

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:**

Norman C. Bjelland
PO Box 9050
Kalispell, MT 59904

2. **Type of action:** Groundwater Application for Beneficial Water Use Permit 76LJ 30122427

3. **Water source name:** Groundwater

4. **Location affected by project:** The place of use is in the NW, Section 33, Township 29N, Range 22W, Flathead County, Montana.

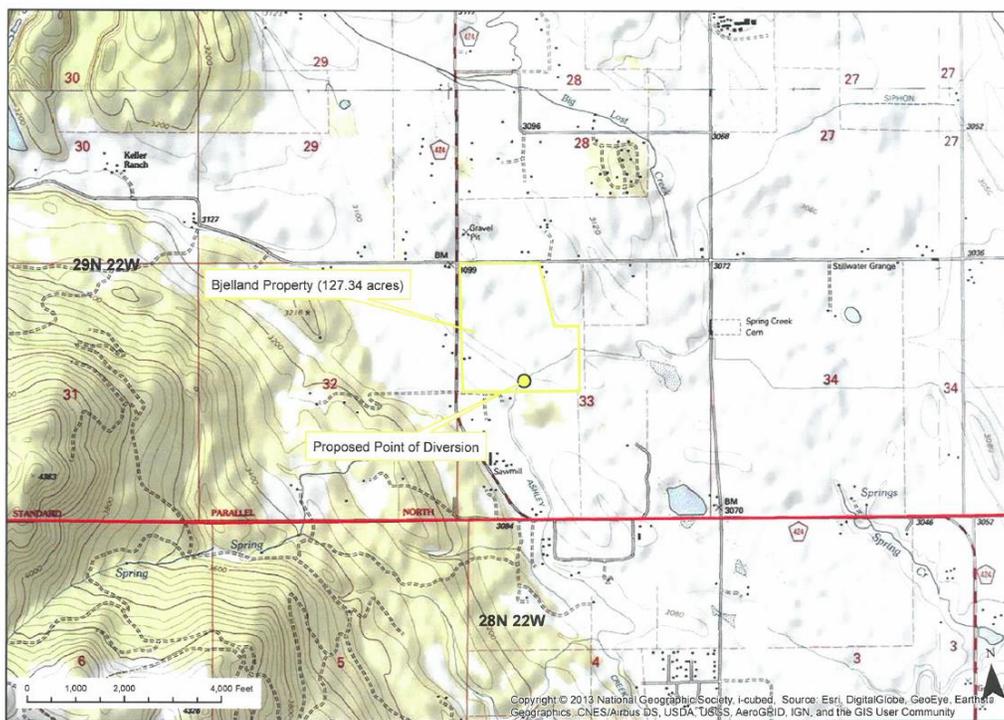


Figure 1: Map of proposed point of diversion and parcel associated with irrigation

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

The Applicant is requesting to divert an additional 421 GPM and zero volume from a pumping pit located in Tract 8AA, SWSENW, Section 33, Township 29N, Range 22W, Flathead, Montana for irrigation purposes. The period of diversion and use is April 15th – October 15th. Statement of Claim No. 76LJ 30115619 and 76LJ 30116270 are associated with and supplemental to Provisional Permit application 76LJ 30122427. The Claims share the same point of diversion and place of use (99.8 acres). The Claims provide 729 GPM up to 184.3 AF of diverted volume from the proposed pumping pit. The Applicant will install a pump in the pit that can produce 1,150 GPM. The requested 421 GPM will supplement Statement of Claim No. 76LJ 30115619 and 76LJ 30116270; in combination between the three rights flow will not exceed 1,150 GPM. No additional volume is requested because the two Claims provide the needed volume for 99.8 acres of irrigation. The place of use is the NW of Section 33, Township 29N, Range 22W, Flathead County, Montana (Figure 1). The pumping pit is 0.2 acres, has a maximum depth of 25 feet and a capacity of 2.5 AF. The DNRC shall approve the change if the 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)**

- U.S. Fish and Wildlife Service and Montana Natural Heritage Program: Endangered, Threatened Species and Species of Special Concern, Wetland Mapper program
- Montana Department of Fish Wildlife & Parks (DFWP); Dewatered Stream Information
- Montana Department of Environmental Quality's (MDEQ) Clean Water Act Information and PWS Drinking Water Watch databases
- U.S. Natural Resource Conservation Service (NRCS); web soil survey
- Montana Historical Society

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.

The proposed pit is excavated into the Lost Creek Fan, which is a thick accumulation of shallow Quaternary glacial outwash deposited by glacial meltwater. The proposed and existing pits are fed by an unconfined gravel and sand aquifer system. No surface water was identified as being affected from the proposed change.

Determination: No impact.

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.*

The proposed pit is excavated into the Lost Creek Fan, which is a thick accumulation of shallow Quaternary glacial outwash deposited by glacial meltwater. The proposed and existing pits are fed by an unconfined gravel and sand aquifer system. No surface water was identified as being affected from the proposed change.

Determination: No impact.

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 Applicant is not requesting additional volume. The proposed use will not exceed the current diverted volume allowed under Statement of Claim No. 76LJ 30115619 and 76LJ 30116270. Stream depletions associated with Statement of Claim No. 76LJ 30115619 and 76LJ 30116270 accumulate in Spring Creek. No additional consumption is anticipated by increasing the rate at which water is diverted from the pit. There will be no changes in the amount or timing of depletions to surface water under the proposed use.

Determination: No impact.

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 pumping pit is 0.2 acres, has a maximum depth of 25 feet and a capacity of 2.5 AF. A large diameter culvert is installed in the bottom 10-feet of the pond to serve as a pump chamber. The pump is lowered into the culvert. Water will be pumped from the pit using a Berkeley 1004H Turbine pump with 4-stages. Two stages have been removed. Based on the pump curve provided, with 4-stages the pump can produce 1,150 GPM under operating conditions at or below 148 feet of total dynamic head (TDH) (36 ft per stage). The TDH for all three irrigation zones operating at once is 142 feet. Water will be pumped from the pit into an 8-inch PVC mainline to the largest pivot that has an output of 550 GPM. Two 6-inch transmission lines come off the mainline and convey water to two smaller pivots with outputs of 350 GPM and 250 GPM. The three pivots with end guns will irrigate a total of 99.8 acres. A Fuji Electric Frenic-EcoPump variable frequency pump drive will allow the system to operate over a variety of conditions, including the large pivot or two small pivots by themselves or all three pivots at once. The Applicant will install an in-line flow meter between the pump and irrigation system to measure the volume of water diverted from the pit. The records will be recorded and made available to the DNRC upon request. Department hydrogeologists have shown that no significant negative impact will occur to existing water users and surface/groundwater resources from the increased rate of diversion. No impacts are expected to channels, barriers, riparian areas, dams, nor will any flow modifications occur.

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 and DFWP websites were reviewed to determine if there are any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern", that could be impacted by the proposed project in Township 29N, Range 22W.

According to the MNHP there are no plant species of concern. This area has been disturbed for over 30 years, impact to the sensitive plant species has most likely already occurred.

The Bull Trout (*Salvelinus confluentus*) is listed as threatened by the USFS. The Wolverine (*Gulo gulo*), Fisher (*Martes pennanti*) and Westslope Cutthroat Trout (*Oncorhynchus clarkia lewisi*) are listed as sensitive species by the USFS. The Great Blue Heron (*Ardea herodias*), Black Tern (*Chlidonias niger*), Lewis's Woodpecker (*Melanerpes lewis*) and Horned Grebe (*Podiceps auritus*) are listed S3 to S3B by MFWP meaning their populations are at risk because their numbers are very limited. The Lake Trout (*Salvelinus namaycush*) are listed S2 by MFWP, meaning their populations are at risk because their numbers are extremely limited and/or rapidly declining. This parcel of land was historically farmed and irrigated, any impacts to sensitive mammal species or fish most likely have already occurred. The proposed project will not impact any threatened or endangered fish, wildlife, plants and aquatic species or any species of special concern.

Determination: No impact.

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: N/A, project does not involve wetlands or critical riparian habitats

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

Determination: N/A, project does not involve ponds. It involves a pumping pit.

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.

According to soil survey data provided by the NRCS, soil within the place of use consists mostly of Yeoman cobbly loam, gravelly silt loam and gravelly loam. These soils are not susceptible to saline seep. The proposed change shall not alter soil quality, stability or moisture content.

Determination: No impact.

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.*

Any impacts to existing vegetation will be within the range of current disturbances due to current farm practices. Noxious weeds are not expected to be established or spread due to current land management techniques.

Determination: No impact.

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

Adverse air quality impacts from increased air pollutants are not expected as a result of this project. No air pollutants were identified as resulting from the applicants proposed use of water.

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 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: N/A, project is not located on state or federal land.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

All impacts to land, water and energy have been identified and no further impacts are anticipated.

Determination: No impact.

HUMAN ENVIRONMENT

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

The project is located in an area with no locally adopted environmental plans.

Determination: No impact.

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.*

The proposed project will not inhibit, alter or impair access to present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic congestion in the area that may alter the quality of recreational opportunities. The proposed place of use and diversion do not exist on land designated as wilderness.

Determination: No impact.

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

There should be no significant negative impact on human health from this proposed use.

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

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

Secondary Impacts: None identified.

Cumulative Impacts: None identified.

3. ***Describe any mitigation/stipulation measures***: None identified.
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 reasonable alternatives were identified in the EA.

PART III. Conclusion

1. ***Preferred Alternativ***: None identified.
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 EA is the appropriate level of analysis for the proposed action because no significant impacts were identified.

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

Name: Melissa Brickl

Title: Hydrologist/Water Resource Specialist

Date: September 30, 2019