

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Ray Johnson
PO Box 9
Froid, MT 59226

2. Type of action: Application for Beneficial Water Use Permit No. 40S-30030881

3. Water source name: Missouri River

4. Location affected by project: NWSWNW, Section 5, T27N, R56E, Roosevelt County

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:
This permit application is to increase the flow rate of an existing irrigation project. During the adjudication of the applicant's existing water right it was determined that the flow rate of the existing right was not adequate to supply the project as it exists today. The existing water right (40S-1508-00) was split between two parties in 1992 and provides a flow rate of 3300 gpm to the applicant. The applicant is requesting an additional 1200 gpm to provide the amount of flow required to adequately deliver the water to this flood irrigation system. A flow rate of 4500 gpm has been used for this irrigation project since 1992. The point of diversion is located in the NWSWNW, Section 5, T27N, R56E. The place of use is 263.5 acres in the S2SE of Section 5, T27N, R56E, NW of Section 5, T27N, R56E, NESW of Section 5, T27N, R56E, and S2SW of Section 32, T28N, R56E Roosevelt County. The applicant will benefit from this project by having an adequate flow rate to deliver water to their existing flood irrigation system.

The DNRC shall issue a water use permit if the applicant proves the criteria in 85-2-311, MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)

Montana Natural Heritage Program
Roosevelt County Soil Survey
Montana Department of Environmental Quality – Website
National Wetlands Inventory – Website
MT Dept of Fish, Wildlife & Parks (Montana Rivers Information System) – Website

Part II. Environmental Review

1. Environmental Impact Checklist:

<h2>PHYSICAL ENVIRONMENT</h2>

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

Determination: The Missouri River is not identified as a chronically or periodically dewatered stream by the Montana Department of Fish, Wildlife & Parks. The DFWP has a water reservation on this portion of the Missouri River for 5178 cfs to maintain instream flows.

Water quality - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

Determination: The Montana Department of Environmental Quality has listed this segment of the Missouri River on the TMDL 303(d) list. The listing shows partial support for aquatic life and warm water fish. All other uses are fully supported by the source. The issuance of this permit will have no significant impact on water quality.

Groundwater - Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

Determination: The use of this surface water should have no impact on groundwater supply or quality.

DIVERSION WORKS - Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

Determination: The diversion consists of a Cornell model 10YB centrifugal pump to divert water from the river. This pump site is already in place and has been in use since 1968 for the existing irrigation. This project will use this existing pump site to pump water to an existing bank of valves. Some of the water is pumped into 12 inch gated pipe. It is also pumped to other fields via a ditch and 6 inch siphons. As this project will be using an existing pump site, no channel impacts, flow modifications or barriers will occur as a result of increasing the flow rate for this project.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater,

assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or “species of special concern.”

Determination: A report received from the Montana Natural Heritage Program indicates there are seven species of special concern within the general area of the project. Three of these species are currently listed under the Endangered Species Act. The least tern and the pallid sturgeon are listed as endangered and the piping plover as threatened. The sicklefin chub and the sturgeon chub are candidates for listing. The paddlefish and the blue sucker are classified as special status by the Bureau of Land Management. Habitat for all these species extends over numerous townships.

The least tern and the piping plover prefer nesting sites on barren islands and sandbars. Pump sites are typically set in deeper water. The shallow water around islands and sandbars are avoided. There is an island near the proposed pump site, however this project will be using an existing pump site so no impact to the tern or plover should occur.

Wetlands - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: According to the National Wetland Inventory there are a couple of palustrine wetlands near the proposed project. This application only seeks to increase the flow rate on an existing water right and the water will be pumped out of the Missouri River. The increased flow rate will have no significant impact on the wetland resources.

Ponds - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: Not applicable. This is a pump diversion out of the Missouri River.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: According to the Roosevelt County Soil Survey, the predominant (75%) soil type under the proposed project are Lohler silty clay. This soil type is moderately well drained, nearly level soil found on flood plains and formed in alluvium. Permeability is slow and the available water capacity is high. Runoff is slow and the hazard of water erosion is slight. The hazard of erosion from blowing is moderate. These soil types are used for both dryland and irrigated crops and are not prone to saline seep. Approximately 25% of the irrigated acres consist of Lallie silty clay. This soil type is very poorly drained, nearly level soil found on flood plains and formed in alluvium. Permeability is slow and the available water capacity is high. Runoff is slow and the hazard of water erosion is slight. The hazard of erosion from blowing is slight. Lallie silty clay soils are also saline soils, ranging from very slightly saline to moderately saline. The project acres have been successfully irrigated since 1968 and there is no evidence of saline seep problems on either the 1996 or 2005 aerial photos.

Irrigation enhances crop cover during the growing season and provides more protection from wind and water erosion. Irrigation also increases plant residues returned to the soil. Soil

structure is improved, microbe populations benefit from the added food source, and nitrogen fertility is enhanced.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: The land is currently irrigated farmland. As this application is only to increase the flow rate of an existing irrigation project there will be no additional ground disturbance as a result of this project. It is the responsibility of the property owner to control noxious weeds on their property.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: No impacts to air quality are expected due to this project.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: The Montana State Historic Preservation Office was not consulted regarding this project. The project will be using an existing pump site part and existing irrigated acres. There will be no ground disturbing activity. As these acres are currently being farmed any ground disturbing activities have already taken place. As the project is located on private property, any cultural resource inventory conducted would be at the property owner's discretion.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: No impacts to other environmental resources were identified.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: There are no known environmental plans or goals in this area.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: This project will have no significant impact on recreational or wilderness activities.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: This permit application will have no impact on human health.

PRIVATE PROPERTY - Assess whether there are any government regulatory impacts on private property rights.

Yes ___ No X If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: There are no additional government regulatory impacts on private property rights associated with this application.

OTHER HUMAN ENVIRONMENTAL ISSUES - For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.

Impacts on:

- (a) Cultural uniqueness and diversity? No significant impact.
- (b) Local and state tax base and tax revenues? No significant impact.
- (c) Existing land uses? No significant impact.
- (d) Quantity and distribution of employment? No significant impact.
- (e) Distribution and density of population and housing? No significant impact.
- (f) Demands for government services? No significant impact.
- (g) Industrial and commercial activity? No significant impact.
- (h) Utilities? No significant impact.
- (i) Transportation? No significant impact.
- (j) Safety? No significant impact.
- (k) Other appropriate social and economic circumstances? No significant impact.

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts – No secondary impacts have been identified.

Cumulative Impacts – No cumulative impacts have been identified.

3. *Describe any mitigation/stipulation measures:* None at this time.

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:* Under the no action alternative the applicant would be required to reduce their

flow rate to the amount that was historically used under their existing water right, which would not be adequate for the irrigation system as it has been operated since 1992.

PART III. Conclusion

1. ***Preferred Alternative:*** Issue a permit if the applicant proves the criteria in 85-2-311, MCA are met.

2 ***Comments and Responses***

3. ***Finding:***
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: No significant impacts have been identified, therefore an EIS is not necessary.

Name of person(s) responsible for preparation of EA:

Name: Denise Biggar

Title: Water Resource Specialist

Date: April 17, 2008