

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: John M. Ames  
PO Box 1166  
Williston, ND 58802
2. Type of action: Application for Beneficial Water Use Permit No: 30048277 40S
3. Water source name: Missouri River
4. Location affected by project: NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  Sec 31 T27N R59E Roosevelt County  
W $\frac{1}{2}$  Sec 30 T27N R59E Roosevelt County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

This project is to pump water out of the Missouri River for the purpose of water marketing. The application is for 4.5 CFS up to 1,000 AF of water annually from January 1 thru December 31. The point of diversion is location in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  Sec 31 T27N R59E Roosevelt County and the place of use is SW $\frac{1}{4}$ NW $\frac{1}{4}$  Sec 30 T27N R59E Roosevelt County. The primary purpose of this application is the sale of water to the oil industry. The applicant will use a water depot that will be available to area residents, local businesses and the fire departments.

The DNRC shall issue a water use permit if an 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 State Historic Preservation Office  
Montana Natural Heritage Program  
Montana Department of Environmental Quality Website (TMDL 303(d) Listing)  
Montana Fish, Wildlife & Parks  
National Wetlands Inventory

**Part II. Environmental Review**

**1. Environmental Impact Checklist:**

**PHYSICAL ENVIRONMENT**

## **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:* Montana Department of Fish, Wildlife & Parks does not identify the Missouri River as chronically or periodically dewatered.

**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 lower Missouri River is listed on the 2008 Montana 303(d) list as fully supporting agriculture, drinking water and industrial uses and partially supporting aquatic life and warm water fishery. Probable causes of impairment are flow regime alterations and water temperature. Probable sources are the impacts from the flow regulation and modification by the Ft. Peck Hydropower Dam. Primary contact recreation has not been assessed

*This project will not significantly impact 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:* This is a surface water application and will have no significant impact to groundwater in this area.

**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 means of diversion is 5HH Cornell pump with full trim. During the summer months, a floating pump system will be used as an intake. During the winter months, a frost proof suction will be used. The diversion will be protected from freezing by heated insulation blankets and a boiler system. The pump intake will be screened to prevent the entrapment of fish. The system will use a variable frequency drive to operate the pump motor. This will allow the system to operate anywhere on the design curve of the pump to meet the current system demand. The VFD will be programmed to maintain 100 psi in the system. Water will be carried from the river to the depot via a 10" SDR 26 PVC pipeline that is approximately 5750 feet in length. This pipeline will be installed at a frost free bury depth. The discharge at the bulk dispenser (depot) will use an orifice designed to control the flow to the requested rate. The depot will consist of two buildings, each building containing four sand filters, and two dispensing points. Each building will use 1,000 gpm, with each dispensing point capable of delivering 500 gpm. The delivery will be set up for 4" truck side load only.

The diversion works will not have an impact on the channel, flow, barriers, riparian areas, dams and wells constructed in the area.

## **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 are three species of concern within the project area and a one-mile buffer area of the project. They are the Piping Plover, Interior Least Tern, and the Pallid Sturgeon. The Bureau of Land Management lists the Pallid Sturgeon, Piping Plover and the Least Tern as having special status. The U.S. Fish & Wildlife Service lists the Pallid Sturgeon and Least Tern as Listed Endangered and the Piping Plover is Listed Threatened.

The Least Tern and the Piping Plover prefer nesting sites on barren islands, sandbars and open shoreline. Their occurrence extends over multiple townships. The pump site will be co-located with an existing pump site that has been in place since 1961. Due to the numerous islands within the stream reach and the hundreds of miles of barren shoreline, this project will not have any additional impact on the nesting of the Least Tern and the Piping Plover.

The Bureau of Land Management also lists the Black-tailed Prairie Dog, the Borrowing Owl, the Greater Sage-Grouse, the Western Hog-nosed Snake and the Greater Short-horned Lizard as Sensitive. The distribution of these species is over multiple counties and the location of this project is specific to a less than one-acre parcel.

The pump site for this project is located adjacent to an existing pump site and the pipeline and depot center will be located on historically copped lands. It is unlikely that this project will create any impacts on endangered species in this area.

***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 website, there are two wetland type in the area of the project. They are either Riverine or Palustrine wetlands adjacent to the river. The pumpsite and distribution lines and center are located on lands previously disturbed due to agricultural activities.

There will be no additional impacts to wetlands in the project area.

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

*Determination:* This project does not involve a pond.

**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:* The soil will be temporarily disturbed when the water and power lines are trenched in. Permanent degradation to the soil quality, stability or moisture content is not anticipated.

**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:* This project is located on land that is historically agricultural and will experience a brief disturbance during construction, but should not result in the establishment or spread of noxious weeds.

The control of noxious weeds is the responsibility of the property owner.

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

*Determination:* The power source is electric for this project and will not affect air quality.

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

*Determination:* A report from the Montana State Historic Preservation Office (SHPO) shows that several cultural resource inventories have been previously conducted within the search area. Based on the level of the inventories, SHPO feels there is a low likelihood that this project would affect cultural properties and a cultural resource inventory is not warranted at this time.

**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:* This assessment did not identify any additional impacts on environmental resources of land, water and energy.

## **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 not have an impact on recreational or wilderness activities

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

*Determination:* This project will not have an impact on human health.

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

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

*Determination:* There are no regulatory impacts on private property rights.

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

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

Secondary Impacts: This assessment does not indicate possible secondary impacts on the physical environment and/or the human population.

Cumulative Impacts: This assessment does not indicate possible cumulative impacts on the physical environment and/or the human population.

3. **Describe any mitigation/stipulation measures:** N/A

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:**

*There are two alternatives available to the applicant. They are (1) the applicant may drill a groundwater well to supply water to the depot or (2) a no action alternative. If the applicant were to drill a well, there is no guarantee that the water would be available in the quality and quantity desired. If the applicant were to follow the no action alternative, they would be unable to profit by providing water to the oil industry and general public.*

### **PART III. Conclusion**

1. **Preferred Alternative**

*The preferred alternative is the diversion of good quality water from the Missouri River for the purpose of water marketing.*

2 **Comments and Responses**

3. **Finding:**

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

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

*An EIS is not required because the EA did not identify any significant impacts from the proposed project.*

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

*Name: /s/ Ann L Kulczyk*

*Title: Water Resource Specialist*

*Date: April 13, 2010*