

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:* Montana LLC
12201 Tukwila International Blvd, Floor 4
Tukwila, WA 98168
2. *Type of action:* Permit to Appropriate Water 76K 30045589
3. *Water source name:* Groundwater
4. *Location affected by project:* SE¹/₄ SW¹/₄ NE¹/₄, Section 16, Township 27N, Range 19W, Flathead County
5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*

This application is to obtain a water use permit for an irrigation well located on property owned by Montana LLC near Bigfork approximately 15 miles north of the Flathead Indian Reservation's most northern boundary. Water from this well is proposed to irrigate 80.22 acres of alfalfa at a flow rate of 225 gallons per minute (gpm) for a total volume of 100.28 acre-feet (AF) per year. The proposed period of diversion is May 15 through September 15 inclusive of each year.

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

Montana Natural Resource Program Species of Concern
 Montana Historical Society Cultural Records Search
 US Fish and Wildlife Service Wetlands Mapper
 Natural Resource Conservation Service Web Soil Survey

Part II. Environmental Review

1. Environmental Impact Checklist:

<h2>PHYSICAL ENVIRONMENT</h2>

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: N/A.

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: N/A

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.

The irrigation well will derive groundwater from the aquifer at a rate not to exceed 225 gpm. This proposed appropriation includes the use of a well completed in a confined alluvial aquifer, having a total depth of 322 ft., is screened from 268 to 288 ft., and has the pump installed at 243 ft. The applicant determined a zone of influence of approximately 18,120 ft. from the point of diversion by modeling a pumping flow rate of 225 gpm for the full period of appropriation. The annual volume of water passing through the potential zone of influence was calculated as 3,553.4 AF. The proposed diverted amount of 100.28 AF combined with existing appropriations totals 3,402.8 AF per year, representing 96% of annual available volume.

Over time, the use of this public water supply will likely reduce water inflows to Mud Lake, Mud Creek, Echo Lake, the Swan River and Flathead Lake.

Determination: Given the extensive nature of the alluvial aquifer in this area it is unlikely this proposed appropriation will have significant, long-term impact on groundwater availability. The confined nature of the aquifer tends to cause significant draw-down, and therefore may induce recharge from shallower aquifers or surface water sources.

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.

The well was drilled by a licensed well driller (license # WWC-450) in accordance with MCA Title 37, Chapter 43 and ARM Title 36, Chapter 21. This well is drilled to a total depth of 322 feet below ground surface (bgs) and is cased from 2 ft above ground surface to a depth of 269 ft-bgs with 10-inch steel casing. A 10-inch continuous steel screen is installed from 268-288 ft-bgs. A Robbco pump model 7AHE with a 60 hp motor is installed in the well at a depth of

approximately 238 ft-bgs. Flow is controlled with a variable frequency drive and is monitored with an inline instantaneous and cumulative flow meter.

Determination: No impact

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.”

The Montana Natural Heritage Program website was referenced to determine if there are any threatened or endangered fish, wildlife, plants or aquatic species or any “species of special concern” in vicinity of Township 27N and Range 19W, that could be impacted by the proposed project. The US Fish and Wildlife Service identified the threatened Canada Lynx (*Lynx canadensis*), Grizzly Bear (*Ursus arctos*), Bull Trout (*Salvelinus confluentus*), and the delisted Gray Wolf (*Canis lupus*) and Bald Eagle (*Haliaeetus leucocephalus*). In addition the State of Montana, US Forest Service, and Bureau of Land Management identified the following species of special concern: Wolverine (*Gulo gulo*); Fisher (*Martes pennanti*); Great Blue Heron (*Ardea Herodias*); Westslope Cutthroat Trout (*Oncorhynchus clarkii lewisi*); two Stoneflies (*Isocapnia crinite* & *Zapada cordillera*); Mountain Moonwort (*Botrychium montanum*); Crested Shieldfern (*Dryopteris schreberi*); Black Water-marigold (*Bidens beckii*); and Watershield (*Brasenia schreberi*).

Determination: This proposed project will not change land use characteristics and therefore should not impact the above listed species. In conclusion, this proposed project it is not expected to adversely impact any of these species.

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: The proposed point of diversion and place of use are not within the boundaries of wetlands mapped by the national wetlands inventory program.

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

Determination: N/A

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.

The location of the proposed place of use encompass the soil types of Stryker silt loam (Sk ~ 50%), Corvallis silty clay loam (Cd ~ 27%), Selle fine sandy loam (Sc ~ 11%), Selle fine sandy loam (Sb ~ 11%), and McCaffery loamy fine sand (Mc ~ 1%).

Determination: There are some susceptibilities to degradation for these soil types, particularly for wind erosion. Approximately 50% of area is slightly, 49% moderately, and 1% highly susceptible for wind erosion. The proposed use associated with this application is for irrigation, and therefore will not increase the susceptibility of wind erosion; the potential for degradation will likely decrease through increased plant growth. No degradation of soils is expected.

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: There will be no change in land-use characteristics associated with this permit, fields already exist, so there will be no significant impact.

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.

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

Determination: There will be no change in land-use characteristics associated with this change so there will be no significant impact.

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: None

HUMAN ENVIRONMENT

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

Determination: The project is consistent with planned land use.

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: There should be no significant impacts on recreational or wilderness activities from this proposed use.

HUMAN HEALTH - *Assess whether the proposed project impacts 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: No 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? No
- (b) Local and state tax base and tax revenues? No
- (c) Existing land uses? No
- (d) Quantity and distribution of employment? No
- (e) Distribution and density of population and housing? No
- (f) Demands for government services? No
- (g) Industrial and commercial activity? No
- (h) Utilities? No
- (i) Transportation? No
- (j) Safety? No
- (k) Other appropriate social and economic circumstances? No

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

Secondary Impacts: None

Cumulative Impacts: None

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 “no action” alternative to this proposed project will result in the landowner not having access to water for domestic purposes.

PART III. Conclusion

1. ***Preferred Alternative:*** As proposed

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: No significant impacts have been identified; therefore, no EIS is necessary.

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

Name: Tim Eichner

Title: Water Resources Specialist

Date: November 20, 2009