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*: Stillwater Mining Co.
PO Box 1227
Big Timber, MT 59011

2. *Type of action*: Application for Beneficial Water Use 43BJ 30027933

3. *Water source name*: Mountain View Creek

4. *Location affected by project*: SE, NW, NE Section 28, Township 4 South, Range 13 East in Sweet Grass County

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits*:

Stillwater Mining Company is requesting a temporary water use permit in order to draw 25 gpm up to 10 acre-feet per year from Brownlee Creek to use it for construction of a vent that connects to their underground mine tunnel system and for exploratory drilling.

The construction use is to feed a shotcrete system and used for flushing and finishing of the concrete work. The exploratory drilling use is for the lubrication and flushing of a core sample drilling rig.

All of the proposed work will be done under the Forest Service guidelines.

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

| | |
|---|---|
| Montana Natural Heritage Program | Endangered-Threatened Species |
| Montana Historic Preservation Office | Archeological Information |
| Montana Department of Fish Wildlife & Parks (MFWP) | Dewatered Stream Information |
| Montana Department of Environmental Quality (MDEQ) | TMDL Information |
| US Forest Service – Beartooth Ranger District | Permit and Operation Information |

## 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*: Brownlee Creek is not listed as chronically or periodically dewatered. The applicant provided physical measurements performed on 07/16/2007 and estimates of the monthly flow in Brownlee Creek from June to December. The measurement was done using a Marsh McBirney flow meter. The measurements as supplied by the applicant are listed in the table below.

| Month | Flow |
|---|---|
| June | 300 (estimated) |
| July | 162 (measured) |
| August | 95 (estimated) |
| September | 75 (estimated) |
| October | 65 (estimated) |
| November | 60 (estimated) |
| December | 60 (estimated) |

The applicant also provided information about existing water rights on Brownlee Creek and on the East Boulder River for five miles after the confluence of Brownlee Creek with the East Boulder. There are no other water rights on Brownlee Creek. The Montana Fish Wildlife and Parks has an instream flow reservation and the Stillwater mine has a water right out of the East Boulder River.

There will be impacts on the source from this proposed use, but those impacts are not expected to be significant.

***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:* The stream is not listed as water quality impaired. The proposed use will not have any return flows to the stream. The proposed use should have no significant impact on water quality issues in the area.

***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*: This proposed use of water should have no significant impact on groundwater quality or quantity in the area. All exploratory drilling and the vent construction will be done according to accepted practices and regulated by the US Forest Service.

**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 for the construction work will include a 5.5 hp high pressure suction pump with the suction end temporarily placed in Brownlee Creek. From the pump a one inch plastic pipe will take the water to a 1500 gallon holding tank. From the tank the water will be pumped with a "shotcrete" system to do the vent maintenance.

For the exploratory drilling the same suction pump and pipe will be used to fill a 500 gallon tank on the drill rig.

The proposed use may have some affect on the flow of this small stream during pumping. There will be minor impacts from the proposed diversion and operation, however those impacts are not expected to be significant or long lasting.

**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 has identified the Canadian Lynx, Small-winged Sedge, Gray Wolf, Wolverine and Grizzly Bear as threatened species or species of concern known to in the project area. The noise and commotion of this project may have some impact on the habitat of these animals. Though, this proposed activity will be similar to what is common experienced in that area.

***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 project area is not within a wetland, so there should be no significant impacts to wetlands from this proposed use.

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

*Determination*: There are no ponds included in the proposed 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*: This proposed use should not degrade soil quality beyond the normal impacts of the mine operation 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 will be some soil and vegetation disturbance during construction of the proposed project and there will be a possibility of some noxious weeds spread and establishment. It is expected that the Stillwater Mining Company will take an active roll to reduce that risk.

**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 should be no significant impacts on other environmental resources of land, energy, and water 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 locally adopted environmental plans and goals for Stillwater County and the Custer National Forest.

**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*: This project may be unsightly and noisy to recreational users of the Custer National Forest. Other than the noise and unsightly equipment there should be few impacts on recreational or wilderness activities from this proposed activity.

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

*Determination*: There should be no significant impact on human health from this proposed use.

**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: Any secondary impacts of this water use are overshadowed by the impacts of the larger mine operation that is occurring around the project. For a complete understanding of the Secondary Impacts the Stillwater Mine Scoping Document for the final EIS can be viewed at: http://www.deq.state.mt.us/eis/stillwater/ScopingDoc.pdf

Cumulative Impacts: This water use is expected to have little negative impact on water users down stream.

**3. *Describe any mitigation/stipulation measures:*** The applicant is aware that they would be required to cease diverting water if that use is adversely impacting the rights of downstream users.

**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 activity is reasonable, and is well within accepted practices for the on going mine operations and mineral exploration.

The no action alternative may force the Stillwater Mining Company to truck or fly the water they need for this activity to the site. This would require more traffic, more vehicles, and equipment that may create more impacts on the environment.

## *PART III. Conclusion*

1. ***Preferred Alternative:*** To issue the temporary permit and allow this project to continue.

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 <u>why</u> the EA is the appropriate level of analysis for this proposed action:* No significant environmental impacts were identified. No EIS is required.

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

*Name:* Tim Lewis
*Title:* Water Resources Specialist
*Date*: December 19, 2007