

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.
41S-P105823-00
2. **Applicant/Contact name and address:**
Daniel T. French
Airport RD
Hobson, MT 59452
3. **Water source name:** Developed Springs
4. **Location affected by action:** Sections 24, 25, 26, T14N, R13E, Judith Basin County
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 for 5 reservoirs each with a capacity of 16.0 acre-feet. These reservoirs will be constructed in the drainage known as Spring Branch and will be supplied by 3 groundwater developments. The intended use is for fish and wildlife purposes and sprinkler irrigation of 591 acres using up to 986.0 acre-feet of water.
6. **Agencies consulted during preparation of the environmental assessment:**
State Historic Preservation Office
Montana Natural Heritage Program
Montana Rivers Information System
Montana Department of Environmental Quality

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?

YES Soil stability and moisture content will be altered primarily in the area of the groundwater developments and reservoirs. The Judith Basin Area Soil Survey was used to identify and analyze soil types. The groundwater developments consist of perforated pipe drains buried in Lamoure and Gallatin clay-loam soils. Neither soil drains well. The groundwater developments will likely lower soil moisture content. The proposed reservoirs are to be constructed in Gallatin loam soils. These soils have a low permeability, which will provide for stable, well-suited soils for reservoir construction. The soils in the area of the reservoirs will increase in moisture content. The areas to be sprinkler irrigated consist of soils of the Twin Creek and Fergus Clay Loam series. Both of these soils are well suited for irrigation, especially sprinkler irrigation. A site survey found no unique geologic structures or archeological sites. A literature search by the State Historic Preservation Office also found no archeological sites.

Erosion:

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

YES Erosion and siltation patterns will change in the natural channel as the reservoirs will capture silt and reduce high flows resulting in less erosion of the natural channel.

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?

YES Vegetation in the areas of the of the proposed reservoirs and groundwater developments consists primarily of wheatgrasses, bromes, and fescues. The area to be irrigated is already cropland currently producing small grains. The Montana Natural Heritage Program web-site identified Small Yellow Lady's-slipper as being a plant species of concern in the area. This species was not identifies on the site. The site is not a well-suited habit for this species. Canadian Thistle was the only noxious weed identified on the site. This noxious weed may be spread by the construction activity. Given the good fertility of the soils in the project area, any disturbed areas will quickly re-vegetate.

Air:

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

NO

Water:

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

YES The reservoirs will likely increase the temperature of the water in Spring Branch and possibly reduce the dissolved oxygen. They may also change the distribution and quantity of water in Spring Branch. The introduction of groundwater into Spring Branch may alter the water temperature, quantity, and quality. This surface water source has not been listed in the Montana Rivers Information System and therefore no information regarding its de-watering status is available. A check of the MT Dept. of Environmental Quality TMDL listing shows that Spring Branch has not been identified as needing a TMDL plan.

Floodplain:

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

YES The reservoirs may reduce the magnitude of floods in Spring Branch that often inundate a county road.

Wildlife Habitat/Migration:

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

NO The Montana Rivers Information System does not contain a listing for Spring Branch, which indicates that the Montana Dept. of Fish, Wildlife, & Parks does not consider it a critical fish habitat. Other wildlife should not be impacted by this project.

Endangered Species:

Adverse effects on any unique or endangered species?

NO The Montana Natural Heritage Program identified the Northern Goshawk and the Mountain Plover as species of concern that may be present in the area. Neither of these would likely be permanently impacted by this project. A field survey of the area found neither of these species present as well as finding no endangered animal species present.

HUMAN ENVIRONMENT

Existing Land Use:

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

NO

Historical Significance:

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

NO A literature search by the State Historic Preservation Office found no cultural sites but recommended a site survey. The site survey revealed no cultural sites.

Populace:

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

NO

Transportation:

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

NO

Safety:

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

NO

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?

YES The project should increase the property 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?

YES Additional electric power lines systems will be necessary for the project.

Aesthetics:

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

NO The land is already used for agriculture.

Other:

NO

2. **Secondary and cumulative impacts:** NONE

3. **Reasonable alternatives to the proposed action, including the no action alternative:** No action would result in the applicant not being able to increase production and profit. An alternative would be to divert additional water from the Judith River to supply the project. This alternative is less desirable because the Judith River already experiences severe water shortages.

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, an EIS is not required.

PREPARED BY:

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DATE: [Automatic date code removed]