

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: **RALPH & CANDACE MILLER  
2106 HWY 360  
WHITE SULPHUR SPRINGS, MT 59645**
  
2. Type of action: **Application to Change an Existing Irrigation Water Right No. 41J 30113504 (Statement of Claim No. 41J 196073-00).**
  
3. Water source name: **Benton Gulch (AKA Benton Creek)**
  
4. Location affected by project: **Sections 15, 17, 20, 21, and 22, Twp 11N Rge 4E Meagher Co**
  
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:  
  
**Applicant proposes to move from a pumpsite diversion to facilitate gravity flow center pivot irrigation from Benton Gulch. The new point of diversion for pivot irrigation is a siphon at the dam for Stoyanoff Lake located in the NESWSW Sec 20 Twp 11N Rge 4E Meagher County. The place of use will be modified, two pivots are located in Sections 15, 17, 20, 21, and 22, all in Twp 11N Rge 4E Meagher County. The Applicant also proposes to exchange a 16.1-acre piece of one center pivot to flood irrigate a 30-acre field. The proposed 30-acre flood field is located in Sections 21 & 22 Twp 11N Rge 4E Meagher Co.**
  
6. Agencies consulted during preparation of the Environmental Assessment:  
(include agencies with overlapping jurisdiction)  
  
**Dept. of Environmental Quality Website – Clean Water Act Information Center  
MT. National Heritage Program Website - Species of Concern  
USDI Fish & Wildlife Service Website - Endangered and Threatened Species  
USDI Fish & Wildlife Service – Wetlands Online Mapper  
USDA Natural Resources Conservation Service – Web Soil Survey**

## **Part II. Environmental Review**

### **1. Environmental Impact Checklist:**

<b>PHYSICAL ENVIRONMENT</b>
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#### **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.**

The source of water associated with this change is Benton Gulch in Meagher County. Per the Department of Environmental Quality (DEQ) Clean Water Act Information Center interactive map, Benton Gulch is not identified as dewatered. It is not anticipated that the proposed changes will worsen the condition of the stream, the Applicant has previously irrigated all proposed acres.

The water right change proposes to move a point of diversion and change a portion of the historic the place of use. The diversion will be moved from a downstream pumpsite to an existing reservoir to gravity feed water for center pivot irrigation, via a siphon and pipeline. The Applicant also proposes to retire a 16.1-acre wedge from the eastern center pivot to flood irrigate a 30-acre field. It is expected that measurement conditions will be applied to this water right if the change proposal is granted by the Department. Such conditions will help to ensure the Applicant does not divert stored water or exceed his irrigation water right's historic use.

**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.**

The DEQ website shows that Benton Gulch does not fully support primary contact recreation because the source tested positive for E-Coli. The website does not list the stream as threatened and shows other beneficial uses have not been assessed. There is a low likelihood that water quality will be adversely affected as a result of the addition of siphon infrastructure to the existing irrigation system.

**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 Significant Impact.**

The proposed change should not have a significant impact on ground water quality or supply. The water right involved in the proposed change diverts surface water from Benton Gulch for irrigation. The center pivot irrigation is largely established and has been in use since 2002, so no significant changes are expected. The field proposed to be flood

irrigated has also been flood irrigated in the past (prior to 2002 water right change). It is not anticipated that flood irrigating the proposed field again will have a significant impact on ground water quality or supply, acres are being simultaneously retired under the pivot to accommodate the proposed flood irrigation. Some of the surface water diverted and applied to the flood field will return to the stream subterraneously. As a result, the portion of stream along the field will receive return flows back into the same stream reach when the proposed field is being flooded with a less efficient system.

**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.**

It is not anticipated that the proposed changes will have a significant impact on stream channels, riparian areas, or stream flows. As explained above, the water right change proposes to move a point of diversion and change a portion of the historical place of use. The Applicant proposes to move a point of diversion (a pumpsite) upstream to a siphon and buried pipeline from an existing reservoir. The siphon and pipeline will gravity feed water to operate established center pivot irrigation. The Applicant also proposes to retire a 16.1-acre piece of an existing pivot to flood irrigate a 30-acre field. It is anticipated that measurement conditions will be applied to this water right if the change proposal is granted by the Department which should help to ensure the proposed combination of Applicant's irrigation systems does not exceed the claims historic use.

#### **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 National Heritage Program lists nine Species of Concern and one Special Status Species within Township 11 North, Range 4 East. The common name for the single mammal species listed is the Wolverine. The common names for the seven bird species are Golden Eagle, Veery, Greater Sage-Grouse, Evening Grosbeak, Bobolink, Clark's Nutcracker, and Brewer's Sparrow. The common name for the invertebrate (Mollusks) is the Western Pearlshell. No plants species are identified as threatened or of special concern on the website within Township 11 North, Range 4 East. The website lists the Bald Eagle as a Special Status Species.

The United States Department of Interior Fish and Wildlife Service lists the following species as threatened in Meagher Co: Canada Lynx and Grizzly Bear. It lists the Pallid Sturgeon as endangered. The Wolverine is listed as proposed and Whitebark Pine is listed as a candidate species. Although these species are identified in Meagher Co because one

would reasonably expect them to occur there, not all of the identified species are necessarily found in the area of the proposed change.

Since this project is associated with ground that has been previously disturbed by past agriculture practices, there is a low likelihood of impact to endangered or threatened species because of this change proposal.

The proposed project is located in general sage grouse habitat. The Applicant has consulted with the Sage Grouse Habitat Conservation Program and a letter regarding the consultation is in the water right change file.

**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.**

The acreage involved in this application has been previously farmed and therefore, wetlands should not be impacted within the irrigated fields. The USDI Fish & Wildlife Service – Wetlands Online Mapper shows Freshwater Emergent and Freshwater Forested/Shrub Wetland types adjacent to stream channels in the area; however, they should not be affected by the proposed project since the irrigation infrastructure is already in place.

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

*Determination:*           **No Significant Impact.**

This change proposes to move a diversion upstream for use in an existing reservoir, however no stored water is proposed for diversion. The existing reservoir is located on-stream to Benton Gulch. No changes are proposed for the existing reservoir except that a siphon and pipeline will be used to operate the pivot and the intake pipe for the siphon will have a screen. No impacts to wildlife, waterfowl, or fisheries is anticipated.

**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.**

No significant impacts to the soil profile are anticipated. The predominant soil type is Fairway silt loam with 0 to 2 percent slopes. The Sodium Adsorption Ratio is nonsaline to slightly saline for all the soil components in the area of interest and the acreage involved in this permit application has been previously developed for irrigation. Therefore, soil quality, alteration of soil stability, or moisture content should not be negatively impacted by 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:*           **No Significant Impact.**

**The reservoir proposed to be added to this water right already exists and the pivot irrigation has been in use since 2002. The siphon is already installed and the pipeline is already buried so no further disturbance to vegetation cover is expected with the proposed project. The field proposed to be flood irrigated was also flood irrigated before. 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 Significant Impact.**

**An electric primer pump will be used to assist the siphon by building pressure to engage the gravity flow system. No impacts to air quality or adverse effects to vegetation are expected as a result of this proposal.**

**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:*           **N/A - 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 Significant Impact.**

**No additional impacts are anticipated.**

<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.*

*Determination:*           **No Significant 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: **No Significant Impact.**

**The proposal should not negatively impact recreational activities in the area.**

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

Determination: **No Significant 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 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? **None**
- (b) Local and state tax base and tax revenues? **None**
- (c) Existing land uses? **None, pivot irrigation is already established and flood irrigation of the 30-acre field has been done in the past using the south headgate and ditch.**
- (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 should be less than before since the proposal involves a primer pump, siphon, and pipeline for gravity flow irrigation to an existing center 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. The center pivots and reservoir (Stoyanoff Lake) involved in this change have been in place for many years. Flood irrigation has been done in the past using the south headgate and ditch.

**Cumulative Impacts** – No cumulative impacts have been identified. If the proposed change is approved by the Department, the Applicant is limited to his historical water use and cannot exceed the amount of water historically diverted from the source (2.25 cubic feet per second).

3.     *Describe any mitigation/stipulation measures:*

**No mitigation or stipulation measures have been identified by the Applicant. The Department may impose conditions 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: Melissa Norris

Title: Water Resources Specialist – Lewistown Regional Office

Date: 04/24/2019