



United States  
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Agriculture

Forest  
Service

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# PINEAU MINE EXPLORATION PROJECT

## Environmental Assessment

Pintler Ranger District  
Beaverhead-Deerlodge National Forest

Powell County, MT

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## PURPOSE AND NEED, PROPOSED ACTION

### Introduction

This Environmental Assessment (EA) discloses the potential impacts of approving a Plan of Operations submitted to the Forest Service on July 17, 2008, by Mr. Robert Waller. The Plan of Operations addresses testing for placer gold on public domain lands on the Beaverhead-Deerlodge National Forest (BDNF). The proposed placer test site is located in the Pintler Ranger District, Gold Creek watershed, Powell County, Montana.

### Purpose and Need

Robert Waller of Bozeman, Montana has submitted a Plan of Operations (POO) to explore for minerals on unpatented mining claims located in T. 8 N., R. 12 W., section 11, approximately 16 miles northwest of Deer Lodge, Montana in the Master Mine area (see attached project map). Mr. Waller proposes to excavate a trench 40 feet wide by 200 feet long to bedrock and test for valuable minerals.

The role of the Forest Service is to ensure that mining activities minimize adverse environmental effects on National Forest System (NFS) resources and comply with all applicable environmental laws. Congress has not given the Forest Service authority to unreasonably circumscribe or prohibit reasonably necessary activities under the 1872 General Mining Law that are otherwise lawful.

### Proposed Action

Mr. Waller proposes to use an excavator to excavate a trench 40 feet wide by 200 feet long to bedrock. Approximately 1/3 acre of small diameter timber in the test trench area would be removed and an additional 1/3 acre of sapling size trees would be removed in the area where the test material would be spread out and tested. Topsoil, where present, would be removed before excavation and saved for use in reclamation. The non-gold bearing material (overburden) would be excavated down to the gold bearing material (pay gravels) and saved for use in reclamation. The pay gravels would then be spread out 4 to 6 inches thick in a clearing and a metal detector passed over the pay gravels to look for valuable minerals. After testing is completed the trench would be backfilled with the overburden and tested pay gravels and contoured. The topsoil would then be spread over the disturbance and seeded if needed. Access would be by existing road #636. Approximately 300 feet of a closed non-system road would be used to access the test trench location. Rocks used to close the road would be removed to allow access. No improvement to the closed road would be needed. Pickup trucks would be used to haul personnel, equipment and fuel during operations. Operations would occur sporadically during the summer months. The project should be completed in three summers.

### Laws, Regulations, Policy, and Forest Plan Direction

The authority for the Forest Service to insure that National Forest System lands, including those under mining claim locations, are used only for purposes required for and reasonably incidental to mining and in a manner that minimizes adverse environmental impacts, falls under the agency's broad authorities from the following statutes and case law, specifically:

- (1) *The General Mining Act of 1872*
- (2) *The Organic Act of 1897 (16 USC 478, 551).*

- (3) *Multiple Use Mining Act of July 23, 1955 (30 USC 612).*
- (4) *U.S. v. Richardson, 599 F. 2d 290 (1979); Cert. denied, 444 U.S. 1014 (1980).*
- (5) *Title 36 Code of Federal Regulations, Part 228, Subpart A - Locatable Minerals.*

The General Mining Act of 1872 is a United States federal law that authorizes and governs prospecting and mining for economic minerals, such as gold and silver, on federal public lands. This law, approved on May 10th, 1872, codified the informal system of acquiring and protecting mining claims on public land, formed by prospectors in California and Nevada from the late 1840s through the 1860s.

Provisions of the 1872 Mining Law were changed with the implementation of the Federal Land Policy Management Act of 1976 effective as of January, 1981. Many of the provisions of FLPMA revised the surface uses allowed on mining claims to halt by regulation or otherwise, unnecessary or undue degradation of the public lands allowed under the 1872 mining law. A portion of the FLPMA is the 43 CFR 3809 Surface Management regulations that were updated and published in December of 2001. These rules effectively replace many of the 1872 Mining Law provisions and require that mining reclamation, financial guarantees for reclamation to the Federal government, mining claim occupation permits, and detailed Mining Plans of Operations are to be submitted to the governing agencies prior to disturbing the surface.

The 1955 Multiple Use Mining Act (30 USC 612) restricts mining operators to using reasonable methods of surface disturbance that are appropriate to their stage of operation (U.S. v. Richardson (supra)). This legal principle is reinforced by the Forest Service 36 CFR 228 Subpart A regulations, which provide procedures for authorizing operations on the National Forests that are reasonably incidental to mining, but requires that such operations be conducted so as to minimize adverse environmental impacts. For a use to be reasonably incident, the type and level of use must be justified as being appropriate to the stage of mining activity in which the operation is legitimately engaged (i.e., prospecting, exploration, development, production, abandonment, or reclamation). In turn, the stage of mining activity with the related use must be required, justified, and appropriate, based on the nature and extent of the mineral resource present.

The proposed mineral exploration lies within the Flint Foothills Management Area of the Clark Fork Flint Landscape and is consistent with the February 2009 BDNF Revised Land and Resource Management Plan (Revised Forest Plan). The applicable Forest-wide goal (page 27) is to ensure that locatable minerals are developed on all parts of the Forest not withdrawn from locatable mineral entry in accordance with the 1872 Mining Law, regulations, and national direction.

## **Public Involvement**

A scoping letter dated February 18, 2009, describing the proposal was mailed to 166 interested individuals, organizations, and agencies. The letter requested comments to the proposal and requested that comments be postmarked by March 20, 2009. In addition, the proposal was listed in the BDNF Schedule of Proposed Actions (SOPA) list. We received one supportive response on the project.

## **Decision Process and Administrative Review**

This EA is not a decision document. It is a document disclosing the potential environmental impacts of implementing the alternatives. Based on the information in this analysis and consideration of public comments on the EA, the Responsible Official will document the decision. If the analysis finds no significant impacts to the human environment, the decision will be documented in a Decision Notice and Finding of No Significant Impact. If the analysis determines significant impacts may occur, an

Environmental Impact Statement will be prepared to further analyze the significant issues.

The Responsible Federal Official is the District Ranger for the Pintler Ranger District, BDNF. The decision will consider how best to accommodate Mr. Waller's mineral exploration proposal while protecting the area's resources through appropriate mitigation measures.

Mr. Waller could appeal the decision pursuant to either 36 CFR Part 215 or 36 CFR Part 251. Other parties could appeal the decision pursuant to 36 CFR Part 215. Following resolution of any appeal, Mr. Waller would need to change the Plan of Operations as described in the Decision Notice and resubmit it to the Forest Service along with any reclamation bond that is required. Once the Forest Service determines that the Plan of Operations has been changed as required, and that the bond instrument is acceptable, it would notify the proponent that the Plan of Operations is approved.

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## ALTERNATIVES

### Alternative 1—No Action

Development of this alternative is required by Forest Service Handbook 1909.15 (23.1) and the Council on Environmental Quality Regulations (40 CFR 1502.14(d)). In this alternative, the District Ranger would not approve the submitted Plan of Operations. No trenching would occur, and thus, no trees would be removed. This alternative would result in no impacts to forest resources.

The Forest Service has no legal right to deny exploration and mining proposals and would violate the claimant's statutory right to prospect and mine on lands open to operations under the 1872 Mining Law, as amended; therefore, the No Action alternative is included as a base to reflect the current status of the project area.

### Alternative 2—Proposed Action

The proposed action includes using an excavator to excavate a trench 40 feet wide by 200 feet long to bedrock. Approximately 1/3 acre of small diameter timber in the test trench area would be removed and an additional 1/3 acre of sapling size trees would be removed in the area where the test material would be spread out and tested. Topsoil, where present, would be removed before excavation and saved for use in reclamation. The non-gold bearing material (overburden) would be excavated down to the gold bearing material (pay gravels) and saved for use in reclamation. The pay gravels would then be spread out 4 to 6 inches thick in a clearing and a metal detector passed over the pay gravels to look for valuable minerals. After testing is completed the trench would be backfilled with the overburden and tested pay gravels and

contoured. The topsoil would then be spread over the disturbance and seeded if needed. Access would be by existing road #636. Approximately 300 feet of a closed non-system road would be used to access the test trench location. Rocks used to close the road would be removed to allow access. No improvement to the closed road would be needed. Pickup trucks would be used to haul personnel, equipment and fuel during operations. Operations would occur sporadically during the summer months. The project should be completed in three summers.

The following mitigation measures would become part of the approved Plan of Operations to minimize environmental impacts:

- A gate will be installed on the closed access road to restrict public motorized use in the area during the life of the project.
- Trench: The top 8-12 inches of soil should be removed and stored. The backfilled trench will be covered with salvaged topsoil.
- Clearing: The top 8-12 inches of soil, along with existing ground vegetation (grasses, forbs), should be removed and stored. The salvaged topsoil and vegetation will be spread over clearing once pay gravels and overburden are removed.
- The disturbed trench and clearing will be seeded with native seed if needed.
- A barrier will be erected around the test trench to prevent access by boreal toads.
- No fuels or toxicants will be stored within 150 feet of the pond.
- No operations or facilities associated with the project will be allowed within 150 feet of the pond.
- Equipment will be cleaned and inspected for noxious weeds and the site will be monitored for the presence of noxious weeds after the project is completed; noxious weeds will be treated if they are found.

## ENVIRONMENTAL IMPACTS

This section provides a summary of environmental impacts of the alternatives considered in detail. Further analysis and conclusion about the potential impacts are available in reports for each resource and other supporting documentation cited in those reports.

### **Past, Present, and Reasonably Foreseeable Activities**

Resource specialists considered (as appropriate) the following actions or activities in their analyses.

#### **Past/Present/Ongoing Activities**

- Mining and mineral exploration on private and NFS administered lands, timber harvest, and road construction associated with these activities; construction and maintenance of the power line.
- Continuation of livestock grazing activities on the Willow Creek Allotment.
- Continuation of recreation activities such as ATV riding, snowmobiling, camping, and trapping/hunting, firewood gathering.
- Routine Forest Service management activities, including road and trail maintenance, noxious weed control, special uses administration, fire management, etc. will continue within the analysis area.

**Reasonably Foreseeable Activities:** Other than the continuation of the present/ongoing activities, there are no other reasonably foreseeable activities planned within the project area.

### **Summary of Cumulative Effects**

No negative cumulative effects to heritage resources, watersheds/water quality, fisheries, amphibians, sensitive plant species, soil, or terrestrial wildlife species are anticipated from the project when combined with other past, present, and reasonably foreseeable activities.

## **Resources**

### **Heritage Resources**

A field inventory was completed and there were no heritage resource sites located in the proposed project area.

#### **Alternative 1: No Action**

Direct, Indirect, and Cumulative Effects

There would be no direct, indirect or cumulative effects to heritage resources with the No Action Alternative.

#### **Alternative 2: Proposed Action**

Direct, Indirect, and Cumulative Effects

There would be no direct or indirect effects to heritage resources with Alternative 2; there are no known or expected cumulative effects to heritage resources from Alternative 2.

## **Hydrology**

The proposal is located within the Gold Creek watershed, a tributary of the Clark Fork River. Gold Creek drains the north end of the Flint Mountains. It has impairments due to lead and loss of streamside vegetation from past mining activities. Most of the stream and associated riparian areas have been placer mined, except for some of the headwater areas.

This proposed action exists on a flat, dry bench area between two forks of Gold Creek. The nearest stream is about 1,000 feet away. A natural pond exists about 100-150 feet to the south of the proposed trench. This pond and the surrounding 150 foot buffer constitute a Category 3 Riparian Conservation Area (RCA) as described on page 300 of the Revised Forest Plan, RCAs can be changed through a site specific analysis, which occurred during a field trip in the fall of 2008. A dense stand of lodgepole pine exists between the proposed trench and the pond, which means the proposed trench does not influence the pond and is considered outside the established RCA. Due to its location and the scope of the proposed activities, no effects to streams or the pond are expected.

The project complies with applicable Revised Forest Plan standards and the Clean Water Act, including the total maximum daily load status.

#### **Alternative 1: No Action**

Direct, Indirect and Cumulative Effects

There would be no direct, indirect or cumulative effects to hydrology with the No Action Alternative.

### **Alternative 2: Proposed Action**

#### Direct, Indirect and Cumulative Effects

There would be no direct, indirect or cumulative effects to hydrology with Alternative 2.

#### **Vegetation**

The project area lies in a forested area, with lodgepole pine, subalpine fir, grouse whortleberry, beargrass and huckleberry being the dominant vegetation. The trench location is in the forested area and follows an old trail. The trees in this area are small diameter and densely stocked. The material for testing would be spread over an area to the northeast that is a flat, rocky area that was reclaimed approximately 17 years ago. The reclaimed area was planted with lodgepole pine approximately 15 years ago. Two noxious weeds, spotted knapweed and musk thistle, were observed near this area.

The proposed project was surveyed for Region 1 sensitive plants and sensitive plant habitats on September 18, 2008. No Region 1 sensitive plant species or sensitive habitats were observed during the field survey. No direct, indirect or cumulative impacts to Region 1 sensitive plants and sensitive plant habitats are expected.

### **Alternative 1: No Action**

#### Direct and Indirect Effects

There would be no direct or indirect effects to vegetation with the No Action Alternative. The existing vegetative condition would remain the same.

#### Cumulative Effects

Although noxious weed populations near the project area are currently low there is a risk that noxious weed spread could continue with the No Action Alternative.

### **Alternative 2: Proposed Action**

#### Direct and Indirect Effects

Direct impacts would include removal of individual plants through ground disturbance. Approximately 1/3 acre of small diameter timber in the test trench area would be removed and an additional 1/3 acre of sapling size trees would be removed in the area where the test material would be spread out and tested.

An indirect effect of soils disturbance can be the introduction and spread of noxious weeds, which can compete with native plants. Mitigation measures to reduce the spread of noxious weeds can limit their spread, but would not totally eliminate risk. Topsoil would be removed from these locations and replaced when the project is completed to help revegetate the area. Equipment would be cleaned and inspected for noxious weeds and the site would be monitored for the presence of noxious weeds after the project is completed and treated if they are found. No federally proposed, threatened, or endangered plant taxa occur in the proposed project area. No effects to proposed, threatened, or endangered plant species would occur as a result the proposed action.

#### Cumulative Effects

With the above mitigation measures, the proposed action should have no cumulative impacts on R1 sensitive plant species or potential habitat.

### **Soil**

Soils in the project area are very deep, well drained soils that formed in volcanic ash over drift derived from sandstone and siltstone. Surface textures are predominately silt loams with coarse fragment content

(rocks greater than 2 mm in diameter) greater than 35%. Generally, the soils in the project area are stable, erosion resistant, and productive. Previous mining activities occurred within the proposed project area in the 1970's and 1980's. The disturbance from these activities is still visible today; however, vegetation including trees and grasses has begun to reestablish on the site. The success of the revegetation is hampered mainly by the droughty nature and low organic matter content of the disturbed soils stemming from the mixing of the nutrient rich topsoil with subsoil.

### **Alternative 1: No Action**

#### Direct, Indirect, and Cumulative Effects

There would be no direct, indirect, or cumulative effects to soils with the No Action Alternative. The existing soil condition would remain the same.

### **Alternative 2: Proposed Action**

#### Direct and Indirect Effects

Soil impacts would consist of productivity reductions in the disturbed area. These reductions are expected to be temporary and would be regained over time. Mitigating measures designed to help ensure that reductions in soil productivity are not permanent is to salvage the top 8 to 12 inches of soil for reclamation. The roots, vegetation, and microbes present would provide a more productive soil than what is found at depth. The topsoil should be removed and stockpiled at both the trench and the clearing. Reclamation would also include seeding the disturbed area (trench and clearing) with native vegetation.

#### Cumulative Effects

Cumulative effects occur on the soil only when an action affects an area of soil that has already been affected in the past. Therefore, cumulative effects on soil for this project may occur at the site of previous disturbance, which is the clearing where the pay gravels are proposed to be spread. There is a potential for topsoil to be removed as the overburden and pay gravels are removed from the clearing and backfilled into the trench, thus creating a temporary reduction in productivity. Salvaging the top 8-12 inches of soil for reclamation use would help ensure that reductions in soil productivity are not permanent, but temporary effects that would be regained over time.

### **Threatened, Endangered, Sensitive, and Proposed Fish and Amphibians**

There are three sensitive aquatic fish and amphibian species and one Endangered Species Act (ESA) listed fish species that were analyzed for this project: westslope cutthroat trout (*Oncorhynchus clarki lewisi*), northern leopard frog (*Rana pipiens*), boreal toad (*Bufo boreas boreas*), and bull trout (*Salvelinus confluentus*).

Fisheries surveys and the Montana Fisheries Information System indicate Gold Creek watershed supports westslope cutthroat trout in both the Middle and South forks of Gold Creek less than one half mile from the project location. No records exist of bull trout inhabiting the Gold Creek watershed. A review of the literature indicates the nearest confirmed location of northern leopard frog is in Ravalli county, while the only known current populations of this species, west of the continental divide are located in Flathead and Lincoln counties. A visit to the site on September 18, 2009 documented boreal toads in the pond within 100 meters of the project location; this site is used for breeding.

### **Alternative 1: No Action**

#### Direct, Indirect, and Cumulative Effects

There would be no direct, indirect or cumulative effects to aquatic TES species with the No Action Alternative.

## **Alternative 2: Proposed Action**

### **Bull trout and Northern leopard frogs**

#### Direct, Indirect and Cumulative Effects

Neither bull trout nor northern leopard frogs are found anywhere near the vicinity of this small-scale mining project. Therefore, the project has no potential for direct, indirect, or cumulative effects to these species.

### **Westslope cutthroat trout**

#### Direct and Indirect Effects

No direct or indirect effects are expected due to the topography, small scale of the project, and the limited use of heavy equipment. Any impacts to the streams supporting westslope cutthroat trout are very unlikely.

### **Boreal toads**

#### Direct and Indirect Effects

Direct effects could include mortality of toads by two mechanisms. The first is by toads becoming trapped in the excavated pit. This pit would remain open for three years. Given the close proximity of the pit to a breeding site, some entrapment of toads in the pit is very likely – both adults and dispersing metamorphs. Some mortality would likely occur due to entrapment. This would be mitigated by requiring silt fencing surrounding the pit so toads cannot access it. The other pathway by which toads would probably suffer some mortality is by being crushed by the project proponents' vehicle as he accesses the project site. Traffic to the site is expected to be light since the proponent is a "recreational" miner and would likely not be at the site daily. No indirect effects to boreal toads are expected.

#### Cumulative Effects

In regards to the cumulative effects on aquatic species of implementing this project; past and ongoing activities that have contributed to the existing conditions for sensitive aquatic species include mining and mineral exploration on both private and NFS administered lands, timber harvest and road construction associated with both of these activities, plus the construction and maintenance of the power line. While these activities have impacted the quality of habitat for sensitive aquatic species, the location and scale of the Pineau Mine Exploration project does not contribute to the effects of these past and ongoing activities. It is foreseeable that all of the above listed types of activities may continue in the future but again, this project has such minimal scope that it does not cumulatively impact these species.

### **Compliance with Forest Plan Standards**

The project complies with the Revised Forest Plan by implementing the following standards:

- By implementing the required mitigation – to erect a barrier around the pit to prevent access by boreal toads – the project complies with the goal to maintain viable populations of sensitive species (Standard #5, page 18).
- No fuels or toxicants will be stored within 150 feet of the pond in order to meet Standard #25 (page 21).
- No operations or facilities associated with the project will be allowed within 150' of the pond (Standard #17, page 20).

## **Terrestrial Wildlife**

Wildlife species considered in this analysis include those designated by the US Fish and Wildlife Service as Threatened or Endangered, and those designated by Region 1 of the Forest Service as Sensitive (TES); and those designated as Management Indicator Species (MIS) by the BDNF. The wolf, fisher, wolverine, and black-backed woodpecker are the TES species potentially affected by the mining proposal or disturbance associated with the activity. The MIS for the BDNF that are carried forward in this analysis are elk and wolverine.

### **Alternative 1: No Action**

Direct, Indirect, and Cumulative Effects

There would be no direct, indirect or cumulative effects to wildlife TES species and MIS species with the No Action Alternative.

### **Alternative 2: Proposed Action**

#### **Gray wolf**

Direct, Indirect and Cumulative Effects

There would be no direct effects from this proposal. Wolves use a wide variety of habitats and are not dependent on specific forest conditions. Removal of trees for a trench and use of the reclaimed area would have no effect on habitat for wolves.

Indirect effects would be a result of disturbance. The gate would restrict public motorized use into the project area. The project area is in close proximity to a primary road and is not in a security area. If wolves did move through the area while activities were occurring, some shift in movements could be predicted. However there would be no measurable effect on wolves or prey species (elk and mule deer).

#### **Fisher**

Direct, Indirect and Cumulative Effects

Clearing for the trench would affect less than 1 acre of unsuitable habitat and would have no effect on habitat over the larger area.

Opening of the closed road would not have a measurable effect on fisher habitat or increase vulnerability to trapping. The road bed is already there and only about 300 feet would be opened. The gate would restrict public motorized use into the project area.

#### **Wolverine**

Direct, Indirect and Cumulative Effects

No direct, indirect or cumulative effects are anticipated to wolverines. There are no high elevation areas with persistent snow in the analysis area, modeled habitat is over a mile away, and there are no proposed activities during the winter. Implementation of this proposal would not affect viability of wolverine populations or distribution of habitat across the planning area.

#### **Black-backed Woodpecker**

Direct, Indirect and Cumulative Effects

At the time of the field visit, insect mortality was low and the area does not provide preferred habitat. Direct effects to breeding woodpeckers are unlikely given black-backed woodpeckers appear in low densities in unburned habitats, and none were documented during surveys in areas of heavy mountain pine beetle infestation to the east.

Less than one acre of trees would be cleared to allow room for excavation of the trench. Since this area does not provide burned or insect-infested habitat, there would be no effect on primary or preferred habitat.

The other ongoing activity that could affect habitat for black-backed woodpeckers includes firewood cutting. Firewood cutting would result in the removal of standing dead trees, but again since there are no burned or insect-infested stands in the area, there would be no effect on primary or preferred habitat.

Direct, Indirect, and Cumulative Effects: There would be no direct, indirect, or cumulative effects to wildlife TES species or Region 1 sensitive species with the proposed action.

### **Elk**

#### Direct, Indirect, and Cumulative Effects

There would be no effects to elk. Implementation of this proposal would not affect viability of elk populations across the planning area. Habitat and elk security would not be affected.

### **Consistency with Forest Plan Direction**

This proposal is consistent with applicable Revised Forest Plan standards for wildlife secure areas and elk security. The remaining standards are not applicable as they are tied to vegetation management, and species or other actions that are not proposed under this proposal.

## **AGENCIES OR PERSONS CONSULTED**

The following people participated in the analysis:

Steve Kelley – ID Team Leader

Steven Gerdes – Zone Fisheries Biologist

Dave Salo – Hydrologist

Carley Gibson – Ecologist

Sara Rouse – Soil Scientist

Tammy Cherullo – Archeologist

Betsy Hamann – Wildlife Biologist

Other agencies contacted include:

Montana Fish, Wildlife, and Parks

Montana Department of Environmental Quality

Montana State Historic Preservation Office

Project Map:

