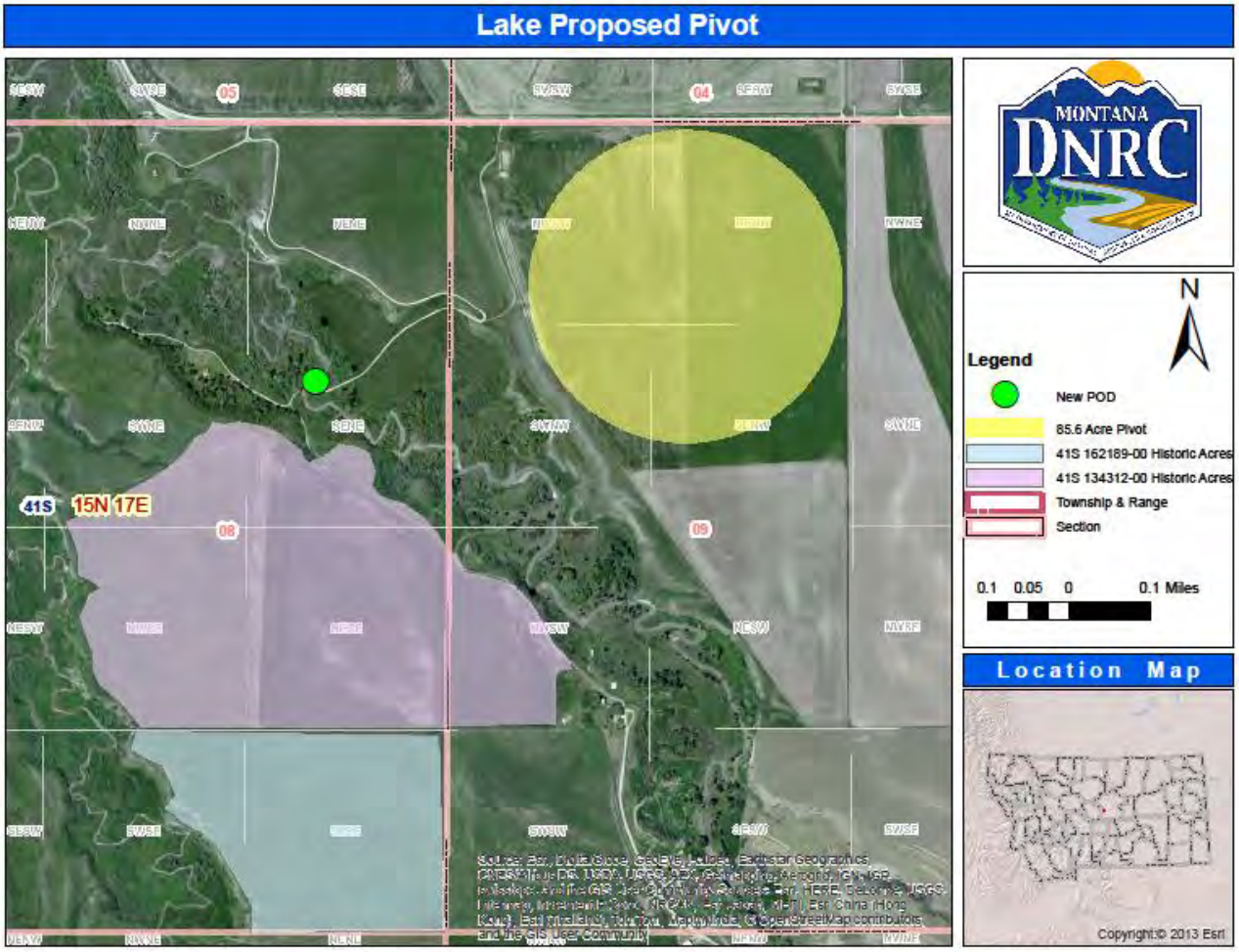
Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact



Part I. Proposed Action Description

1. Applicant/Contact name and address: **Allen T. Lake**
% Oliver Urick or James Hubble
PO Box 556
Stanford, MT 59479

2. Type of action: **Applications to Change an Existing Water Right No. 41S 30067979 and 41S 30067980**

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

4. Location affected by project:

This project is generally located approximately 7 miles due west of Lewistown, just north of Highway 200. The specific location of the project is the NWSENE Section 8, T15N, R17E, Fergus County and NW Section 9, T15N, R17E, Fergus County.

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant is proposing to change their point of diversion and place of use for Statements of Claim 41S 134312-00 and 41S 162189-00 in an effort to change their method of irrigation from flood to center pivot sprinkler. The proposed change to center pivot irrigation will increase irrigation efficiency and production of agricultural crops. The new pivot will cover 85.6 acres and will be located in the NW Section 9, T15N, R17E, Fergus County.

The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
Montana Natural Resource Information System (NRIS)
Montana Department of Fish, Wildlife, & Parks (DFWP)
Montana Department of Environmental Quality
Montana Natural Heritage Program
National Wetlands Inventory

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: **No significant impact**

The Montana Department of Fish, Wildlife, & Parks has identified Cottonwood Creek as chronically dewatered on the lower 15.8 miles of its 32.1 mile total length. Fish, Wildlife, & Parks also holds a year round water reservation of 4.5 CFS for instream flow on the entire length of the source. Historic flood irrigation practices were to remove up to 5.34 CFS up to 219.36 AF from Cottonwood Creek. Under center pivot irrigation, the Applicant will only remove 1.11 CFS up to 109.49 AF.

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: **No significant impact**

Cottonwood Creek is listed as not supporting drinking water, primary contact recreation, agriculture, or aquatic life from the county road at T14N, R18E, Section 18, to the mouth at Big Spring Creek. It has been designated a water quality category 5 by Montana DEQ, meaning that it is a waterbody where one or more applicable beneficial uses are impaired or threatened, and a TMDL is required to address the factors causing the impairment or threat. Authorization of the proposed changes is not likely to increase the impairment. The proposed changes will divert less flow and volume from the creek while the consumptive use will stay the same as historical irrigation practices.

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 is a surface water diversion and it will not impact groundwater 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: **No significant impact**

The means of diversion is a pump which uses an infiltration gallery set under the river bed. The diversion works have been previously constructed. Pumping will create a near instantaneous depletion in surface water at the pump site just as a pump set in the river would. There will be no significant impacts to the stream channel, riparian areas, creation of barriers or dams, and there will be no well construction. Impacts to flow from this project will be less than that of the historical operation of irrigation using a headgate and ditch to deliver water to the fields. The Applicant will divert less volume at a lower flow rate upon completion of this project.

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: **No significant impact**

The Montana Natural Heritage Program identified three animal species of concern which may be present in the project area. They are the Hoary Bat, Great Blue Heron, and the Northern Redbelly Dace. The proposed center pivot is unlikely to have any significant

impact on any of these three species and will not create a barrier to the migration or movement of fish or wildlife. Operation of the pivot will leave more water instream than the historical operation of flood irrigation.

There are no plant species of concern which may be present in the project area.

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: **No significant impact**

The only wetland identified by the USDI Fish & Wildlife Service within the project area is Cottonwood Creek. No other wetlands have been identified within the project area.

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

Determination: **No significant impact**

This project does not involve any ponds.

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: **No significant impact**

The predominant soil types in the project area are Judith-Judell clay loams, 0-2 percent slope and Judith-Windham gravelly clay loams, 2-8 percent slope. Both are listed as nonsaline to very slightly saline. The majority of the pivot will cover the Judith-Judell clay loams which are identified as prime farmland if irrigated.

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: **No significant impact**

No disturbance of vegetative cover is expected. The diversion works, conveyance pipeline, and center pivot have been installed by a previous owner. It will be 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: **No significant impact**

No impacts to air quality have been identified. The pump is powered by an electric motor.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

Determination: **N/A**

Project not located on State or federal lands.

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: **No significant impact**

No additional impacts are identified.

HUMAN ENVIRONMENT

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

Determination: **No significant impact.**

No known environmental plans or goals will be impacted by this project.

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: **No significant impact**

No access or recreational activities will be impacted by this project.

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

Determination: **No significant 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: **There are no additional government regulatory impacts on private property rights associated with these change applications.**

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 **Secondary impacts involve diverting less flow and volume from Cottonwood Creek over the course of the irrigation season, meaning more water is left instream.**

Cumulative Impacts **No impacts identified**

3. *Describe any mitigation/stipulation measures:*
None

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 would be to not authorize the proposed changes in change applications 41S 30067979 and 41S 30067980. Under this alternative, the Applicant would not be authorized to operate an 85.6 acre center pivot in the NW Section 9, T15N, R17E, Fergus County. The no action alternative would mean the Applicant would continue to flood irrigate up to 144 acres diverting a flow of 5.34 CFS and volume of 219.36 AF.

PART III. Conclusion

1. *Preferred Alternative*
   Issue a change authorization if the Applicant proves the criteria in 85-2-402, MCA, are met.

2 *Comments and Responses*
None

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 impacts from the proposed changes have been identified.

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

Name: Nathaniel T. Ward
Title: Water Resource Specialist
Date: February 4, 2015