

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

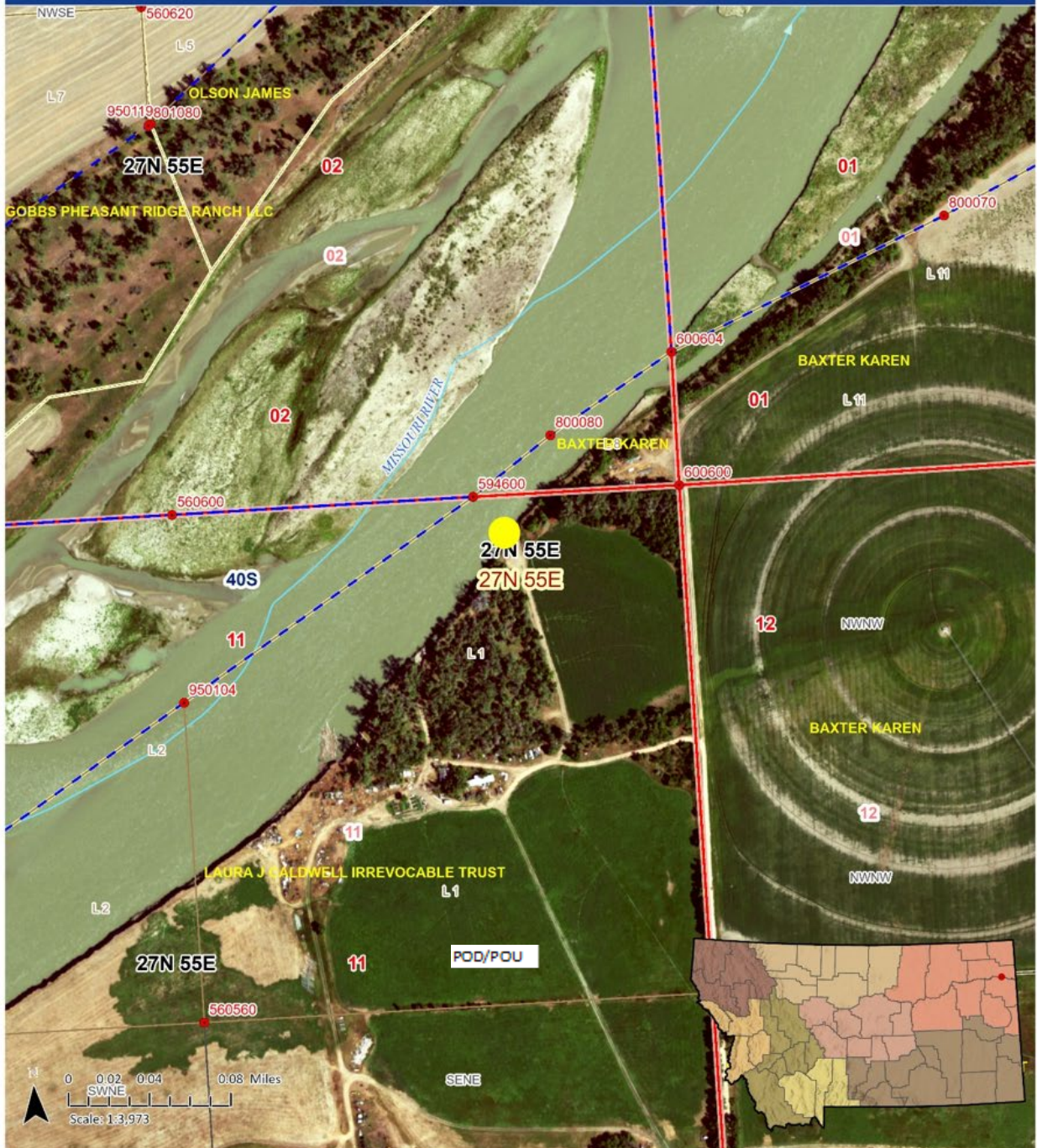
Part I. Proposed Action Description

1. Applicant/Contact name and address: LAURA J. CALDWELL IRREVOCABLE TRUST
PO BOX 733
CULBERTSON, MT 59218
2. Type of action: Application for Beneficial Water Use Permit No 40S 30171138
3. Water source name: Missouri River
4. Location affected by project: Gov't Lot 1, NENENE, Section 11, T27N, R55E, 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 water from the Missouri River, by means of a pump, from January 1 to December 31 at 12 CFS up to 1,000 AF, from a point in Gov't Lot 1, NENENE, Section 11, T27N, R55E, Richland County for water marketing use from January 1 to December 31. The place of use is the point of sale, which is in Gov't Lot 1, NENENE, Sec. 11, T27N, R55E, Richland County. The Applicant proposes to sell water to a purchaser who has signed a firm contract. Water will be used for oil field development, with the general service area covering multiple townships and ranges in Richland County.

The Department found water is not legally available from July 1 to September 30. The Department determined the Applicant may divert water from the Missouri River, by means of a pump, from January 1 to June 30 and October 1 to December 31 at 12 CFS up to 1,000 AF, from a point in, Gov't Lot 1, NENENE, Section 11, T27N, R55E, Richland County for water marketing use from January 1 to June 30 and October 1 to December 31.

40S 30171138



Map Created: 9/3/2025
 Author: Ashley Kemmis,
 Water Resource Specialist
 Elements depicted on this map are for illustrative
 purposes and have not been surveyed by the
 Department. MSDI PLSS:
 2017 Aerials:

- POD/POU
- Parcels - Current
- Section
- Township & Range
- DNRC Basins
- NHDFlowline
- State Boundary

Figure 1: Map Depicting POD and POU

6. Agencies websites reviewed 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
 - United States Environmental Protection Agency

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 MT FWP. Assess whether the proposed use will worsen the already dewatered condition.

The reach of the Missouri River is not identified as a chronically or periodically dewatered stream by the Montana Department of Fish, Wildlife & Parks. The MT FWP has an instream flow reservation for fisheries on this portion of the Missouri River for 5,178 CFS and 3,748,500 AF, year-round. The proposed withdrawal of water is not expected to alter the hydrologic regime of the river.

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 Missouri River is listed on the 2020 Montana 303(d) list as fully supporting agriculture, drinking water and not fully supporting aquatic life. Causes of impairment for aquatic life are the temperature and flow regime modification. Probable sources of the impairment are the upstream Fort Peck Dam/impoundment and hydro-structure flow regulation/modification. 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.

The surface water appropriation should have no significant impact on groundwater in the area.

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 Applicant plans to divert water at a rate of 12 CFS up to 1,000 AF from the Missouri River from a diversion point in the Gov't Lot 1, NENENE, Section 11, T27N, R55E, Richland County using a screened intake pump. The Applicant provided a data sheet and pump curves for the 81022MPL Cornell which identifies the operating level of 1,200 GPM to 7,700 GPM and a shut off head of 590 FT. The pump is powered by a 765 HP, Caterpillar C18 ACERT diesel engine, which meets Tier 3 U.S. EPA standards. The Applicant stated the delivery system will be designed to accommodate hose pressure capacity, elevation changes, friction, and minor losses with pump placement as needed to deliver the required flow rate.

A floating "Riverscreen" system will be used at the intake to prevent wildlife and debris from entering the conveyance system. Water will be measured via a GloTech flow meter model GEM2, which is an electromagnetic flow meter. The flow meter will be installed inline after the source pump. The delivery of water from the intake source to the terminal discharge point is managed through a pressurized, continuous-flow operation. Upon reaching the end of the transmission main, the water is discharged at Heritage Energy, LLC, oil and gas well sites.

The Applicant states that the pumps are equipped with remote monitoring equipment to ensure the safety and mechanical efficiency of the system. The remote monitoring system is equipped with sensors to protect the pump and engine mechanically, to protect and monitor the system hydraulically, and to allow remote changes in pumping rates and pressure via adjustments in engine speed. The conveyance system is continuously monitored remotely, allowing the team to adjust the diesel engine to maintain the appropriate flow rate and pressure targets dictated by the system design. The active management allows the system to respond immediately to any hydraulic changes, ensuring stable delivery to the terminal point.

The Applicant states if the delivery system requires encroachments involving state-owned lands, public acreage, or state/county infrastructure, they will initiate a formal application process with the agency holding jurisdiction and will obtain written approval and/or necessary permits. Lay-flat hoses will be routed exclusively through existing culverts or cattle guards if encroachment on public roadways is required. Formal access agreements will be executed for all private property and railroad crossings. The "Lay-flat Agreements" clearly define the authorized route, duration of use, and comprehensive terms for environmental stewardship, property remediation, and liability coverage.

In winter conditions, the water will be pulled from the river and heated prior to pumping the water and reheated as needed, depending on the distance to the service area. Direct contact units are typically used at the source, while coil heating units are often used inline.

The proposed diversion does not involve well construction and should have no significant impact on stream channels, flow modifications, barriers, riparian areas, or dams.

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 18 species of concern within and surrounding Gov’t Lot 1, NENENE, Section 11, T27N, R55E, Richland County. Of this list, the Whooping Crane and Pallid Sturgeon are listed as endangered by the United States Fish and Wildlife Service (USFWS) and Bureau of Land Management (BLM). The Piping Plover is listed as threatened by USFWS and BLM.

Species Group	Common Name	Scientific name
Fish	Blue Sucker	Cycleptus elongatus
Fish	Iowa Darter	Etheostoma exile
Fish	Northern Redbelly Dace	Chrosomus eos
Fish	Pallid Sturgeon*	Scaphirhynchus albus
Fish	Sauger	Sander canadensis
Fish	Shortnose Gar	Lepisosteus platostomus
Fish	Sicklefin Chub	Macrhybopsis meeki
Fish	Sturgeon Chub	Macrhybopsis gelida
Birds	Black-billed Cuckoo	Coccyzus erythrophthalmus
Birds	Red-headed Woodpecker	Melanerpes erythrocephalus
Mammals	Townsend's Big-eared Bat	Corynorhinus townsendii
Mammals	Little Brown Myotis	Myotis lucifugus
Mammals	Silver-haired Bat	Lasionycteris noctivagans
Birds	Bobolink	Dolichonyx oryzivorus
Birds	Whooping Crane*	Grus americana
Birds	Least Tern	Sternula antillarum
Birds	Piping Plover**	Charadrius melodus
Birds	Great Blue Heron	Ardea herodias

*Listed Endangered by the USFWS and BLM

**Listed Threatened by the USFWS and BLM

Pallid Sturgeon are found in the Missouri River and use large, turbid rivers over sand and gravel bottoms, usually in strong current. They use all channel types but primarily use straight reaches with islands. The pumps will use floating screens with small footprints.

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 Piping plover prefers unvegetated sand or pebble beaches on shorelines or islands in freshwater and saline wetlands. Open shorelines and sandbars of rivers and large reservoirs in the eastern and north-central portions of the state provide prime breeding habitat.

Because the diversion point is adjacent to land used for agricultural purposes and the equipment needed for the proposed use, such as pump trailers and lay-flat hoses, are mobile and removable, the proposed use is not expected to further impact river conditions.

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.*

The wetlands identified within Gov't Lot 1, NENENE, Section 11, T27N, R55E, Richland County is Riverine habitat.

The Riverine habitat of the Missouri River is classified as R2UBH.

- System Riverine (R): The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.
- Subsystem Lower Perennial (2): This Subsystem is characterized by a low gradient. There is no tidal influence, and some water flows all year, except during years of extreme drought. The substrate consists mainly of sand and mud. Oxygen deficits may sometimes occur. The fauna is composed mostly of species that reach their maximum abundance in still water, and true planktonic organisms are common. The gradient is lower than that of the Upper Perennial Subsystem and the floodplain is well developed.
- Class Unconsolidated Bottom (UB): Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.
- Water Regime Permanently Flooded (H): Water covers the substrate throughout the year in all years.

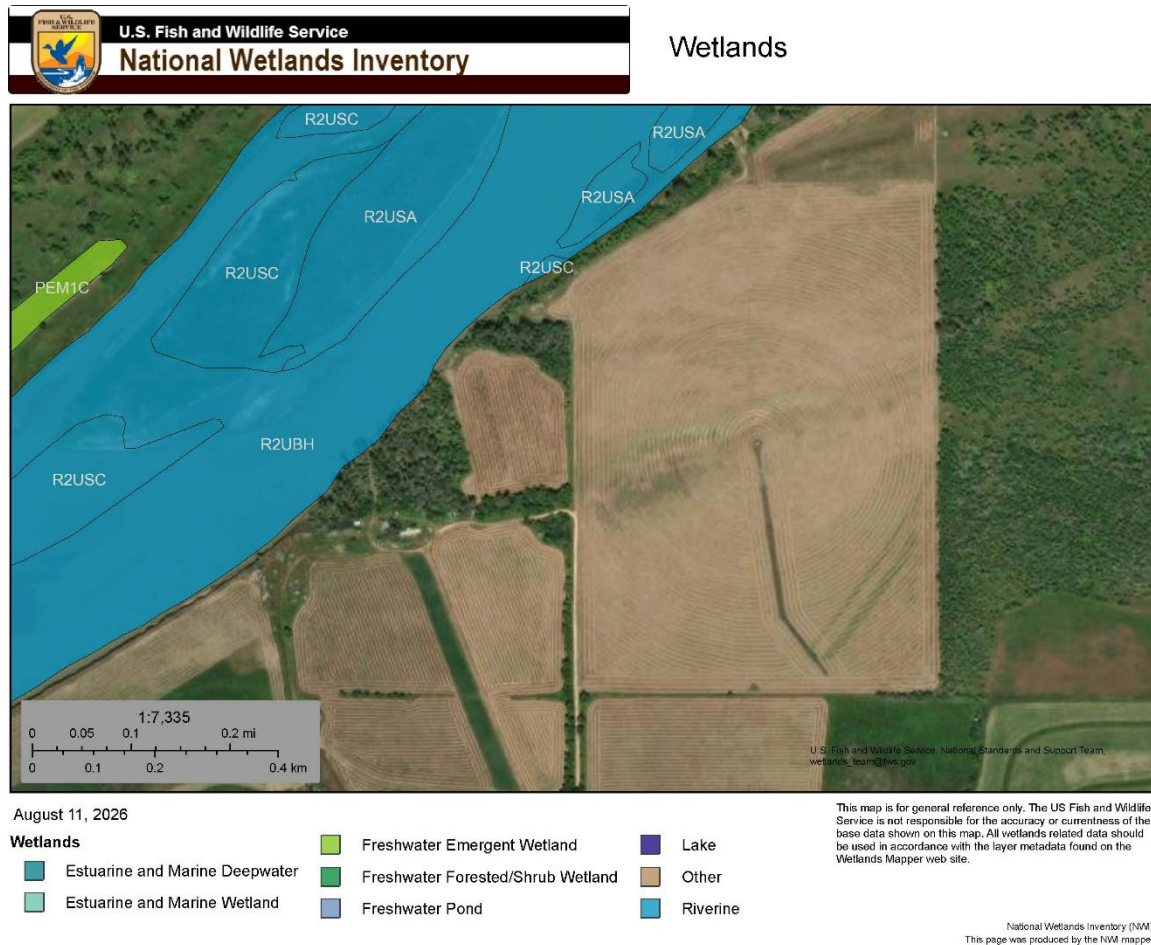


Figure 2: USFWS National Wetlands Inventory

The diversion point is adjacent to land used for agricultural purposes and has already experienced human activity. The equipment needed for the proposed use is temporary and its placement is not expected to cause substantial land disturbance.

Determination: No significant impact.

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

There is no pond habitat within the project area.

Determination: No significant impact.

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 soil type at the point of diversion is Havrelon silt loam. It is identified as prime farmland if irrigated, has a 0-1 percent slope, and is well drained. With equipment such as lay-flat hoses,

pump trailer, and above ground storage tanks, degradation to soil or development of a saline seep is not anticipated.

Determination: No significant impact.

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.*

No vegetation was listed as endangered or threatened by the USFWS or BLM in the project area. The control of noxious weeds is the responsibility of the landowner.

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.*

This project consists of mobile pumps and lay flat hose, which is not expected to produce heavy ground disturbance or dust levels. The pump is powered by a Tier 3 U.S. EPA rated diesel engine, which can have an impact on air quality due to the emissions of air pollutants. The pump meets current EPA standards, is in a remote area, and will not run continuously, so is not expected to have a substantial impact on the air quality.

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: The local land use is mainly agricultural. 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 industrial use. Under the no action alternative, the Applicant would not be able to withdraw water for water marketing.

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: No significant impacts have been identified; therefore, an EIS is not necessary.

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

Name: Ashley Kemmis

Title: Water Resource Specialist

Date: August 13, 2026