

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:

Applicants:

KROENKE LAND & LIVESTOCK LLC  
PO BOX 11350  
BOZEMAN, MT 59719 1350

JEFFERS RANCH LLC  
8025 MARYLAND AVE, 11C  
SAINT LOUIS, MO 63105

JEFFREY & BETTY KLEIN  
PO BOX 1405  
ENNIS, MT 59729

Consultant:

DMS NATURAL RESOURCES LLC  
602 S FERGUSON AVE, SUITE 2  
BOZEMAN, MT 59718-6483

2. Type of action: Application to Change an Existing Irrigation Water Right No. 41F 30111105

3. Water source name:

- 41F 30111097 – Cedar Creek
- 41F 30111105 – Cedar Lake
- 41F 30111107 – South Fork of Jack Creek

4. Locations affected by project: The Applicant proposes to change the place of use of the irrigation water rights involved in these changes. The historical place of use for these water rights is within Sections 3, 4, 9, 15, and 16, T06 S, R01 E, Madison County. The proposed new place of use for these water rights is within the same legal land description, with the addition of new acreage in Sections 33 and 34, T05 S, R01 E, Madison County.

See Figure 1 on the next page for an overview map.

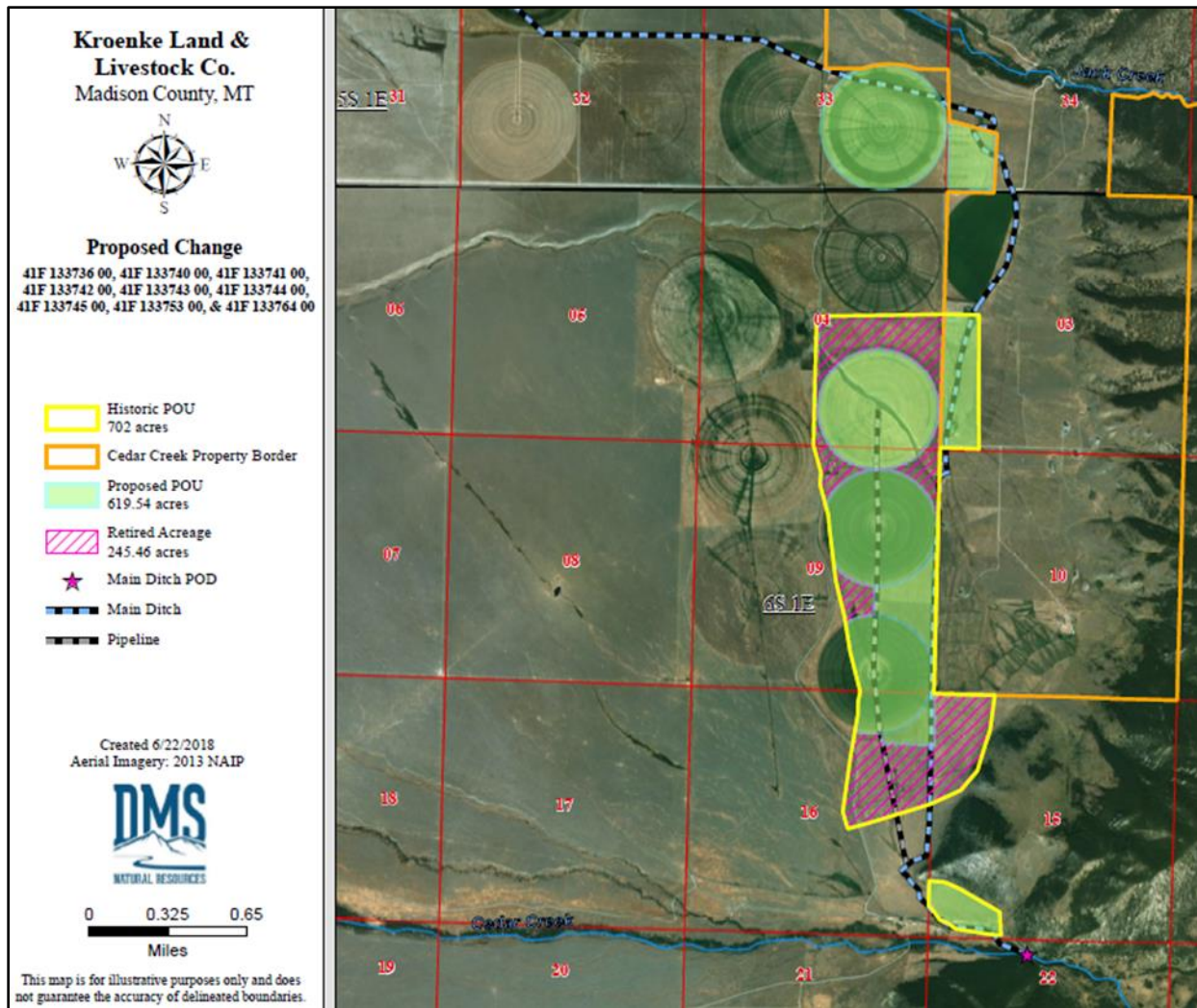


Figure 1: Map of the proposed change.

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to change the place of use for nine water rights to incorporate upgrades to irrigation infrastructure and provide water to newly irrigated acreage. The Applicant has installed four pivot irrigation systems to be used in conjunction with wheel line sprinklers. Three of the proposed pivot systems fall within the historically irrigated footprint for these claims. The fourth pivot is capable of irrigating 133 acres and is located directly north of the historic place of use. The Applicant has also installed a 30-acre wheel line sprinkler system immediately east of the 133-acre pivot. To offset changes in consumptive use on the modified acreage, the Applicant proposes the retirement of 245.46 historically irrigated acres. The acres selected for retirement are located within the gaps between the installed pivots within the historically irrigate footprint, as shown in Figure 1. The points of diversion, period of use, and purpose will not change.

The Department shall issue a change authorization if the Applicant proves the criteria in §85-2-402, MCA, are met.

6. Agencies consulted during preparation of the Environmental Assessment:
  - Montana Department of Fish, Wildlife & Parks (FWP) – FISHMT
    - <http://fwp.mt.gov/fish/>
  - Montana Department of Environmental Quality (DEQ) – Clean Water Act Information Center (CWAIC)
    - <http://deq.mt.gov/wqinfo/CWAIC/default.mcpX>
  - Montana National Heritage Program (MTNHP) – Species of Concern
    - <http://mtnhp.org/SpeciesOfConcern>
  - U.S. Fish & Wildlife Service (USFWS) – National Wetlands Inventory Wetlands Mapper
    - <http://www.fws.gov/wetlands/Data/Mapper.html>
  - Natural Resource Conservation Service (NRCS) – Web Soil Survey (WSS)
    - <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

**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 FWP. Assess whether the proposed use will worsen the already dewatered condition.

*Determination:* No significant impact identified.

As determined by a search of FISHMT conducted on August 8, 2018, Cedar Lake and Cedar Creek are not listed as chronically or periodically dewatered by FWP. South Fork Jack Creek is not listed, but the mainstem Jack Creek is listed as chronically dewatered.

This change will not significantly impact conditions because less water than was historically diverted from South Fork Jack Creek will be diverted.

***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:* No significant impact identified.

According to a search of the CWAIC website conducted on August 8, 2018, neither Cedar Lake nor Cedar Creek are included on the 303(d) list. South Fork Jack Creek is not listed, but the mainstem Jack Creek is included. Jack Creek is listed as fully supporting primary contact recreation, but not fully supporting aquatic life. Jack Creek is impaired by alteration in streamside vegetative cover due to grazing in riparian and shoreline zones and flow regime modification due to irrigated crop production.

This change will not have a significant impact on the water quality because slightly less water than was historically diverted from South Fork Jack Creek will be diverted.

**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:* No significant impact identified.

The rights being changed are from surface water. The place of use is being changed, but this will not have a significant impact on surface water flows because slightly less water than was historically diverted will be diverted.

The change should not significantly affect groundwater quality or supply. In order to prevent any adverse effect from a change in return flows, the Applicant has proposed to leave water instream in both Cedar and South Fork Jack Creeks.

**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:* No significant impact identified.

Water will continue to be diverted at the historical headgates and conveyed through historical ditches. As described in the application and subsequent correspondence, some of the historical ditch laterals have been converted to pipeline systems to reduce conveyance loss.

Water will be diverted and conveyed in an amount that does not exceed historical practices and in an operation pattern that is similar to the historical one, so no significant impacts to channels, flows, barriers, or riparian areas are anticipated.

A dam was constructed on Cedar Lake but was subsequently breached and has never been rebuilt. No changes are proposed for the dam, and it is not included in this project. No wells are involved in this project.

#### **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:* No significant impact identified.

The Montana National Heritage Program's website was queried on August 8, 2018, for species in Township 5 South, Range 1 East and Township 6 South, Range 1 East (the location of both the acreage to be retired and the acreage proposed for new irrigation).

The MTNHP website identified the following animal species for both legal land descriptions:

- Seven (7) Animal Species of Concern: Townsend's Big-eared Bat, Wolverine, Grizzly Bear, Great Blue Heron, Trumpeter Swan, Westslope Cutthroat Trout, and Arctic Grayling.
- Zero (0) Animal Potential Species of Concern.
- One (1) Animal Special Status Species: Bald Eagle.

The MTNHP website identified the following plant species:

- Two (2) Plant Species of Concern: Spiny Skeletonweed and Whitebark Pine. Rocky Mountain Twinpod, Small Dropseed.
- Zero (0) Plant Potential Species of Concern.
- Zero (0) Plant Special Status Species.

The proposed project is to change the place of use of irrigation water, but the same general area will continue under agricultural production, so this project should not significantly impact any of the species listed here.

***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:* Not applicable.

An August 8, 2018, search of the USFWS Wetlands Mapper did not identify any wetlands within the project area.

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

*Determination:* Not applicable.

This project does not involve any ponds. Cedar Lake is a natural lake with added storage from a now-breached dam, but no changes are proposed for the lake – only the place of use for the water diverted from the lake.

***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:* No significant impact.

Slightly less water than was historically diverted from these surface water sources will be diverted. The diversion operation pattern will be similar to the historical one, so this project should not affect soil characteristics significantly. An August 8, 2018, search of the NRCS WSS site did not identify any saline seeps in the area.

**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:* No significant impact identified.

The same amount of water that was historically diverted from these surface water sources will continue to be diverted and conveyed to the same general area, although some acreage will be retired and some will be added. The diversion operation pattern will be similar to the historical one, so this project should not affect vegetative characteristics along the riparian corridor significantly. Under Montana law, property owners are responsible for noxious weed control on their property.

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

*Determination:* No impact identified.

This project will not impact 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.

The project is not located on State or Federal Lands. Furthermore, the Applicant made no mention of significant historical or archeological sites on the property.

**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 impact identified.

No other demands on environmental resources of land, water, and energy have been identified.

<b>HUMAN ENVIRONMENT</b>
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**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

*Determination:* No significant impact identified.

The Applicant's goal is to change the place of use of their existing water rights to incorporate upgrades to irrigation infrastructure and provide water to newly irrigated acreage. The project

area is located within a basin closed to new appropriations of surface water, so this proposal is consistent with the goal of efficiently making use of existing water supplies.

**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:* No impact identified.

The project area is located on private property and will not affect access to recreational activities or the quality of recreational and wilderness activities.

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

*Determination:* No impact identified.

Changing the place of use of an irrigation right will not impact 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:* No impact identified.

The project does not impact government regulations 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 impacts identified.
- (b) Local and state tax base and tax revenues? No significant impacts identified.
- (c) Existing land uses? No significant impacts identified. The Applicant proposes to change the place of use of their existing water rights to incorporate upgrades to irrigation infrastructure and provide water to newly irrigated acreage.
- (d) Quantity and distribution of employment? No significant impacts identified.
- (e) Distribution and density of population and housing? No impacts identified.
- (f) Demands for government services? No significant impacts identified.
- (g) Industrial and commercial activity? No significant impacts identified.
- (h) Utilities? No significant impacts identified.

- (i) Transportation? No impacts identified.
- (j) Safety? No impacts identified.
- (k) Other appropriate social and economic circumstances? No impacts identified.

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

Secondary Impacts: No secondary impacts have been identified.

Cumulative Impacts: No cumulative impacts have been identified.

**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 Applicant may not have any reasonable alternatives to the current process because changing the place of use of a water right requires an Authorization from the Department.

The no-action alternative would be to not to make any changes to their irrigation infrastructure.

**PART III. Conclusion**

**1. Preferred Alternative:** The preferred alternative is to grant the change application if the Applicant can prove that 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 EA is the appropriate level of analysis because the proposed project is to change the place of use of irrigation water rights. None of the identified impacts for any of the alternatives is significant as defined in ARM 36.2.524. No significant adverse effects are anticipated.

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

Name: Brent Zundel

Title: Hydrologist/Water Resource Specialist

Date: August 8, 2018