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| 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:* Mark Norem
PO Box 1285
Big Timber, MT 59011
2. *Type of action:* Application for Change No. 43B-30013372
3. *Water source name:* Big Timber Creek
4. *Location affected by project:* Section 11 & 12 T1N, R14E, Sweet Grass County
5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*

This application is to change an existing flood irrigation water right (43B-107272) into sprinkler irrigation. This project will involve the retirement of 7 historically irrigated acres and the addition of 7 new acres into irrigation. The same diversion, flow and volume will be retained from the existing water right. This change is intended to improve efficiency of the water application and increase crop growth with the same volume and flow of water. DNRC will issue an Authorization to Change if all criteria for issuance under MCA 85-2-402 are met.

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)

Part II. Environmental Review

1. Environmental Impact Checklist:

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| PHYSICAL ENVIRONMENT |
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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: Big Timber Creek is listed as chronically dewatered from the mouth of the creek to 5 miles up stream. Dewatering is a significant problem in virtually all years though the actual length of dewatering varies from year to year. The headgate for McComb Ditch is approximately 3 miles up stream from where Big Timber Creek empties into the Yellowstone River. The proposed project should not cause additional dewatering of Big Timber Creek as long as the flow and volume is closely monitored.

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: This proposed irrigation project may have some impact on the water quality of the Yellowstone River due to the proximity of the 21 irrigated acres to the river bank. Effects may include fertilizer, pesticide or herbicide runoff depending on the agriculture practices employed by the operator of the project. A particular concern is that because the place of use falls close to the bank of Big Timber Creek and near to the bank of the Yellowstone River, if the sprinkler system is used for fertigation or the direct application of any chemicals the overspray or runoff may fall into the creek or river. It is expected that the operator will monitor the system closely to ensure this does not happen.

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: The proposed use of water should have no significant 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: This application will not change the diversion works of the existing water right. There will be a pump installed in the McComb ditch as a secondary diversion into the sprinkler system but this will not have a significant impact on the ditch.

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 has identified three endangered species or species of special concern within this proposed project area. They are the Bald Eagle, the

Yellowstone Cutthroat Trout and the Greater Sage Grouse. It is not expected that this proposed development will adversely impact 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: This proposed use should not degrade soil quality or cause saline seep problems in the area.

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 deterioration of air quality or adverse effects on vegetation due to increased air pollutants from this proposed project.

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 identified several archeological or historic sites near the proposed project area. The SHPO letter went on to state that “there is a low likelihood that cultural properties will be impacted by this development”, and that “-a cultural resource inventory is unwarranted at this time”. 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 Stillwater 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: There are no secondary impacts to report. The secondary impacts are not expected to be significant.

Cumulative Impacts: There are no cumulative impacts to report. The cumulative impacts are not expected to be significant.

3. *Describe any mitigation/stipulation measures:* If the use of this water causes an adverse impact on water users with senior water rights, this applicant would be required to cease his use of water until the rights of the affected party were satisfied.

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 require Mr. Norem to continue using his existing water right for flood irrigation only.

PART III. Conclusion

1. *Preferred Alternative:* The preferred alternative would be to allow the use of the replacement well with the condition that the water rights of senior water users would not be adversely impacted.

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 Resource Specialist

Date: May 22, 2006