

**ENVIRONMENTAL ASSESSMENT**  
**For Routine Actions with Limited Environmental Impact**

**Part I. Proposed Action Description**

1. *Applicant/Contact name and address:* Foster Ranch & Feedlot, LLC  
PO Box 49  
Melstone, MT 59054  
  
Bergin Land & Livestock, LTD  
PO Box 219  
Melstone, MT 59054

2. *Type of action:* Application for Beneficial Water Use Permit No. 40C 30105634

3. *Water source name:* Groundwater (Tullock Member Aquifer and a coal seam of the Carpenter Coal Bed in the Tongue River Formation, both members of the Tertiary Fort Union Formation)

4. *Location affected by project:*

The points of diversion (five groundwater wells) are located in the following legal land descriptions: two wells in the NESWNE Section 17; one well in the SWSENE Section 17; one well in the SWSESE Section 17; and one well in the NWNENE Section 20, all in T9N, R30E.

The places of use include the following Sections.

Sections 1, T9N, R29E  
Sections 6, 7, 8 and 17, T9N, R30E  
Sections 32, 33, and 34, T10N, R29E

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*

The proposed appropriation includes a combined flow rate of 116 gallons per minute (GPM) and an annual volume of up to 97.35 acre-feet (AF). The purposes of use, places of use, and volume of water associated with each purpose follow in the table below.

Purpose	Volume Requested	Detailed Use	Place of Use
Commercial Use	76.75 AF	7000 au's year-round (119 AF) – 42.25 AF existing rights	Commercial feedlot in the N2 Sec 17, T9N, R30E
Domestic Use	4.0 AF	4 domestic households @ 1 AF per home	SENESE Sec 7 (1); NWNWSW Sec 8 (2); SWSENE Sec 17 (1); all in T9N, R30E
Lawn & Garden Use	2.5 AF	1-acre @ 2.5 AF/acre	SWSENE Sec 17, T9N, R30E
Stock Use	4.25 AF	250 au's year-round (250 x .017)	Two tanks in SENESE Sec 7; one tank in NWNWSW Sec 8, T9N, R30E
Marketing Uses	9.85 AF	1 domestic household, 500 au's year-round and 250 au's for one-month	One household in SENESE Sec 6 T9N, R30E; and 7 stock tanks in Sec 1, T9N, R29E; Sec 6, T9N, R30E; and Sections 32-34, T10N, R29E
Total Volume	97.35 AF		

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)*

- MT Dept. of Environmental Quality Website - TMDL 303d listing
- MT National Heritage Program Website - Species of Concern
- MT Dept. of Agriculture - Weed Survey and Mapping System
- MT State Historic Preservation Office - Archeological/Historical Sites
- USDI Fish & Wildlife Service – Wetlands Online Mapper
- USDI Fish & Wildlife Service Website - Endangered and Threatened Species Musselshell County, MT

**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: No Significant Impact.**

The source of supply (groundwater) in this case has been determined to be hydraulically-connected to the lower reaches of Carpenter Creek. Appropriations will deplete Carpenter Creek stream flows during times when Carpenter Creek is flowing in its lower reach. Carpenter Creek is not identified as chronically or periodically dewatered by DFWP.

Additionally, the groundwater appropriation will deplete stream flows in the Musselshell River, as Carpenter Creek is tributary to the Musselshell River. The Musselshell River has been identified as chronically dewatered by DFWP. The Department's conclusion is that depletions will only occur during times when Carpenter Creek is flowing to the river, or predominantly during snowmelt and rainfall runoff events. During these runoff periods streamflows are expected to be high, and therefore the project will not likely appreciably dewater surface water flows.

**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.**

This reach of the Musselshell River from the hydrologic boundary southwest of Roundup to the confluence of Flatwillow Creek has been designated as requiring a TMDL plan for Iron by DEQ. Iron is the only pollutant-related use impairment identified. The 2018 303d listing identifies impairments to aquatic life; probably caused by flow alterations, riparian degradation, and other physical habitat alterations. The project will appropriate groundwater thought to have seasonal effects to the Carpenter Creek drainage when it is flowing and should not significantly impact water quality in the Musselshell River.

**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.**

The proposed project will consist of five wells appropriating groundwater from two members of the Fort Union Formation. The Department estimated the total volume of groundwater physically available from Darcy's law, calculating the total flux based upon a 32,100-foot flow-width, a transmissivity value of 440 ft<sup>2</sup>/day, and a gradient of 0.007 ft/ft. The estimated flux was 828 AF/YR.

As stated above, the lack of any perennial flow in the adjacent area infers that the intermittent flowing streams in the area are supplied by runoff verses groundwater recharge. The appropriation of waters from this formation is not expected to significantly impact surface water flows.

**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 proposed project will consist of five wells completed into the Fort Union Formation. The wells have been tested and are capable of producing the requested appropriation. It is unlikely that any significant impacts would occur because of the diversion works; the wells were previously constructed.

**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: No Significant Impact.**

The Montana National Heritage Program lists 8 species as Species of Concern within three townships and ranges: Township 9 North Range 30 East, Township 9 North Range 29 East and Township 10 North Range 29 East. Common names for these species are Black-tailed Prairie Dog, Golden Eagle, Great Blue Heron, Greater Sage-Grouse, Spiny Softshell (turtle), Great Plains Toad and the Sauger. The Bald Eagle has a special “Sensitive” status. The USDI Fish & Wildlife Service Website updated 10/23/2018 does not show any endangered, threatened, proposed or candidate species in Musselshell County. The project could cause temporary displacement of wildlife during construction of the pipeline, with a return to historic patterns upon completion.

**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.**

The USDI Fish & Wildlife Service – Wetlands Online Mapper shows Freshwater Emergent Wetlands throughout the Applicant’s property adjacent to the Carpenter Creek source. The wetland areas are generally located along the surface water source and rely on shallow surface water more so than groundwater at depth. The wetlands should not be significantly affected by the proposed project.

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

**Determination: No Significant Impact.**

This project does not involve a pond. No impact to wildlife, waterfowl, or fisheries is anticipated.

**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.**

No impacts to soil quality, stability or moisture content are expected. While soil erosion and compaction may occur during typical pipeline construction, impacts will be minimal.

**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.**

Typical construction activities associated to pipeline installation can cause short-term disturbances to vegetative cover; however, there should be no long term or significant impacts because of this project. It is the responsibility of the property owner to control noxious weeds on their property.

**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.**

It is unlikely air quality would be impacted; this project would have no emissions other than from typical construction activities. The well pumps will be electrically powered.

**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: No Significant Impact.**

**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 Significant Impact.**

No additional impacts are anticipated.

<b>HUMAN ENVIRONMENT</b>
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**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.**

No locally adopted environmental plans or goals have been identified.

**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.**

The proposed action will not impact recreational activities in the area.

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

**Determination: No Significant Impact.**

The proposed action may provide better water quality for domestic and stock use and should have no adverse impacts 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.

**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**
- (b) Local and state tax base and tax revenues? **No**
- (c) Existing land uses? **No**
- (d) Quantity and distribution of employment? **No**
- (e) Distribution and density of population and housing? **No**
- (f) Demands for government services? **No**
- (g) Industrial and commercial activity? **No**
- (h) Utilities? **Electrical consumption increases from pumping wells.**

- (i) Transportation? **No**
- (j) Safety? **No**
- (k) Other appropriate social and economic circumstances? **No**

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

Secondary Impacts: May provide a better quality and more reliable water supply for the Applicants.

Cumulative Impacts: No cumulative impacts are anticipated.

**3. Describe any mitigation/stipulation measures:**

As indicated on the application form, an in-line meter will be employed on each well. The applicant will be able to shut off the pump should a call on water occur.

**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 action alternative: deny the application. This alternative would result in none of the benefits to the Applicants.

**PART III. Conclusion**

**1. Preferred Alternative: Action Alternative.**

The preferred alternative is the proposed alternative.

**2. Comments and Responses**

None Received.

**4. 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:

None of the identified impacts for any of the alternatives are significant as defined in ARM 36.2.524.

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

*Name:* Douglas Mann

*Title:* Hydrologist – LRO

*Date:* 11/9/2018