

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:* Nicholas D. Konen
PO Box 663
Fairfield, MT 59436
2. *Type of action:* Application for Beneficial Water Use Permit 41K 30045713
3. *Water source name:* Unnamed Tributary of Muddy Creek (South Fork Muddy Creek)
4. *Location of project:* Section 34, T23N, R2W, Teton County
5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*

This application proposes to appropriate surface water from an unnamed tributary of Muddy Creek, also known as the South Fork of Muddy Creek. The general location is approximately 7 miles northwest of Fairfield, Montana. The proposed purpose is irrigation and the period of appropriation is April 15 – October 15. The amounts of water requested for irrigation are 187 gallons per minute (gpm) up 50 acre-feet (af), to be used on 25 acres in the SWSE Section 34, T23N, R2W, Teton County. The point of diversion will consist of a pump located in the SESWSE Section 34, T23N, R2W. The benefits to the applicant would include increased production of forage crops.

The proposed project is located within the legislatively-created Upper Missouri River Basin Closure Area, however, the source is a tributary of the Muddy Creek drainage. Applications for a permit to use water from the Muddy Creek drainage are a statutory exception under the closure. MCA 85-2-343.

The DNRC will issue a Provisional Permit to Appropriate Water if the applicant proves the criteria in MCA 85-2-311.

6. *Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)*

Dept. of Environmental Quality Website – Clean Water Act Information Center
MT. National Heritage Program Website - Species of Concern
USDI Fish & Wildlife Service Website - Endangered and Threatened Species Teton County, MT
MT State Historic Preservation Office - Archeological/Historical Sites

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

The source of supply, an unnamed tributary of Muddy Creek, is not identified as a dewatered stream by DFWP. The requested appropriation of 187 gpm is minor in relation to median monthly flows in the source, a tributary to Muddy Creek. The Muddy Creek basin has water well in excess of natural flows due to irrigation wastewater from Greenfields Irrigation District.

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

There is no assessment of this unnamed tributary listed in DEQ’s Clean Water Act Information Center. However, all required TMDL’s have been completed on Muddy Creek. The 2008 303d listing identifies impairments to agriculture, aquatic life support, cold water fishery, drinking water supply and recreation. Probable causes or sources are listed as agriculture, channel erosion from upstream hydromodification, habitat modification & streambank modifications. It is well known that irrigation wastewater from the Greenfields Irrigation District contributes to significant erosion in the Muddy Creek basin. This project would help to reduce erosion by lowering flows in Muddy Creek.

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: Minor Impact

The localized groundwater table may increase due to irrigation, and base flows in Muddy Creek may also slightly increase later in the year. The initial diversion and attenuation of flows associated with this project should benefit the Muddy Creek drainage by helping control erosion.

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: Minor Impact

The proposed diversion works consist of two in-line pumps with a combined diversionary capacity of 187 gpm. Water will be conveyed from the point of diversion via 600 feet of 4-inch aluminum pipe to the lateral system, which will consist of five sections (1770 feet) of 2-inch plastic pipe to a "K-Line" sprinkler irrigation system. The Applicant estimates the expected efficiency of the irrigation system to be 72%, based on irrigation sales designs. Minor short term impacts from system installation may occur, however, no significant impacts would likely occur due to 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: Low Likelihood of Impact

The USDI Fish & Wildlife Service Website - Endangered and Threatened Species Teton County, MT lists two species as threatened, the Grizzly Bear and the Canada Lynx. The Montana National Heritage Program does not list any plant or animal species as a Species of Concern within T23N R2W. This project is consistent with existing development in the area; it is unlikely that any impacts to threatened species would occur because of this project.

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

The USDI Fish & Wildlife Service Wetlands Online Mapper does not indicate any wetlands in the area of interest. It is unlikely that any wetlands would be adversely impacted as a result of this project.

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

Determination: No Impact

The project does not involve nor impact 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: Minor Impact

The soils in the area are generally loams underlain by weathered bedrock. These soils are essentially nonsaline and should not contribute to saline seep. Soil Moisture content may increase due to 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: Minor Impact

The project would result in increased forage production. No spread of noxious weeds would likely be associated with this application, as it is the responsibility of the landowner 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 would be impacted; the pumps are small with minimal emissions.

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 25 acres of proposed irrigation have distinct field borders and have previously been disturbed. It is unlikely that any cultural resources would be further impacted by this project; 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: No other demands have been identified.

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

This project would likely be consistent with the plans and goals of the Sun River Watershed Group and the Muddy Creek Task Force; both groups are concerned with erosion control and sediment transport in the Muddy Creek Drainage.

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

There are no known impacts to recreational or wilderness activities expected because of this project.

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: Low Likelihood of Impact

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? **MAY INCREASE TAX REVENUE**
- (c) Existing land uses? **INCREASED FORAGE PRODUCTION**
- (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 – Could help reduce erosion and sediment transport in the Muddy Creek Drainage.

Cumulative Impacts – Since the closure of the Upper Missouri River Basin, new irrigation appropriations from surface water have been limited to the Muddy Creek Drainage Basin. Since the closure of new appropriations in 1993, only a few water rights have been issued for irrigation. While development may continue to a limited degree, the cumulative impacts of continued development are 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 USGS Gauging Station No. 06088500, Muddy Creek at Vaughn, indicates a flow in excess of 150 cubic feet per second. The flow must be checked daily when appropriating water. The current internet address is: mt.waterdata.usgs.gov/nwis/current?type=flow

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

This alternative would result in none of the benefits of increased forage production and the related economic benefits being realized by the applicant.

PART III. Conclusion

1. *Preferred Alternative*

The preferred alternative is the proposed alternative, but only if the recommended stipulations are included on the water right permit.

2. *Comments and Responses*

None Received

3. *Finding*

Based on the significance criteria evaluated in this EA, is an EIS required?

NO

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 alternative are significant as defined in ARM 36.2.524.

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

Name: Douglas D. Mann

Title: Water Resources Specialist

Date: 6/2/2010