

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.  
41J-P111522-00
2. **Applicant/Contact name and address:**  
SPRINGDALE COLONY  
770 BIRKY RD  
WHITE SULPHUR SPRINGS, MT 59645
3. **Water source name:** GROUNDWATER
4. **Location affected by action:** SECTIONS 3 & 10, T08N, R06E, MEAGHER COUNTY  
Approximately 6 miles Southwest of White Sulphur Springs.
5. **Narrative summary of the proposed project and action to be taken:** 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 1350 GPM up to 752.1 acre-feet for sprinkler irrigation of 316.0 acres. Water will be pumped from a 200 ft. deep well through a pipeline to a center pivot irrigation system. Water will also be used in wheel line irrigation systems to irrigate the areas not reached by the center pivot system. The water will be diverted between May 1 and August 30.
6. **Agencies consulted during preparation of the environmental assessment:**  
State Historic Preservation Office  
Montana Natural Heritage Program Web-site  
MT Dept. of Natural Resources and Conservation - Water Management Bureau

**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?

**POTENTIAL BENEFICIAL IMPACT**

An on site survey found no unique geologic features. The soil is a sandy clay loam, which produces good crops under dryland cultivation and is very suitable for sprinkler irrigation. The irrigation of this previously unirrigated ground will likely result in increased soil moisture content. The stability of the soil should not be adversely affected, as sprinkler irrigation does not tend to over saturate the soil. Erosion of the soil under the sprinkler should be reduced, as crops will be easier to establish using the sprinkler irrigation, thus reducing the potential for wind and water erosion of the soil.

**Erosion:**

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

**NO IMPACT**

The project area does not encompass any streambeds or lake shores. Given the grass filter strips in the cultivated area, very little sediment would reach any bodies of water except during very high runoff events.

**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

The current vegetation consists of small grains. Some cheatgrass is present. The area around the well head is currently farmed but will be planted to grass to produce a suitable working area. No noxious weeds were identified. A check of the Montana Natural Heritage Program web-site identified no plant species of concern in the area. The site survey revealed the same.

**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 quantity of groundwater available will be reduced as this project calls for the consumptive use of water. The DRNC Water Resources Division – Water Management Bureau was contacted to evaluate the impact of this groundwater withdrawal. The Bureau determined this project would have no adverse impact on other water users and would not directly impact the flows in the South Fork of the Smith River. The water use permit will require that a backflow preventer be used to prevent any contamination of groundwater by chemical pesticides or fertilizers.

**Floodplain:**

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

NO 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 area to be irrigated is already farmed; thus the habitat will remain essentially unchanged.

**Endangered Species:**

Adverse effects on any unique or endangered species?

NO IMPACT

A check of the Montana Natural Heritage Program web-site indicated several bird species of concern that have been observed in the area. None of these species or any other species of concern were observed during the site survey. Because the habitat will remain essentially unchanged, species of concern should not be impacted.

**HUMAN ENVIRONMENT**

**Existing Land Use:**

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

BENEFICIAL IMPACT

The productivity of the land should increase and likely the profitability will increase.

**Historical Significance:**

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

NO IMPACT

The State Historic Preservation Office was contacted and found no records of historical or archeological sites. Because no new ground disturbance will occur, it is unlikely that any impact on cultural properties will occur.

**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?

BENEFICIAL IMPACT

The tax base should increase as a result of this project.

**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 SIGNIFICANT IMPACT

An increased demand for electric power will occur. This demand has apparently been met by the power provider.

**Aesthetics:**

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

NO SIGNIFICANT IMPACT

The project is visible from a public road but sprinkler irrigation systems are in common view throughout the area.

**Other:**

NO

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

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

ALTERNATIVE #1 - NO ACTION

The no action alternative would result in continued dryland cropping of the project area resulting in no increase in production, profitability, or tax base.

ALTERNATIVE #2

This alternative would be to use surface water for this irrigation project. This is not feasible given that the project lies within the Upper Missouri Basin Closure area where new consumptive uses of water are prohibited. A change of an existing irrigation right is possible but the overall benefits from this project would not be realized as other irrigated lands would likely be dried up to allow for the new irrigation.

### **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 negative impacts, therefore, and EIS is not required.

#### **PREPARED BY:**

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DATE: [Automatic date code removed]