

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: Billings Public Schools District #2, 101 10th Street West, Billings, MT 59102
- 2.
3. Type of action: Application for Beneficial Water Use Permit 43Q 30107217
4. Water source name: Groundwater
5. Location affected by project: Section 14 T1N R26E, Yellowstone County
6. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The applicant proposes to divert water from groundwater, by means of 4 wells, from May 1 through October 15 at 140.0 GPM up to 31.75 AF, from points in the NWSW Section 14 T1N R26E, Yellowstone County, for lawn and garden irrigation use from May 1 through October 15. The Applicant proposes to irrigate lawn and garden on 12.7 AC. The place of use is generally located NWSW Section 14 T1N R26E, Yellowstone County. The proposed wells would provide water for ball field and landscaping watering for a new middle school in the Billings Heights. The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.
7. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
Montana Department of Fish, Wildlife and Parks
Montana Department of Environmental Quality
Montana Bureau of Mines and Geology
Montana Sage Grouse Habitat Conservation Program
Montana Natural Heritage Program
United States Fish and Wildlife Service
United States Natural Resource and Conservation Service

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity – The project would draw water from groundwater in the Billings Heights. Based on aquifer test results the proposed project would create a cone of depression extending 7,650 feet from the wells. The aquifer flux through this region is greater than the current legal demands on the groundwater in the area. The appropriation of groundwater will deplete the stretch of Five Mile Creek between the southeast quarter of Section 10 T1N R26E, Yellowstone County and the Yellowstone River. Five Mile Creek is not listed by the Montana Department of Fish, Wildlife, and Parks as a chronically or periodically dewatered stream.

Determination: No Significant Impact.

Water quality – The water appropriated would be partially returned to the aquifer through lawn and garden irrigation. The return of water from irrigation has the potential to degrade groundwater quality through the introduction of fertilizer and pesticides. The project uses sprinkler systems that minimize the effects of groundwater contamination due to high efficiency.

Determination: No Significant Impact.

Groundwater – This proposed project will divert 31.75 AF/YR of water from the alluvial terrace aquifer of the Yellowstone River Valley. The amount of water available in the area exceeds legal demands on the aquifer based on analysis by Department of Natural Resources and Conservation hydrogeologists and drawdown from the well is acceptable. The appropriation will probably deplete surface water in Five Mile Creek. The depletion to Five Mile Creek is relatively minor and it is not listed as chronically or periodically dewatered by the Montana Department of Fish, Wildlife, and Parks.

Determination: No Significant Impact.

DIVERSION WORKS – The proposed wells have been drilled by a licensed Montana well driller and can be assumed to be properly constructed. The diversion will not create barriers or alter riparian environments or stream channels. The area in question has been in recreational use and is not adjacent to any naturally occurring watercourse. The soils in the area are not unstable.

Determination: No Impact.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species – According to the Montana Natural Heritage Program there are no plant species of concern in the region possibly affected by this project. The program lists 19 animal species of concern; four mammals, eight birds, four reptiles, one amphibian and two fish. The area of this project is currently occupied by baseball fields and walking paths with some ponds. The construction of a building and use of currently undeveloped land for a football field would remove some urban habitat for birds, reptiles and bats. The area is surrounded on three sides by residential properties and access to the project for animals is limited. Based on mapping of Sage Grouse habitat by the Montana Sage Grouse Habitat Conservation Program, the project area is not in an area of Sage Grouse habitat.

Determination: No Significant Impact.

Wetlands – The National Wetlands Inventory prepared by the United States Fish and Wildlife Service shows no wetlands within a mile of the area potentially impacted by this project. There are two ponds of approximately one acre or less surface area that would be filled as part of the building project. These ponds have some adjacent vegetation but do not appear to have sufficient criteria to be considered a functional wetland. There are emergent palustrine wetlands to the north and south and some open water associated with ponds and golf courses.

Determination: No Significant Impact.

Ponds – There are two ponds of approximately one acre or less surface area that would be filled as part of the building project. These ponds have been in existence for some time and pose no genetic risk to indigenous fish or downstream water quality. The use of groundwater to irrigate ball fields and landscaping will have no impact on the ponds.

Determination: No Significant Impact.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – The dominant soils in the area are Bew clay and Keiser silty clay loam. These soils are non-saline to slightly saline. The slopes are uniformly low and very stable. Irrigation may increase soil moisture slightly. The ground surface is close to the water table in this area.

Determination: No Significant Impact.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS –The entire region has historically been used for recreation so the impact would be to alter some of the vegetation from recreation to building landscaping. No existing vegetation is critical to habitat. The construction equipment necessary for development may transport noxious weeds to the site. It will be the responsibility of the developer to monitor and control noxious weeds.

Determination: No Significant Impact.

AIR QUALITY – The proposed project is for irrigating fields and landscaping for a middle school. The construction of a school may increase emissions associated with transportation, heating and cooling.

Determination: No Significant Impact.

HISTORICAL AND ARCHEOLOGICAL SITES – This project is not located on State or Federal land and this section is not applicable to the specific project.

Determination: Not Applicable.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY – The proposed project would irrigate existing and future ball fields and landscaping around a school. The school will demand more energy than the current recreational site and the increase in area of fields and landscaping would require more water.

Determination: No Significant Impact.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS – The project lies within the City of Billings and Yellowstone County and would be subject to city and county zoning restrictions, building permit review and public water and wastewater regulations. The land is currently zoned commercial urban. The proposed use is not inconsistent with county zoning.

Determination: No Impact.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES – The project lies within a rapidly developing suburban area. There are no nearby wilderness areas or recreational sites and no changes to the transportation system are expected. The ball fields that are present currently would be maintained and expanded.

Determination: No Impact.

HUMAN HEALTH – The project would have no on public health.

Determination: No Significant Impact.

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: Not Applicable.

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? The new school would increase demand for fire and police protection as well as snow removal and street maintenance.

- (g) Industrial and commercial activity? No Significant Impact.
- (h) Utilities? The school would increase demand for electric, gas and telephone services.
- (i) Transportation? The school would generate additional traffic.
- (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 associated with the proposed project are recognized.

Cumulative Impacts: There are no other pending permit applications in the area. The Billings Heights is developing rapidly and multiple subdivisions have been created in recent years. There are no known actions under concurrent consideration by any state agency in the vicinity of the project. The use of groundwater for irrigation has potential for cumulative impact on water availability and quality. Traffic, utilities and government services are additional cumulative impacts.

3. Describe any mitigation/stipulation measures: None.

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 reasonable alternatives are to grant the beneficial water use permit or the no action alternative. The no action alternative prevents the Applicant from developing a school and denies the economic and educational benefit. The no action alternative has few significant advantages over the proposed project. Development in Billings Heights is inevitable and the no action alternative prevents needed public services.

PART III. Conclusion

1. Preferred Alternative: Issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

2. Comments and Responses: None.

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: Because no significant environmental impacts were recognized an EA is the appropriate level of analysis.

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

Name: Mark Elison

Title: Hydrologist/Specialist

Date: 9/12/2016