

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: **Crow Chief Meadows  
P.O. Box 354  
Absarokee, MT 59001**
2. Type of action: **Application for Beneficial Water Use No. 43C-30029280**
3. Water source name: **Groundwater Well in the Horse Creek Controlled Groundwater Area (HCTCGA).**
4. Location affected by project: **NW, SW, NE of Section 15, Township 4 South, Range 18 East in Stillwater County. Lot #43 in the Crow Chief Meadows Subdivision.**
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: **This is a well in the Horse Creek Temporary Controlled Groundwater Area (HCTCGA), used for domestic and lawn and garden uses. The applicant is requesting a flow rate of 25 GPM and an annual volume of 2.25 AF per year. The DNRC will issue a provisional water use permit only if all criteria for issuance under MCA 85-2-311 are met.**
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)

Species Impact Information  
 Cultural Resource Inventory  
 Dewatered Stream Information  
 TMDL listings

**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:** This well is about 300 feet from the nearest Unnamed Tributary to Horse Creek. There is an on going study to find if ground water developments within the Horse Creek Controlled Groundwater Area will have a negative impact on the water quantity in this area.

**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:** A water quality test was submitted with this application and on going monitoring is being done within HCTCGA area. The well was drilled by a professional well driller that appears to have complied with Montana Board of Well Contractor and local guidelines. The well is about 1000 feet from Lot 39 that has a septic system. There are no water quality issues expected as a result of this water use.

**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 an on going study to find if the development within the Horse Creek Temporary Controlled Groundwater Area will have a negative impact on the groundwater quality and quantity in the aquifer. The well is located approximately 1000 feet from the nearest well in Lot 39 of the Crow Chief Subdivision and approximately 300 feet from an Unnamed Tributary of Horse Creek.

**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 well is 100 feet deep and pumped with a ½ horsepower pump. The well has a steel casing down to 18 feet, a plastic casing from 7 feet to 60 feet and a perforated pipe from 60 to 100 feet. The well was tested at 34 GPM for 2 hours.

#### **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 identified the Bald Eagle and the Bobolink as the only Threatened or species of concern within this proposed project area. It is not expected that this proposed development will adversely impact these species.

**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:** There are no wetlands within the project area.

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

**Determination:** There are no ponds involved in the 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:** The water will be used for domestic and lawn and garden uses that will be used directly with little or no runoff. The proposed uses should not degrade soil quality or cause saline seep problems in the area.

**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 is currently construction taking place within the project area and the well has already been drilled. Therefore addition disturbance of vegetation will be rehabilitated or the area will be landscaped around the house. It is expected that the land owner will control the spread and 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 or adverse effects on vegetation due to increased air pollutants from this proposed 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. 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 is currently a study in process to evaluate the impacts on groundwater as a result of the Crow Chief Meadows subdivision and the wells and septic systems that the land buyers will install. There should be no significant impacts on other environmental resources of land, and energy 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 Stillwater 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 significant impacts on recreational or wilderness activities from this proposed use.**

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

**Determination: The impact on human health is partly being assessed by the ongoing study of the Horse Creek Controlled Groundwater Area.**

**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 Impacts** The use of this water may have impacts on the availability of water within this aquifer. An aquifer study is under way to determine the impacts of this and other wells. If it is found that the wells within the HCTCGA are creating an adverse affect, the use of this well may be limited.

**Cumulative Impacts** As more development takes place within Crow Chief Meadows, there will be added pressure on the aquifer that may make adverse affects more likely. There is an on going study to determine impacts of this and all the wells within the HCTCGWA on the aquifer.

**3. *Describe any mitigation/stipulation measures:*** As part of the HCTCGA a water measurement device is required and the record of water use may be requested by the DNRC.

**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 installation of a cistern and delivery of water from another source is one alternative that would eliminate impacts on the aquifer under the HCTCGA.

The “no action” alternative would restrict the applicant to the use of a cistern and shipped water for domestic or lawn and garden uses.

**PART III. Conclusion**

**1. *Preferred Alternative:*** The preferred alternative would be to allow the use of the water from the well.

**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:* : An on going study is being conducted to determine the impact of the groundwater use. No EIS is required.

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

*Name:* **Tim Lewis**

*Title:* **Water Resources Specialist**

*Date:* **November 27, 2007**