

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: Rebecca and Michael Ellig, 79 Teal Court, Bozeman, MT 59715
2. Type of action: Application to Change an Existing Irrigation Water Right 41H 30102748
3. Water source name: Baker Creek
4. Location affected by project: Sections 1 and 2 T1N R3E
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The Applicant proposes to change the place of use for water rights 41H 115689-00, 41H 115690-00, 41H 115691-00 and 41H 115692-00 and change from flood irrigation to center pivot sprinklers. The proposed place of use would be 73.2 acres in sections 1 and 2 T1N R3E and overlap the 85 acres historically irrigated. No changes to point of diversion, flow rate or volume are proposed. The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 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 Natural Resource and Conservation Service

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity – Baker Creek is not identified as a chronically or periodically dewatered stream by the Montana Department of Fish, Wildlife and Parks. Because there is no change to diverted volume, flow rate or point of diversion and because return flows are predicted to remain

unchanged, the source will not be affected. The Gallatin River that lies adjacent to the place of use is listed as a dewatered stream. The Gallatin River will receive the same return flow from the proposed irrigation that it received from the historic irrigation and will not be affected.

Determination: No Impact

Water quality – Baker Creek is not listed as water quality impaired or threatened by the Montana Department of Environmental Quality. The Gallatin River is listed as not fully supporting recreation and aquatic life but is not threatened. The proposed change to sprinkler irrigation increases the efficiency of the irrigation and can be expected to decrease the probability of water quality degradation due to return flows.

Determination: No Impact

Groundwater – Infiltration from the historic and proposed uses will be the same in location, timing and amount so effects on groundwater quality and quantity are unchanged.

Determination: No Impact

DIVERSION WORKS – The proposed project does not include any change to diversion or conveyance structures.

Determination: No Impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species – The Montana Natural Heritage Program lists six animal species of concern in the project area and no plant species of concern. The United States Forest Service or Bureau of Land Management list the Golden Eagle, Bobolink, and Greater Short-horned Lizard as sensitive. The Bald Eagle is a species of special status within the project area. The proposed project changes irrigation method and proposes addition of some previously non-irrigated agricultural land. No changes to available habitat and no potential barriers are proposed.

Determination: No Impact

Wetlands – The United States Fish and Wildlife Service shows substantial regions of palustrine emergent wetlands within the project area. These are sloughs and former river channels within the floodplain of the Gallatin River. The areas proposed for irrigation are either previously irrigated or do not include mapped wetlands. No change to flow through or into the wetlands is proposed. Acres to be removed from irrigation will add to available wetland area.

Determination: No Impact

Ponds – The proposed project does not include or affect ponds.

Determination: No Impact

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – The project area has uniformly low slope and is currently under agricultural use. The moisture content of the new irrigated land would be increased as necessary for crop production. The principle soils in the project area are Ryell-Rivra-Fairway complex and Rivra-Mccabe-Bonebasin complex. These are non-saline soils with good drainage. No degradation of soils, alteration of soil stability or increase in soil salinity is predicted.

Determination: No Impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – The current vegetative cover in the project area is agricultural. The proposed use is also agricultural. There is some possibility that installation of the center pivot sprinkler systems could bring in noxious weeds. The control of noxious weeds is the responsibility of the land owner.

Determination: No Impact

AIR QUALITY – The change from flood to sprinkler irrigation and place of use will not affect air quality.

Determination: No Impact

HISTORICAL AND ARCHEOLOGICAL SITES – The proposed project is not located on state or federal land.

Determination: Not Applicable

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY – No other impacts on environmental resources of land, water and energy are recognized.

Determination: No Impact

HUMAN ENVIRONMENT

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

Determination: Not Applicable

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES – The project area is currently agricultural and contains no roads. No access to recreation or wilderness areas occurs within the project area and no recreational or wilderness activities will be affected. The project is along the banks of the Gallatin River but no access sites are present.

Determination: No Impact

HUMAN HEALTH – Changes in method and location of irrigation will not 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 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 are recognized.

Cumulative Impacts: No cumulative impacts will occur due to change in method and location of irrigation.

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 only reasonable alternatives with respect to the proposed action are to proceed and no action. The no action alternative prevents the land owner from maximizing agricultural return and has no benefits over the proceed alternative.

PART III. Conclusion

1. **Preferred Alternative:** Issue a change authorization if an applicant proves the criteria in 85-2-402 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: The Environmental Assessment identified no significant impacts related to the proposed project and therefore an Environmental Impact Statement is not required and an Environmental Assessment is appropriate.

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

Name: Mark Elison

Title: Hydrologist

Date: 11/16/2015