

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: Town of Darby  
PO Box 37  
Darby, MT 59829
2. Type of action: Application to Change a Water Right 76H 30048748
3. Water source name: Groundwater
4. Location affected by project: NESE Section 10, T3N, R21W, Ravalli County  
NWNW Section 11, T3N, R21W, Ravalli County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to add three additional points of diversion to provisional permit no. 76H 90445. The additional points of diversion are existing groundwater wells currently used to supply municipal water to the Town of Darby. All three new additional points of diversions (well nos. 2, 5 & 6) are currently manifold into the Applicant's water supply system and operate under the authority of water right numbers 76H 7 and 76H 32808. The existing well (well no. 1) used to supply ground water authorized by 76H 90445 was disconnected from the municipal water supply system during the Spring of 2010 and will no longer be used for this purpose. Well no. 1 will remain listed as a point of diversion on water right 76H 90445, however, it will only be used for emergency fire protection purposes. The proposal does not request any increase or change in the place of use or pattern of use. The proposal is to allow the Applicant to increase the amount of water pumped from the three current municipal water supply wells by 195 gpm and 74 AF annually to provide for the authorized use of any of the Applicant's three wells to supply municipal water to the Town of Darby throughout the year-round period of use.

The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.

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

**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:* N/A the appropriation is for groundwater with no impact to surface 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:* N/A the appropriation is for groundwater with no impact to surface water.

**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 impact.

The proposed change will not increase the volume of water that may be diverted or consumed by the Applicant. The three water right permits used to supply municipal water to the Town of Darby have either been certified or verified by DNRC and the Applicant is limited to the certified or verified volumes. The Applicant is required to measure and report water usage annually to the Department and the water measurement conditions will continue if the change is authorized. The new wells range from approximately 85 to 104 feet deep and are completed in the unconfined alluvial aquifer. The original well (well no. 1) was also completed in the same unconfined alluvial aquifer. The distances to surface water sources including the Bitterroot River, Overturf ditch and the main ditch of the Mill ditch system are relatively the same for the original well and the proposed new wells and impacts to these sources will be the same. The Applicant performed a 72 hour pump test of well no. 6 at a rate of 755 GPM followed by 72 hours of recovery monitoring to determine ground water aquifer properties. During the pump test the Applicant monitored water level in two wells, one 20 feet from the pumping well and the other 915 feet from the pumping well. The nearer well responded to pumping, the farther well did not. The Applicant's drawdown analysis shows wells located farther than 213 feet from any of the proposed three new wells will have less than 1 foot of drawdown. Per the Applicant's analysis of groundwater wells using the DNRC records obtained from the water right query system there are no wells with water rights located within 213 feet of the Applicant's proposed new wells.

**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 impact.

The public water supply system operated by the Town of Darby conforms to the Montana Public Works Standard Specifications and the Montana DEQ Circular DEQ-1, Standards for Water Works. Well constructions are compliant with ANSI/AWWA A-100 'Standards for Water Wells', and the Board of Montana Water Well Contractors rules. The proposed use of groundwater will not cause any new affects to surface water sources and will not impact any channels, cause any flow modifications, create any barriers or impact riparian areas, dams or other existing or future wells.

**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 impact.

The Montana Natural Heritage Program was contacted 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.

The Montana Natural Heritage Program identified the following animal species occurring within the vicinity of Sections 10 and 11, Township 3 North, Range 21 West, Ravalli County; Westslope Cutthroat Trout, Bull Trout, Townsend's Big-eared Bat, Gray Wolf, Fisher, Wolverine, Western Spotted Skunk, Canada Lynx.

The proposed project location is in the town of Darby, a rural to urbanized area that does not provide quality habitat for any of the listed species. The Bitterroot River is 0.6 miles east of the proposed new wells and is populated with Bull Trout and Westslope Cutthroat Trout which are species identified as threatened. The proposed change in point of diversion will not result in any additional or new impacts to water availability in the Bitterroot River that could impact 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:* No impact.

The proposed project does not create or impact any wetlands.

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

*Determination:* No impact.

The proposed project does not create or 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:* No impact.

The proposed project will not cause degradation of soil quality, alteration of soil stability or moisture content. Construction associated with the proposed change in water use consists of drilling one additional well and connecting this well to the existing public water supply distribution system. Water use in the Town of Darby will not change as a result of this project. Domestic waste water is treated at the Darby Sewer Treatment Plant. The proposed project will not result in an increase in waste water discharge. Water application to soils consists of lawn and garden irrigation. The soils in the vicinity of the Town of Darby consist of sandy loams. These soils are not susceptible to saline seep.

**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 impact.

The proposed project site is located in a rural/urban developed area. The project is located on private property and it is ultimately the land owner's responsibility to control the spread or establishment of noxious weeds.

**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.

Deterioration of air quality and/or adverse effects on vegetation due to increased air pollutants is not expected. The water will be diverted using an electric motor, therefore, there will be no emissions, and/or increased noise levels associated with the proposed appropriation of groundwater.

**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

The Department only needs to address Historical and Archeological sites in the EA if the project is located on State Trust Land or Federal land. This project is not located on state of federal land and this section is not applicable.

**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 impact.

All impacts to land, water, and energy have been identified and no further 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:* No impact.

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

**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 impact.

The proposed project will not inhibit, alter or impair access to the 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 in the vicinity of Darby.

**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 **XX** *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:**

No reasonable alternatives were identified in the EA.

**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:**

**PART III. Conclusion**

**1. Preferred Alternative** None identified.

**2. Comments and Responses**

**3. Finding:**

Yes \_\_\_ No XX 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:* Jim Nave

*Title:* Water Resource Specialist

*Date:* March 2, 2011