

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: Missoula County Airport Authority  
5255 Hwy 10 W.  
Missoula, MT 59808
2. Type of action: Application For Beneficial Water Use Permit 76M 30025401
3. Water source name: Groundwater
4. Location affected by project: NENE Sec. 2, TWP 13N, RGE 20W, Missoula Co.
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:  
The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

The Missoula County Airport Authority submitted an Application for Beneficial Water Use Permit to DNRC seeking approval to divert groundwater from a well for geothermal cooling purposes. The cooling system will be used in the new airport security building. The applicant proposes to divert water from the well at a rate of 100 gpm, with a maximum of 30 acre-feet of water diverted in a year. All water diverted from the production well will be returned to the same groundwater aquifer via an injection well. The applicant has requested a year-round period of diversion and use, however, the cooling system will only operate when outside air temperatures reach or exceed 60 degrees.

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

MT Historical Society	Historical/Archeological
MT Natural Heritage Program	Species of Concern

## **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:* 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 proposed appropriation of groundwater is non-consumptive, and all groundwater diverted will be returned to the same groundwater aquifer via an injection well. The zone of influence from pumping the production well extends out under the airport runways. Since the appropriation is non-consumptive and there are no wells that could be influenced by the proposed appropriation, there will be no impact to groundwater supply. The cooling system is designed so groundwater diverted from the well will not come into contact with any potential sources of contamination. Water returned to the groundwater aquifer will be warmed by approximately 8 degrees. However, since the zone of influence occurs entirely within an area that cannot be developed with no future plans for well construction, there will be sufficient mixing of injected water in the aquifer to allow for cooling before the water is diverted by another appropriator. The zone of influence from pumping the well does not intercept any surface water sources. The proposed appropriation will not affect groundwater tributary to surface water since the proposed appropriation is non-consumptive.

*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.

Since the proposed groundwater appropriation will have no affect on surface water there will be no impacts to stream channels or flow modifications experienced in nearby streams. The project will not result in any barriers to fish migration or have any impacts on riparian areas or dams. The project will not impact well construction since there will be no impact to groundwater supply or quality. The zone of influence from pumping the well extends out under the airport runways where there is no planned development of groundwater.

*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 proposed appropriation of groundwater will not impact any threatened or endangered fish, wildlife, plants or aquatic species. Since the proposed appropriation is non-consumptive and will have no impact on surface water, sensitive species such as Cutthroat and Bull Trout will not be affected. The site where the groundwater development will occur, the Missoula County International Airport, is already fully developed with all native vegetation replaced with pavement, buildings and landscaping.

*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.*

The project does not involve any wetlands.

*Determination:* No impact.

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

The project does not involve any ponds.

*Determination:* No impact.

**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.*

Water associated with the proposed use will not come into contact with any soil.

*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.*

The point of diversion and place of use are located in a highly developed area with no native vegetation. The proposed use of groundwater for geothermal cooling will not result in the establishment of noxious weeds.

*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.*

No sources of air quality pollution were identified.

*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.*

The Montana Historical Society was contacted to determine if the project would impact any unique archeological or historical sites. Since the project is complete (well drilled) and the site is highly developed any impacts have already occurred. No unique archeological or historical site were identified.

*Determination:* No 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:*

## HUMAN ENVIRONMENT

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

The proposed project is consistent with the development of the Missoula County International Airport.

*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.*

There is no access to outdoor recreation or wilderness at the Missoula County International Airport.

*Determination:* No impact.

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

**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 this analysis. The no action alternative would result in the denial of the water use application and disallow the legal appropriation of water for a beneficial use.

*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 THIS PROPOSED ACTION BECAUSE NO SIGNIFICANT IMPACTS HAVE BEEN IDENTIFIED AS A RESULT OF THE PROPOSED ACTION.

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

*Name:* Jim Nave

*Title:* Water Resource Specialist

*Date:* February 13, 2007