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*: MALCOLM MEDEARIS
PO BOX 463
ROUNDUP, MT 59072

2. *Type of action*: Application to Change a Water Right 30028431-40C

3. *Water source name*: Musselshell River

4. *Location affected by project*: Sections 9 & 10, T8N, R26E, Musselshell County

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

The applicant proposes to change a point of diversion (pump site ID #1) on Statement of Claim 40C-10444-00 from the SESWSE Section 9 T8N R26E to the SENWSW Section 10 T8N R26E, Musselshell County. The change, if authorized, will move the point of diversion to property owned by the applicant and eliminate approximately 1/3 mile of ditch.

Pump site ID #2 originally claimed in the NWNWSW Section 10, T8N, R26E was amended to SENESE Section 9, T8N, R26E by the claimant through the MT Water Court and will remain in use. The claimed diversion rate of 6000 gallons per minute (gpm), volume diverted of 436 acre-feet (af), period of use from 5/1-8/31, and total irrigated acres of 108.0 would remain unchanged according to the applicant.

No new construction other than replacing one of the electric pumps would be required as the pump sites are already in place and operable. Benefits to the applicant would include moving the pump site to the applicants' property which would provide easy access for operation and maintenance and eliminate some ditch loss by piping the water.

The DNRC will issue an Authorization to Change a Water Right if the applicant proves the criteria in MCA 85-2-402(2).

Benefits to the applicant included the ability for all of the owners to use the water right.

1. 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 Fergus County, MT
MT State Historic Preservation Office - Archeological/Historical Sites
USDA Natural Resources Conservation Service – Web Soil Survey
USDI Fish & Wildlife Service – Wetlands Online Mapper

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: Minor Impact

The source, the Musselshell River, has been declared chronically dewatered under MCA 85-2-150. It is closed to new appropriations from July through September. The Musselshell River Water Management Study shows that it most years no water is reasonably available for appropriation during these months. It also shows that in some years no water is available for appropriation at any time and that many existing water rights are not satisfied. Because of this situation, any added burden on the source represents an adverse effect to other water users.

While the application calls for 108.0 acres to remain in irrigation, review of the historic acres outlined in the Musselshell County Water Resource Survey reveals that a maximum of 89 acres were irrigated in June of 1949. If this incremental development represents an expansion of historic irrigated acres, this increased burden on the source has likely already had a minor adverse impact on the Musselshell River and contributed to its chronically dewatered condition.

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: Minor Impact

The Musselshell River is listed as needing a TMDL plan for several impairments including many associated with return flows from irrigation and diversion for irrigation. As stated above if there has been an expansion of historic irrigation, this project could have contributed to the existing water quality impairments associated with decreased flows.

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: Minor Impact

It is unlikely that groundwater quantity or quality would be significantly impacted as the applicant has stated no previously non-irrigated acres would be irrigated under the proposed change. The applicant maintains that impacts from return flows would remain essentially the same; however the elimination of approximately 1/3 mile of ditch could have a minor impact on the localized groundwater table and the Musselshell River; due to the loss of recharge associated with seepage from the ditch.

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: Low Likelihood of Impact

Because the electric pumps are already in place it is unlikely that any new impacts would occur due to the diversion works. One of the existing pumps will be replaced with a new 60-70 horsepower electric pump capable of diverting the entire 6000 gpm flow rate.

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: Low Likelihood of Impact

It is unlikely that any impacts to endangered species would occur. This is particularly true because no endangered aquatic species are known to exist in the Musselshell River. Impacts to non-aquatic species would be minimal as the project is consistent with many others in the area and is typical of agricultural development in Montana. A literature search of the Natural Heritage Program website revealed no plant species of concern 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: Low Likelihood of Impact

Based on the location of the pump sites, it is unlikely that any wetlands would be impacted. The USDI Fish & Wildlife Service – Wetlands Online Mapper has no data available for the project location.

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

Determination: No Impact

The project does not involve nor impact 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: Low Likelihood of Impact

Because the project involves no new irrigated acres it is unlikely that any impacts would occur. The NRCS Web Soil Survey indicates that the Sodium Absorption Ratio is very low for the soils being farmed; signifying little danger from sodium.

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: Low Likelihood of Impact

Because the project involves no new irrigated acres it is unlikely that any impacts would occur. It is the responsibility of the land 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: Low Likelihood of Impact

Impacts to air quality are not expected as no new construction will take place and the pumps are powered by electricity.

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

Determination: Low Likelihood of Impact

Because no new construction or excavation will occur and the land has been farmed for many years, it is unlikely that any cultural resources would be impacted by this project. A cultural resource inventory is unwarranted at this time.

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 other impacts have been 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 locally adopted 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: Low Likelihood of Impact

The project is visible from the Musselshell River and a public road. However, it is consistent with other agricultural developments in the area and presents no new impacts to recreational opportunities.

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

Determination: Low Likelihood of 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.

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?* NONE

(*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?* NONE

(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 – None have been identified. Applicant states that the pump sites are in place and no new irrigated acres will be farmed.

Cumulative Impacts – As more landowners strive for increased system efficiency through technological advances, the timing of localized recharge to the Musselshell River may impact historic return flows associated with ditch loss, seepage, and flood irrigation systems.

3. ***Describe any mitigation/stipulation measures:***

The following condition is needed because ARM 36.13.201 requires measuring devices for all diversion from the Musselshell River and ARM 36.13.601 requires reporting of measurements.

**Water Measurement Records Required
The appropriator shall install a department approved water use measuring device at a point approved by the department. Water must not be diverted until the required measuring device is in place and operating. On a form provided by the department, the appropriator shall keep a written daily record of the flow rate and volume of all water diverted, including the period of time. Records shall be submitted by November 30 of each year and upon request at other times during the year. Failure to submit reports may be cause for revocation of a permit or change. The records must be sent to the water resources regional office. The appropriator shall maintain the measuring device so it always operates properly and measures flow rate and volume accurately.
Lewistown - ph: 406-538-7459 fax: 406-538-7089

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 – This alternative would result in no changes to the human environment as irrigation practices would remain the same. The benefits to the applicant would also not occur.

PART III. Conclusion

1. Preferred Alternative

The preferred alternative is the ACTION alternative, but only if the applicant proves the criteria in MCA 85-2-402(2).

2. Comments and Responses

No comments have been received.

3. Finding

Based on the significance criteria evaluated in this EA, is an EIS required?

NO

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 alternative are significant as defined in ARM 36.2.524.

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

Name: Douglas D. Mann
Title: Water Resources Specialist
Date: 1/17/2008