

MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
WATER RESOURCES DIVISION
WATER RIGHTS BUREAU

ENVIRONMENTAL ASSESSMENT

PART I. PROPOSED ACTION DESCRIPTION

1. **Type of action:** WATER RIGHT PERMIT APPLICATION NO.
41J-P111487-00
2. **Applicant/Contact name and address:**
Louise R. Galt
PO Box 615
Helena, MT 59624
3. **Water source name:** GROUNDWATER
4. **Location affected by action:** Section 31, T10N, R6E, Meagher County
6 miles Northwest of White Sulphur Springs
5. **Narrative summary of the proposed project and action to be taken:** The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311, MCA are met. This application is to use 1770 GPM up to 714.1 acre-feet for sprinkler irrigation of 300 acres and 20 GPM up to 11.1 acre-feet for livestock water. The water is to be pumped from four groundwater wells.
6. **Agencies consulted during preparation of the environmental assessment:**
State Historic Preservation Office
Natural Resource Information System

PART II. ENVIRONMENTAL REVIEW

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

Soils/Geologic Features:

Degradation of soil quality or alteration of soil stability, moisture content, geologic substructure, unique geologic features, archeological sites?

NO SIGNIFICANT IMPACT

The Central Montana Soil Survey (Reconnaissance) issued 1953 identifies the soil as **Crago gravelly loam**. An on site soil classification found the soil to be a sandy clay loam, which is commensurate with the aforementioned classification which was only a reconnaissance. The land is already farmed. Given that the soil type may be highly erodible, the sprinkler irrigation will increase the soil stability as the establishment of crops will be more certain. Soil stability will be maintained in the low lying areas as grass waterways have been retained during farming.

No unique geologic features were identified at the time of site inspection.

Erosion:

Alteration of erosion or siltation patterns which modify stream beds or lake shores?

NO IMPACT

The project does not involve surface waters.

Vegetation/Noxious weeds:

Change in or adverse affect on diversity and production of local plant species including any unique or endangered species (including trees, shrubs, grass, and aquatic plants)? Establishment or spread of noxious weeds?

NO SIGNIFICANT IMPACT

Vegetation includes barely and alfalfa in the areas to be irrigated. Smooth Brome, Garrison Creeping Foxtail and native wheatgrasses and sedges were present in the grassed waterways. Given that the area was already farmed, diversity and production of native plant species will not be impacted by this project.

The only noxious weed present is Canadian Thistle. This weed will not propagate and will die once the alfalfa is grown and harvested over several years.

Air:

Deterioration of air quality, or adverse effects on vegetation due to increased air pollutants.

NO IMPACT

Water:

Alteration of surface water or groundwater quality including but not limited to temperature, dissolved oxygen or turbidity or quantity or distribution?

NO SIGNIFICANT IMPACT

The quantity of groundwater available will diminish as this project is a new consumptive use. An evaluation of the project by the DNRC Water Management Bureau established that there is no direct and immediate connection between the groundwater source and surface water in the area. The distribution of the groundwater may be slightly impacted.

The quality of the groundwater could be impacted if fertilizer or pesticides injected into the irrigation system were to enter the groundwater by inadequate backflow preventers.

Floodplain:

Changes in drainage patterns, course or magnitude of flood flows, or exposure of people/property to hazards (flood)?

NO IMPACT

Wildlife Habitat/Migration:

Deterioration of critical fish or wildlife habitat? Creation of a barrier to the migration or movement of fish or wildlife?

NO SIGNIFICANT IMPACT

Fish habitat will not be impacted. Other wildlife habitat will be impacted minimally and may improve for some species.

Endangered Species:

Adverse effects on any unique or endangered species?

NO IMPACT

The Natural Resource Information System identified no plant species of concern in the area. No plant species of concern were found during the site inspection. NRIS identified the Northern Goshawk and the Ferruginous Hawk as bird species of concern possibly present. Neither species were observed at the time of the site inspection. No endangered species were observed at the time of the site inspection.

HUMAN ENVIRONMENT

Existing Land Use:

Alteration of or interference with the productivity or profitability of the existing land use of an area?

POSITIVE IMPACT

The productivity of the land will increase with irrigation and most likely the profitability will increase also. The land will remain in agricultural use.

Historical Significance:

Destruction or alteration of a natural area of scientific or educational value or prehistoric or paleontological importance?

NO IMPACT

The State Historic Preservation Office identified no historic or archeological sites in the area. Because the ground was already farmed, the likelihood of disturbing cultural materials is low. No obvious cultural properties were identified during the site inspection.

Populace:

Alteration of the location, distribution, density, or growth rate of the human population of an area?
Alteration of social structure of community?

NO IMPACT

Transportation:

Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?

NO IMPACT

Safety:

Creation of any health hazard or affect on existing emergency response or evacuation plans?

NO IMPACT

Public Services:

Have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? Have an effect upon local or state tax base?

POSITIVE IMPACT

The project should slightly increase the tax base.

Utilities:

Creates need for new or altered facilities for any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?

NO SIGNIFICANT IMPACT

A new overhead electrical service must be installed from an existing power line across the highway to the project.

Aesthetics:

Alteration of any scenic vista or recreation opportunity or creation of an aesthetically offensive site to the public?

NO SIGNIFICANT IMPACT

The center pivots will be visible from a public road.

Other:

NO

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2. **Secondary and cumulative impacts:** Continued development of groundwater in the area may have a negative cumulative impact on groundwater quantity.
 3. **Reasonable alternatives to the proposed action, including the no action alternative:** The no action alternative would result in decreased productivity of the land. The project is located in the area service by Newlan Creek Reservoir. Limited availability of water from this reservoir gives little viability to this alternative.

PART III. CONCLUSION

Based on the significance criteria evaluated in this EA, is an EIS required? NO

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

An EA is adequate for this action. There will be no significant impacts, therefore, and EIS is not required.

PREPARED BY:

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DATE: [Automatic date code removed]