

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: McFarland White Ranch, Inc. c/o Linda Horne 311 Big Elk Rd, Two Dot, MT 59085
2. Type of action: Application to Change an Existing Irrigation Water Right 42A 30072825
3. Water source name: American Fork, North Fork
4. Location affected by project: Section 10 T5N R12E
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The Applicant proposes to change the place of use of three supplemental water rights totaling 171 AC to cover a 114.4 AC center pivot sprinkler system centered on the historic place of use. 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
United States Natural Resource Conservation Service
Montana Department of Natural Resources and Conservation
Montana Natural Heritage Program
United States Fish and Wildlife Service

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity – There is no data regarding dewatering concerns on North Fork of American Fork on the Montana Department of Fish, Wildlife and Parks website. American Fork has a ten mile stretch near the confluence with the Musselshell River that is listed as chronically dewatered. The proposed use of water would decrease withdrawals from American Fork, North Fork compared to historic withdrawal and thus increase the amount of water in the stream.

Determination: Possible Positive Impact.

Water quality – The source is not listed as water quality impaired or threatened by the Montana Department of Environmental Quality. The fact that the source is not listed does not necessarily mean the water quality is not impaired and may be due to a lack of information on the source. The proposed project increases irrigation efficiency and decreases the likelihood of return flows degrading water quality. Center pivot sprinkler systems also allow more efficient use of fertilizers reducing the possibility of stream contamination.

Determination: No Impact.

Groundwater – The proposed project would decrease return flows from agriculture to local groundwater. Because the source carries abundant bed load from the Crazy Mountains and has a gravel bed, much of the water feeds the groundwater directly. Because the source recharges groundwater directly, the reduction in return flow recharge will have no impact on groundwater quality or supply.

Determination: No Impact.

DIVERSION WORKS - THE proposed project would use the existing headgate from North Fork American Fork and convey all water in pipes. No changes in stream channel impacts or barriers in predicted. The proposed project will divert less water from the source than the current irrigation system and therefore increase flow in the channel. Construction required to put the proposed center pivot irrigation system in place would be concentrated distant from the stream and would not create barriers or impact riparian areas.

Determination: No Impact.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species – The Montana Natural Heritage Program lists two animal species of concern; the Wolverine and the Hoary Bat. There are no special status species of potential species of concern. Both of these species have forest habitats that will not be impacted by a change in irrigation methodology. The Montana Natural Heritage Program lists the Heart-leaved Buttercup as a species of concern. Because the proposed project covers areas that have been in agricultural use for decades, no reduction in habitat for plant species would result.

Determination: No Impact.

Wetlands – The area of the proposed project contains several palustrine emergent wetlands feed by springs. These are also shown as swampy regions on USGS quadrangle maps. Because the wetlands are fed by springs the change from flood to sprinkler irrigation could potentially impact the amount of groundwater feeding these emergent wetlands.

Determination: Possible Impact.

Ponds – There are no ponds at present and none proposed.

Determination: No Impact.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – The area of the proposed project has not been mapped by the United States Department of Agriculture. There are no apparent saline seeps and the soils are dominantly outwash pediment from the Crazy Mountains. The change from flood to sprinkler irrigation is not predicted to alter the soil quality or stability.

Determination: No Significant Impact.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – The proposed project area has been in agricultural use since the late eighteen hundreds. The existing vegetation is agricultural. Placement of the sprinkler system has the potential to introduce or spread noxious weeds. It will be the land owner’s responsibility to prevent and control noxious weeds.

Determination: No Significant Impact.

AIR QUALITY – The change from flood to sprinkler irrigation methodology will not cause deterioration of air quality or adverse effects on vegetation due to increased air pollutants.

Determination: No Impact.

HISTORICAL AND ARCHEOLOGICAL SITES - N/A The proposed project is not located on State or Federal lands.

Determination: Not Applicable.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY – No additional demands on natural resource are recognized. The center pivot will be gravity driven and so no energy supply is required. The use of water will decrease and the land is already under production.

Determination: No 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 borders on National Forest Service Lands. There are no roads through the project area that provide access to that land and the irrigation system will not affect recreational quality on adjacent lands.

Determination: No Impact.

HUMAN HEALTH – Change from flood to sprinkler irrigation will have no impact on 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: There are no other current permit applications or requests for changes in water rights in the area. No cumulative impact is 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:** There are two alternatives to the proposed project: (1) proceed and (2) No action. The no action alternative prevents the Applicant from full utilization of agricultural property and prevents no significant impacts. The proposed project decreases water diversion from the source, decreases the likelihood of contamination from fertilizer and return flows.

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: An environmental assessment is the appropriate level of analysis because no significant environmental impacts are recognized.

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

Name: Mark Elison
Title: Hydrologist/Water Specialist
Date: 6/24/2015