

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: Big Horn Leasing LLC
PO Box 385
Sidney, MT 59270

2. Type of action: Application for Beneficial Water Use Permit No 42M 30163320

3. Water source name: Groundwater

4. Location affected by project: NENE Section 8, T22N, R58E, Richland County

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 Applicant proposes to divert groundwater, by means of three production wells, from January 1 to December 31 at 142 GPM up to 229 AF, from NENENE Section 8, T22N, R58E, Richland County, for water marketing use from January 1 to December 31. All three wells were drilled to a depth of 160 ft. The place of use is the point of sale and is located in the NENE Section 8, T22N, R58E, Richland County. The service area is limited to Richland County in the state of Montana.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
 - US Fish & Wildlife Service
 - Montana Natural Heritage Program
 - Montana Department of Fish, Wildlife, & Parks
 - Montana Department of Environmental Quality
 - USDA Web Soil Survey
 - National Wetlands Inventory

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.*

The Department showed that the zone of influence for these wells intersects the Yellowstone River. The Department determined that this groundwater appropriation will deplete a reach of water from the Yellowstone River starting at the southern boundary of Section 17, Township 22 North, Range 59 East in Richland County. The Department has also determined that the hydraulically connected surface water of the Yellowstone River is physically and legally available for the quantity (229 AF) and period of diversion (year-round) in which the depletion will occur.

The reach of the Yellowstone River that is included in the zone of influence is not identified as a chronically or periodically dewatered stream by the Montana Department of Fish, Wildlife & Parks. The DFWP has a water reservation on this portion of the Yellowstone River that ranges from 2,670 CFS in August to 25, 140 CFS in June to maintain instream flows. Based on these findings, there will be no significant impact to the hydraulically connected sources.

Determination: No significant impact.

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.*

The lower Yellowstone River is listed on the 2020 Montana 303(d) list as fully supporting agriculture, drinking water, and primary contact recreation, and not fully supporting aquatic life. Causes of impairment for aquatic life are alterations in stream-side or littoral vegetative covers, fish passage barriers, and chemical and mineral levels. Probable sources of the impairment are the impacts from irrigation crop productions, rangeland grazing, streambank modification/destabilization, hydro-structure flow regulation/modification, and natural or unknown sources of chemical or mineral properties. The proposed project will not have any significant effect on water quality.

Determination: No significant impact.

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.*

Wells 1 and 2 were drilled in 2013 and well 3 was drilled in 2012. All three wells were drilled to a depth of 160 feet. Well 1 has a static water level of 109 ft, well 2 is 112 ft and well 3 is 110 ft. Modeling analysis by the Department showed that groundwater is physically available (36,309 AF/year) and legally available (25,528 AF/year) for appropriation during the period of diversion requested by the Applicant. If the proposed appropriation (229 AF/year) is approved, 25,299 AF will remain in the aquifer.

The Department also used modeling to predict drawdown in existing wells completed in the source aquifer. The 1-foot drawdown contour was modeled using the Theis (1935) solution for a period of five years. The drawdown contour would occur 100,000 ft from the Applicant's wells and includes 243 groundwater rights. All 243 water rights have a positive remaining available water column after comparison with the additional drawdown. Based on these findings, there will be no significant impact to the groundwater aquifer.

Determination: No significant 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.*

The proposed diversion is a groundwater diversion and should have no significant impact on stream channels, flow modifications, barriers, riparian areas, dams, or well construction.

Determination: No significant 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 Montana Natural Heritage Program identified a list of 4 species of concern within and surrounding section 8, T22N, R58E. Of this list, the Whooping Crane is listed as endangered by the United States Fish, and Wildlife Service (USWS) and Bureau of Land Management.

Species Group	Common Name	Scientific name
Vascular Plants	Pale-spiked Lobelia	Lobelia spicata
Birds*	Whooping Crane	Grus americana
Mammals	Hoary Bat	Lasiurus cinereus
Invertebrates	Gray Comma	Polygonia progne

*Listed Endangered by the USFWS and BLM

The Whooping Crane has been observed in the marsh habitat present at Medicine Lake National Wildlife Refuge and the Red Rock Lakes National Wildlife Refuge. Birds have been observed in other areas of the state, which include grain and stubble fields as well as wet meadows, wet prairie habitat, and freshwater marshes that are usually shallow and broad with safe roosting sites and nearby foraging opportunities. The pump location selected for this diversion would not be likely to provide suitable habitat for Whooping crane.

The proposed project was previously permitted by the DNRC with a priority date of December 13, 2013, and construction was completed by the Applicant. A project completion notice was never filed, and therefore the permit was terminated. Because the project has already been

completed, no significant impact to any threatened or endangered fish, wildlife, plants, or aquatic species is expected from the issuance of this permit.

Determination: No significant 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.

Determination: There are no wetlands identified within the project area.

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

Determination: There are no ponds identified within the project area.

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.

The two soil types in the project area Williams loam and Vida clay loam. Williams loam is well drained with slopes of 0-4 percent. Vida clay loam is well drained with slopes of 1-4 percent. Neither soil type is characterized by salinity.

Determination: Issuance of this permit is unlikely to have any significant impact on soil quality, alteration of soil stability, or moisture content.

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.

Because the project has already been completed, as previously permitted, no vegetative disturbance is expected from the issuance of this permit. Noxious weeds will be the responsibility of the property owner.

Determination: No significant impact.

AIR QUALITY - Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.

Because the project has already been completed, as previously permitted, no air quality disturbances are expected.

Determination: No significant impact.

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: Not applicable, project not located on State or Federal Lands.

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 other potential impacts have been identified.

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 known environmental plans or goals will be significantly impacted by this project.

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 access or recreational activities will be significantly impacted by this project.

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

Determination: This project will have no significant impact on human health.

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 impacts identified.
- (b) *Local and state tax base and tax revenues?* No significant impacts identified.
- (c) *Existing land uses?* No significant impacts identified.
- (d) *Quantity and distribution of employment?* No significant impacts identified.

- (e) Distribution and density of population and housing? No significant impacts identified.
- (f) Demands for government services? No significant impacts identified.
- (g) Industrial and commercial activity? No significant impacts identified.
- (h) Utilities? No significant impacts identified.
- (i) Transportation? No significant impacts identified.
- (j) Safety? No significant impacts identified.
- (k) Other appropriate social and economic circumstances?

2. Secondary and cumulative impacts on the physical environment and human population:

Secondary Impacts No significant impacts.

Cumulative Impacts No significant 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 only other viable alternative would be the no action alternative in which the Department would not authorize a water right permit for water marketing use. Under the no action alternative, the Applicant would not be able to sell water as contracted.

PART III. Conclusion

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

2. Comments and Responses

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:

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

Name: Ashley Kemmis
Title: Water Resource Specialist
Date: October 4, 2024