

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

**ENVIRONMENTAL ASSESSMENT**

**PART I. PROPOSED ACTION DESCRIPTION**

1. **Type of action:** AUTHORIZATION TO CHANGE NO.  
41QJ-G(W)209459-02
2. **Applicant/Contact name and address:**  
Jack & Vonda Kirkhuff  
120 Willow Bend LN  
Cascade, MT 59421
3. **Water source name:** Missouri River
4. **Location affected by action:** Lot 12, Willow Bend Subdivision  
SW NE NW Section 25, T18N, R01W, Cascade County
5. **Narrative summary of the proposed project and action to be taken:** The DNRC shall issue an authorization to change if an applicant proves the criteria in 85-2-402, MCA are met. This application is to add a point of diversion to an existing water right. The water was initially used for irrigation of cropland. The property has since been subdivided and the applicant is the owner of a lot in the subdivision. The applicant intends to use the water for irrigation of lawn and garden using the applicant's additional point of diversion.
6. **Agencies consulted during preparation of the environmental assessment:**  
State Historic Preservation Office  
Montana Natural Heritage Program  
Montana Rivers Information System  
Montana Department of Environmental Quality

**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, archeological sites?

NO SIGNIFICANT IMPACT

The Cascade County Area Soil Survey identifies the soil in the area of the point of diversion as **Rivra gravelly sandy loam**. The soil stability may be slightly impacted at the new point of diversion because excavation is difficult in this type of soil due to cut banks easily caving in.

**Erosion:**

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

NO SIGNIFICANT IMPACT

Erosion patterns may change on the edge of the stream bed due to lost vegetation caused by excavation at the new diversion site and due to the additional point of diversion itself.

**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 SIGNIFICANT IMPACT

Re-vegetation of areas disturbed during construction of the diversion may be very slow due to the soil type. This could lead to the establishment of noxious weeds if seeds are present. The Montana Natural Heritage Program web-site identified no plant species of concern in the area.

Given that the site of the project is in a developed subdivision, it is unlikely that any native plant species of concern are present.

**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

A minimal change in water distribution will occur as a result of the additional point of diversion. The Montana Rivers Information System does not identify the Missouri River as de-watered in this reach according to the Dept. of Fish, Wildlife, & Parks. The Montana Department of Environmental Quality has not identified this reach of the Missouri River as needing a TMDL plan. A less than measurable change in water quality may occur due to the high rate of use of fertilizers and pesticides on the lawn and garden.

**Floodplain:**

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

NO SIGNIFICANT IMPACT

The pump system may be exposed to flooding if not removed during periods of high water.

**Wildlife Habitat/Migration:**

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

NO SIGNIFICANT IMPACT

The additional diversion will be extremely minute in terms of the size of the Missouri River. Therefore, no significant deterioration of fish habitat will occur.

**Endangered Species:**

Adverse effects on any unique or endangered species?

NO SIGNIFICANT IMPACT

The Montana Natural Heritage Program web-site identified the Common Loon, the American White Sparrow, the Caspian Tern, Bairds Sparrow, the Bald Eagle and the Black Necked Stilt as bird species of concern possibly present in the area. Given the development that has already occurred in the area, it is very unlikely any of these species or any other endangered species will be further impacted by this project.

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| <b>HUMAN ENVIRONMENT</b> |
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**Existing Land Use:**

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

NO SIGNIFICANT IMPACT

The land use has changed from irrigated cropland to a residential subdivision lot with an irrigated lawn and garden.

**Historical Significance:**

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

NO SIGNIFICANT IMPACT

The State Historic Preservation Office identified a Historic Road/Trail in Section 25, T18N, R01W. However, it is that office's opinion that there is a low likelihood of any cultural properties being affected given the disturbance that already has taken place.

**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 The needed utilities are already in place.

**Aesthetics:**

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

NO SIGNIFICANT IMPACT

Recreationalists floating the Missouri River may consider the additional pump site aesthetically offensive.

**Other:**

NO

- 2. **Secondary and cumulative impacts:** None. Many impacts may occur due to the subdivision, but none are likely directly or indirectly related to the issuance of this authorization to change.
- 3. **Reasonable alternatives to the proposed action, including the no action alternative:** The no action alternative would leave the applicant unable to water his lawn and garden. One alternative would be to use water from a well to water the lawn and garden. This alternative may not be suitable if the well water quantity or quality is questionable.

**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. None of the impacts identified are significant, therefore, an EIS is not required.

PREPARED BY:

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DATE: [Automatic date code removed]