Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Revised 10-00

Note: Instructions to DNRC staff for preparing this EA can be found at: http://www.dnrc.state.mt.us/eis_ea.html

Part I. Proposed Action Description

1. **Applicant/Contact name and address: David Wimberly, Frontier Capitol Management, 99 Summer ST. Boston, MA 02110**

2. **Type of action: Application for beneficial use permit # p112644-41c**

3. **Water source name: well**

4. **Location affected by action: NENE SEC22, SWSW SEC14, SESE15, NWNW SEC 23, TWP 5S, RGE 5E MADISON CO. MONTANA.**

5. **Narrative summary of the proposed project and action to be taken:** The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311, MCA are met. The applicant is seeking a water use permit for the purpose of a irrigation well. The type of irrigation is intended for the use of watering a shelterbelt and will utilize a rotating non-impact sprinkler and a drip micro sprinkler. The total acres irrigated are 4.5 with the total water consumption of 4.5 acre-feet at a rate of 75 to 80 gallons per minute

6. **Agencies consulted during preparation of the Environmental Assessment:Montana Bureau of Mines and Geology, USDA soil survey map, Montana FW&P, MTDEQ, MT Historical Society.**

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: DFWP has listed the Ruby River Drainage as dewatered stream 8.5 miles below the Leonard Slough and 6 miles below the BN RR Bridge. The well in question is above these areas and may be hydrologically connected to the Ruby 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: Irrigation to be use is a rotating non-impact sprinkler and a drip, micro-sprinkler system. Although theses are highly efficient devices it is possible some run-off might occur. Thusly, endangering the quality of the nearby river.

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: There is a water right (41c w216316) from Silver Spring claiming 150 miners' inches for irrigation and power generation. Silver Spring is 1000' down slope from the well in question. Because Silver Spring intercepts the surface 1000' down slope from the well it is possible there might be a hydrologic connection between the well the spring and the river. The Ruby River is considered impaired by the DEQ. It is possible that further groundwater development could worsen the already impaired waters.

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 diversion works is a wellhead. During the installation of the well (spudding to T.D.) it is possible that drilling fluids and fuel from equipment may enter the nearby river. Casing was ran to a depth of 67 feet and enviroplug #8 was used as the grouting material. The driller's license is # 40.

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: As per conversation with Kate Walker: It is the understanding that it is not enforceable to protect plants. It is her understanding that will not effect vertebrates.

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 well is used for the irrigation of a shelterbelt. It should not create nor damage any nearby wetlands.

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

Determination: No ponds will be created nor effected in the nearby area.

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: According to the USDA soil survey the well area contains the Musselshell Cargo Complex. It contains 2-8% slopes, moderately thick clays on faces and peds. Soils are medium to slightly acidic. There is no mention of saline seeps.

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: As per conversation with Kate Walker a biologist with FWP for the Madison area. She concluded that this type of project should have no repercussions.

Air quality

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

Determination: There may be no long-term quality issues from the installation of this well.

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 website provided does not indicate the presence of historical findings in this exact 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: Electricity will be used to run the pump. Erosion will be mitigated by the use of a shelter belt.

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 area is sparsely populated and there are no evident regulations against the proposed activity.

Access to and quality of recreational and wilderness activities

Assess whether the proposed project will impact assess to or the quality of recreational and wilderness activities.

Determination: This project is on private land. The intended use is for the propagation of a shelterbelt. There appear to be no potential impacts as stated above.

Human health

Assess whether the proposed project impacts on human health.

Determination: The type of irrigation does not lead to "standing water" and trees are recognized as being beneficial to human health.

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 foreseen

(b) Local and state tax base and tax revenues ? Increased taxes from utilities

(c) Existing land uses ? None foreseen

(d) Quantity and distribution of employment ? None foreseen

(e) Distribution and density of population and housing ? None foreseen

(f) Demands for government services ? None foreseen

(g) Industrial and commercial activity ? None foreseen

(h) Utilities ? More demand on utilities will be used

(i) Transportation ? **None foreseen**

(j) Safety ? **None foreseen**

(k) Other appropriate social and economic circumstances ? None foreseen

2. Secondary and cumulative impacts on the physical environment and human population: None foreseen

3. 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 other option would be to pump the water from nearby Silver Spring .

PART III. Conclusion

Based on the significance criteria evaluated in this EA, is an EIS required? Due to some potential dewatering problems an EIS could be required.

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: It is not fully understood what the impacts might be. So therefore, an EIS may or may not be required.

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

Name: Porter L Dassenko
Title: Water Management Specialist
Date: 10/27/00

Name:
Title:
Date: