

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: **Bernard T. & Ann F. Jones
60 Shoddy Springs Rd
Three Forks MT 59752-9516**
2. Type of action: **Application to Change a Water Right No. 30031027-41G
(Permit No. 30002141-41G)**
3. Water source name: **Groundwater Well**
4. Location affected by action: **SWNWSE, Sec 12, Twp 2N, Rge 1W, Jefferson County**
5. Narrative summary of the proposed project, purpose, action to be taken, and objectives:
The applicant has purchased a portion of the flow rate, volume and acres of a groundwater well. This portion is to be moved to a well and property owned by the applicant. The applicant proposes to sever and change a portion of Permit No. 30002141-41G. The change would add a point of diversion and place of use. It would also change a portion of the flow rate, volume and acres.

The applicant is requesting 350 gpm up to 115 acre-feet per year. The additional point of diversion will be in the SWNWSE of Sec 12, Twp 2N, Rge 1W, Jefferson County. The acres and additional place of use will be 43.3 acres in the NE of Sec 12, Twp 2N, Rge 1W, Jefferson County.

The DNRC will issue an Authorization to Change if the criteria in 85-2-402, MCA are met.

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

**Bill Uthman, DNRC Hydrogeologist
Montana Natural Heritage Program (MTNHP)**

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 adverse impact.**

The proposed project would not affect chronically dewatered streams as identified by DFWP; it does not seek to develop water from a surface water source.

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 adverse impact.**

This project would not affect water quality in perennial streams. It does not seek to develop water from a surface water source.

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 adverse impact.**

This project should not impact groundwater quality or supply. Adjacent surface water flows should not be impacted by this project. The applicant provided information in a previous file that the source aquifer is not hydraulically connected to the surface water sources because it is confined by a considerable thickness of clay strata that functions as a confining unit in the proximity of the proposed appropriation.

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 adverse impact.**

This project would not affect streams or riparian area. In November of 2005, the applicant had a well drilled to a depth of 216 feet. A 72-hour aquifer test was performed and the well was found to be capable of pumping 350 gpm as needed to run the irrigation system. The well has a 10" steel casing from +1½ feet to 156 feet. The well is grouted with cement from 0 to 25 feet. The submersible Lane Vertiline pump will be powered by a 60 hp motor. The pump will be modified to constrict the flow rate to 350 gpm.

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 adverse impact.**

According to MTNHP there are several species of special concern in the area. There are nine vertebrate animals, the canis lupus or Gray Wolf, Ammodramus savannarum or Grasshopper Sparrow, Numenius americanus or Long-billed Curlew, Calamospiza melanocorys or Lark Bunting, Spizella breweri or Brewer's Sparrow, Athene cunicularia or Burrowing Owl, Oreoscoptes montanus or Sage Thrasher, Dolichonyx oryzivorus or Bobolink, and Buteo regalis or Ferruginous Hawk. None of the species are in the immediate project area boundaries. The proposed project would not impact any species of special concern.

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 functional wetlands have been identified in the project area.**

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

Determination: **No pond development is involved in this project.**

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 adverse impact.**

The surface geology consists of the Tertiary-age Climbing Arrow Formation. It is described as having popcorn weathering at the surface, which explains the gumbo clay and clayey materials to a depth of 42 feet as shown on the Jones well log. The thickness of the Climbing Arrow Formation increases to the east. The material does act like gumbo when wet. This should not cause saline seep.

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 adverse impact.**

The area is now largely native grass. The well was drilled in 2005 and there will not be a major disturbance at the well site at this time. A pipeline will be constructed to the pivot and the ground will be disturbed for planting. Owners are responsible for weed control on their properties.

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 adverse impact.**

This project would not have any effect on the air quality in the area.

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

Determination: **No significant adverse impact.**

The State Historic Preservation Office was not contacted about this proposed project. This project is located on private property, and the decision to conduct a cultural inventory would be at the discretion of the landowner.

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 adverse impacts on environmental resources of land, water, and energy not already addressed were 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 significant adverse impact.**
The existing land use is agriculture and that is not changing.

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 adverse impact.**
The proposed project would not impact access to or the quality of recreational and wilderness activities.

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

Determination: **No significant adverse impacts on human health.**

PRIVATE PROPERTY - Assess whether there are any government regulatory impacts on private property rights.

Yes ___ No **X**.

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 adverse impact.**
- (b) Local and state tax base and tax revenues? **No significant adverse impact.**
- (c) Existing land uses? **No significant adverse impact. The land use is not changing.**
- (d) Quantity and distribution of employment? **No significant adverse impact.**
- (e) Distribution and density of population and housing? **No significant adverse impact.**
- (f) Demands for government services? **No significant adverse impact.**

- (g) Industrial and commercial activity? **No significant adverse impact.**
- (h) Utilities? **No significant adverse impact.**
- (i) Transportation? **No significant adverse impact.**
- (j) Safety? **No significant adverse impact.**
- (k) Other appropriate social and economic circumstances? **No significant adverse impact.**

2. Secondary and cumulative impacts on the physical environment and human population:

Secondary Impacts: **No significant adverse secondary impacts have been identified.**

Cumulative Impacts: **No significant adverse cumulative impacts have been identified.**

- 3. Describe any mitigation/stipulation measures: **The water right change authorization, if issued would be subject to all prior existing water right in the source of supply. There is a measuring device condition on the permit that is being changed and that will be applicable to this change also.**
- 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 proposed area is agriculture land and has been used for pasture and dry-land farming in the past. Irrigation of a portion of the cropland will enhance the yield. Appropriating a new surface water right is not possible due to the Upper Missouri Basin Closure. The no action alternative would prevent the applicant from developing an irrigation water system to provide hay to his cattle.**

PART III. Conclusion

- 1. Preferred Alternative: **Issue the Authorization to Change as applied for by the applicant or in some modified form considered reasonable.**
- 2. Comments and Responses: **There have not been any comments or responses to the proposed project at this time.**
- 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: **Based on a consideration of the criteria found in DNRC Administrative Rule 36.2.524, : “Determining the Significance of Impacts,” there is not a significant adverse impact. An EA is sufficient for this level of action and do not warrant an EIS.**

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

Name: Kathy Arndt
 Title: Water Resource Specialist
 Date: March 19, 2008