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: Arbuckle Ranch, Inc.
1745 Golden Blvd
Billings, MT 59102

2. Type of action: Application to Change a Water Right
39F-30051190

3. Water source name: Little Missouri River

4. Location affected by project: S½, Section 9, T7S, R61E & Section 16, T7S, R61E, Carter County

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

The Applicant proposes to discontinue irrigating the 84 acres, currently irrigated under Water Right Claim Numbers 39F 138991 00 and 39F 138992 00, from the Little Missouri River. Instead, the Applicant proposes to flood irrigate 75 acres in the E½ of Section 16, Township 7S, Range 61E (adjacent to the current place of use). Additionally, the proposed change eliminates 3 existing points of diversion to a single existing point of diversion in the NWSWSW of Section 16, Township 7S, Range 61E. The Applicant plans to divert 13.37 CFS from the Little Missouri River onto the river bank via a 16-inch Lloyds pump and 200-ft discharge hose. Water will run east along a dike to the place of use where water will gravity feed to the fields. The proposed change does not change the pattern of diversion from the Little Missouri River. Use of water will occur via the same flood irrigation practices used on the currently irrigated acres. Per the Applicant, the Little Missouri River runs high for a 2-6 week period each spring. During that time, water will be diverted (via pump) for 3 days to cover the fields. Water will be allowed to remain on the fields for up to 48 hours. At that time, excess water will be drained back to the Little Missouri River via drain pipes. The field may be flooded two times per season if the water levels in the river remain high.

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 Environmental Quality Website – TMDL 303d Listing

Montana National Heritage Program Website – Species of Concern
United States Fish and Wildlife Website – National Wetland Inventory
Montana Department of Fish Wildlife and Parks – Dewatering Concern Areas
Montana Bureau of Mines and Geology – Geologic Map, Alzada 30'x60' Quadrangle
Natural Resources Conservation Service (NRCS) Soil Survey of Carter County, Montana

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 impact

The Little Missouri River is not identified as chronically or periodically dewatered stream by DFWP.

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 impact

The Little Missouri River (Highway 323 Bridge to South Dakota border) is listed on the Montana DEQ website, Clean Water Act Information Center. This source is listed to fully support contact recreation, and partially support aquatic life and warm water fishery. Impairments include increased metals in the source from natural causes. No changes to water quality or chemistry are anticipated due to the nature of the proposed change.

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 impact

The application includes only surface water from the Little Missouri River.

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 impact

A pump has been placed in the Little Missouri River on an established section with large rock to help stabilize the bank. The change does not include a change in point of diversion or diversion means; as such there will be no impact to the stream.

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: Possible impact

The Montana Natural Heritage Program website did not show any threatened or endangered fish, wildlife, or aquatic species or any "species of special concern" that could be impacted by the proposed project. The Lead Plant was listed as a potential "species of special concern" which may be affected by placing new acres into irrigation. However, the Lead Plant is only known to exist in Montana through historical records, but is common throughout most of its range.

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: Minor impact

The National Wetlands Inventory (NWI) map is available in the vicinity of this proposed project. Areas near the project location have been mapped as Palustrine forested and emergent; these wetlands are either temporarily or seasonally flooded. The irrigated acres are outside of the wetland area boundaries and will not change the hydrology associated with these wetlands; thus, no significant impact is expected related to the movement of these acres.

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

Determination: Not applicable

There are no ponds in the vicinity of the proposed project.

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: Negligible impact

A review of NRCS soils data was conducted; the soils of the proposed irrigated acres are listed as Havre Loam, 0 to 2 percent slope and Eapa Loam, 2 to 8 percent slopes. Existing irrigation of the adjacent fields is occurring on the same soil types without significant impact. The same

design and operation will be used for the proposed irrigation project, therefore impacts should be negligible.

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 impact

Typical short term construction activities associated with the construction of dikes and drains may cause temporary disturbances to vegetation cover. The pumping station is already in place and there shouldn't be increased disturbances to the stream bank. 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 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: NA-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 impacts not already assessed.

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 impact

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 impact

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

Determination: No 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:

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?	None
(b) Local and state tax base and tax revenues?	Increased
(c) Existing land uses?	None
(d) Quantity and distribution of employment?	None
(e) Distribution and density of population and housing?	None
(f) Demands for government services?	None
(g) Industrial and commercial activity?	None
(h) Utilities?	None
(i) Transportation?	None
(j) Safety?	None
(k) Other appropriate social and economic circumstances?	None

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

Secondary Impacts: None identified

Cumulative Impacts: None identified

3. *Describe any mitigation/stipulation measures:*

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:*

PART III. Conclusion

1. Preferred Alternative

None

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:

An EA is the appropriate level of analysis for this proposed action because no significant impacts have been identified as a result of the proposed action.

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

Name: Brad Bennett
Title: Hydrologist/Specialist
Date: November 28, 2011