

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: P3COLEMAN LLC, C/O JIM & KELLY COLEMAN, PO BOX 1555, BILLINGS, MT 59103
2. Type of action: Application for Beneficial Water Use Permit 43Q 30115108
3. Water source name: Groundwater
4. Location affected by project: Section 17, T1S, R25E, Yellowstone County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The applicant proposes to divert water from groundwater, by means of twenty-four (24) wells, three of which have been drilled and are 50, 50.5 and 52 feet deep, from January 1 to December 31 at 638 GPM up to 155.3 AF, from points in the N2SW Section 17, T1S, R25E, Yellowstone County, for multiple domestic use from January 1 to December 31 and lawn and garden use from April 15 to October 15. The Applicant proposes to provide domestic water to 88 residences and irrigate 49.32 AC of lawn and garden. The place of use is generally located in N2SW Section 17, T1S, R25E, Yellowstone County, approximately three miles west of the City of Billings. The proposed appropriation lies 0.6 miles north of Canyon Creek and 1.5 miles southwest of Hogans Slough. 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)
Montana Department of Natural Resources and Conservation
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
United States National Resource Conservation Service
United States Fish and Wildlife Service
Montana Sage Grouse Habitat Conservation Program
Montana Natural Heritage Program

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 West Billings area. Based on aquifer test results the proposed project would create a cone of depression extending 9,200 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 Canyon Creek between the northern section line of Section 17 T1S R25E, Yellowstone County and the Yellowstone River. Canyon Creek is not listed by the Montana Department of Fish, Wildlife, and Parks as a chronically or periodically dewatered stream. The source of supply is groundwater and is therefore not identified as dewatered by the Montana Department of Fish, Wildlife and Parks. Modeling by the Montana Department of Natural Resources and Conservation indicates groundwater supply in excess of all legal demands.

Determination: No Significant Impact

Water quality - The water appropriated would be returned to the aquifer through lawn and garden irrigation and through individual drainfields at each of the 88 residences. The water in the West Billings area has high dissolved constituents and is undesirable for drinking water (Olson and Reiten, 2002). Moreover, nitrate concentrations with isotopic signatures indicating manure and septic system sources are near or above recommended human health limits in many areas. Based on Department of Natural Resources and Conservation standards and analysis roughly 34% of appropriated water will return to the aquifer either by infiltration of irrigation water or through drainfields. The return of water from residential yards and drainfields has the potential to degrade groundwater quality. The Montana Department of Environmental Quality and the Yellowstone County Health Department monitor and regulate public water supply and drainfield installation. If water quality falls below health limits, treatment of the water supply would be required.

Determination: Possible Significant Impact

Groundwater - This proposed project will divert 155.3 AF/YR of water from the alluvial 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 Canyon Creek. The depletion to Canyon Creek is relatively minor and Canyon Creek is not listed as chronically or periodically dewatered by the Montana Department of Fish, Wildlife, and Parks. The return of water to the aquifer through drainfields and infiltration of lawn and garden irrigation water has the potential to add dissolved constituents, fertilizer and nitrates to the groundwater locally.

Determination: Possible Significant Impact

DIVERSION WORKS - The proposed wells were 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 agricultural and residential use and is not adjacent to any naturally occurring watercourse. The soils in the area are not unstable.

Determination: No Significant 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 or potential concern in the region possibly affected by this project. There are three animal species of concern in the area including the Pinyon Jay, Spiny Softshell and Sauger. The Bald Eagle is a species of special status in the area. These species have habitat that include riparian forest, conifer forest, cliffs, caves and large prairie rivers. The area of this project is currently agricultural with none of the appropriate habitat for listed species of concern. 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 emergent palustrine wetlands to the north and south and some open water associated with ponds and golf courses.

Determination: No Significant Impact

Ponds - The proposed project does not involve ponds.

Determination: No Impact

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - The dominant soil in the area is Fort Collins - Arvada clay loam. This soil is well drained and non-saline to very slightly saline. The slopes are uniformly low and very stable. Transition from irrigated agriculture to residential use may decrease the soil moisture.

Determination: No Significant Impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - The entire region has historically been used for agriculture so the impact would be to alter the vegetation from agriculture to lawns and residential homes. 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 subdivision development of existing agricultural land. The switch from agriculture to residential would decrease dust associated with tilling and harvest and 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 take roughly 78 acres out of agricultural production and use it for residential purposes. The amount of water required would decrease and energy consumption would change from running equipment related to agriculture to powering homes.

Determination: No Significant Impact

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - The project lies within Yellowstone County and would be subject to county zoning restrictions, subdivision review and public water and wastewater regulations. 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.

Determination: No Impact

HUMAN HEALTH - The project would have limited impact on public health. Dust may be reduced by abandoning farming and drinking water quality may be affected by residential drainfields.

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? The county and state tax base would increase with the change from agricultural use to residential use. 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? The project would increase available housing in the area and generally increase the population density. Possible impacts both positive and negative.
- (f) Demands for government services? The new residential homes would increase demand for fire and police protection as well as snow removal and street maintenance. Possible Impact
- (g) Industrial and commercial activity? No Significant Impact
- (h) Utilities? The new residential homes would increase demand for electric, gas and telephone services. Possible Impact
- (i) Transportation? The subdivision would generate additional traffic west of Shiloh Road. Possible 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 secondary impacts associated with the proposed project are recognized.

Cumulative Impacts: There are no other pending permit applications in the area. The west Billings area 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 continued use of groundwater for residential subdivisions in the area west of Billings 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 residential subdivision and denies the economic benefit. The no action alternative has some significant environmental advantages over the proposed project. Development in west Billings is inevitable and the no action alternative prevents needed housing.

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: Although potential environmental impacts are recognized, an EA is the appropriate level of analysis because the Department of Natural Resources and Conservation is required to meet statutory timelines (MCA 35-2-307) in the processing of water right applications. Those timelines preclude the preparation of an Environmental Impact Statement.

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

Name: Mark Elison

Title: Hydrologist/Deputy Regional Manager

Date: 3/6/2018