EA Form R 1/2007

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: **Catlin Ranch, LP**
3660 US Hwy 12
White Sulphur Springs, MT 59645

2. Type of action: **Application to Change a Water Right 41J 30063293**

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

4. Location affected by project: **Sections 1, 11, 12, 13 & 14 T8N R6E; Sections 6 & 7 T8N R7E (Meagher County)**

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

Applicant proposes to change the place of use for water rights 41J 146093-00 and 41J 146105-00. Catlin Ranch will retire 427.0 acres of flood irrigation in exchange for irrigating 212.0 acres of center pivot irrigation.

Specifically, the acres to be retired are 77.2 Acres in the SE Section 11 T8N R6E, 105.3 Acres in the SW Section 12 T8N R6E, 113.7 Acres in the W2 Section 13 T8N R6E and 130.8 Acres in the E2 Section 14 T8N R6E.

The center pivot irrigation will water 149.6 Acres in the S2 Section 1 T8N R6E, 46.5 Acres in the N2 Section 12 T8N R6E, 1.2 Acres in the NWNW Section 7 T8N R7E and 14.7 Acres in the W2SW Section 6 T8N R7E. All legal descriptions are in Meagher County.

The project would likely result in increased water management and crop production on acres under the center pivot compared to the acres previously flood irrigated.

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

Dept. of Environmental Quality Website - TMDL 303d listing
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
Montana Fish, Wildlife & Parks – MFISH Website

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**

Neither Spring Creek nor Cottonwood Creek are listed as a dewatered concern by MT DFWP. The South Fork Smith River, of which both sources are tributary, is listed as periodically dewatered from river mile 0 to river mile 14.9. This project is located up-gradient and adjacent to this dewatered reach, however the Applicant is exchanging 427.0 acres of flood irrigation for 212.0 acres of pivot irrigation and overall consumptive water use will not increase.

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**

Neither of the sources of water directly impacted by the project nor the South Fork Smith River have been included on the DEQ 303d list. Water quality may improve slightly due to improved irrigation management under the center pivot and decreased leaching of salts, fertilizer and pesticides associated with less manageable flood irrigation.

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: **No Significant Impact**

There should be no significant impact to groundwater quality or supply. Generally, the groundwater table may show slight increases in elevation under the center pivot acreage and decreases under the retired flood acres. These minor impacts would occur chiefly during the irrigation season.

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 diversion works will consist of an electric motor powering a pump site from an existing reservoir to sprinkler irrigate with a 212-acre center pivot. The flow regime in Spring Creek will be modified somewhat because flood irrigation will be converted to center pivot irrigation. Operation of the project and timing of diversions under the proposed change is not expected to have any major impacts; the Applicant will generally leave water in Cottonwood Creek and in turn the South Fork Smith River that would have contributed to irrigation of the retired flood acres.

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 National Heritage Program lists six species as Species of Concern within Township 8 North Range 6 East, a mammal, fish and 4 bird species. Common names for these six species are the Wolverine, the Westslope Cutthroat Trout, the Great Blue Heron, Ferruginous Hawk, the Greater Sage-Grouse, and the Brewer's Sparrow. The Short-Eared Owl is listed as a Potential Species of Concern. No Plant Species of Concern are listed in the area of interest. The USDI Fish & Wildlife Service Website shows that Meagher County has four species listed as candidates for the Endangered Species Act; the Wolverine, the Greater Sage-Grouse, the Sprague's Pipit, and the Whitebark Pine. This project is not expected to impact any species listed above as the project will use an existing point of diversion and will be located on acreage that has been previously disturbed by unauthorized irrigation.

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 National Wetlands Inventory shows Freshwater Emergent type wetlands along the Spring Creek and South Fork Smith River riparian zones. The wetland areas adjacent to the retired acres may see some minor impacts due to decreased return flows from lack of flood irrigation; however, the Applicant plans to leave water in the source and realize increased management with the new sprinkler system.

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

Determination: **No Significant Impact**

The project may periodically decrease water levels in the small reservoir/pond that acts as the point of diversion (pump site) for the requested center pivot irrigation. This may have a minor negative impact on fisheries and other wildlife/waterfowl.

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 type under the pivot irrigation is the Turner-Beaverton complex, a well-drained loam to clay-loam to gravelly-loamy-sand profile. This soil is largely nonsaline and should not cause saline seep, especially since this project will involve more manageable water application from center pivot irrigation.

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 new disturbance of vegetative cover is expected. The acres under the new center pivot have been previously used for agriculture purposes. 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: **No Significant Impact**

No impacts to air quality have been identified. The pump will be 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: **No Significant Impact**

Not Applicable – 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 anticipated.

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 local 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: **No Significant Impact**

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

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: **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? **None**

(*b) Local and state tax base and tax revenues?* **None**

(c) Existing land uses? **Flood irrigation will be converted to sprinkler irrigation.**

(*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?* **Center pivot pump will be powered by electric motor.**

(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:

As mentioned above, less return flows are expected in the riparian zone along the South Fork Smith River adjacent to the retired historic flood irrigation. The Applicant proposes to leave water in the source that would have been associated to flood irrigation. The more manageable center pivot system will accommodate increased production on fewer acres. Secondary impacts to the South Fork Smith River are expected to be minor.

Cumulative Impacts:

The *Smith River Permit and Change Applications: Supplemental Environmental Assessment* with its addendum completed by the DNRC in 2003 concluded that previous change application 41J 14609300, requesting similar modifications except for increased flood acreage reductions, contributed to cumulative impacts to Land Use, Ground-Water Resources, Surface-Water Resources, Water Quality, Fisheries and Economics. None of the cumulative impacts were determined to be significant.

3. *Describe any mitigation/stipulation measures:*

The Department may or may not deem specific conditions necessary to meet the statutory criteria for changes of water right set forth at § 85-2-402, MCA. These conditions would be required in the Departments' preliminary determination, if applicable.

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 change 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**
Date: **2/1/2013**