

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: Brosten Farms L.L.C.
2883 Lower Valley Rd
Kalispell, MT 59901
2. Type of action: Application for Beneficial Water Use Permit 76LJ-30050564
3. Water source name: Groundwater
4. Location affected by project: N2 of NW quarter of Section 8 in Township 27N,
Range 20W, Flathead County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to divert groundwater by means of two wells. The wells will divert water at a maximum flow rate of 110 gallons per minute (GPM) with an associated volume of up to 46.0 acre-feet (AF) annually. Water will be appropriated for year round multiple domestic use and seasonal lawn and garden irrigation purposes within the Pheasant Haven Subdivision; 19 residential lots located approximately ten miles southeast of Kalispell, MT. The Applicant intends to divert 39.5 AF for 19.0 acres of lawn and garden irrigation and 6.5 AF for multiple domestic uses. Lawn and garden irrigation will take place from April 15 to October 15, inclusive of each year. The primary well (Well #1) will convey the maximum flow rate of 110 GPM; however, the backup well (Well #2) will only provide a flow rate of 50 GPM. Well #1 is approximately 662 feet deep and is completed in a deeper alluvial aquifer component than Well #2, which is 431 feet deep.

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
MT. National Heritage Program Website - Species of Concern
MT Fish, Wildlife & Parks (USDI Fish & Wildlife Service) - Endangered and Threatened Species
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: Not Applicable

The source of supply is deep alluvial groundwater, diverted from the aquifer by two wells with total depths of 662 feet (Well #1) and 431 feet (Well #2) below ground surface (bgs).

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 groundwater and therefore it is not listed as an impaired or threatened stream by DEQ.

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: No Significant Impact

Groundwater quantity will be diminished by up to 46.0 AF in some years; however the withdrawal of water from this deep alluvial aquifer will not have a significant impact on water quantity. The proposed project will consist of two wells; Well #1 is cased to 660 feet bgs and Well #2 has well casing to a depth of 430 feet bgs. Aquifer tests show the alluvial aquifer is very prolific in this area and although this appropriation does not appear to diminish the available flux in the aquifer; the consumptive use associated with this project will end up manifesting as depletions to nearby surface water sources. In other words, pumping of these wells will reduce discharge from the source aquifer to the Flathead River and Flathead Lake at some point in the future. Since water is legally available to appropriate from these sources, there will be no significant impact to adjacent surface water flows because of this appropriation.

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: No Significant Impact

The proposed means of diversion is two wells finished in a deep alluvial aquifer under Flathead Valley. Sudan Drilling (MT license #WWC-450) completed Well #1 in October 2005. Well #1 was drilled to a depth of 662 feet bgs and screened from 643 to 658 feet bgs. The static water level was 2.0 feet bgs at the time of construction. Pump specifications supplied by the Applicant indicate the well is capable of producing the requested flow rate of 110 GPM.

Well #2 is expected to be used as a back-up well for the subdivision and was initially completed on May 31, 1974 by Billmayer Drilling (MT license #WWC-5). Well #2 was completed to a depth of 431 feet and had a flowing static water level of 1.0 foot above the land surface. The drill log says the well is constructed with 6 and 5/8-inch diameter steel casing to a depth of 255 feet and cased with 5 and 1/2-inch steel pipe from depths of 210 to 430 feet. Proposed pump specifications supplied by the Applicant indicate this well will be capable of producing the requested back-up flow rate of 50 GPM.

As mentioned above, this appropriation may reduce the flow of water from the alluvial source aquifer to nearby surface water sources; however, there is water legally available in the surface water sources to render these impacts insignificant. The water distribution system will service 19 residential lots and consists of both 4-inch and 3-inch PVC mainline with individual connections of 1-inch PE pipe to each lot. Water is conveyed from the wells to the pumphouse, where the water is measured with a totalizing turbine flow meter and in turn transported by the distribution system to the individual lot connections. Other than short term disturbances associated with construction activities for infrastructure, there will be no adverse impacts from 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: No Significant Impact

The Montana National Heritage Program lists four species as Species of Concern within Township 27 North Range 20 West. Common names for these four fish species are Westslope Cutthroat Trout, Pygmy Whitefish, Bull Trout and the Lake Trout. The program also lists three birds and a fish as Potential Species of Concern within Township 27 North Range 20 West. Common names for the birds are the Short-eared Owl, Barrow's Goldeneye and the Hooded Merganser. The fish with potential concern is the Brook Stickleback. The USDI Fish & Wildlife Service shows that Flathead County has four species listed as threatened; Bull Trout, Grizzly Bear, Canada Lynx and Spaulding's Champion. There are also two Candidate species; Meltwater Lednian Stonefly and the Wolverine. This project is not expected to affect any threatened or endangered species as the area of interest has been disturbed by agriculture practices in the past and is surrounded by existing residential properties. As mentioned above, some short-term surface disturbance and erosion may occur during installation of the distribution system, but

there will be no significant adverse effects to endangered or threatened species 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: No Significant Impact

A portion of Lot 19 in the Pheasant Haven Subdivision is designated as being a Palustrine Freshwater Emergent Wetland that is temporarily flooded. The wetland area is about ¾ of an acre in size and located in the far northwest corner of the 4.6-acre lot. The home for this lot was originally built in 1974 and no further impacts to the wetland resource are expected.

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

Determination: No Significant Impact

There are no known ponds associated with this application; existing wildlife, waterfowl or fisheries resources will not be impacted.

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: No Significant Impact

The USDA-NRCS Web Soil Survey indicates the dominant soil in the area of the subdivision is the Somers silty clay loam with 0 to 3 percent slopes. The rating for this soil unit says it is moderately well-drained and has a moderately high capacity to transmit water. Representative Sodium Adsorption Ratios for all soil units are low and indicate a low ratio of sodium to calcium and magnesium; no impacts from saline seep are expected.

Some short-term surface disturbance and erosion will likely occur with the installation of the distribution system, but proficient construction practices will minimize any potential impacts to soil quality or stability.

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: No Significant Impact

Normal weed management can be used to control noxious weeds potentially invading disturbed areas; therefore, no spread of noxious weeds will be associated with this application. 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: No Significant Impact

It is unlikely air quality would be significantly impacted; this project will utilize electric motors to drive the pumps in the wells. This project would have emissions and air pollutants associated with construction activities; but they will have minimal short-term effects on air quality.

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: Not Applicable

This project is not located on any State or Federal Lands.

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 Significant Impact

No other impacts to environmental resources 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: No Significant Impact

No locally adopted environmental plans or goals are known at this time. The proposed project is consistent with other subdivision developments 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: No Significant Impact

The proposed action will not significantly impact recreational activities in the area.

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

Determination: No Significant Impact

No adverse impacts to human health have been identified because of this project.

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 Significant Impact

There are no known government regulatory impacts on private property.

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 Significant Impact
- (b) Local and state tax base and tax revenues? No Significant Impact - Increased property values could equate to increased tax revenues for both local and state entities
- (c) Existing land uses? No Significant Impact - Portions of land will move from agriculture to residential use
- (d) Quantity and distribution of employment? No Significant Impact
- (e) Distribution and density of population and housing? No Significant Impact - Increased residential population
- (f) Demands for government services? No Significant Impact
- (g) Industrial and commercial activity? No Significant Impact
- (h) Utilities? No Significant Impact - Increased power consumption from additional residential properties
- (i) Transportation? No Significant Impact - Increased traffic due to additional residents in subdivision
- (j) Safety? No Significant Impact
- (k) Other appropriate social and economic circumstances? No Significant Impact

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

Secondary Impacts - No secondary impacts have been identified.

Cumulative Impacts - No cumulative impacts have been identified.

3. Describe any mitigation/stipulation measures:

No mitigation measures have been identified at this time. Conditions will be applied to the permit authorization to require recordation of all water diverted for the project.

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 being realized by the Applicant.

PART III. Conclusion

1. Preferred Alternative

The preferred alternative is the proposed alternative, assuming the Applicant will adhere to all conditions of the permit authorization.

2. Comments and Responses

No comments or responses have been received at this time.

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 adverse effects of impacts 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 Hydrologist - LRO

Date: 4/6/2012