

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:* **Greg & Vickie Langford  
145 Lower Sweet Grass RD  
Big Timber, MT 59011**
2. *Type of action:* **Change application 43BV 30024447**
3. *Water source name:* **Sweet Grass Creek**
4. *Location affected by project:* **This change will affect Section 5 in Township 1 South, Range 16 East of Sweet Grass County and Section 33 in Township 1 North, Range 16 East of Sweet Grass County.**
5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*  
**The purpose of this change is to move the place of use for 75 acres of irrigation from three overlapping water rights (43BV 136256, 43BV 17041, 43BV 136255). The place of use is proposed to be moved from Section 5 of Township 1S, Range 16E to other land in the same section and partly onto land in Section 33 of Township 1N, Range 16E in Sweet Grass County. The irrigation to be moved is now irrigated by a pivot sprinkler system under water permit 43BV 30009402. This change does not propose to increase the total number of acres irrigated under these three overlapping water rights. The DNRC will issue a change authorization only if all criteria for issuance under MCA 85-2-402 are met.**

Move	From	►	Move	To
12 Acres	SW Section 5		22 Acres	NE NE Section 5
10 Acres	SE Section 5		53 Acres	N2 NW Section 4
28 Acres	NW Section 5			
25 Acres	NE Section 5			
75 Acres	Total		75 Acres	Total

6. *Agencies consulted during preparation of the Environmental Assessment:  
(include agencies with overlapping jurisdiction)*

Montana Natural Heritage Program  
Montana Historic Preservation Office  
Montana Department of Fish Wildlife & Parks (MFWP)  
Montana Department of Environmental Quality (MDEQ)  
USDA Soil Conservation Service

Plant & Animal Species information  
Historical site information  
Dewatered stream information  
Active TMDL information  
Sweet Grass Soil Study

## **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:** Sweet Grass Creek is listed as Chronically Dewatered in the FWP Dewatered Concern Areas list of 2005. Close monitoring of the total number of irrigated acres after completion of this change and monitoring of total flow and volume of water used will be extremely important to ensure there is no additional pressure on Sweet Grass Creek.

**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:** According to the DEQ 2006 Water Quality Information, Sweet Grass Creek is water quality impaired affecting water habitat and the cold water fisheries. The probable cause is listed as “alteration in stream-side or littoral vegetative covers because of agriculture”. This change may negatively impact water quality in Sweet Grass Creek if extreme care and conservation techniques are not used to limit pressure on Sweet Grass Creek.

**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:** This proposed use of water should have little or no impact on groundwater quality or quantity in the area.

**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:** The diversion works will not be changed under this application. The point of diversion will continue to be in the SW NE SE of Section 30 in Township 1 North, Range 16 East of Sweet Grass County. The Harrison Ditch will continue as the carrier for these water rights to Section 5 in Township 1S, Range 16E, from there the water will be distributed with pump and pipe to the fields as in the past.

#### **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:** The Montana Natural Heritage Program identified the Bald Eagle and the Black-tailed Prairie Dog as the only sensitive and threatened species of concern within this project area. It is not expected that this development will adversely impact either of these species.

**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:** The area does not appear to include wetlands within the project area. There should be no significant impacts to wetlands from this proposed change.

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

**Determination:** There are no plans for a reservoir within this change application.

**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:** The lands proposed to be irrigated consist of Yamacall loam, Cabbart-Delpoint loams, Ethridge-Reedpoint loams. These soils are non-saline and well drained. There should be no degradation of soil quality or stability due to irrigation. There is little chance irrigation of these soils would result in saline seep problems.

**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:** The acres this irrigation is being moved to have been dry farmed previously. The irrigation will not change the vegetation. It is expected the land owner will take an active role in the control of 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:** There should be no deterioration of air quality or adverse effects on vegetation due to increased air pollutants from this proposed project.

**HISTORICAL AND ARCHEOLOGICAL SITES** - Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.

**Determination:** The Montana Historic Preservation Office did not identify any archeological or historic sites of record in the proposed project area. This proposed use of water is not expected to have any significant impact on any historical or archeological sites in the area.

**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:** There should be no significant impacts on other environmental resources of land, energy, and water from this proposed use.

## HUMAN ENVIRONMENT

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.

**Determination:** The proposed change is consistent with locally adopted environmental plans and goals for Fallon County.

**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:** According to the DEQ 2006 Water Quality Information, Sweet Grass Creek is water quality impaired affecting water habitat and the cold water fisheries. The probable cause is listed as “alteration in stream-side or littoral vegetative covers because of agriculture”. This change may negatively impact the fisheries in Sweet Grass Creek if extreme care and conservation techniques are not used to limit pressure on Sweet Grass Creek.

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

**Determination:** There should be no significant impact on human health from this proposed use.

**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 significant impact.

**OTHER HUMAN ENVIRONMENTAL ISSUES** - For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.

1. *Impacts on:*

- (a) Cultural uniqueness and diversity? **No significant impact.**
- (b) Local and state tax base and tax revenues? **No significant impact.**
- (c) Existing land uses? **These 75 acres were not irrigated previously, the irrigation will change the use and agriculture output of this land.**
- (d) Quantity and distribution of employment? **No significant impact.**
- (e) Distribution and density of population and housing? **No significant impact.**
- (f) Demands for government services? **No significant impact.**
- (g) Industrial and commercial activity? **No significant impact.**
- (h) Utilities? **No significant impact.**
- (i) Transportation? **No significant impact.**
- (j) Safety? **No significant impact.**
- (k) Other appropriate social and economic circumstances? **No significant impact.**

2. *Secondary and cumulative impacts on the physical environment and human population:*

**Secondary Impacts: The secondary impacts of this change could include more pressure on Sweet Grass Creek if any additional water is lost from the ditch or the carrier works. Even an additional square foot of irrigation could use more water that will worsen the dewatering of the creek and increase competition for the resource in this area. It is important that if this change is granted an accurate survey of the newly irrigated land should be done upon completion to verify that no additional land will be irrigated.**

***Cumulative Impacts:*** This proposed change comes after the development of a pivot sprinkler system that is supplied from ground water next to the Yellowstone River and irrigates the 75 acres to be changed. Combined the permit for the pivot sprinkler system and this change is an increase in water consumption in this area. Creative permitting and development is becoming more prevalent as appropriators are faced with complex permitting laws and rules designed to protect and manage resources. While land owners are under increasing pressure to produce more with limited resources. The appropriators are becoming more aggressive in their demand for water and finding loopholes within the permitting law to satisfy more development.

3. ***Describe any mitigation/stipulation measures:*** There are no mitigation measures described in this application.
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:*** The “no action” alternative will simply mean that the applicant will be limited to irrigating the land that has been historically irrigated.

***PART III. Conclusion***

1. ***Preferred Alternative:*** The preferred alternative is that the health of Sweet Grass Creek becomes a higher priority of all the irrigators in this area.
2. ***Comments and Responses:*** None to report
3. ***Finding:*** None to report
4. ***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:*** No significant environmental impacts were identified. No EIS is required.

***Name of person(s) responsible for preparation of EA:***

***Name:*** Tim Lewis  
***Title:*** Water Resources Specialist  
***Date:*** February 5, 2015