

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: Bowdish Family L.L.C.  
2146 Merganser Drive  
Kalispell, MT 59901
  
2. Type of action: Application for Beneficial Water Use Permit 30044872-76LJ
  
3. Water source name: Ground Water
  
4. Location affected by project: The proposed points of diversion are two wells located in the NE NE SW, Section 36, T30N, R22W, Flathead County.
  
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:  

This application requests 200 gallons per minute (gpm) up to 66.15 acre-feet (AF) per year to supply a public water system for the Tree Farm at Whitefish subdivision located approximately 6.5 miles north of Kalispell, MT. The subdivision is in Section 36, Township 30 North, Range 22 West, Flathead County. The public water supply system will consist of two wells proposed to serve 57 residential lots, a community center and 3 commercial lots. The Applicant estimates a total of 17.99 acres of lawn and garden irrigation within these lots. The total volumes requested for domestic, commercial and lawn and garden irrigation are 19.49 AF, 1.68 AF, and 44.98 AF respectively. The annual period of diversion for domestic and commercial purposes is from January 1 to December 31, while lawn and garden use will take place from April 15 to October 15. Applicant's Well #1 has been completed and tested. Well #2 is a redundant backup well that the Applicant proposes to install prior to service.

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 Flathead County, MT  
MT State Historic Preservation Office - Archeological/Historical Sites

## **Part II. Environmental Review**

### **1. Environmental Impact Checklist:**

<b>PHYSICAL ENVIRONMENT</b>
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#### **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: Not Applicable.

The source of supply is ground water.

**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: Not Applicable.

The source of supply is ground water.

**Ground water** - Assess if the proposed project impacts ground water quality or supply. If this is a ground water appropriation, assess if it could impact adjacent surface water flows.

Determination: Minor impact.

The proposed appropriation includes the use of either of two wells pumping at a maximum flow rate of 200 gpm. The applicant determined a radius of influence (ROI) of approximately 9,400 ft. from the point of diversion by modeling an average pumping rate of 40.01 gpm for the full period of appropriation. The annual volume of water passing through the potential zone of influence was calculated as 20,447 AF. The consultant used Darcy's law to estimate the total flux through this 3.5-mile wide transect based upon the ROI, a transmissivity value of 59,000 ft<sup>2</sup>/day based upon Department recommendations and a gradient of 0.0022. The consultant estimates the total legal demand on the aquifer through this transect at 2937.3 AF/YR, which includes the Applicants appropriation and equates to about 14 percent of the estimated flux. Given that the proposed project would lead to a maximum annual projected drawdown of less than one-quarter of a foot in the closest well and given that wells located within the ROI should have a sufficient amount of water column above the pumping level, this appropriation of water is not expected to significantly impact other ground-water users.

This appropriation should not have an adverse impact to nearby surface water sources. The Stillwater River at Lawrence Park in Kalispell has existing downstream legal demands of 23.6

cubic feet per second (cfs), leaving an available median monthly flow of 32.8 cfs in January, the month with the least available water.

**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 Applicant is requesting a ground water appropriation using two wells; however, they will not be used simultaneously. Applicant's Well #1 was drilled by a licensed well driller (license # WWC-425) in accordance with MCA Title 37, Chapter 43 and ARM Title 36, Chapter 21. Well #1 was completed to a depth of 458 ft. below ground surface, has a minimum casing diameter of 6.6 inches, and contains slot perforations from 418.5 to 448.5 ft. Well #2 will be completed 20 feet away and near same depth, sometime prior to operation of the system. Well #1 will contain a Berkeley 60-hp model 6T-250 submersible pump capable of producing a flow rate of 240 gpm at 500 feet of total dynamic head. The pump in Well #2 will be similarly sized. Other than temporary disturbances created by installation of Well #2, construction of the pipelines and pump house, no substantial impacts are expected as a result of the diversion works.

**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 ten animal species as Species of Concern within Township 30 North Range 22 West. Common names for these ten species are the Gray Wolf, Wolverine, Canada Lynx, Fisher, Great Blue Heron, Pileated Woodpecker, Common Loon, Northern Alligator Lizard, Bull Trout & the Subarctic Bluet. The Montana National Heritage Program also lists three plant species as Species of Concern within Township 30 North Range 22 West. Common names for these three species are the Watershield, the Pygmy Water-lily & the Water Bulrush. The USDI Fish & Wildlife Service Website shows that Flathead County has four species listed as threatened; the Bull Trout, Grizzly Bear, Spalding's Champion & Canada Lynx. Since this project is associated to ground water withdrawals and many adjacent properties have high population densities, 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 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:* 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.

Typical construction activities may cause short-term disturbances to soil stability, however there is a low likelihood of impact to soil quality as a result of this project.

**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.

Again, typical construction activities may cause short-term disturbances to vegetative cover, however there is a low likelihood of any considerable impact due to this appropriation. 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 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 property in question is predominately timberland. 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 planned land use 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? Slight Impact
- (c) Existing land uses? Slight Impact
- (d) Quantity and distribution of employment? None
- (e) Distribution and density of population and housing? Slight Impact

- (f) Demands for government services? Slight Impact
- (g) Industrial and commercial activity? None
- (h) Utilities? Slight Impact
- (i) Transportation? Slight Impact
- (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 have been identified.

Cumulative Impacts – The development of additional subdivision projects can affect the physical environment in many ways, both negatively and positively. Urbanization can deplete water quantity, re-direct storm water runoff, congest traffic flow patterns, burden public schools with an influx of new students, and prohibit wildlife movement. Development can also increase local and state tax revenues, help support local commerce, help public schools maintain sufficient student populations and increase available housing needs. Cumulative impacts will generally depend upon the specific project.

**3. *Describe any mitigation/stipulation measures:***

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

**\*\*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.

**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 to the regional housing market or 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 stipulation is 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:* 3/8/2010