

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: Kilby Butte Hutterian Brethren Inc.
17920 Hwy 12 East
Roundup, MT 59072
2. Type of action: Application for Beneficial Water Use Permit 30044944-40C
3. Water source name: Musselshell River
4. Location affected by project: The proposed points of diversion are two pump sites located in the NW NW NW & NE NE NE, Section 8, T8N, R27E, Musselshell County.
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

This permit application is for an appropriation of water from the Musselshell River. The Applicant is requesting to divert 11.14 cubic feet per second (cfs) (5000 gallons per minute) up to a total volume of 334.2 acre-feet (AF) annually. The requested period of use for irrigation is from March 15 through June 30. Application materials show that the two pump sites, currently used for contract water, are located on the Musselshell River in the reach between the USGS gages at Roundup and Musselshell. The place of use is 167.1 acres in the N2 Section 8 and the NW quarter Section 9 all in T8N R27E, Musselshell County. The Applicant states that these acres have been irrigated since the early 1950's, however the previous owners did not file for a water right. The water will be used in a gated pipe / border dike system to grow alfalfa and grain crops.

Previously this land has been flood irrigated using contract water purchased from Deadman's Basin Water Users' Association. This application proposes to supplement the Applicants' current irrigation contract of 1,725 AF on a total of 864.1 acres. The permit would allow the Applicant to appropriate water when it is legally available prior to May 1; the first day contract water is available from Deadman's Basin. In addition, the Applicant could use more of their contract water on other acreage instead of the place of use requested by this permit.

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)

Dept. of Environmental Quality Website - TMDL 303d listing
MT. National Heritage Program Website - Species of Concern
USDI Fish & Wildlife Service Website - Endangered and Threatened Species Fergus County, MT
MT State Historic Preservation Office - Archeological/Historical Sites
USDA Natural Resources Conservation Service – Web Soil Survey
USDI Fish & Wildlife Service – Wetlands Online Mapper

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: Minor impact.

Water quantity will be diminished by up to 334.2 AF in some years. The Musselshell River has been identified as chronically dewatered and has been closed to new appropriations from July 1 through September 30 by administrative rule. The Applicant has not applied to divert water during the closure period; if required, the Applicant can use contract water from Deadman's Basin during the closure period. Montana Department of Fish, Wildlife & Parks (FWP) has an instream flow reservation of 80 CFS from the confluence of the North and South Forks of the Musselshell River to the Musselshell Diversion Dam at the town of Musselshell. The stipulations named in Part II, Section 3 of this document are designed to limit diversion to times when water is available in excess of legal demands. The **Musselshell River Basin Water Management Study** indicates that in at least five out of ten years a total of 81,615 AF is available on average for appropriation during the March 1 through June 30 period at the Musselshell USGS gage, just downstream of the project. This volume accounts for authorized new appropriations of 1904 AF developed since the time of the study. The study indicates even more water is available at Mosby downstream of the project. The depletion of 334.2 AF from this total during the specified months could have a minor impact to water quantity.

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: Minor impact.

The reach of the Musselshell River from Roundup to the confluence with Flatwillow Creek has been designated as needing a TMDL plan. The 2000 303d listing identifies impairments to aquatic life support & warm water fishery probably caused by flow alteration, riparian degradation and other habitat alterations. This application could have a minor impact to flow

alteration due to the increased depletion of 11.14 cfs up to 334.2 AF. The stipulations noted in Part II, Section 3 of this document could limit the impact to the already impaired conditions caused by flow alteration and depletion.

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: Low likelihood of impact.

The localized groundwater table may increase earlier in the spring due to earlier irrigation on the requested place of use. Base flows in the Musselshell River could show a slight increase later in the year due to return flows associated with this early irrigation. There is a low likelihood that groundwater will be adversely affected as a result of this proposal.

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: Low likelihood of impact.

It is unlikely that the project will have any significant impacts related to the diversion works. The electric powered pumps and gated-pipe are in place and have been used previously to convey contract water to the place of use.

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: Low likelihood of impact.

The Montana National Heritage Program lists four species as Species of Concern within Township 8 North Range 27 East. Common names for these four species are the Greater Short-horned Lizard, the Spiny Softshell (Turtle), the Bald Eagle and the Greater Sage-Grouse. The USDI Fish & Wildlife Service Website shows that Musselshell County has one species listed as threatened; the Bald Eagle and one species listed as endangered: the Black-footed Ferret. The Applicant says this land has been irrigated cropland since the early 1950's. The pumps and conveyance system are in place and consistent with other agricultural developments commonly found in the area. There is a low likelihood of impact to endangered or threatened species because of this appropriation.

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: Low likelihood of impact.

There are no known wetlands associated with this application. The USDI Fish & Wildlife Service – Wetlands Online Mapper has no data available for the project location.

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

Determination: Low likelihood of impact.

The project does not involve nor affect any ponds.

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: Low likelihood of impact.

The USDA-NRCS Web Soil Survey indicates the dominant soil unit in the area is the Havre-Harlake complex. Soil description says this type of soil is rarely flooded. The sodium adsorption ratio is 0.0 signifying a low likelihood of impacts from saline seep. Soil Moisture content may increase earlier in the season due to earlier irrigation.

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: Low likelihood of impact.

The project would result in increased forage production. Typical farm weed management should be used to control noxious weeds potentially invading disturbed areas. It is the responsibility of the property owner to control noxious weeds 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: Low likelihood of impact.

It is unlikely air quality will be affected; this project will utilize existing electrically driven pumps to divert the water.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: Low likelihood of impact.

The State Historic Preservation Office believes that because this land has been previously farmed, there is a low likelihood cultural properties will be affected. A cultural resource inventory is unwarranted at this time.

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: Low likelihood of impact.

No additional impacts are anticipated.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.

Determination: Low likelihood of impact.

The proposed action is consistent with historic agricultural practices in the area.

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: Low likelihood of impact.

This proposal should not impact recreational activities in the area.

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

Determination: Low likelihood of impact.

No impacts to human health have been identified.

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 known impacts.

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? None

(b) Local and state tax base and tax revenues? None

- (c) Existing land uses? None
- (d) Quantity and distribution of employment? None
- (e) Distribution and density of population and housing? None
- (f) Demands for government services? None
- (g) Industrial and commercial activity? None
- (h) Utilities? None
- (i) Transportation? None
- (j) Safety? None
- (k) Other appropriate social and economic circumstances? None

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

Secondary Impacts - No secondary impacts are anticipated.

Cumulative Impacts - Since the administrative closure of the Musselshell River to new appropriations in 1992, only 15 new water rights have been authorized. Given that the period of appropriation is limited, few applications are received and even fewer water rights granted. Therefore, the economic implications of having less than a full-service irrigation season render the cumulative impacts of limited development minor.

3. *Describe any mitigation/stipulation measures:*

The following condition is necessary to prove the criteria in MCA 85-2-311:

****Important Information**

The appropriator shall divert water during the period of appropriation only when the flow rate at USGS Gauging Station No.06127500 (Musselshell River at Musselshell, MT) indicates a flow in excess of 80 cubic feet per second. In the event Gauging Station No. 06127500 is not in operation, the appropriator shall use USGS Gauging Station No.06126500 (Musselshell River at Roundup, MT) as the reference gage. In this case, the Roundup Gage must also show a flow in excess of 80 cubic feet per second before diversion can occur. These flows must be checked daily when appropriating water. The current internet address is: <http://mt.waterdata.usgs.gov/nwis/current?type=flow>

The following condition is needed because ARM 36.13.106 requires measuring devices for all diversions from the Musselshell River.

****Water Measurement Records Required**

The appropriator shall install a department approved in-line flow meter at a point in the delivery line approved by the department. Water must not be diverted until the required measuring device is in place and operating. On a form provided by the department, the appropriator shall keep a written daily record of the flow rate and volume of all water diverted, including the period of time. Records shall be submitted by November 30 of each year and upon request at other times during the year. Failure to submit reports may be cause for revocation of a permit or change. The records must be sent to the water resources regional office. The appropriator shall maintain the measuring device so it always operates properly and measures flow rate and volume accurately.

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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:

No action alternative: Deny the application. This alternative would result in none of the benefits of increased forage production and the related economic benefits being realized by the Applicant. No other impacts would likely occur, as operation of the project would continue in the same manner as in the past.

PART III. Conclusion

1. Preferred Alternative

The preferred alternative is the proposed alternative, but only if the recommended stipulations are included on the Provisional Permit.

2. Comments and Responses

None Received.

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:

None of the identified impacts for any of the alternatives are significant as defined in ARM 36.2.524.

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

Name: Douglas Mann

Title: Water Resources Specialist - LRO

Date: 12/1/2009