

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: Mark Hathaway 50 Work Creek Rd, Reed Point, MT 59069
2. Type of action: Groundwater Beneficial Use Permit
3. Water source name: Groundwater
4. Location affected by project: Sections 28 and 33 T1S R17E, Sweet Grass County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The Applicant proposes to divert water from two wells in the NENENE Section 33 T1S R17E at 750 GPM up to 399.33 AF/YR to irrigate 295.32 acres. Water from the wells would be comingled with water provided by the Kent Ditch that is currently used on 162.27 acres. Irrigation would be by a combination of center pivot, wheel line and hand line sprinklers and flood irrigation. 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 Department of Fish, Wildlife and Parks
Montana Department of Environmental Quality
Montana Department of Natural Resources and Conservation
Montana Natural Heritage Program
United States Fish and Wildlife Service
United States Department of Agriculture, Natural Resources Conservation Service

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity – Groundwater flux through the area was modeled by Department hydrogeologists at 1,705.2 AF/YR, much more than the Applicant requested. The wells are close to and would deplete the Yellowstone River. The Yellowstone River is not listed as a chronically

dewatered stream by the Montana Department of Fish, Wildlife and Parks but is considered periodically dewatered.

Determination: Possible Impact.

Water quality – Return flow from irrigated lands has the potential to add fertilizer and soil nutrients to adjacent surface water sources. The Yellowstone River in Sweet Grass County is listed by the Montana Department of Environmental Quality in 2014, as fully supporting contact recreation, aquatic life and agriculture and lists no uses as threatened.

Determination: No Significant Impact.

Groundwater – Removal of groundwater for irrigation has little likelihood of affecting water quality. Return flows could possibly increase fertilizer, pesticide or nutrient concentrations in local groundwater. This appropriation would cause some depletion to the Yellowstone River as discussed above. The transition from flood irrigation to sprinklers would increase the efficiency of the irrigation and decrease the potential for degradation due to return flows. Drawdown produced by the proposed wells will not impact adjacent groundwater users and recovery times are short due to proximity to the Yellowstone River.

Determination: No Significant Impact.

DIVERSION WORKS – The diversion works and conveyance system are not located along the stream channel or banks and will not produce channel impacts, barriers or flow modifications. No impact to riparian areas is predicted. The wells and acres to be irrigated are south across Interstate 90 from the Yellowstone River. Wells were constructed by a licensed well driller.

Determination: No Impact.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species – According to the Montana Natural Heritage Program updated on 6/23/2015, there are 12 animal species of concern in the area of the project, one species of special status (Bald Eagle) and no plant species of concern. Species of concern include the Black-tailed Prairie Dog, the Hoary Bat, 9 species of birds and the Yellowstone Cutthroat Trout. No trees will be removed as a result of this project; no disruption to the stream channel or riparian areas is contemplated. All acres within the project have been used for agriculture and no loss of habitat is expected.

Determination: No Significant Impact.

Wetlands – The project area contains an approximately 20 acre palustrine emergent wetland and four or five small open water bodies. The wetland exists in an area historically flood irrigated and several of the open water bodies are irrigation related structures. No changes to the open water bodies or the area shown on the United States Fish and Wildlife Service National Wetlands Survey are proposed and no impact to the wetland resource is expected.

Determination: No Significant Impact.

Ponds – No changes to existing ponds are planned as part of this project.

Determination: No Significant Impact.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – According to the United States National Resources Conservation Service Web Soil Survey, the dominant soils in the project area are Absher-Bigsag family clay, a poorly drained, moderate to highly saline soil, Fairway and Roy Gravelly clay loam, well drained to moderately drained, low salinity soils, and other clay loams. Most of the area has been flood irrigated and the new acres would be irrigated by sprinklers. Soil degradation by salts is a possibility as is saline seeps from the highly saline soil types. No evidence of saline seep is currently present.

Determination: Possible Impact.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – Vegetative cover in the project area at present is entirely agriculture. Flood irrigated hay and pasture land are the existing vegetative cover. The limited construction scope of the project is unlikely to spread or establish noxious weeds. Monitoring and control of noxious weeds is the responsibility of the land owner.

Determination: No Significant Impact.

AIR QUALITY – Addition of irrigated land will not impact air quality. There may be dust created during harvest but no increase in the dust production.

Determination: No Impact.

HISTORICAL AND ARCHEOLOGICAL SITES – The project is not located on State or Federal land.

Determination: Not Applicable.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY – No additional demands on environmental resources not addressed above are recognized.

Determination: No Significant Impact.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS – There are no known locally adopted environmental plans or goals.

Determination: No Impact.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES – The proposed project is located adjacent to Interstate 90. No wilderness or recreational access crosses the project area and no wilderness or recreational sites are nearby.

Determination: No Impact.

HUMAN HEALTH – Addition of irrigated acres on private agricultural property has no potential to adversely affect human health.

Determination: No Impact.

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: Not Applicable.

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

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

Secondary Impacts: No secondary impacts are recognized resulting from irrigation of existing agricultural land.

Cumulative Impacts: There are no recent or pending applications in the area of the project, except a pending change to the Kent Ditch that is part of this project, and no specific cumulative impacts are recognized.

3. ***Describe any mitigation/stipulation measures:*** None

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:*** The reasonable alternatives in this case are the proposed project and the no-action alternative. The no-action alternative prevents the land owner from increasing the efficiency of his operation and his revenue. The proposed project has no significant negative impacts.

PART III. Conclusion

1. ***Preferred Alternative:*** issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

2. ***Comments and Responses:*** None

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 environmental impacts resulting from irrigation of existing agricultural lands were recognized. An Environmental Assessment is the appropriate level of analysis and an EIS is not required.

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

Name: Mark Elison

Title: Hydrologist

Date: 1/11/2016