

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: Robert Petty
469 N. Kootenai Creek Rd.
Stevensville, MT 59870
2. Type of action: Application to Change a Water Right 76H 30045347
3. Water source name: Kootenai Creek
4. Location affected by project: NENWSW Sec. 17, T09N, R20W, Ravalli County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

This application is a proposal by applicants, Robert and Margaret Petty, to change Statement of Claims 76H-116773-00 and 76H-116774 by adding the purpose of non-consumptive power generation to the existing stock and irrigation uses. The claims being changed are multiple uses of a 45 gpm (4 miner's inch) Kootenai Creek water right with a May 1, 1896 priority date. The applicants propose to install a micro-hydro power generating turbine in the pipeline used to supply irrigation and stock water to their 3.8 acre parcel. Water for power generation would be piped from a riser to the turbine, and then piped to the stock and irrigation place of use. The applicants do not propose to change any other element of their water right claims. The amount of water proposed to be changed to non-consumptive power generation is the claimed and decreed 45 gpm flow rate up to the annual diverted volume of 10.2 acre-feet. The DNRC shall issue a change authorization if an applicant proves the criteria in §§ 85-2-402, MCA

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

Bitterroot Valley Soil Survey
MT DFWP 2005 Impaired Stream List
DEQ 303(d) List

Soil data
Dewatering concerns
Water quality impairments

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.*

Kootenai Creek is identified by DFWP as periodically dewatered in the last two miles of the stream before it's confluence with the Bitterroot River. The proposed addition of power generation will not worsen the dewatered condition because the proposed use is non-consumptive. In addition the applicant's diversion and the location of the applicant's return flows are both upstream of the dewatered reach.

Determination: No impact.

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.*

Kootenai Creek is listed as water quality impaired by DEQ. Kootenai Creek is shown to be partially supporting aquatic life, coldwater fisheries and primary recreation contact. The probable causes are listed as alteration in stream-side or littoral vegetative covers and low flow alterations. The proposed project will not cause a further loss of stream-side vegetation or littoral vegetative cover because there will be no construction required at the headgate used to divert irrigation water or other activity that would result in vegetation removal. The water rights proposed to be changed have been in constant use since May 1, 1896, and the use of this water right adds to the low flow alterations. The proposed change will not cause additional low flow alterations because there will be no increase in the amount of water historically diverted for irrigation and stock use, and return flow location and timing will not change.

Determination: No impact.

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: N/A the proposed change does not involve groundwater.

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.*

The historic diversion is the Kootenai Creek No. 3 ditch headgate. Water has been continuously diverted using this headgate since May 1, 1986. The proposed project requires no change to the headgate, and it will continue to be used per the historic use. Since there will be no change to the

diversion structure used or any increase in the amount of water historically diverted the project will not create any channel impacts, flow modifications, reduction in riparian habitat or create any barriers to fish migration.

Determination: No impact.

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."

The proposed project involves installing a micro-hydro power generating turbine in the pipeline that supplies the applicant's property with irrigation and stock water. The applicant's property has been in agricultural production since the late 1800's, and the pipeline has been in constant use since 1968. The only construction activity associated with the project is the construction of a small 4' by 6' shed to house the power generator. All other infrastructure required (pipeline) has been in place for many years. The proposed project will not require an increase in the amount of water historically diverted, therefore there will not be any new impacts to coldwater aquatic species such as Bull Trout or Westslope Cutthroat Trout. Because the actual area where any disturbance will occur is limited to the space occupied by the 4' by 6' shed, and this area was altered by agricultural practices in the late 1800's, there will be no additional impact to wildlife or plant species.

Determination: No impact.

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: N/A the project does not involve any wetlands.

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

Determination: N/A the project does not involve 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.

The applicant's place of use consists of Chereete gravelly coarse sandy loam that formed from decomposed granite. These soils are not heavy in salts that could cause saline seep. The proposed change in water use will not alter the soil at the project site. Ground disturbance will be limited to the 24 square feet occupied by the shed housing the power turbine. There will be no change in the applicant's irrigation practices with the addition of power generation to the water right.

Determination: No impact.

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.*

Existing vegetation consists of pasture grass and will remain so after the project is complete. The use of existing irrigation and stock rights conveyed via a buried pipeline to generate power in a micro-hydro power generating turbine will not require construction activities in any natural or undeveloped areas. Once the system is complete and the water is put to beneficial use there will be no impact to vegetative cover.

Determination: No impact.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Adverse air quality impacts from increased air pollutants are not expected as a result of this project. The water will be diverted using submersed electric pumps. No air pollutants were identified as resulting from the applicant's proposed use of groundwater for irrigation.

Determination: No impact.

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

The proposed use of water for power generation will not cause degradation of unique archeological or historical sites in the vicinity of the proposed project. The site is already agricultural land and very limited ground disturbance is required to complete the proposed project.

Determination: No impact.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

None identified. The applicant's use of an existing 45 gpm water right to generate power will provide the benefit of producing 550 watts of electricity.

Determination: No impact.

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 impact.

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 impact. The project is located on private property that does not provide recreational access.

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

Determination: No impact.

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

*Yes*___ *No* XX *If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: No 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? None identified.
- (b) Local and state tax base and tax revenues? None identified.
- (c) Existing land uses? None identified.
- (d) Quantity and distribution of employment? None identified.
- (e) Distribution and density of population and housing? None identified.
- (f) Demands for government services? None identified.
- (g) Industrial and commercial activity? None identified.
- (h) Utilities? None identified.
- (i) Transportation? None identified.
- (j) Safety? None identified.

(k) Other appropriate social and economic circumstances? None identified.

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

Secondary Impacts None identified.

Cumulative Impacts None identified.

3. Describe any mitigation/stipulation measures: N/A

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: N/A

PART III. Conclusion

1. Preferred Alternative N/A

2. Comments and Responses

3. Finding:

Yes ___ No XX 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:

An EA is the appropriate level of analysis for the proposed action because no significant impacts were identified.

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

Name: Jim Nave

Title: Water Resource Specialist

Date: 7/16/2009