATIVE SELECTED:

Alternative B (the Proposed action) – Grant Climbing Arrow Ranch LLC the requested LUL and permission to operate and maintain the water well and water pipeline.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

No significant impacts are expected. The Project was installed in 1988 and reclaimed at that time.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS

More Detailed EA

No Further Analysis


EA Checklist Approved By:	Name: Erik Eneboe
	Title: Conrad Unit Manager, CLO, DNRC
Signature: 	Date: August 3, 2022

Exhibit A
Project Location Map

