

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: Swanz Ranch
HC 60, Box 335
Judith Gap, MT 59453

2. Type of action: Application to Change a Water Right 30047511- 40A

3. Water source name: Careless Creek

4. Location affected by project: The proposed point of diversion is a pump located in the NWSNW Section 15 T10N, R18E. The proposed places of use are located within the Sections 15 & 22 T10N, R18E, while the acres to be retired are located in sections 3 & 4 T10N R18E. All locations are located in Wheatland County.

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

The Applicant proposes to add a point of diversion and change the place of use of eight water rights to facilitate new center pivot irrigation in Wheatland County. Authorization of this project would allow the Applicant to change a flood flow rate of 13.64 cubic feet per second (cfs) and 204 acres of flood irrigation in exchange for pumping 2.52 cfs on 188.7 acres of new center pivot irrigation. The period of use for irrigation is from April 15 to October 19.

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)

Dept. of Environmental Quality Website - TMDL 303d listing
MT. National Heritage Program Website - Species of Concern
USDI Fish & Wildlife Service Website - Endangered and Threatened Species Judith Basin County, MT
MT State Historic Preservation Office - Archeological/Historical Sites
USDA Natural Resources Conservation Service – Web Soil Survey
USDI Fish & Wildlife Service – Wetlands Online Mapper

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: Minor Impact.

The source of supply is Careless Creek, a tributary of the Musselshell River. Careless Creek is listed as a chronically dewatered stream from river mile 13.6 to river mile 47.8. The existing headgate is situated at approximately river mile 48.5, 0.7 miles upstream from the dewatered reach. The proposed pump site for the new point of diversion is roughly located at river mile 46.2. Although the additional point of diversion would be located within the reach listed as impaired from chronic dewatering, the Applicant proposes to leave 13.64 cfs of historically diverted water in Careless Creek at the existing point of diversion and divert 2.52 cfs at the new pump site downstream. Assuming total water use does not exceed historical use; this change could enhance the dewatered condition of Careless Creek between river mile 47.8 and river mile 46.2, by leaving water in the creek an additional 1.6 miles.

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: Minor impact.

Careless Creek is listed on the MT DEQ website, Clean Water Act Information Center. Aquatic Life and Warm Water Fishery uses have been impaired from alteration of streamside or littoral vegetative covers and sedimentation/siltation. This project will have temporary disturbances during the installation of the pump in the creek; however, no significant affects to water quality are anticipated because of this project.

Ground water - Assess if the proposed project impacts ground water quality or supply. If this is a ground water appropriation, assess if it could impact adjacent surface water flows.

Determination: Minor impact.

The proposed change should not have a major impact on ground water quality or supply. The proposed place of use for the new pivot may realize an increase in seasonal water table elevations; in turn, the potentiometric water surface under acres being retired from flood irrigation should see a decrease in elevation.

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: Minor impact.

The proposed means of diversion is a 75 horsepower Cornell Pump (Model #5RB) capable of diverting the requested flow rate and volume of water. Water conveyance will occur through a 12 inch mainline (plastic pipe) to a 188.7 acre center pivot sprinkler irrigation system. Total system length will be 1,525 feet, operating at a pressure of 80 pounds per square inch. The system was designed by Billings Pump & Irrigation from Billings, Montana, and certified as adequate by Otto Ohlson, retired Engineering Tech from the US Natural Resources and Conservation Service. May 23, 2010 letter from Otto Ohlson; Irrigation System Proposal, Billings Pump & Irrigation, September 16, 2009.

As stated previously, this project will have a temporary disturbance during the installation of the pump in the creek; however, no significant impacts due to diversion works are expected from this project.

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: Low likelihood of impact.

The Montana National Heritage Program currently lists six birds and one fish as Species of Concern within Township 10 North Range 18 East. There are no known Plant Species of Concern listed in the area of interest. The USDI Fish & Wildlife Service Report (Sept. 2009) indicates that Wheatland County has one species listed as endangered, the Black-footed Ferret. Pump installation and system operation plans include the use of screened inlets to protect fish. Since this project is associated with ground that has been previously farmed and grazed, there is a low likelihood of impact to endangered or threatened species because of this appropriation.

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: Low likelihood of impact.

There are no known wetlands associated with this application. The USDI Fish & Wildlife Service Wetlands Online Mapper has no data available for the area of interest.

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

Determination: Low likelihood of impact.

The project does not involve nor affect any ponds.

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: Low likelihood of impact.

The NRCS Web Soil Survey shows the predominant soil unit under the proposed pivot location is the Niart-Crago complex with 0 to 4 percent slopes. This unit consists of a loam/gravelly loam mix that is well drained and non-saline. The area proposed for pivot irrigation is not rated as prime farmland, there may be limitations on crop choices and a need for careful management. The soil is moderately susceptible to wind erosion and has an estimated average yield of 2.78 tons/acre of alfalfa production. There is a low likelihood of impact to soil quality because of this project.

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: Low likelihood of impact.

Typical construction activities associated to pump & pipeline installation may cause short-term disturbances to vegetative cover; however, there is a low likelihood of any long term or significant impact 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: Low likelihood of impact.

It is unlikely air quality will be deteriorated; this project will utilize an electrically driven pump to divert the water.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: Low likelihood of impact.

The acres under the proposed pivot have been previously disturbed by dry land farming and grazing operations. There is a low likelihood cultural properties will be affected; a cultural resource inventory is unwarranted at this time.

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: Low likelihood of impact.

No additional impacts are anticipated.

HUMAN ENVIRONMENT

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

Determination: Low likelihood of 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: Low likelihood of impact.

This proposal should not impact recreational activities in the area.

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

Determination: Low likelihood of impact.

No impacts to human health have been identified.

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 known impacts.

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 taxes generated on irrigated land.
- (c) Existing land uses? Mechanical irrigation on former dry land acreage.
- (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? Electrical consumption by pivot
- (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 - No secondary impacts have been identified.

Cumulative Impacts – No cumulative impacts have been identified.

3. *Describe any mitigation/stipulation measures:*

No mitigation or stipulation measures have been identified by the Applicant. The Department may impose a measurement condition to ensure required criteria are met.

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 being realized by the Applicant.

PART III. Conclusion

1. *Preferred Alternative*

The preferred alternative is the proposed alternative.

2. *Comments and Responses*

None Received.

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:

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: Water Resources Specialist - LRO

Date: 12/8/2010