

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 CHANGE APPLICATION NO.
41S-G(W)007479-01
2. **Applicant/Contact name and address:**
Viktor & Lillian J Kolar
PO Box 337
Hobson, MT 59452
3. **Water source name:** Judith River
4. **Location affected by action:** Section 34, T15N, R15E, Judith Basin County
Approximately 4 miles Northeast of Hobson.
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 85-2-402, MCA are met. This application is to replace 78.6 acres of flood irrigation in the N2 NE Section 34 with 78.6 acres of sprinkler irrigation in the SE Section 34. Also 54.4 acres of existing flood irrigation will be converted to sprinkler irrigation.
6. **Agencies consulted during preparation of the environmental assessment:**
Montana Natural Heritage Program Web-site
State Historic Preservation Office
MT Dept. of Environmental Quality – 1998 TMDL listing

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 Judith Basin Area Soil Survey indicates that the soils in the area to be irrigated consist of Judith Clay Loam, Judith-Utica Gravelly Loams, and Straw Clay Loam. All three soil types will be productive under sprinkler irrigation. The Judith-Utica Gravelly Loams can produce rapid runoff that can cause erosion, but this should not be significant under sprinkler irrigation. The Straw Clay Loam would be difficult to manage under flood irrigation because of the underlying gravel layer, but is suitable for sprinkler irrigation. With proper water management, significant amounts of nutrients and minerals should not be leached from these soils. No unique geologic features were identified during the site survey.

Erosion:

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

NO SIGNIFICANT IMPACT

Erosion and siltation patterns may change slightly in the Judith River as less water will be diverted than was historically diverted for flood irrigation.

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

The area to be irrigated is planted to alfalfa and grass including smooth broomgrass and orchardgrass. No noxious weeds were identified. The MT Natural Heritage Program web-site identified no plant species of concern in the area and the site survey revealed the same.

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?

POSSIBLE BENEFICIAL IMPACT

The conversion from flood irrigation to sprinkler irrigation will require lower diversion rates leaving more water in the Judith River and will reduce return flows to the Judith River which are likely contributors of non-point source pollution. Both of these factors should help the water quality in the Judith River as it was identified on the 1998 list of impaired waters as having a low priority for a TMDL plan to address nutrient and siltation problems.

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

Limited changes in vegetation may change slightly the wildlife habitat but will not create any barriers to the migration or movement of wildlife. Fish habitat will likely benefit from the decrease diversions.

Endangered Species:

Adverse effects on any unique or endangered species?

NO SIGNIFICANT IMPACT

The Montana Natural Heritage Program identified the Peregrine Falcon as a bird species of concern in the area. This species could be impacted by overhead power lines need for this project, but it is unlikely that this impact would be measurable given the large number of power lines already in the area.

HUMAN ENVIRONMENT

Existing Land Use:

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

POSSIBLE BENEFICIAL IMPACT

The productivity and profitability may increase with the conversion from flood irrigation to sprinkler irrigation.

Historical Significance:

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

NO SIGNIFICANT IMPACT

The State Historic Preservation Office identified no historic or archeological sites in the project area. It is unlikely that any cultural resources will be impacted as the entire project area has been previously farmed. The site survey revealed no cultural resources.

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?

BENEFICIAL IMPACT

The tax base should increase as a result of this project.

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 SIGNNIFICANT IMPACT

New power lines may be required for this project, but the power demands and distribution system will not be outside normal agricultural demands.

Aesthetics:

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

NO SIGNIFICANT IMPACT

The project will be visible from a public road but it is characteristic of other irrigation projects in the area.

Other:

NO

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

3. **Reasonable alternatives to the proposed action, including the no action 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]