

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

Applicant/Contact name and address: **MDT ENVIRONMENTAL SERVICES BUREAU
2701 PROSPECT AVE
HELENA, MT 59620-1001**

1. *Type of action:* **APPLICATION FOR BENEFICIAL WATER USE PERMIT
NO. 43Q-30030959**
2. *Water source name:* **GROUNDWATER**
3. *Location affected by project:* **SECTIONS 6, T2S, R25E in YELLOWSTONE COUNTY.**
4. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*
This project is for a wetland mitigation project on 60.9 acres of the MTD Kindsfater gravel removal area. The MTD Kindsfater gravel removal area is located in an area with shallow soils overlying a near surface unconfined aquifer. During the 1970's gravel was removed from this site and in some areas exposed soils very near the water table surface. These areas developed into wetlands when the gravel removal activities ceased. This project will remove gravel from areas that were not mined during the 1970's creating 28 acres of wetlands and open water space as well as enhance the existing 32.9 acres of wetlands for the purpose of area reclamation and esthetics. The application is requesting 187.2 acre-feet (AF) of water from January 1st to December 31st inclusive each year to account for evaporative losses. The wetland area will rely on the shallow unconfined groundwater flow through the subsurface, for water supply to the project area. When complete the project will entail 52.1 acres of wetlands and 8.8 acres of open water. The period of use is being requested due to evaporation throughout the year. The project is located in the NW ¼ of Sec. 6, T2S R25E, in Yellowstone County.

The DNRC will issue a provisional water use permit if all criteria for issuance under §§ 85-2-311, MCA are met.

5. *Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)*
Montana Natural Heritage Program
Montana Historic Preservation Office
Montana Department of Fish Wildlife & Parks (MFWP)
Montana Department of Environmental Quality (MDEQ)

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: No significant impact.
This application will utilize groundwater.

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: No significant impact.
Groundwater source, see below.

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.
This application requests groundwater in the form of natural flow for wetland mitigation purposes. The applicant applied the Colorado Model to the affected aquifer in order to assess potential negative impacts to surface waters from the Yellowstone River. The depletion rate from the Yellowstone River was shown to stabilize when modeled at 25 years and a flow rate of between 41 – 43 GPM. There are no negative impacts to ground water quality or supply expected.

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 area of the total project is 60.9 acres. This will consist of 52.1 acres of wetland and 8.8 acres of open water. Gravel will be removed to initially create the 28 expanded acres of the wetland mitigation project. However, the only consumption from this project will be through evapotranspiration and open water evaporation therefore no diversions, conduits, or water movement equipment will be used. Only naturally occurring processes will transpire after project establishment. Therefore, there are no known negative impacts to channels, barriers, dams, riparian areas or modifications in flow.

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: The Montana Natural Heritage Program has identified some species of concern within this proposed project area: the Bald Eagle (*Haliaeetus leucocephalus*), Spiny Softshell (*Apalone spinifera*). It is not expected that this proposed project will adversely impact any of these species as it is contained within an already developed area.

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.**
This project will only enhance wetland area.

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

Determination: **No significant impact.**
This project will increase the available water to wildlife and any waterfowl in the area and should have little to no effects on fish due to the nature of the source.

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.**

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.**
There will be some soil disturbance during construction of this proposed project and there will be little likelihood for spread or establishment of noxious weeds. The landowner is responsible for controlling any establishment of noxious weed as a result of disturbance.

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.**
No deterioration of air quality or adverse effects on vegetation due to increased air pollutants from this project is expected.

HISTORICAL AND ARCHEOLOGICAL SITES - Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.

Determination: **No significant impact.**
The State of Montana Historic Preservation Office (SHPO) did not identify any historic or archeological sites of record in the proposed project area. The only stipulation from SHPO is; any structure over fifty years old to be altered, is recorded by SHPO and evaluated for historic preservation listing. This proposed project and use of water are not expected to have any significant impact on historical or archeological sites in the area.

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.**

There should be no significant impacts on other environmental resources of land, energy, and water from this proposed use.

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.**

This proposed use is not inconsistent with any locally adopted environmental plans and goals for Yellowstone County.

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.**

There should be no significant negative impacts on recreational or wilderness activities from this proposed use.

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

Determination: **No significant impact.**

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

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.**

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.**
- (c) Existing land uses? **No significant impact.**
- (d) Quantity and distribution of employment? **No significant impact.**
- (e) Distribution and density of population and housing? **No significant impact.**

- (f) Demands for government services? **No significant impact.**
- (g) Industrial and commercial activity? **No significant impact.**
- (h) Utilities? **No significant impact.**
- (i) Transportation? **No significant impact.**
- (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 significant impact.**

Cumulative Impacts: **No significant impact.**

3. *Describe any mitigation/stipulation measures:* **The applicant delineated the zone of influence by assessing the geologic boundaries, estimating the aquifer flux (groundwater flow through the aquifer assuming a transmissivity of 2,784 ft²/day), and through the use of the Moench (1997) method. The impacted area was estimated to extend approximately 3,250 feet beyond the proposed mitigation boundaries. The calculated groundwater flow through the impacted area is therefore calculated as 561 AF/YR compared with the annual existing and proposed volumetric need of 335.9 AF/YR suggesting the aquifer flux will exceed legal demand by 225.1 AF/YR. The calculated excess volume of 225.1 AF/YR considers all 20 ground water rights within the zone of influence as well as the requested volume of this application. It is noteworthy to mention the volume above does not take into account the addition of water from precipitation. The applicant states an average of 9.0 inches or 45.7 AF of precipitation is deposited over the 60.9 acres of the wetlands project during the growing season of April to September.**
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:* **The “no action” alternative would mean that the applicant would not have sufficient water for this wetland mitigation project leading to the need to build an additional wetland area in another location to compensate for the loss of anticipated wetland mitigation credits from this site.**

PART III. Conclusion

1. *Preferred Alternative:* **The preferred alternative would be to allow the wetland construction project to occur as planned with the condition that there will be no adverse impacts to any senior water rights.**
2. *Comments and Responses:* **None to report.**

3. *Finding:*
Yes___ No_ **X** *Based on the significance criteria evaluated in this EA, is an EIS required? **No EIS is required.***

*If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: **No significant environmental impacts were identified, therefore no EIS is required.***

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

Name: **Mark V Corrao**
Title: **Water Resources Specialist**
Date: **September 25, 2008**