

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

ENVIRONMENTAL ASSESSMENT

PART I. PROPOSED ACTION DESCRIPTION

- Type of action:** Water use permit application no. 41I-102982-00
- Applicant/Contact name and address:** William S. and Daniella L. Harrington
185 Horseshoe Bend Rd
Helena, MT 59602-7454
- Water source name:** Groundwater Well
- Location affected by action:** SESWNW, Sec 13, Twp 10N, Rge 04W, Lewis and Clark County
- Narrative summary of the proposed project and action to be taken:** The applicant proposes to supplement existing irrigation water from Crystal Springs and a 105' groundwater well with water from a 340' groundwater well. A pipeline conveys water from the well to a concrete tank and is then pumped to the irrigation system. The well was drilled on the owners property in 1997 by a licensed driller using standard well drilling practices. The requested flow rate and volume for the well is 100 gpm up to 60.28 acre-feet per year from April 15 to October 15. It is used to irrigate 22 acres of lawn and garden and alfalfa located in the S2S2NW, Sec 13, Twp 10N, Rge 04W, in Lot 40/41 of Racetrack Meadows Subdivision, Lewis and Clark County.
The DNRC shall issue a water use permit to the applicant if the criteria in 85-2-311, MCA are met.
- Agencies consulted during preparation of the environmental assessment:**
Montana State Historic Preservation Office (SHPO)
Montana Natural Heritage Program (MTNHP)

PART II. ENVIRONMENTAL REVIEW

- 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. This application is for supplemental water of a historically irrigated field.

Erosion:

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

No. There is no alteration of stream beds or lake shores as this is a groundwater well application.

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?

MTNHP identified two plant species of concern (Astragalus convallarius var convallarius and Erigeron linearis) within the Scratchgravel Hills quad map area.

Air:

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

No.

Water:

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

Yes. There will be an alteration of groundwater quantity and distribution when the irrigation system is running. This is a minimal impact as the applicant has operated this well for the past three irrigation seasons and has shown there is sufficient water at this aquifer depth to divert the amount of water requested on the application.

Floodplain:

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

No.

Wildlife Habitat/Migration:

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

No. This is a groundwater well located in an existing subdivision. Any impacts to wildlife habitat would have occurred when the subdivision was first developed.

Endangered Species:

Adverse effects on any unique or endangered species?

No.

HUMAN ENVIRONMENT

Existing Land Use:

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

No. The land use has not changed. It remains as historically irrigated.

Historical Significance:

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

No. SHPO identified three recorded sites in Sec. 13, Twp 10N, Rge 04W, Lewis and Clark County. One is a historic mining site and the other two are both agriculture sites. This property has been historically irrigated. Based on the previous disturbance, potential for cultural properties to be affected is low.

Populace:

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

No. This well is located in an existing subdivision of residential, single-family dwellings.

Transportation:

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

No.

Safety:

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

No. The well should enhance the safety of the area by providing supplemental water for fire protection if the need arises.

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.

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?

The well will increase the use of electrical power needed to run the pump, but the amount of power used does not create the need for new or altered facilities.

Aesthetics:

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

No.

Other:

No.

2. Secondary and cumulative impacts:

No secondary or cumulative effects were identified.

3. Reasonable alternatives to the proposed action, including the no action alternative:

The permit should be issued if the criteria in 85-2-311, MCA are met. There would be a positive impact to the human environment and slight to no significant impact to the physical environment. Since this area is in a basin closed to new appropriations of surface water for irrigation, the applicant has limited alternatives in which to appropriate water for irrigation of the field.

The no action alternative would result in the applicant not having supplemental water for irrigation and may cause an economic loss of his crop.

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 sufficient for this level of action. The possible impacts from this project are not significant enough to warrant an EIS.

PREPARED BY:

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DATE: [Automatic date code removed]