

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: PAUL AND NATALIE BOYD  
PO BOX 188  
MELSTONE, MT 59054
2. Type of action: Application to Change an Existing Irrigation Water Right 40C 30170690
3. Water source name: Musselshell River
4. Location affected by project: E2 and E2NESW Section 29, and W2 Section 28, T12N, R31E, Rosebud County.
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The Applicant proposes change their point of diversion and place of use for Statement of Claim nos. 40C 167385-00, 40C 167386-00, 40C 167387-00, 40C 167389-00, and 40C 19338-00. The historical points of diversion from the Musselshell River will be abandoned. The historical place of use for Statement of Claim nos. 40C 167386-00, 40C 167387-00, 40C 167389-00, and 40C 19338-00 will be retired. All but 4.6 acres under 40C 167385-00 will remain irrigated. The proposed point of diversion will be a transitory (moveable) pump which can be moved anywhere along a 0.85-mile length of the Musselshell River from the southern boundary of the SESWSE Sec. 29, T12N, T31E to the northern boundary of the NWNESW Sec. 29, T12N, R31E, Rosebud County. The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.
6. Agencies consulted during preparation of the Environmental Assessment:  
(include agencies with overlapping jurisdiction)  
  
United States Department of Agriculture Natural Resources Conservation Service  
Montana Natural Heritage Program  
United State Fish and Wildlife Service  
Montana Department of Fish, Wildlife and Parks  
Montana Department of Environmental Quality

**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 significant impact.

This stretch of the Musselshell River is considered a chronically dewatered stream by the Montana Department of Fish, Wildlife and Parks. The proposed change in point of diversion includes a proposed reduction in flow rate. The Applicants have historically diverted a combined total of up to 9.31 CFS along the approximately 2-mile reach of the Musselshell River between the SESENE Sec. 32, T12N, R31E, Rosebud County, and the NWNWSE Sec. 20, T12N, R31E, Petroleum County. Their proposed flow rate will be 3.7 CFS along a length of approximately 0.85-miles of the Musselshell River between the southern boundary of the SESWSE Sec. 29 and the NWNESW Sec. 29, T12N, R31E, Rosebud County. The Department is proposing to grant this application with modifications which include conditions for measurement of flow rate and volume and a reduction in the period of diversion. The historical period of diversion for Statement of Claim nos. 40C 167385-00, 40C 167386-00, 40C 167387-00, and 40C 167389-00 ended on October 15 of each year. The Department is proposing to reduce the period of diversion to end on September 30 of each year to match the period of diversion on Statement of Claim 40C 19338-00. The proposed change in period of diversion will leave water instream that has historically been diverted. The proposed change in place of use will alter the pattern of return flows. The proposed flow rate left instream is greater than the reduction in return 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 stretch of the Musselshell River between Flatwillow Creek and the confluence with Fort Peck Reservoir is listed as Class C-3. Waters classified C-3 are to be maintained suitable for bathing, swimming, and recreation, and growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl, and furbearers. The quality of these waters is naturally marginal for drinking, culinary, and food processing purposes, agriculture, and industrial water supply. Its beneficial use support information shows that it is not fully supporting aquatic life or recreation. This application is for agricultural use on land that is already actively farmed and would not degrade the water quality in terms of site clearance or streambank modifications. This project will use high efficiency center pivot sprinklers and medium efficiency flood irrigation. High efficiency projects decrease the potential for degradation of water quality, because there is little to no return flow.

**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 project uses surface water for irrigation and will not adversely affect groundwater.

**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 diversion works will take water using two manifold pumps. One pump is a Cornell 4RB pump and the other is a Cornell 4HH pump with a combined pumping capability of 3.7 CFS. From the river pumps, water will be conveyed through a 10-inch buried pipe which splits into two 6-inch pipes which will convey the water to the flood acres and to the pivots. The pumps will be moveable along a length of approximately 0.85 miles of the Musselshell River. There should be no new impact to the channel, no modification of flow, no barriers, dams or wells and no impact to riparian areas.

**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 Natural Heritage Program lists the Sauger, Black-tailed Prairie Dog, Sage Thrasher, Brewer's Sparrow, Spiny Softshell, Long-billed Curlew, and Greater Sage-Grouse as species of concern. The Applicant consulted with the Montana Sage Grouse Habitat Conservation Program prior to submitting this application. The Program has provided one stipulation, to require weed management, for the project which is located within Core and General Habitat for sage-grouse. The proposed activities are consistent with the Montana Sage Grouse Conservation Strategy. This proposed use of water should have no impact on these species as the project area is already actively farmed.

**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.

There will be no new disturbances of any wetland areas due to this project.

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

*Determination:* Not applicable.

There are no ponds involved in this proposal.

**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

The dominant soils in the area are Marvan silty clay, Busby fine sandy loam, Havre silty clay loam, and Harlem silty clay. These soils are well drained and range from nonsaline to strongly saline. The landowner is responsible for managing saline seep on their property.

**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.

The area of this project has been used for agriculture in the past. Installation of the pump and pivots may provide an opportunity for the spread of weeds. It will be the responsibility of the property owner to monitor and control weeds.

**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.

The applicant is consolidating the pump sites from 5 water rights into a single system. There will be a reduction in the number of pumps and therefore will not create any new or increased impact to air quality or adverse effects on vegetation due to increased air pollutants.

**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

The project is not located on State of 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:* None recognized.

<b>HUMAN ENVIRONMENT</b>
--------------------------

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

*Determination:* There are no known locally adopted environmental plans or goals.

**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.

The area is and has been historically used for agriculture. There are no nearby recreational or wilderness areas.

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

*Determination:* No impact

The project is for a new, moveable, pumping location irrigation of agricultural land.

**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:* Not applicable.

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

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

Secondary Impacts: No secondary impacts of this project were recognized.

Cumulative Impacts: This project does not appear to pose any cumulative adverse 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 alternative to the project as proposed is a no action alternative. The no action alternative would have no impacts. However the no action alternative denies the Applicant the benefit of having their existing pump site and irrigation system brought into compliance.

### ***PART III. Conclusion***

1. ***Preferred Alternative:*** Issue a change authorization if applicant proves the criteria in 85.2.402 MCA are met.

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:* No significant adverse impacts associated with the project were identified. Therefore an EA is the appropriate level of investigation and an EIS is not required.

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

*Name:* Christine Schweigert

*Title:* Hydrologist

*Date:* 3/11/2026