

ENVIRONMENTAL ASSESSMENT

Fog Cutter Mining Activities

EA # OR-118-04-026

August 2004

Proposed agency actions: Approve Fog Cutter mining claimants' plan of operations for mining test pits

Type of statement: Environmental Assessment

Lead agency: United States Department of the Interior
Bureau of Land Management
Medford District, Glendale Resource Area

For further information: Joan R. Resnick
Glendale Field Manager
BLM Medford District Office

Chapter 1 - Purpose and Need

1.0 Purpose and Need for the Proposed Action

Three mining claimants have submitted a plan of operations for mining test pits to be evaluated for approval by the Medford District BLM Glendale Resource Area. The claim is located at T33S, R4W, Section 15 NE ¼ of NW ¼. The BLM must analyze the proposed activities to “maintain exploration and development opportunities for leasable and locatable energy and mineral resources” (USDI-BLM 1995).

1.1 Background and Existing Environment

The Fog Cutter mining claimants have obtained a federal mining claim for this site. This parcel of BLM land has been mined for the past several decades and is highly disturbed. The proposed activities would be contained within a ¼ - 2 acre parcel located within Grave Creek Watershed (fifth-field). Any additional mining activities proposed beyond those described in the alternatives would require an additional plan of operations submitted to the Medford District BLM and subsequent analysis. The claimants have not proposed to cut any hardwood or conifer trees within their excavation activities.

The Glendale Resource Area’s Young Stand Management and Fuels Reduction Treatments within Grave Creek Watershed Project Area overlaps with the proposed mining activities analyzed for in this environmental assessment (EA). There are no treatment units from the previous EA within the boundaries of the proposed mining activities. However, as a result of this overlap in project area all wildlife, botany, and cultural surveys required for the Fog Cutter EA have already been completed in the Young Stand Management and Fuels Reduction Treatments within Grave Creek Watershed EA in 2003.

An agreement was signed on May 5, 2004, by the Fog mining claimants to return any excavation work conducted in pond #3 to the condition left by the BLM’s riparian restoration work. If the mining activities described in alternative 3 are approved, the bond estimate submitted to the BLM would need to include the cost of restoring this site to its riparian restoration condition.

The mining claimants’ plan of operations is subject to changes or conditions that are necessary to meet the performance standards of 43 CFR 3809.420 and to prevent unnecessary or undue degradation. The BLM may require the claimants to incorporate additional agency permits into their plan of operations, final approved engineering designs and plans, or other conditions of approval from the review of the plan of operations.

1.2 Plan Conformance

This Environmental Assessment (EA) tiers to and conforms with the *Final Supplemental*

Environmental Impact Statement and Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (FSEIS, 1994 and ROD, 1994); the Medford District Proposed Resource Management Plan/Environmental Impact Statement and the Medford District Record of Decision and Resource Management Plan (EIS, 1994 and RMP, 1995); the Final Supplemental Environmental Impact Statement: Management of Port-Orford-Cedar in Southwest Oregon (FSEIS, 2004 and ROD, 2004); the Final Supplemental Environmental Impact Statement To Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines (FSEIS, 2004 and ROD, 2004) and the Final Supplemental Environmental Impact Statement Clarification of Language in the 1994 Record of Decision for the Northwest Forest Plan National Forests and Bureau of Land Management Districts Within the Range of the Northern Spotted Owl, Proposal to Amend Wording About the Aquatic Conservation Strategy (FSEIS, 2003 and ROD, 2004), and the Young Stand Management and Fuels Reduction Treatments within the Grave Creek Watershed Environmental Assessment. The term “tiering” refers to the coverage of general matters in broader environmental impact statements, as those listed above. The *Grave Creek Watershed Analysis* is incorporated by reference and is not a NEPA decision document.

1.3 Decisions to be Made Based on This Analysis

The Glendale Resource Area Field Manager must decide:

- 1) Whether or not the impacts of the proposed action are significant to the human environment beyond those impacts addressed in previous NEPA documents. (If the impacts are determined to be insignificant, then a Finding of No Significant Impact (FONSI) can be issued and a decision can be implemented. If any impacts are determined to be significant to the human environment, then an Environmental Impact Statement must be prepared before the Manager makes a decision).
- 2) Whether to implement the proposed action, or defer to the no action alternative.
- 3) Determine whether the selected alternative is consistent with the Resource Management Plan.

1.4 Permits

The mining claimants are responsible for obtaining any required federal, state, or county permits, licenses, and/or entitlements necessary to implement the proposed activities.

Under the No Action Alternative, no additional permits would be required.

Chapter 2 - Alternatives

2.0 Introduction

This chapter describes and compares the proposed action alternatives and the No Action alternative.

2.1 Alternative 1:

The Glendale Resource Area of the Medford District of the Bureau of Land Management proposes to approve the Fog Cutter claimants' plan of operations for test pit mining. The claimants intend to use a small backhoe to excavate 8-12 four ft by eight ft test pits down to bedrock (approximately 8 ft deep) within the riparian reserve of Grave Creek (pond #1). Selected material from the bottom 2 inches above bedrock would be transported by backhoe to the claimants' trommel. The trommel would be located approximately 75 yards away from the testing sites. The removed material would be processed by a sluice box or by panning. Water for the trommel and sluice box would be fed from the uppermost spring fed mining pond (pond #1). A 5-horsepower engine would supply a 2 inch water line via pump to the trommel. The mining claimants would utilize 25 to 200 gallons of surface water per day for proposed activities. If subterranean water is hit, a smaller suction dredge may be used to clean bedrock crevices in the excavated hole. Effluent from the trommel would be fed into the test pit or one of the previous mining pits for slow percolation into the aquifer. Should adequate gold be found, the size of the excavated hole would be doubled and retested. If inadequate gold is found, the excavated material would be replaced with original contours. Test pits would be refilled with subsoil first followed by topsoil.

The mining claimants propose to have two sets of testing periods during permitted work periods: (1) 2 months during the summer and fall of 2004 and (2) 3 months in the summer of 2005. Up to 25-150 cubic yards of material would be removed for the extent of testing activities under this alternative. There would be no more than two testing pits open at any given time. The testing activities would encompass an area up to 2 acres under this alternative.

2.2 Alternative 2

Under this alternative, the bedrock gravels in pond #2 and #3 would be dredged. Dredged material would be processed in the same manner as in alternative 1. The duration of work would also be the same as stated in alt. 1. Testing activities would involve an area of ¼ - ½ acre.

2.3 Alternative 3

Mining activities would be similar to alt. 1, however the location of testing work would be located at the west end of the mining claim, 250 to 350 yards west, between a decommissioned road and Last Chance Creek. There would be 6-8 possible test pits for excavation testing with a backhoe. Testing activities would involve an area of up to 2

acres.

2.4 Alternative 4: No Action Alternative

Under the No Action Alternative, the BLM would decline the claimants' plan of operations due to a result in unnecessary or undue degradation of public lands (43 CFR 3809.411). The mining claimants could submit additions to their plan of operations to mitigate impacts to the natural environment. The BLM would continue current management direction under the Medford District Resource Management Plan for the project area.

Chapter 3 – Affected Environment

3.0 Introduction

This section describes relevant resource components of the existing (baseline) environment.

The location of the proposed action is:

Analytical watersheds (fifth field):	Grave Creek
Project area (sixth field watershed):	Middle Rogue Watershed
County:	Jackson County
Legal description:	T33S, R4W, Sec.15,

See enclosed general location map of the project area.

Grave Creek is a 7th order tributary of the Rogue River, and supports coho salmon and steelhead trout. Southern Oregon/Northern California coho salmon are listed as Threatened under the Endangered Species Act. Although Grave Creek adjacent to the mining site is habitat for coho salmon, coho have not been found closer than one mile downstream of the proposed testing activities. The land has been placer mined intermittently since the mid-1850s. The parcel has been in this condition for many decades. The potential range of the western pond turtle (Bureau Sensitive & State Candidate Species for Threatened and Endangered) is present within the project area, however there are no confirmed sightings of this species at this location.

Currently there is a moderate to high level of disturbance at this site. The previous claimant has left large areas of exposed soil. In many areas, this exposed soil has been compacted and there is little re-vegetation occurring. Some natural reclamation has been occurring for several years within the less compacted areas of alternative 1 & 3. Between the previous trenched areas and mining pits are large mature trees. This is especially prevalent within the alternative 3 site.

Cultural surveys were completed November 20, 2003 within this section for the Young Stand Management and Fuels Reduction Treatments within the Grave Creek Watershed EA, which project area overlaps the proposed fog cutter mining activity area. Nothing of cultural significance was located as stated in the cultural survey report.

Invasive Species known to be in the area include bull thistle (*Cirsium vulgare*), scotch broom (*Cytisus scoparius*) and meadow knapweed (*Centaurea pratensis*) (see ROD for Medford District RMP -1995, pg. 92). These plants occur throughout the Grave Creek Watershed, primarily on disturbed sites that lack crown cover such as along roads. Considering the levels of disturbance which have already occurred within the Fogcutter project area, coupled with the predicted amounts of future disturbance due to mining activity, conducting botanical surveys within the impacted area is not practical.

Fritillaria gentneri, *Limnanthes floccosa ssp. grandiflora*, *Arabis macdonaldiana*, and *Lomatium cookii* are listed as federally endangered under the Endangered Species Act. Only *Fritillaria gentneri* has been found within and has a range which extends into a small portion of the Glendale Resource Area. The proposed Project Area lies outside the range and habitat for all four species.

Chapter 4 - Environmental Consequences

4.0 Introduction

This chapter provides discussion of the potential environmental impacts to the proposed actions and the no-action alternative.

Table 4-1 Critical Elements by Alternative. The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EAs. The Y=yes and N=no designates whether each resource or issue would be affected under each specified alternative.

Resource or Issue Affected by Alternative	Alternative (Y or N)				Resource or Issue Affected by Alternative	Alternative (Y or N)			
	1	2	3	4		1	2	3	4
Air Quality	N	N	N	N	Threatened & Endangered Species	N	N	N	N
Area of Critical Environmental Concern (ACEC)	N	N	N	N	Wastes, Hazardous/Solid	N	N	N	N
Cultural	N	N	N	N	Water Quality	Y	Y	Y	N
Farmlands, Prime/Unique	N	N	N	N	Riparian Zones	Y	Y	Y	N
Flood plains	N	N	N	N	Wild & Scenic Rivers	N	N	N	N
Native American Religious Concerns	N	N	N	N	Wilderness	N	N	N	N
Invasive Species	Y	Y	Y	Y	Environmental Justice	N	N	N	N
Energy	N	N	N	N	*Special Status	N	N	N	N

*refers to BLM special status wildlife and plant specials

Direct, indirect and cumulative effects were considered. Direct effects are site-specific and result from the immediate action. Indirect effects occur at a different place or time than the proposed action.

4.1 Invasive Species

Alternatives 1-3

For the first ten years after actions in these alternatives, ground disturbance may allow noxious and invasive species to spread and to become established in the mining activity area. The amount of disturbances would be small and as such would have only minor effects towards the spread of noxious and invasive species.

Alternative 4: No Action

No impacts would be anticipated.

4.2 Vascular Plants

Alternatives 1-3

Past surveys were conducted for the Young Stand Management and Fuels Reduction Treatments within the Grave Creek Watershed EA within the same section. These surveys have not revealed any Bureau Special Status species which would require mitigation.

Alternative 4: No Action

No impacts would be anticipated.

4.3 Wildlife

Alternatives 1-3

Under the action alternatives, there is potentially a small beneficial effect from excavations that can hold water for wetland associated wildlife.

Alternative 4: No Action

No effects are anticipated for wildlife.

4.4 Water Quality/Riparian Zones/Fisheries

Alternative 1

Creating test pits next to Grave Creek along the channel margin could result in a high potential for streambank destabilization and channel abandonment. Pits dug this close to the channel would remove material that is currently providing the structural integrity to the stream banks, making it prone to failure. Furthermore, the addition of water to the pits, as a result of groundwater interception and stream water seepage through the banks, could cause slumping of the remaining bank material into one or more of the pits, resulting in further destabilization. If failure of the stream bank were to occur during high flow events, this could potentially cause a partial abandonment of the existing channel and the creation of a new channel through the pit area within the existing floodplain. With continued excavation of test pits from season to season, numerous new channels could be formed, creating a localized chronic source of sediment to Grave Creek.

Sediment generated from digging test pits that are located near the stream is likely to enter the stream during high flow events. This could increase the amount of previously stored sediment from the floodplain that enters the stream, until such time that vegetation is able

to reestablish over these exposed soils. Continuous digging of test pits would cause prolonged exposure of bare soil areas. Though likely to be minor, this could also result in a localized chronic source of sediment to Grave Creek. Since these pits would be located right along the channel margin, sediments entrained from these pits would not have an opportunity to become deposited in natural sediment traps located within the riparian zone such as riparian vegetation, downed logs, and root wads. Sediment deposition in Grave Creek could adversely affect production of aquatic insects and reduce spawning success of coho salmon, steelhead and cutthroat trout.

To ensure compliance with the Aquatic Conservation Strategy all mining test pits described under alternative 1 should be located outside a riparian buffer of at least 50 feet from the low flow extent of the stream. Additionally, no activities associated with this mining operation should occur within this buffer zone, including removal of vegetation, heavy equipment operation, or deposition of mine tailings.

If these mitigation measures are properly implemented, alt.1 should have no effect on Grave Creek. Mulching and seeding of the site would help to reduce erosion from overland flow, and would help to stabilize the loose, bare soils that are returned to the pits when the mining activity is done for the season. Leaving a riparian buffer would further reduce sediment input by creating a natural sediment trap between the activity areas and the creek, making impacts from sediment input minimal and insignificant. Test pit activity would have no effect on fish or other aquatic species in Grave Creek under this scenario.

Alternative 2

Dredging activity within ponds #2 and #3 would contribute some muddy water to Grave Creek during the summer, even if excavation of the ponds is limited to existing boundaries, because flow from a spring flows through ponds #2 and #3 before entering Grave Creek. Aquatic insect production in Grave Creek in the immediate vicinity of the outlet of pond #3 could be suppressed during summer because of sediment deposition. Sediment levels would likely return to background levels following the first winter after mining has ceased.

If activity takes place within ponds #2 or #3, a removable sediment trap such as a sediment boom and 2-3 weed-free hay bales should be placed at the outlet of pond #3 to prevent muddy water from entering Grave Creek during summer and ensure compliance with the ACS. Sediment filtering materials (hay bales) should be removed no later than September 15th of 2004. Some of the sediment dredged and replaced into ponds #2 and #3 could be washed into Grave Creek during the first winter when streamflow increases to the point that flow in the side channel (through the ponds) increases. An unknown portion of the sediment would be trapped by groundcover in the floodplain. Effects on fish and other aquatic species in Grave Creek would be insignificant because the amount of sediment transported out of the ponds into Grave Creek during winter would be minimal and it would be quickly diluted and dispersed by flow that would be several magnitudes greater than in the side channel.

Any expansion of ponds #2 or #3 toward Grave Creek could cause bank instability similar to that described in Alternative 1. Limiting mining activity to the current boundaries of pond would ensure that streambank stability is not compromised and that there would be no major adverse effects on aquatic species in Grave Creek.

With the implementation of mitigation measures described above, the proposed activity would not introduce a significant amount of sediment to the stream, or cause any additional destabilization to the stream banks. The root wad located at the margin of Grave Creek and the side channel entrance of pond #1 should remain at its current location to minimize the potential for Grave Creek to change its course and develop a major channel through ponds #2 and #3.

Alternative 3

Anticipated impacts are similar as those in Alternative 1 for hydrologic conditions and aquatic species.

Recommended mitigation measures would be similar to those in alternative 1, with the following addition. Effluent water from testing activities, described in alternative 3, should be spread over the forest floor to percolate into the soil, or piped into existing test pits, or any new test pits, to prevent sediment from entering Grave Creek and ensure compliance with the ACS.

Alternative 4: No Action

The project area is in a highly disturbed riparian area due to intermittent mining activities since the 1850s. The no action alternative would not contribute any further sedimentation into Grave Creek beyond background levels. There would be no effect on fish or other aquatic species.

4.5 Cumulative Effects

The Grave Creek watershed has been extensively affected over the last 150 years by placer mining, timber harvest, road construction and rural residential development. All of these activities have, or are still contributing varying levels of sediment to Grave Creek, and its tributaries, and have degraded riparian habitat. It is expected that all of these activities (except large scale placer mining) will continue to influence sediment inputs into Grave Creek indefinitely. Riparian Reserves limit the effects of most federal projects by acting as sediment traps. If the recommended mitigation measures are not properly implemented, activities associated with this site could cause an additional increase to what is likely already above normal sediment loads in Grave Creek. Potentially this could adversely affect habitat conditions for fish and other aquatic organisms.

The mitigation measures above would ensure that none of the alternatives would further degrade stream habitat or riparian conditions, as measured at the 5th field watershed scale.

Any effects of the various alternatives would be localized and short term, and well within the range of natural variability for this stream system. Water quality would be maintained in the long term.

No long-term or negative cumulative effects are expected to occur to threatened, endangered or special status species.

4.5 Additional Mitigation Measures

The additional mitigation measures described in this section are recommended for the mining claimant's design to minimize negative impacts on the human environment for all of the action alternatives (alts. 1-3).

The water quality mitigation measures described below would also ensure that all activities within this project would be consistent with the Aquatic Conservation Strategy (ACS) of the Northwest Forest Plan. The intent of the ACS is to maintain and restore the ecological health of watersheds and the aquatic ecosystems on public lands (USDA/USDI 2003). The strategy was developed to protect salmon and steelhead habitat on federal lands. Adherence to the ACS objectives affect many activities on federal lands, usually by restricting or preventing land disturbing activities from occurring in riparian areas.

Water Quality

The use of heavy equipment (backhoe) within the riparian reserve should be restricted to the period between June 15 through September 15 for each year in accordance with Oregon Department of Fish and Wildlife (ODFW) in-stream work period guidelines. This period may be extended at ODFW's discretion.

Bare soil areas should be mulched with hydro-seeding, weed-free straw, or bark chips, etc. and native grass seeded or other approved seed mix used, during the fall to discourage invasion of noxious plant species and to retard soil erosion.

Hydraulic fluid and fuel lines on heavy mechanized equipment should be in proper working condition in order to minimize leakage into streams.

Waste diesel, oil, hydraulic fluid and other hazardous materials and contaminated soil near the stream should be removed from the site and disposed of in accordance with Department of Environmental Quality regulations.

Equipment refueling should be conducted within a confined, secured area outside the stream channel such that there is minimal chance that toxic materials could enter the stream.

Equipment containing petroleum products should not be stored in a stream channel at anytime.

Cultural Resources

If at anytime during project operation cultural material is unearthed the project should be suspended immediately and a BLM Archaeologist would be contacted to evaluate the unearthed materials.

Invasive Species

Heavy equipment should be washed before moving onto the project site in order to remove oil and grease, excessive soil and prevent the spread of noxious weeds and disease.

Chapter 5 - Persons and Agencies Consulted

5.0 Persons and Agencies Consulted

A legal advertisement will be placed in local newspapers to announce to the public that the Glendale Resource Area is requesting public comments on the proposed test pit mining activities. The EA will also be available for review at the BLM Medford District Office, the Medford District's web site (www.or.blm.gov/Medford/planning) or by request. In addition, notification of this proposal will be sent to the Oregon Department of Fish and Wildlife, the Oregon Dept. of Forestry, county commissioners for the affected county, and interested individuals. These announcements will be made following completion of this environmental assessment and before a decision is made.

A 9 day comment period will begin after public notification in the local newspapers. Comments, including names and street addresses of respondents, will be available for public review. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection on their entirety.

5.2 List of Preparers

<u>Name</u>	<u>Title</u>	<u>Primary Responsibility</u>
Bob Bessey	Fish Biologist	Fisheries
Rose Hanrahan	Hydrology Technician	Hydrology
Colleen Dulin	Hydrologist	Water Quality/Riparian/Soils
Michael Bornstein	Wildlife Biologist	Wildlife
Michelle Kohns	Ecosystem Planner	NEPA
Sherwood Tubman	Ecosystem Planner	NEPA
Rachel Showalter	Botanist	Plants and Fungi
Dustin Wharton	Engineer	Roads
Amy Sobiech	Archaeologist	Cultural Resources

The Proposed Action has been screened for compliance with the Endangered Species Act, The American Indian Religious Freedom Act, Historic Preservation Act, Bureau of Land Management policies related to the ecosystem objectives and concepts in the Medford District Resource Management Plan (RMP) and with the Aquatic Conservation Strategy of the Northwest Forest Plan. Furthermore, this action has been screened from a landscape perspective and there are no effects anticipated from this action that would foreclose future management options in relation to the watershed management objectives identified through the Ecosystem Analysis.


Ecosystem Planner
Reviewed for format and consistency

Aug 13, 2004
Date

