

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: Dean Harmon
626 Rd 2064
Bainville, MT 59212
2. Type of action: Application for Beneficial Water Use Permit No. 40S-30072269
3. Water source name: Missouri River
4. Location affected by project: SENWSW Section 4, T26N, R58E, Roosevelt County.
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:
The proposed project involves pumping water out of the Missouri River for center pivot irrigation. The Applicant is requesting 4 CFS (1800 GPM) up to 396.4 AF from April 15- October 15 to use for irrigation on 198.2 acres. The point of diversion is located in the SENWSW Section 4, T26N, R58E, Roosevelt County. The place of use is located in the SW and NE Section 33, T27N, R58E, Roosevelt County.

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:
 - Montana Natural Heritage Program
 - US Department of Agriculture Web Soil Survey
 - Montana Department of Fish, Wildlife, & Parks
 - Department of Environmental Quality

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: 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. Issuance of the requested appropriation would have no significant impact on the surface water 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: This stretch of the Missouri River (Poplar River to the North Dakota Border) is listed on the TMDL 2014 303(d) list as not supporting aquatic life and fully supporting drinking water, and agricultural uses. Primary contact recreation was not assessed. No uses for this reach are classified as threatened. The impairment on aquatic life is likely due to flow regime alterations and water temperature due to flows being regulated at Fort Peck Dam. Issuance of the requested appropriation would have no significant impact on the surface 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: As this is a surface water diversion, it should not have any impact on the groundwater quality or supply.

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 Applicant plans to divert water from the Missouri River at a single diversion point using a self-priming Ames FPS 1040 floating pump (100 hp) capable of delivering the requested flow rate of 4 CFS. The pump will provide water to a 111.6 acre (6 tower) and 86.6 acre (5 tower) center pivot sprinkler systems via a 12 inch pipeline. Each pivot will be using a 2 hp end gun booster pump with a Nelson SR100 end gun. The proposed sprinkler system was designed by Agri Industries, a professional designer/installer of sprinkler systems. There will be no significant impacts associated with this means of diversion.

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 thirteen species of special concern within the general area of the project. They are the great blue heron, piping plover, whooping crane, least tern, northern redbelly dace, blue sucker, Iowa darter, shortnose gar, sturgeon chub, sicklefin chub, paddlefish, sauger, pallid sturgeon, and the nannyberry. The pallid sturgeon, least tern, and whooping crane are listed as endangered and the piping plover is listed as threatened.

This project will be placing a pump at an existing pump site and will be irrigating fields that have been farmed at least since 1967. The project will not have any significant impact on the species of special concern within the project 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: There are several freshwater emergent wetlands along the Missouri River however there are none located in the area where the pipeline or center pivots will be installed. There will be no significant impact to the existing wetlands.

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

Determination: The project area does not have any ponds within its boundaries.

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 supply line is installed. The primary soil types listed by the USDA Web Soil Survey are well drained Cherry and Farland-Cherry silt loams. These are well drained soils on alluvial fans with 2-8 % slopes and high available water storage. The salinity of these soil types is nonsaline to very slightly saline. There will be no significant impacts to the soil quality, stability or moisture content.

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 acres to be irrigated have been farmed at least back to 1967. The control of noxious weeds is the responsibility of the landowner. There will be no significant impacts to the existing vegetative cover.

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

Determination: No significant deterioration of air quality will occur 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 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: The project is not located on state or federal land therefore this section is not applicable.

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 significant 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: No known environmental plans or goals will be impacted by this project.

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 any significant impact on the quality of recreational or wilderness activities.

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

Determination: The project will have no significant impact on human health.

PRIVATE PROPERTY - *Assess whether there is 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:

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 identified

(b) Local and state tax base and tax revenues? No significant impact identified

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

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

Secondary Impacts None Identified

Cumulative Impacts None 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 not be able to enjoy the benefits of irrigating this crop land and would continue dry land farming the land.

PART III. Conclusion

1. Preferred Alternative Issue a beneficial water use permit if the applicant proves the criteria in 85.2.302, MCA are met.

2 Comments and Responses

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:

No significant impacts were identified in this environmental assessment of the proposed project.

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

Name: Denise Biggar

Title: Regional Manager

Date: October 6, 2015