

MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION  
WATER RESOURCES DIVISION  
WATER RIGHTS BUREAU

**ENVIRONMENTAL ASSESSMENT**

**PART I. PROPOSED ACTION DESCRIPTION**

1. **Type of action:** WATER RIGHT PERMIT APPLICATION NO.  
40S-P111350
2. **Applicant/Contact name and address:**  
LYLE SCHOW  
HC 69 BOX 59  
CULBERTSON, MT 59218
3. **Water source name:** UNNAMED TRIBUTARY TO HARDSCRABBLE CREEK
4. **Location affected by action:** NWNENE, SECTION 6, T25N, R56E, RICHLAND COUNTY
5. **Narrative summary of the proposed project and action to be taken:** THIS PROJECT IS TO IRRIGATE 33 ACRES. THE WATER WILL BE PUMPED OUT OF AN EXISTING 39 ACRE-FOOT RESERVOIR. THE RESERVOIR HAS EXISTED SINCE 1945 (WATER RIGHT # 40S-W046380). THE DNRC SHALL ISSUE A WATER USE PERMIT IF AN APPLICANT PROVES THE CRITERIA IN 85-2-311, MCA ARE MET. THIS APPLICATION IS TO USE UP TO 76 ACRE-FEET.
6. **Agencies consulted during preparation of the environmental assessment:**  
MONTANA NATURAL HERITAGE PROGRAM  
MONTANA STATE HISTORIC PRESERVATION OFFICE  
SOIL SURVEY OF RICHLAND COUNTY, MONTANA  
MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY-WEBSITE (303d list)

**PART II. ENVIRONMENTAL REVIEW**

1. Environmental Impact Checklist:

**PHYSICAL ENVIRONMENT**

**Soils/Geologic Features:**

Degradation of soil quality or alteration of soil stability, moisture content, geologic substructure, unique geologic features?

NO SIGNIFICANT IMPACT- THE SOILS TO BE IRRIGATED ARE PREDOMINATELY VIDA CLAY LOAM. ACCORDING TO THE SOIL SURVEY OF RICHLAND COUNTY, THIS IS DEEP, WELL DRAINED SOIL ON GLACIATED UPLANDS. RUNOFF IS MEDIUM TO RAPID AND THE HAZARD OF EROSION IS MODERATE. THE PERMEABILITY IS MODERATELY SLOW AND THE AVAILABLE WATER CAPACITY IS HIGH.

IRRIGATION ENHANCES CROP COVER DURING THE GROWING SEASON AND PROVIDES MORE PROTECTION FROM WIND AND WATER EROSION. IRRIGATION ALSO INCREASES PLANT RESIDUES RETURNED TO THE SOIL. SOIL STRUCTURE IS IMPROVED, MICROBE POPULATIONS BENEFIT FROM THE ADDED FOOD SOURCE, AND NITROGEN FERTILITY IS ENHANCED.

**Erosion:**

Alteration of erosion or siltation patterns which modify stream beds or lake shores?

NO IMPACT-THIS PROJECT WILL BE ONLY BE ADDING 33 ACRES OF IRRIGATION. THE RESERVOIR WAS CONSTRUCTED IN 1945. THERE SHOULD BE NO ADDITIONAL ALTERATIONS TO EROSION OR SILTATION PATTERNS .

**Vegetation/Noxious weeds:**

Change in or adverse affect on diversity and production of local plant species including any unique or endangered species (including trees, shrubs, grass, and aquatic plants)? Establishment or spread of noxious weeds?

NO IMPACT-THE MONTANA NATURAL HERITAGE PROGRAM LISTS NO SPECIES OF SPECIAL CONCERN WITHIN THE AREA. THE ACRES TO BE IRRIGATED HAVE BEEN FARMED FOR MANY YEARS AND THE ADDITION OF IRRIGATION SHOULD HAVE NO AFFECT ON THE SPREAD OF NOXIOUS WEEDS.

**Air:**

Deterioration of air quality, or adverse effects on vegetation due to increased air pollutants.

NO IMPACT

**Water:**

Alteration of surface water or groundwater quality including but not limited to temperature, dissolved oxygen or turbidity or quantity or distribution?

NO SIGNIFICANT IMPACT-THE UNNAMED TRIBUTARY AND HARDSCRABBLE CREEK ARE NON-PERENIAL STREAMS AND ARE NOT LISTED ON THE MONTANA 303(d) LIST FOR IMPAIRED AND THREATENED WATERBODIES IN NEED OF WATER QUALITY RESTORATION. THE ACRES TO BE IRRIGATED HAVE BEEN FARMED FOR MANY YEARS. SPRINKLER IRRIGATION SHOULD PROVIDE LITTLE IF ANY RETURN FLOW TO THE STREAM CHANNEL.

**Floodplain:**

Changes in drainage patterns, course or magnitude of flood flows, or exposure of people/property to hazards (flood)?

NO IMPACT-THE DRAINAGE PATTERNS WERE ALTERED IN 1945 WHEN THE RESERVOIR WAS BUILT AND THE ADDITION OF THE 33 ACRES OF IRRIGATION WILL HAVE NO FURTHER IMPACT.

**Wildlife Habitat/Migration:**

Deterioration of critical fish or wildlife habitat? Creation of a barrier to the migration or movement of fish or wildlife?

NO IMPACT-THE ACRES ARE ALREADY CROPLAND SO THERE WILL BE NO BARRIER TO MIGRATION OR MOVEMENT FOR THE WILDLIFE.

**Endangered Species:**

Adverse effects on any unique or endangered species?

NO IMPACT-ACCORDING TO THE MONTANA NATURAL HERITAGE PROGRAM, THERE ARE NO ANIMAL SPECIES OF SPECIAL CONCERN WITHIN THE PROJECT AREA. SEE THE VEGETATION SECTION OF THIS DOCUMENT FOR INFORMATION ON THE PLANT SPECIES.

**HUMAN ENVIRONMENT**

**Existing Land Use:**

Alteration of or interference with the productivity or profitability of the existing land use of an area?

NO IMPACT-THE ACRES TO BE IRRIGATED WITH THIS PERMIT ARE CURRENTLY UTILIZED AS CROPLAND. WITH THE ADDITION OF IRRIGATION, THE PRODUCTIVITY AND PROFITABILITY OF THE LAND USE SHOULD INCREASE.

**Historical Significance:**

Destruction or alteration of a natural area of scientific or educational value or prehistoric or paleontological or archaeological importance?

ACCORDING TO THE MONTANA STATE HISTORIC PRESERVATION OFFICE, THERE ARE NO PREVIOUSLY RECORDED SITES IN THE PROJECT AREA. AS THE PROJECT IS LOCATED ON PRIVATE PROPERTY, NO RECONNAISSANCE SURVEY IS REQUIRED.

**Populace:**

Alteration of the location, distribution, density, or growth rate of the human population of an area?  
Alteration of social structure of community?

NO IMPACT

**Transportation:**

Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?

NO IMPACT

**Safety:**

Creation of any health hazard or affect on existing emergency response or evacuation plans?

NO IMPACT

**Public Services:**

Have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? Have an effect upon local or state tax base?

NO IMPACT

**Utilities:**

Creates need for new or altered facilities for any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?

NO IMPACT-A DIESEL POWERED PUMP WILL BE USED FOR THE IRRIGATION SYSTEM.

**Aesthetics:**

Alteration of any scenic vista or recreation opportunity or creation of an aesthetically offensive site to the public?

NO IMPACT

**Other:**

NO

2. **Secondary and cumulative impacts:** NONE

3. **Reasonable alternatives to the proposed action, including the no action alternative:** NO SIGNIFICANT IMPACTS HAVE BEEN IDENTIFIED. IF THE USE OF THIS WATER WERE NOT APPROVED, THE APPLICANT WOULD NOT HAVE THE USE OF THE WATER FOR IRRIGATION AND THE ASSOCIATED INCREASE IN CROP VALUE.

**PART III. CONCLUSION**

Based on the significance criteria evaluated in this EA, is an EIS required? NO

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

AN EA IS ADEQUATE FOR THIS ACTION. THERE WILL BE NO SIGNIFICANT IMPACTS, THEREFORE, NO EIS IS REQUIRED.

PREPARED BY:

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TITLE: WATER RESOURCES SPECIALIST  
DATE: [Automatic date code removed]