

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: Broken O Land & Livestock, LLC  
200 South 23<sup>rd</sup> Avenue, Suite D9  
Bozeman, MT 59718
2. Type of action: 606ST Application #41K 30111184, Additional Stock Tanks
3. Water source name: Sun River
4. Location affected by project: Sections 14, 15, 16 17, 20, 27, 29, and 32 of 20N 4W and Section 5 19N 4W.
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:  

The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met. The Applicant proposes to add 18 stock tanks to irrigation rights that have incidental stock use. A pipeline to carry the stockwater from the company canal to the tanks will also be constructed. Stockwater is a recognized beneficial use of water in Montana.
6. Agencies consulted during preparation of the Environmental Assessment: Montana Natural Heritage Program, Natural Resources Conservation Service Soils Data Website, Department of Environmental Quality, National Wetlands Inventory Website, and the Natural Resources Information System, the Department of Fish, Wildlife, & Parks, and Montana Department of Natural Resources and Conservation Trust Lands Division.

**Part II. Environmental Review**

**1. Environmental Impact Checklist:**

**PHYSICAL ENVIRONMENT**

**WATER QUANTITY, QUALITY AND DISTRIBUTION**

**Water quantity** – The proposed change does not change the quantity of water diverted at the point of diversion and will therefore not have an effect on the quantity of water in the Sun River.

*Determination:* No impact to water quantity is expected.

**Water quality** – The Montana Department of Environmental Quality (MDEQ) report in 2016 for the Sun River from Gibson Dam to Muddy Creek issued this reach a water quality category of 4A. This reach is fully supporting drinking water, primary contact recreation, and agricultural beneficial uses. It is not fully supporting aquatic life. The livestock water takes place off the company canal and not in the Sun River. The stock tank system will keep the stock out of the canal which will reduce erosion and nutrient loads in the canal waters.

*Determination:* No impact to water quality is expected.

**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.*

The project does not involve groundwater.

*Determination:* Assessment is not applicable.

**DIVERSION WORKS** – The secondary diversion in this change is on the company canal and will not impact fish or any natural flow regime.

*Determination:* No impact from diversion works is expected.

## **UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES**

### **Endangered and threatened species**

Below is a list of animal species of concern found in 20N 4W. There were no plant species of concern identified. The project is not located in Sage Grouse habitat. All species found in the area of interest are listed as G3, G4, G5, S3, S3B, or S4. The following definitions are taken from the Montana Natural Heritage Program (MNHP). G3 and S3 signify that the species is “Potentially at risk because of limited and/or declining numbers, range and/or habitat, even though it may be abundant in some areas.” G4 and S4 signify that the species is “Apparently secure, though it may be quite rare in parts of its range, and/or suspected to be declining.” G5 means that the species is “Common, widespread, and abundant (although it may be rare in parts of its range). Not vulnerable in most of its range.” The B indicates that the area of interest is within the species breeding range. A combination of ranks, like the Hoary Bat’s G3/G4, means that there is uncertainty in the status of the species. The Hoary Bat, Golden Eagle, Ferruginous Hawk, and the Bald Eagle should not be impacted by the project. Threats associated with these species are wind turbine development, hunting, and predation. No active management plans exist for these species. The Long-billed Curlew is the only species that may be affected by grazing. According to the MNHP website,

The Long-billed Curlew requires short-statured grasslands during the breeding season. Conversion of prairie to cropland, off-road vehicle use, and other disturbances all negatively impact Long-billed Curlew populations. Livestock grazing, particularly early season grazing, typically has a positive benefit on nesting Long-billed Curlews, although year-round grazing can be detrimental (Dugger and Dugger 2002).

The area of interest has been historically grazed. If this species is spotted, the ranch operators could avoid off-road vehicle travel and sagebrush removal, especially during the spring months. There is no active management plan for this species.

**Montana Natural Heritage - SOC Report**

**Animal Species of Concern**

4 Species of Concern

1 Special Status Species

Filtered by the following criteria:

Township = 020N004W (based on mapped Species Occurrences)

Species List Last Updated 05/03/2016



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**Introduction**

**Species of Concern**

Species of Concern											1 SPECIES	
4 Species											TOWNSHIP = 020N004W (based on mapped Species Occurrences)	
Filtered by the following criteria:											TOWNSHIP = 020N004W (based on mapped Species Occurrences)	
Township = 020N004W (based on mapped Species Occurrences)												
MAMMALS (MAMMALIA)												
SCIENTIFIC NAME	FAMILY (SCIENTIFIC)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT		
COMMON NAME	FAMILY (COMMON)											
TAXA SORT												
Lasturus cinereus Hoary Bat	Vespertilionidae Bats	G3G4	S3				SGCN3	2%	100%	Riparian and forest		
Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Harding, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone												
BIRDS (AVES)											3 SPECIES	
Township = 020N004W (based on mapped Species Occurrences)												
SCIENTIFIC NAME	FAMILY (SCIENTIFIC)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT		
COMMON NAME	FAMILY (COMMON)											
TAXA SORT												
Aquila chrysaetos Golden Eagle	Accipitridae Hawks / Kites / Eagles	G5	S3	BGEPA; MBTA; BCC17		SENSITIVE	SGCN3	3%	100%	Grasslands		
Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Harding, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, Meagher, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone												
Buteo regalis Ferruginous Hawk	Accipitridae Hawks / Kites / Eagles	G4	S3B	MBTA; BCC10; BCC17		SENSITIVE	SGCN3	11%	95%	Sagebrush grassland		
Species Occurrences verified in these Counties: Beaverhead, Blaine, Broadwater, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Fallon, Fergus, Gallatin, Garfield, Glacier, Golden Valley, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Madison, Mccone, Meagher, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Prairie, Roosevelt, Rosebud, Sheridan, Stillwater, Teton, Toole, Valley, Wheatland, Wibaux, Yellowstone												
Numenius americanus Long-billed Curlew	Scolopacidae Sandpipers	G5	S3B	MBTA; BCC10; BCC11; BCC17		SENSITIVE	SGCN3	19%	100%	Grasslands		
Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Fallon, Fergus, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Madison, Mccone, Meagher, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone												

**Potential Species of Concern**

Potential Species of Concern											0 SPECIES	
0 Species											TOWNSHIP = 020N004W (based on mapped Species Occurrences)	
Filtered by the following criteria:											TOWNSHIP = 020N004W (based on mapped Species Occurrences)	
Township = 020N004W (based on mapped Species Occurrences)												

**Special Status Species**

Special Status Species											1 SPECIES	
1 Species											TOWNSHIP = 020N004W (based on mapped Species Occurrences)	
Filtered by the following criteria:											TOWNSHIP = 020N004W (based on mapped Species Occurrences)	
Township = 020N004W (based on mapped Species Occurrences)												
BIRDS (AVES)												
SCIENTIFIC NAME	FAMILY (SCIENTIFIC)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT		
COMMON NAME	FAMILY (COMMON)											
TAXA SORT												
Haliaeetus leucocephalus Bald Eagle	Accipitridae Hawks / Kites / Eagles	G5	S4	DM; BGEPA; MBTA; BCC10; BCC11; BCC17	Sensitive - Known on Forests (BD, BRT, CG, FLAT, HLC, KOOT, LOLO)	SENSITIVE		2%	100%	Riparian forest		
Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone												
State Rank Reason: Populations numbers have steadily increased since the 1980s and breeding pairs now occupy a high percentage of suitable habitat across the state. However the species is still protected under the Bald and Golden Eagle Protection Act of 1940.												

Determination: No impact to the species listed above is expected.

## Wetlands

The pipeline route may have crossed small areas of freshwater emergent wetlands identified on the U.S. Fish & Wildlife Service National Wetlands Mapper.

*Determination:* No impact to wetlands is expected.

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

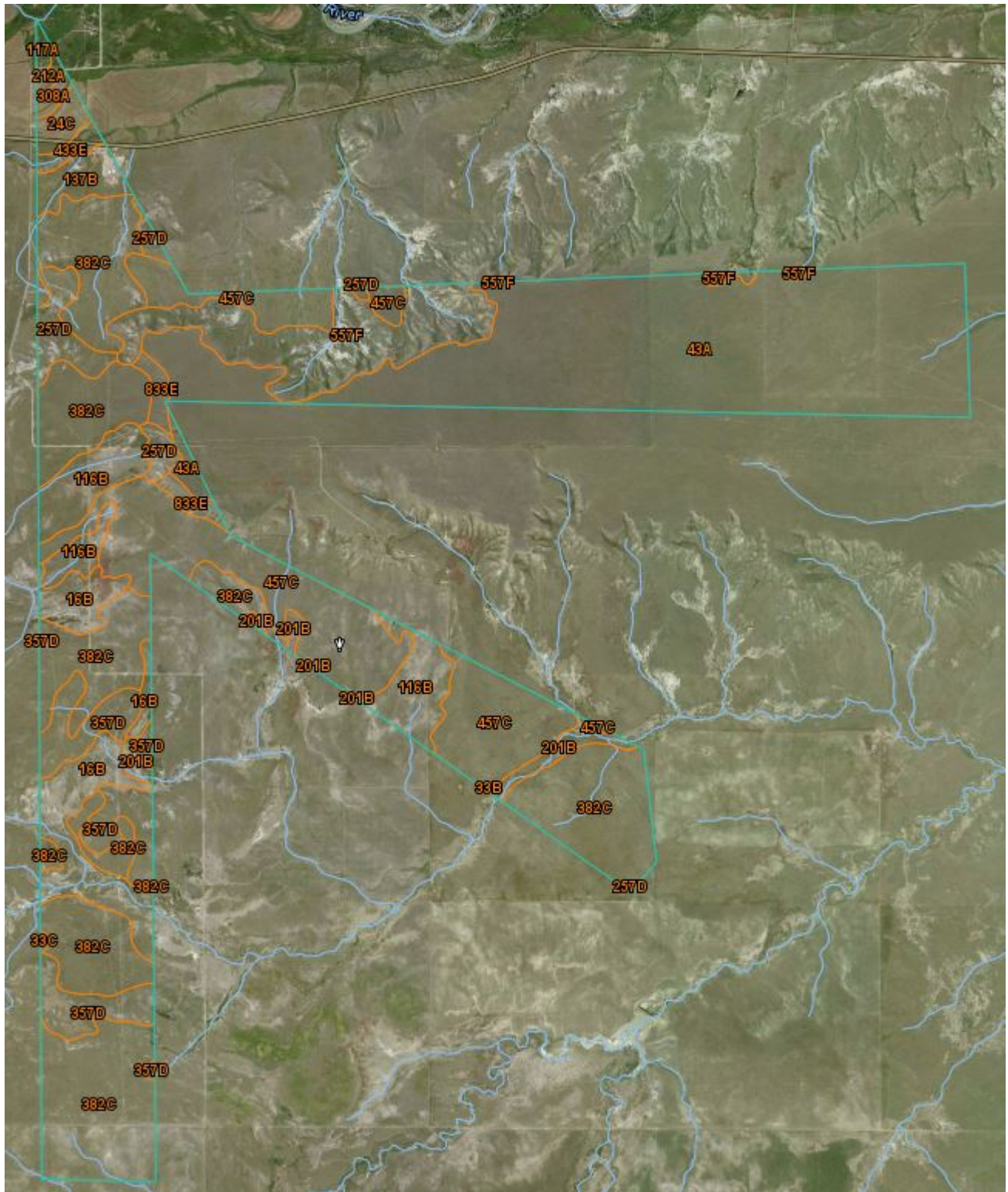
No ponds involved in project.

*Determination:* Assessment is not applicable.

**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 Natural Resources Conservation Service (NRCS) Web Soil Survey was utilized to assess the project area's soils. The soil map below depicts the general project area and the table provides soil unit information. The pipeline and water tanks will not cause salinity issues or decrease soil stability.

Map Unit Symbol	Map Unit Name	Percent of AOI
16B	Gerdrum-Nobe-Yamacall complex, 0 to 4 percent slopes	5.30%
24C	Yamacall silt loam, 2 to 8 percent slopes	0.70%
33B	Sappington-Amesha loams, 1 to 4 percent slopes	0.00%
33C	Sappington-Amesha loams, 4 to 8 percent slopes	0.10%
43A	Niart loam, 0 to 3 percent slopes	28.70%
116B	Yamacall-Gerdrum complex, 0 to 4 percent slopes	5.10%
117A	Ryell-Rivra complex, 0 to 3 percent slopes	0.20%
137B	Musselshell-Crago complex, 2 to 8 percent slopes	1.30%
201B	Fluvaquents, saline, 0 to 4 percent slopes	1.30%
212A	Ryell loam, 0 to 2 percent slopes	0.20%
257D	Delpoint-Cabbart loams, 8 to 35 percent slopes	2.40%
308A	Villy silt loam, 0 to 2 percent slopes	0.30%
357D	Delpoint-Marmarth-Tolman complex, 8 to 25 percent slopes	5.10%
382C	Marmarth-Delpoint loams, 2 to 8 percent slopes	26.00%
433E	Crago-Musselshell gravelly loams, 4 to 35 percent slopes	0.50%
457C	Delpoint-Amesha loams, 2 to 8 percent slopes	14.40%
557F	Delpoint-Cabbart-Rock outcrop complex, 15 to 60 percent slopes	7.50%
833E	Winspect, dry-Cabbart complex, 15 to 45 percent slopes	0.90%



*Determination:* No impact to soil quality, stability, and moisture is expected.

**VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS**

The pipeline predominantly goes through land cover identified by MNHP as Great Plains Mixedgrass Prairie. In Sections 20, 21, 32, and Section 5 19N 4W, the pipeline travels through land cover identified as Introduced Upland Vegetation (Annual and Biennial Forbland). The project may also cross small sections of Rocky Mountain Lower Montane Riparian Woodland and Shrubland.

*Determination:* No impact to vegetation cover is expected. It is the landowner’s responsibility to control for noxious weeds.

**AIR QUALITY**

The project includes a small 3 horsepower Aeromotor submersible pump.

*Determination:* No impact to air quality is expected.

**HISTORICAL AND ARCHEOLOGICAL SITES**

A bison kill site and associated rock alignments (24LC975) is in, or very close to, the pipeline route. It is presently unknown if construction work impacted scientifically significant cultural deposits in the archaeological site, so effects cannot be assessed without a field inspection.

*Determination:* No determination can be made without a field inspection.

**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 additional environmental impacts were identified.

<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.*

No local environmental plans and goals were identified.

*Determination:* No impact to local environmental plans and goals is expected.

**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.*

No recreational or wilderness activities were identified.

*Determination:* No impact to recreational and wilderness activities is expected.

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

No human health issues were identified.

*Determination:* No impact to human health is expected.

**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 impact to private property rights.

**OTHER HUMAN ENVIRONMENTAL ISSUES**

*Impacts on:*

- (a) Cultural uniqueness and diversity? No impact.
- (b) Local and state tax base and tax revenues? No impact.
- (c) Existing land uses? No impact.
- (d) Quantity and distribution of employment? No impact.
- (e) Distribution and density of population and housing? No impact.
- (f) Demands for government services? No impact.
- (g) Industrial and commercial activity? No impact.
- (h) Utilities? No impact.
- (i) Transportation? No impact.
- (j) Safety? No impact.
- (k) Other appropriate social and economic circumstances? No impact.

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

Secondary Impacts: No secondary impacts were identified.

Cumulative Impacts: No cumulative impacts were identified.

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

No mitigation or stipulation measures exist at this moment.

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: The Applicant would not be able to develop the project as proposed.

### *PART III. Conclusion*

1. ***Preferred Alternative:*** Proposed action.
2. ***Comments and Responses:*** None to date.
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 assessment for the proposed action because no impacts have been identified in the EA.

*Name of person responsible for preparation of EA:* Tyler Lystash  
*Title:* Water Resource Specialist  
*Date:* 6/19/2017