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*: Tongue & Yellowstone River Irr. Dist
RR1 Box 2216
Miles City, MT 59301

2. *Type of action*: Application for Change No. 42C-30014774

3. *Water source name*: Tongue and Yellowstone Rivers

4. *Location affected by project*: Sections 1 & 12 of T8N, R47E; Sections 6 & 7 of T8N, R48E in Custer County.

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

This is an application to add an additional point of diversion to the Tongue & Yellowstone Irrigation District Water Right (42C 40137). The proposed secondary diversion would be seven miles down stream of where the Tongue flows into the Yellowstone. The change will allow the applicant to draw 10% of the total 187.5 CFS out of the Yellowstone River to be applied on 955 acres. These 955 acres are currently irrigated as part of the 9589 acre place of use on the existing water right. The proposed change will not increase the acres to be irrigated or the flow of the existing water right. The DNRC will issue an Authorization to Change if all criteria under MCA 85-2-402 are met.

The benefits of this change include allowing 18.75 CFS to continue through a fish by pass, down the Tongue River to flow into the Yellowstone. Diverting 10% of T&Y's irrigation water out of the Yellowstone River would improve dewatering of the Lower Tongue River and provide for a greater flow of water through the 12 Mile Dam's fish by pass.

The Applicant also explains that due to increasing coal bed methane development up stream from the T&Y diversion an increase in the salinity of the water in the Tongue River has been experienced. Diverting a portion of the water further down stream will provide a greater mixing buffer for the sodic water of the Tongue River, this will improve the irrigation water's effectiveness.

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:

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: The Tongue River from the T&Y diversion dam to the where it joins the Yellowstone River is listed as chronically dewatered. If approved, the proposed change would allow 18.75 CFS to remain instream from 12 Mile Dam to where the Tongue joins the Yellowstone. It would also allow the additional water to flow through the 12 Mile Dam's fish by pass enabling fish to swim up stream of the 12 Mile Diversion Dam. The proposed change would improve the chronically dewatered condition of the Lower Tongue River.

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: The Tongue River from the T&Y diversion dam to the mouth of the Yellowstone River is on the DEQ TMDL list of water quality impaired streams. The Lower Tongue is listed as Water Quality Impaired because it does not fully support Aquatic Life, Warm Fish and Recreation. The reasons for this determination are listed as; Flow Alteration, Dam Construction and Hydromodification. T&Y's proposed change addresses these issues and attempts to improve the impaired status that is partially caused by the 12 Mile Diversion Dam that was built in 1886.

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 change 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: The T&Y Irrigation District completed an upper and lower fish by pass system on 12 Mile Dam in 1999. The fish by pass has a built in weir that can be used to monitor the amount of water released downstream. The 12 Mile Dam also controls water flow with a sand removal system and the option to allow water to top the dam. Using these already built systems

T&Y can control the amount of water diverted into their irrigation canal and monitor the amount of water released downstream to the Tongue River.

The proposed secondary diversion consists of a 12 x 14 inch variable fluid drive pump. The variable pump will be connected to a 27" PVC pipeline with an 80 psi. rating. The proposed diversion works will have little impact on the Yellowstone River and are adequate for the 18.75 CFS load.

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 eight endangered species or species of special concern within this proposed project area. The species listed are the Bald Eagle, White-Bract Stickleaf, Interior Least Tern, Pallid Sturgeon, Blue Sucker, Sturgeon Chub, Paddlefish, and Spiny Softshell.

It is not expected that the proposed change will have any impact on the birds or the plants. The project may however improve the habitat for the Pallid Sturgeon, the Blue Sucker, the Sturgeon Chub, the Paddlefish and the Spiny Softshell Turtle. Providing more water in the Lower Tongue River and a free flowing passage up stream from the 12 Mile Dam.

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: The area of the new pump site and pipeline does not appear to be a wetland area, so there should be no significant impacts to wetlands from this proposed use.

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

Determination: N/A

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 water of Tongue River is typically more sodic than that of the Yellowstone River. The additional mixing buffer would improve the water quality for irrigation and may improve soil quality for the 955 acres that would be irrigated from the Yellowstone. This proposed change should have no impact on soil stability or moisture content since this land was previously flood irrigated under the existing water right. The soils in the project area are typical for irrigated fields along the Yellowstone in Custer County and should not create saline seep problems due to this change.

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 significant impact on existing vegetative cover or the spread of noxious weeds from this proposed use of water. There will be minor disturbance at the pump site and along the pipeline, but it is expected that the landowner will prevent the establishment of noxious weeds.

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 due to this 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 did not identify any archeological or historic sites of record in the proposed project area. Based on the lack of previous inventory the Montana Historic Preservation Office recommends that a cultural resource inventory be conducted. 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 Custer 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 negative impacts on recreational or wilderness activities from this proposed use. It is likely that the increased flow in the Lower Tongue River will improve recreation activities along this stretch of river that passes through Miles City.

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 and cumulative impacts: There are no secondary or cumulative impacts to report. The secondary and 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 a water user's water supply with a senior water right, this applicant would be required to cease his use of water until the rights of the affected party were satisfied.

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 that Tongue and Yellowstone River Irrigation District could not use the new pump site and continue using the 12 Mile Diversion Dam to divert the entire 187.5 CFS. The 955 acres would not receive the benefit of the mixing buffer in the Yellowstone River and the fisheries would not receive the benefit of the 18.75 CFS from the dam to the mouth of the Yellowstone River.

PART III. Conclusion

1. ***Preferred Alternative:*** The preferred alternative would be to allow the use of the new pump site and pipeline with the condition that a water measuring device be installed at the pump site.

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: May 26, 2006