

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Blenton Ranch Pivot Installation
Proposed Implementation Date:	Spring – Summer 2023
Proponent:	DNRC Ag & Grazing Lessee, Blenton Ranch Co
Location:	T20N R6W Section 16
County:	Lewis and Clark

I. TYPE AND PURPOSE OF ACTION

The DNRC Ag & Grazing Lessee, Blenton Ranch Co, has submitted a proposal to place an improvement on their Montana State Trust Land ag and grazing lease number 263 located in Section 16, T20N R6W. The portion of the improvement located on Trust Land would include installing a center pivot, installing a water pipeline to the center of the pivot, constructing crossings with culverts and gravel over the existing irrigation ditches, and providing electricity to the pivot as well as the pump. Please see the attached map for the locations of infrastructure.

II. PROJECT DEVELOPMENT

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

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

Brent Lonner, Department of Fish, Wildlife, & Parks Wildlife Biologist
Dennis Meyer, Department of Natural Resources and Conservation Hydrologist
Patrick Rennie, Department of Natural Resources and Conservation Archaeologist
Montana Natural Heritage Program

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

No other governmental agencies with jurisdiction or additional permit requirements were identified during the scoping for this proposed project. The project as proposed would involve only Montana Trust Land allocated to the Common Schools.

3. ALTERNATIVES CONSIDERED:

Alternative A: No action alternative. The proposed project would not be approved.

Alternative B: Action Alternative: Allow the proponent to install the pivot irrigation system.

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 following information was derived from Web Soil Survey for this section. The pivot would be located in a Ryell loam site which is classified as farmland as statewide importance. Soil compaction is rated as "Medium", while the reclamation potential is rated at "High Potential".

No fragile, compactable, or unstable soils are present. Construction of the project would include assembling the center pivot, placing a pad in the center of the pivot, digging a trench to lay the water pipeline, and constructing crossings over the existing irrigation ditches with culverts and pit run gravel. All of the improvements and construction would take place over existing agricultural land, so minimal effects to geology and soil quality, stability and moisture are anticipated. Erosion rates would be expected to decrease if current flood irrigation is converted to sprinkler irrigation in the project area.

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 location of the proposed pivot irrigation system is in the southern half of the section and west of Hogan Slough. The point of diversion would occur in the existing irrigation ditch indicated in the map below. The proposed pivot would increase efficiency of irrigation. The current agricultural acres are flood irrigated with irrigation ditches and irrigation dam tarps. The DNRC agricultural and grazing lessee could get better irrigation efficiency and increase production on these acres.

Water quality, quantity, and distribution may potentially improve with the proposed project during time of irrigation. Currently the project area is flood irrigated so all water is diverted to the agricultural acres and runoff may carry sediment accumulation, potential litter/ foreign materials, and other farming byproducts. If the proposed project is approved, water will be pumped from a specific location and irrigation location/timing would be controlled through the pivot.

Existing water rights in the proponent's name have been verified with the DNRC Hydrologist. Changing the method of irrigation does not warrant a change in appropriation according to MCA 85-2-102(7)(b).

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 would not be affected by this project.

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.

Cover, quantity, and quality of vegetative communities are not anticipated to change due to the project being located on farmland. Most of the plant species located in the project area are introduced species. The vegetation occurring along the irrigation ditches would be impacted where the crossing points would be. These areas would have to be reseeded to mitigate erosion and weed infestation risks.

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 would increase plant production with efficient means of irrigation. Construction practices used in the placement of the pivot, pipeline and ditch crossings would be a one-time, short duration occurrence to limit disturbance and will not lead to negative cumulative effects on wildlife. FWP Wildlife Biologist, Brent Lonner stated other than the pivot and infrastructure, current conditions are not anticipated to change. The only change occurring would be the method of irrigation and the project area would still occur on agricultural land and minimal impacts to wildlife are expected.

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.

The Montana Natural Resource Information Service (NRIS) was queried for information regarding sensitive or endangered species located near the project area. The following species of concern were identified in section 16: Grizzly Bear(Mammal), Chestnut-collared longspur(Bird), great blue heron(Bird), thick-billed longspur(Bird), great basin downingia(plant), and wood lilly(Plant).

Due to the current use of the project area, impacts to unique, endangered, fragile or limited environmental resources are expected to be minimal. Irrigating crop land with a center pivot will put an obstacle above the ground for avian life, while the irrigation ditch crossings will break continuous waterways for wetland life. These impacts are expected to be minimal because this is a common practice in the surrounding area and current vegetation will not change.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

The project area has been inventoried to Class III standards for cultural and paleontological resources. During the course of inventory, a series of irrigation ditches were documented. The property is recommended as ineligible for listing in the National Register of Historic Places. As such, center-pivot development will have *No Effect* to *Antiquities* as defined under the Montana State Antiquities Act. A formal report of findings has been prepared and is on file with the DNRC and the Montana State Historic Preservation Officer.

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 project is in a rural part of Lewis and Clark County, approximately 1 mile west of Augusta, MT. This project will ultimately alter the aesthetics to the area by installing an above ground irrigation system. Although this would directly affect the aesthetics of the immediate area, irrigating with center pivots are a common practice on agricultural land in the area.

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.

Demands on water will change with this irrigation system. The center pivot would be more efficient with water usage than flood irrigation so overall water consumption is expected to decrease if the project is approved. Complying with the existing appropriation and monitoring water consumption would be the proponent's responsibility.

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.

No other studies, plans, or projects were identified during the scoping for this project.

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 health or safety risks are posed by the project.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

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

If approved, this project is designed to improve plant production on crop land with controlled irrigation.

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 will not create or eliminate permanent jobs in the area.

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.

No significant increase in tax revenues are expected as a result of this project.

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.

No increased demand for government services are expected as a result of this project.

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 locally adopted environmental plans will be affected by this project.

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 project will slightly alter recreational activities in the area. There is no large infrastructure in the project area currently, so recreational users will have an obstacle to walk around/underneath. Hunting opportunities will be altered if hunters need to avoid the infrastructure when shooting at game animals, but this is relatively common in the surrounding landscape.

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.

No change in population will result from this project.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

No change in social structures and mores are expected because of this project.

23. CULTURAL UNIQUENESS AND DIVERSITY:

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

No change in cultural uniqueness and diversity are expected because of this project.

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 return to the trust for Common Schools for this project would increase in the future. This area is currently under cash lease of \$65.00/acre, but if irrigated, plant production would increase. If the productivity of the agricultural lease increases, so will the revenue. The proposed pivot would encompass approximately 78 acres. Currently this lease generates \$21,768.50 a year to the trust on agricultural acres.

**EA Checklist
Prepared By:**

Name: Dylan Craft
Title: Land Use Specialist

Date: 12/8/2022

V. FINDING**25. ALTERNATIVE SELECTED:**

Alternative B: Action Alternative: Allow the proponent to install the pivot irrigation system.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

☐

EI

☐

More Detailed EA

☒

No Further Analysis

**EA Checklist
Approved By:**

Name: Heidi Crum

Title: Helena Unit Manager

Signature:

Heidi Crum

Date:

1/19/23

State Trust Lands - Township: 20N Range:6W Section:16 – Proposed pivot location and footprint is indicated by the shaded red area. The red line indicates the proposed water pipeline to supply the pivot.

