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*: **Gary & Anita Schallenberger**
1911 Mill Iron Road
Ekalaka, MT 59324

2. *Type of action*: **Change Application 39E 30022402**

3. *Water source name*: **Boxelder Creek**

4. *Location affected by project*: **Proposed Point of Diversion will be in the SE NW NW of Section 20, Township 1 North, Range 61 East in Carter County.**

The proposed Place of Use is with a 148 acre pivot that falls in:
70 acres in the N2 SW of Section 20 Township 1 North, Range 61 East
50 acres in the S2 NW of Section 20 Township 1 North, Range 61 East
14 acres in the S2 SW of Section 20 Township 1 North, Range 61 East
10 acres in the E2 NE SE of Section 19 Township 1 North, Range 61 East
4 acres in the SE SE NE of Section 19 Township 1 North, Range 61 East
All of these are in Carter County.

Narrative summary of the proposed project, purpose, action to be taken, and benefits:
The applicant intends to retire the flood irrigated place of use of two existing water rights and combine those acres under a pivot sprinkler system that will overlap some of the existing irrigated land. The application requests that 148 irrigated acres be retired under water rights 39E 173476 and 39E 173478 to allow 148 acres to be sprinkler irrigated with a pivot that has a 1430 foot reach from center. The proposed sprinkler system will have a single Point of Diversion from Boxelder Creek that will divert 1100 GPM instead of the two points of diversion that used 6600 GPM. The DNRC will issue a provisional water use permit if all criteria for issuance under MCA 85-2-311 are met.

5. *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)

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

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: **Boxelder Creek is not listed by the Department of Fish Wildlife & Parks as Chronically or Periodically Dewatered. Because this change will not increase the volume of water to be used and the flow will be decreased from 6600 GPM to 1100 gpm negative impacts on water quantity are not 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: **Boxelder Creek has no water quality impaired or threatened designation good or bad because of insufficient data. This proposed irrigation project may have some impact on the water quality of Boxelder Creek due to the proximity of the 148 irrigated acres to the river bank. Effects may include fertilizer, pesticide or herbicide runoff and overspray depending on the agriculture practices employed by the operator of the pivot. The installation of a pivot that will irrigate land as close as 300 feet from the bank of Boxelder Creek may create water quality and bank erosion problems.**

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: **Because these 148 acres have been historically flood irrigated, the change to sprinkler irrigation may reduce net percolation, possibly changing the aquifer recharge scheme in this area. The area is rural and the net impacts are not expected to be significant.**

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 proposed diversion works will pump 1100 GPM out of Boxelder Creek with an 80 hp Cornell diesel pump. The pump system lowers a pipe on a boom into the river with no alteration of the stream bank or construction in the river and is then removed after the irrigation season is completed. There is not expected to be negative impacts to the stream channel, riparian areas or flow modification due to this 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: **The Montana Natural Heritage Program identified the Sauger, the Narrowleaf Milkweed and the Schweinitz Flatsedge as species of concern with in the project area. Because this area was primarily irrigated land before this change it is not expected that this project will have adverse affects on 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: **There are no wetlands listed at the project location.**

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

Determination: **There will not be ponds created or altered by this change.**

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 place of use has for the most part been historically flood irrigated from the same source. This change to sprinkler irrigation should cause no new soil degradation or 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: **There should be no adverse effects on vegetation due to the change in place of use. It is expected that the landowner will take action to control the spread of noxious weeds and to minimize negative impacts on existing vegetative cover during and after construction.**

AIR QUALITY *- Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: **The pump is powered by an 80 hp diesel pump; there should be no significant deterioration of air quality or adverse effects on vegetation due to this change.**

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: **This proposed use is not inconsistent with any locally adopted environmental plans and goals for Carter 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: **There should be no significant impacts on recreational or wilderness activities from this proposed use.**

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.*

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?* **No significant impact**

(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: **Because of the proximity of the sprinkler system to Boxelder Creek, runoff into the creek may occur. This may induce pollution into Boxelder Creek due to pesticide, herbicide, fertilizer and erosion runoff depending on the irrigation practices the user employs.**

Cumulative Impacts: **This change actually reduces flow from Boxelder Creek and may be beneficial to the health of the creek in the long run as long as the volume of the combined water rights is not exceeded with the new system.**

3. *Describe any mitigation/stipulation measures:* **The applicant is aware that he would be required to cease using water if this use is adversely impacting the rights of users with earlier priority dates.**

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:*

PART III. Conclusion

1. *Preferred Alternative:* **The preferred alternative is to allow the applicant to change these 148 acres from flood irrigation to sprinkler.**

2. *Comments and Responses:* **None to report**

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: No significant environmental impacts were identified. No EIS is required.

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

Name: Tim Lewis
Title: Water Conservation Specialist
Date: [Automatic date code removed]