

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

Applicant/Contact name and address: Judith A. Tripp Revocable Living Trust
3027 Silverwood Street
Billings, MT 59102

1. Type of action: Application for Beneficial Water Use Permit 30027926-41S
2. Water source name: Dry Wolf Creek, tributary to Wolf Creek
3. Location affected by project: The point of diversion and pond are located in SE NE SE, Section 1, T14N, R9E, Judith Basin County.
4. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

This application is for construction of an off-stream pit that would annually supply 2.5 acre-feet (AF) of water for 2.2 acres of lawn & garden irrigation. The requested volume includes 0.3 AF to cover the estimated evaporative loss associated with the pit. An instream J-Hook Rock Vane will direct water to a wooden inlet structure which will divert up to 50 gallons per minute (gpm) from Dry Wolf Creek to the lined pond from May 1 to October 15. The period of use for lawn & garden irrigation is June 15 to October 15.

The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

5. 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 – Wetlands Online Mapper
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

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 project will involve a point of diversion to be constructed on Dry Wolf Creek, tributary of Wolf Creek. Dry Wolf Creek is not presently identified as chronically or periodically dewatered by DFWP. The applicant has stated that although Dry Wolf Creek is a perennial stream through his property; downstream, during late summer, the creek only flows intermittently. It's unclear if this intermittent flow is an occurrence merely associated with recent drought conditions or the structural geology of the area. There are existing senior water rights on Dry Wolf Creek downstream of the proposed project, including a negotiated compact right for the US Department of Agriculture Forest Service for 5 cubic feet per second (CFS) instream flow for fishery. Given the relatively small size of the drainage area at the point of diversion when compared to the total drainage of the creek, and the fact that the applicant can cease diversion should a valid call on water occur; adverse impacts to flows in Dry Wolf Creek are expected to be minor.

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.

Dry Wolf Creek is shown on the 2006 Montana 303(d) list as a water quality category 5 stream – one or more uses impaired, a TMDL is required. This creek has been determined to partially support aquatic life and a warm-water fishery. The probable causes for the impairment are nutrients, salinity, and habitat alterations. The probable sources are listed as grazing in the riparian zone and non-irrigated crop production. The construction phase of this project will likely modify the flow regime and siltation patterns on the source, though the impacts will likely be minor. The applicant is required to obtain a 310 permit from the local conservation district before construction begins.

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.

As the applicant has observed Dry Wolf Creek becoming an intermittent stream downstream of his property, the additional consumption of 2.5 AF annually may have a minor adverse effect on ground water recharge. A portion of the water that has historically flowed downstream or infiltrated into the underlying aquifer through the streambed will now be diverted to a pit and consumed by lawn & garden use and evaporation.

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: Minor impact.

As stated above, construction of the J-Hook Rock Vane and the inlet structure will likely modify the flow regime and siltation patterns on the source, although the impacts to Dry Wolf Creek are projected to be minor given the relatively small size of the drainage area behind the diversion structure. The applicant is required to obtain the necessary permits for construction activities in the source. The applicants' drawings show that the rock vane will be designed so that it will not direct the entire flow of water from Dry Wolf Creek to the inlet structure.

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: Minor impact.

The website for USDI Fish & Wildlife Service Endangered, Threatened, Proposed, and Candidate Species lists both the Canada Lynx and the Bald Eagle as Threatened in Judith Basin County. Six Species of Concern exist within T14N R9E. The common names for these species are the Dwarf Shrew, Black Rosy-finch, Gray-crowned Rosy-finch, Westslope Cutthroat Trout, Long-styled Thistle, and the Northern Rattlesnake-plantain. The J-Hook Rock Vane could create a partial fish passage barrier during periods of low flow; however the fact that the rock vane will not direct the entire flow of the source and the use of a fish screen in the diversion works should help alleviate any substantial impacts to movement or migration.

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.

There are no known wetlands associated with this application. 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: Low likelihood of impact.

As stated previously, the diversion structure could have a minor impact on fish movement; however it is not anticipated to be significant. The construction of the pond itself is mostly complete and should not create any detrimental effects to existing wildlife or 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: Low likelihood of impact.

The USDA-NRCS Web Soil Survey indicates that no soil map or soil data is available for the Lewis & Clark National Forest. No impacts to soil are expected as a result of this project.

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.

While normal construction disturbance may encourage the establishment of noxious weeds, the disturbance will be localized and land management practices should keep them under control. 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: Low likelihood of impact.

It is unlikely air quality would be impacted; the only emissions for this project would be associated to normal construction/maintenance activities and the operation of an 8-hp gasoline powered pump to supply water from the pond to the sprinkler system.

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.

The State Historic Preservation Office found that since the project is chiefly in place; there is a low likelihood cultural properties will be impacted. 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: Low likelihood of 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: Low likelihood of 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: Low likelihood of impact.

The project is consistent with land use in the area and should not place additional impacts on access or quality of recreational activities.

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

Determination: Low likelihood of impact.

Since its introduction to the U.S. in 1999, West Nile virus has become a potential threat in many states. In 2006, 4 in every 1000 mosquitoes captured on the Milk River near Malta, MT were infected with West Nile. Mosquito habitat development has been associated with standing water containing debris and vegetation. Proper weed management and pond maintenance will help to control the conditions required for larva growth, thus making the impacts associated with the stagnant water in the pond insignificant.

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 - No secondary impacts are anticipated.

Cumulative Impacts – No cumulative impacts are anticipated.

3. Describe any mitigation/stipulation measures:

No conditions for mitigation/stipulation have been identified.

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 application. This alternative would result in none of the benefits to the applicant for lawn & garden 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 - LRO

Date: 11/26/2007