

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:
Constance C. Iversen
13749 County Rd. 332
Culbertson, MT 59218
2. Type of action: Application to Change a Water Right No: 40S 30063415
3. Water source name: Missouri River
4. Location affected by project: W½ Sec 8 T27N R55E Richland County
W½ Sec 17 T27N R55E Richland County
NWNWNW Sec 29 T27N R55E Richland County
E½ Sec 30 T27N R55E Richland County
E½ Sec 31 T27N R55E Richland County
W½ Sec 6 T26N R55E Richland County
SESESE Sec 1 T26N R54E Richland County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The DNRC shall issue a change authorization if an applicant proves criteria in 85-2-402 MCA are met.
6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)

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 this portion of the Missouri River as chronically dewatered 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 2012 Montana Department of Environmental Quality Clean Water Act Information Center (MT CWAIC) lists HUC-8 No.10060005 as fully supporting agricultural and drinking water uses, and partially supporting aquatic life. Probable causes of impairment to aquatic life as a beneficial use for this reach of the Missouri River include alterations to the flow regime and changes in water temperature. Probable sources for the impact stem from flow regulation or modification through impoundments including the Fort Peck Hydropower Dam. At this time the Montana Department of Environmental Quality has not assessed primary contact recreation as a beneficial use of the Missouri River as found in HUC 1006000.

This application is not projected to 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 application addresses a surface water source and will not have a significant effect on 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 proposed means of diversion consists of separate intake structures for normal operating conditions and operation in freezing conditions typical of winter months in northeastern Montana. Each intake structure operates under separate pumps of similar flow rate characteristics. One intake is capable of being used at a time as dictated by the power supply on site as well as through the limits of functional system design capacities. Diverted water is then directed through a pipeline buried below the frost line to a booster pump station, where additional lift is gained to overcome approximately five miles of pipe friction loss and elevation gain to enter a 0.65 AF bolted steel storage tank. Water consumption is also metered in terms of totalized volume before leaving the booster pump station. From storage water is released flowing solely under the influence of gravity to two filling stations, each with two rigid 4" sidewall outlets. Each filling station is equipped with two sand-pot type filters per outlet, for a total of four filters per filling station and eight filters for the entire system. These filters are intended to be serviced by backflushing every 12.9 AF filtered, with an estimated demand of 0.80 AF per year.

The diversion works of the proposed change application will not have impacts on channels, significantly modify flow characteristics, barriers, dams or wells constructed within 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 there are several species of concern within the project area, and a one mile buffer of the project area.

The United States Fish and Wildlife Service (USFWS) identifies the Pallid sturgeon and Whooping Crane as Endangered Species; the Piping Plover is listed as a Threatened Species.

The Bureau of Land Management (BLM) identifies the Whooping Crane, Piping Plover, and Pallid Sturgeon as species of Special Status; Townsend's Big-eared Bat, Blue Sucker, Sturgeon Chub, Paddlefish, and Sauger are listed as Sensitive Species.

The Piping Plover prefers nesting sites on barren islands, sandbars, and open shoreline. Due to the numerous islands and hundreds of miles of barren shoreline along this stretch of the Missouri River, it is unlikely that the disturbance caused by this project will have a significant effect on the Piping Plover. Whooping Cranes favor a type of wetland not found in the vicinity of this project. Pallid Sturgeon utilize this area of the Missouri River, and larval stages are known to be dispersed by currents. This application specifies a screened, low velocity intake designed to reduce the likelihood of eggs or fry being drawn into the pump.

Although the project is located near an area identified in the USFWS National Wetland Inventory as a Freshwater Forested/Shrub Wetland, the impact should not prove significant in posing a threat to any endangered or threatened species.

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 USFWS National Wetland Inventory mapping utility riverine wetlands exist throughout the bankfull width of the Missouri River. Additionally emergent dominated freshwater vegetated wetlands are prevalent on the north bank of the Missouri, opposite the pumpsite, as well as a small area of forested/shrub dominant wetland near the pumpsite. The river pumpsite, booster pump station, and filling stations (depot) are all located on previously disturbed land adjacent to agricultural or road land uses.

Wetland resource impacts attributed to this project will not be an issue.

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

Determination: This project does not involve any ponds, and will not have wildlife impacts.

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: There is associated disturbance with the trenched installation of the pipeline and wiring, as well as the installation of foundation pads for the booster station and two filling stations; installation for the winter intake structure requires a small amount of bank modification and backfill. While disturbance to this site is unavoidable, the impacts are temporary and largely occur on soil that has been previously disturbed.

Long lasting or permanent degradation to soil quality is not anticipated for this project, and saline seeps are not likely to result.

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 under agricultural use, as such the expected impacts to vegetation are minimal. While short term soil disturbance is expected, the area of disturbance is limited and is not expected to significantly contribute to the establishment or spread of noxious weeds.

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 for this project is electric; as such there are no significant effects on 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 if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

Determination: Not applicable, this project is located on neither State or Federal Lands.

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 or 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 within 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 effect 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 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:*** Not applicable in this application.

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 possible alternatives available to the applicant: (1) The applicant may drill a groundwater well to supply water for the beneficial use of water marketing, or (2) decide to take no action. If a groundwater well is drilled, there is no reasonable guarantee that water will be available in the quantity, nor quality desired. Electing the decision to take no action renders the applicant unable to find beneficial use in water marketing.

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***

None applicable.

3. ***Finding:***

Yes ___ No X 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:

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

Name: Jonathan Staldine

Title: Water Resource Specialist

Date: July 25, 2012