

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: Droge Farms, Inc.  
7590 Stagecoach Trail  
Manhattan, MT 59741
2. Type of action: Application to Change a Water Right # 41H 30043923
3. Water source name: Ground Water
4. Location affected by project: The project proposes to add 320 acres to a rotational irrigation system near Manhattan, MT. The new irrigable acres are located on state land in the N2 of Section 7 T1S R3E, Gallatin County.
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:  
  
This application proposes to add 320 acres of irrigation to a crop rotation system in Gallatin County. The acres will be added for rotation on two Provisional Permits; 41H 73168 00 & 41H 3675 00. The additional acres to be included in the rotational schedule are located on state land in the north half of Section 7 T1S R3E. The maximum number of acres irrigated in any given year will not exceed the existing authorized acres for either permit. The flow rate and volume of water used will not change/increase.
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  
MT State Historic Preservation Office - Archeological/Historical Sites  
USDA Natural Resources Conservation Service – Web Soil Survey  
USDI Fish & Wildlife Service – Wetlands Online Mapper

## **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:*            Low likelihood of impact.

This application proposes to simply add irrigable acres to an existing manifold well system that currently rotates 560 acres of irrigation within a total 1020 acre place of use in any given year. Since the source of water is ground water and no change in historic flow rate or volume is proposed; no significant impacts to water quantity are expected.

**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:*            Low likelihood of impact.

The Applicant proposes to add irrigable acres to a rotation system that has been in use for many years. The amount of ground water diverted will not change and there is a small possibility that water quality will be adversely affected as a result of this project.

**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:*            Low likelihood of impact.

Localized ground water elevations under the new acres to be added to the rotation schedule may see a slight seasonal increase due to new irrigation; however proper sprinkler irrigation management should ensure that virtually all of the water applied to these new acres will be consumed by the crop. No increase in total water usage will occur. There is a low likelihood of impact to ground water quality or supply.

**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:*            Minor impact.

The Applicant is proposing to irrigate the new ground in the rotation with either two fixed center pivots or one towable center pivot. The source of water will not change. There could be some

minor temporary disturbances associated with the construction of the proposed pipeline; however there is little probability of any long-term effects due to the diversion works.

**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:* Low likelihood of impact.

The Montana National Heritage Program lists one species as Species of Concern within Township 1 South Range 3 East. The common name for this species is the Gray Wolf. The USDI Fish & Wildlife Service information shows that Gallatin County has four species listed as threatened; the Bald Eagle, the Grizzly Bear, the Canada Lynx and the Ute Ladies' Tresses (orchid). One species is listed as a candidate for consideration, the Warm Spring Zaitzevian Riffle Beetle. No impacts to any of these species are expected as the project proposes to add a rotational schedule to land that has been previously used for agricultural purposes.

***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:* Low likelihood of impact.

No impacts to wetlands are expected with this proposal. The USDI Fish & Wildlife Service Wetlands Online Mapper does not depict any wetlands near the project location.

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

*Determination:* Low likelihood of impact.

This project does not involve a pond. No impact 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:* Low likelihood of impact.

The USDA Natural Resources Conservation Service Web Soil Survey shows that approximately 25% of the 320 acres of interest is prime farmland, 66% is prime farmland if irrigated, and 9% is farmland of statewide importance. Only 0.2% is listed as not prime farmland. The Sodium Adsorption Ratio is 0.0 for all soil classifications in the area, signifying a low chance of impact

from saline seep. There is also a low likelihood of adverse impact to soil quality, stability, or moisture content as a result of the proposed 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:* Minor impact.

As stated above, minor impacts associated with the diversion works (pipeline) may occur; however they are expected to be temporary with a return to previous conditions anticipated shortly after completion. 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:* Low likelihood of impact.

No impacts to air quality 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.*

*Determination:* Low likelihood of impact.

As this project affects land that has been previously farmed, there is a low likelihood of impact to archeological or historical sites. A cultural resource inventory is unwarranted at this time.

**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:* Low likelihood of 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:* Low likelihood of 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:* Low likelihood of impact.

The proposed action should not negatively impact recreational activities in the area.

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

*Determination:* Low likelihood of 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 known impacts.

**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**
- (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? **None**
- (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.

Cumulative Impacts – The applicant could realize a more productive potato crop by rotating new acres into the system and thus maintaining more favorable soil conditions.

**3. *Describe any mitigation/stipulation measures:***

No mitigation measures have been identified at this time.

**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 no change to the existing water rights for irrigation.

***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:* Douglas Mann

*Title:* Water Resources Specialist - LRO

*Date:* 7/14/2009