



United States
Department of
Agriculture

Granite Area Mining Projects

Draft Environmental Impact Statement

Forest Service
Pacific Northwest
Region



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Umatilla National Forest

North Fork John Day Ranger District



Abstract:

The Forest Service proposes to approve Plans of Operation on 16 mining claims located within the Granite Creek Watershed on the North Fork John Day Ranger District, Umatilla National Forest. Recently the Columbia River bull trout and Mid Columbia steelhead trout were listed as threatened under the Endangered Species Act. Both these species are found in the watershed. In addition, a number of streams in the watershed are on the State of Oregon “303(d) list”. Two action alternatives were developed to assess the issues raised through scoping. Key issues centered on water quality, aquatic habitat and the listed fish species. After reviewing the effect of the proposed action and alternatives, the Responsible Official has selected Alternative 3 as the Preferred Alternative.

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USDA Forest Service
Pacific Northwest Region



Umatilla National Forest
North Fork John Day Ranger District

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SUMMARY

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LOCATION AND OVERVIEW OF THE AREA

The analysis area is located on the North Fork John Day Ranger District, Umatilla National Forest. The decision area includes approximately 320 acres of claimed lands within Grant County, Oregon. It is within the Boundary of the Granite Creek Watershed. The legal description of the decision area is as follows: T8-10S, 35, 35-1/2E, W.M. surveyed. Some proposed activities are within the boundary of the North Fork John Day Wilderness Area.



Gold was discovered near the town of Granite, July 4, 1864, and a small gold rush shortly followed. Initially gold production in this area was placer gold mined from the gravel and bars of streams. During the late 1860 and 1870's, mining districts were established as placer miners scattered about the territory. Since there were not yet any counties established, the districts were a means of keeping track of where specific claims were located. Vein deposits were discovered soon after the advent of placer mining. Quartz mines were worked as early as the 1870's in the Granite area. In the late 1880's, lode mining began to develop rapidly with the advent of equipment such as the "pneumatic" drill, the stamp mill for crushing ore, and new chemical methods to extract gold from it's alloys. In 1938, the Porter Brothers dredge was built near Granite. During the next several years, portions of Granite, Bull Run, Clear and Olive creeks were dredged. Numerous rock piles, the result of the dredging operations, are still visible along these streams.

Currently, some exploration is taking place but no major production is occurring. Most of the existing mining activity consists of small-scale placer operations.

PURPOSE AND NEED

On July 10, 1998, Columbia River bull trout (*Salvelinus confluentus*) were listed as threatened under the Endangered Species Act (ESA). On May 24, 1999 Mid Columbia steelhead trout (*Oncorhynchus mykiss*) were listed as threatened under the ESA. Both of these species are found in streams located within the Granite Creek watershed.

Under the Surface Use Regulations (36 CFR 228.4), a Notice of Intent is to be filed for any mining operation, which might cause disturbance of surface resources. If through an analysis of the Notice of Intent, the District Ranger determines that the proposed operation will cause a significant disturbance, or if the operator initially plans a significant surface disturbance, the regulations require that a Plan Of Operation be filed. Operations, which cause a significant surface disturbance, may require a reclamation performance bond. At any time during operations under an approved plan of operations, the authorized officer may ask the

operator to furnish a proposed modification of the plan detailing the means of minimizing unforeseen significant disturbance of surface resources.

The District Ranger on the North Fork John Day Ranger District has determined that many of the existing mining claims located within the Granite Creek watershed will likely cause significant disturbance of resources. This finding is based on the direct and indirect effects the mining operations could have on threatened bull trout and steelhead trout.

Claims in the area fall into one of two categories. On some claims, there is an existing Plan of Operation that was approved before the listing of bull trout and steelhead trout as threatened. Since conditions have changed since the Plans were approved, there is a need to approve modifications to these plans, as specified in 36 CFR 228.4(e), which include the changes that will be made to mitigate the effects on the two newly listed species.

Other Claims located within the watershed and determined to likely cause significant disturbance, do not have an approved Plan of Operation. There is a need to approve Plans of Operation, as specified in 36 CFR 228.4(a), submitted by the operators for these claims.

PROPOSED ACTION

The proposed action is to approve 16 plans of operation for mining claims located within the Granite watershed on the Umatilla National Forest. The proposed action is a compilation of plans submitted by claimants operating within this area. A plan of operation includes “Information sufficient to describe or identify the type of operations proposed and how they would be conducted, the type and standard of existing and proposed roads or access routes, the means of transportation used or to be used as set forth in 36 CFR 228.12, the period during which the proposed activity will take place, and measures to be taken to meet the requirements for environmental protection in 36 CFR 228.8”. Generally, plans of operation are reviewed and updated every 5 years or sooner if unforeseen circumstances arise and a change in the operation is necessary. In preparation for this analysis, claimants were contacted and asked to update their plans of operation. In some cases, revised plans were submitted and two claimants who recently purchased existing claims submitted new plans. However, in most cases claimants said they did not wish to change their existing plan and the plan currently on file with the Forest Service should be included in the proposed action. Several of the miners contacted indicated that they were only going to do assessment work in the foreseeable future and it was determined that a Plan of Operation was not necessary. On claims where no valid plan of operation was on file, and the claimant did not submit one for this analysis, it was assumed that assessment work was the only activity planned during the next 5 years.

KEY ISSUES

Water Quality

Past management practices have altered water quality throughout the Granite Creek Watershed. Mining has reduced the potential of the riparian areas. Shade has been removed along some streams, resulting in increased summer water temperatures. Historic mining is the overriding influence on morphology of the streams. Placer, hydraulic, and dredge mining

affected many channels in this watershed and few have been able to repair their morphology. Past timber harvest and road building has also negatively affected water quality in the watershed. Stream flow, water quality and the timing of flows have been affected by changes in vegetative cover. Road density is high in many of the sub-watersheds, and roads located within riparian areas are common.

Most of the respondents to scoping expressed concern about the effects continued mining would have on the water quality in the Granite Creek watershed. They point out that continued mining, in combination with other activities within the watershed, further degrade water quality. It was pointed out that Granite Creek and Clear Creek are on Oregon's 303(d) list of impaired waters, and their tributaries. It was suggested that any activities permitted in the area must be designed to improve water quality.

Others believe that the mining being proposed will have no effect on water quality. They state that existing State regulations, as well as Forest Service mandated mitigation are sufficient to protect water quality.

Fish and Aquatic Habitat

Granite Creek and its tributaries support runs of spring Chinook salmon and summer steelhead. Granite Creek is a major tributary to the North Fork John Day River. The John Day River is the last major stream in the Northwest to have free runs of Chinook and Steelhead, due to the lack of dams on the River itself. Historically, bull trout, redband trout and the anadromous fish species occupied the entire watershed. Stream surveys for streams in the watershed indicate there is some good habitat, but other areas have poor to fair habitat. Stream cover, streambank stability, pool habitat, and stream temperatures are limiting spawning and rearing habitat for anadromous fish species and bull trout.

The long-term trend for average number of redds per mile has been declining since 1959 for spring Chinook. Historically the North Fork John Day River and the mouths of its tributaries have been used by steelhead for spawning and rearing habitat. Presently, fish populations are at a low level. Historically bull trout inhabited most of the North Fork John Day River drainage and its tributaries. Presently only small populations exist in isolated sections of the drainage. Bull trout are at moderate to high risk throughout this drainage and are at high risk in the upper North fork.

There is little question that an overall decline in the fisheries resource within the Granite Creek watershed has occurred. However there is disagreement over what factors are responsible for this decline. Many of the miners believe that the decline has more to do with ocean harvest, dams and Columbia River gill nets than mining operations. They point out that mining has occurred in the drainage for over 100 years, yet fish populations only started to decline within the last 20 years.

Others believe that mining, together with the cumulative effects of other activities managed by the Umatilla National Forest has caused significant watershed and fish habitat damage within the project area and downstream.

ALTERNATIVES

The Interdisciplinary Team considered various approaches to meeting the legal requirements for a No Action Alternative. The 40 CFR regulations, which were developed to implement the National Environmental Policy Act, require that a No Action Alternative be analyzed to establish a baseline for the effects of alternatives. No mining was considered for the No Action Alternative, but the Team determined that no mining was an action, since it would represent a change from the current situation.

Alternative 1 – No Action

The No Action Alternative is defined as no change from the current situation. The Plans of Operation for the 16 claims included in the analysis would not change. This alternative maintains the current situation; it allows currently approved Plans of Operation to continue. No revised modifications to existing plans or proposed new plans would be implemented. This alternative cannot be implemented, since Forest Service Regulations in 36 CFR 228, subpart A, does not provide for denying a reasonable Plan of Operation.

Alternative 2 – Proposed Action

Alternative 2 is the Plans of Operation as submitted by the claimants. In some cases revised plans were submitted, but in most cases the proposed action includes the plan currently on file with the Forest Service. In addition to the Plan submitted by the claimant, applicable Management Requirements as well reclamation plan and where necessary a reclamation bond were added to the Plan. The same requirements are incorporated in Alternative 3.

Alternative 3

The intent of alternative 3 is to minimize adverse environmental impacts on National Forest surface resources [36 CFR 228.8]. In addition to the management requirements identified for Alternative 2 and 3, mitigation will be added to individual Plans of Operation to address specific resource concerns related to those operations. In addition to this mitigation, the following other actions are incorporated into Alternative 3:

1. Forest Service Road 1035-012 will be gated and motorized access will only be available to the miners with claims along this 1.23 long mile road. Although designated as a closed road on the District Access and Travel Management Plan, the road currently remains open.
2. A focused Roads Analysis was completed for the area in and adjacent to the 16 mining claims in this analysis. The need for each existing road in the area was reviewed and as a result of that analysis the obliteration/decommissioning of 3 roads totaling 2.25 miles will be included in Alternative 3.

EFFECTS OF ALTERNATIVES BY KEY ISSUE

Key Issue 1: Water Quality

Mining operations can have a negative effect of water quality. Roads, placer mining, and vegetation removal in riparian Habitat Conservation Areas (RHCA) may reduce stream shade, resulting in higher water temperatures, while erosion of exposed and disturbed upland soils and stream bank can increase sediment load. Drainage from lode mines and tailings dumps can introduce metals potentially toxic to aquatic biota into stream waters. The nature of the proposed action (mining) and the physical location of many of the mines in or adjacent to local creeks will in some cases introduce sediment into creeks. Suction dredging can adversely impact aquatic resources by destabilizing channels, at least locally, and by mobilizing sediments. Other impacts can include noise, competition for use of riparian areas, and chemical pollution by petroleum hydrocarbon fuels, lubricants, and remobilizing chemical contaminants (such as mercury) sequestered in bed sediments.

All action alternatives include a similar level of mining activities, so effects to water quality will not differ greatly between each alternative. In Alternative 1, six claimants propose to use suction dredging as well as various other mining activities. In Alternative 2 and 3, an additional two placer claims will have suction dredges operating in streams. However a comprehensive set of management requirements will be added to each POO under Alternative 2 and 3. In addition, Alternative 3 will include additional mitigations as well as other restoration activities. Overall, the least effects to water quality will occur under Alternative 3.

Key Issue 2: Fish and Aquatic Habitat

Adverse impacts to fish habitat can be directly related to mining operations, including negative effects on water quality (see Key Issue 1: Water Quality). Mining operations have the potential for affecting several sensitive and threatened fish species occurring in the watershed including steelhead trout, bull trout, westslope cutthroat trout, interior redband trout and chinook salmon.

Suction dredging can affect aquatic resources such as aquatic and riparian organisms. It can greatly alter stream channels and mobilize fine sediments. Other mining operations could diminish the quality of the fish habitat by removing streamside vegetation, which shields water from solar radiation, provides hiding cover and food sources for fish, and entraps low levels of sediment. Also, mining activities could result in increased erosion and sedimentation due to loss of soil cover and cohesion, and increase runoff and peak stream flows. Fry emergence and insects that provide food for fish could be reduced by an increase in fine sediment, further impacting fish populations. Differences in effects to the fishery resource by alternative, will be similar to those disclosed for water quality.

PREFERRED ALTERNATIVE

Alternative 3 has been selected as the preferred alternative.

CHAPTER 1: PURPOSE AND NEED

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DOCUMENT STRUCTURE

The Forest Service has prepared this Environmental Impact Statement in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. This Environmental Impact Statement discloses the direct, indirect and cumulative environmental impacts that would result from the proposed action and alternatives. The document is organized into four chapters:

Chapter 1. Purpose and Need for the Proposed Action and Issues: The chapter includes information on the history of the project proposal, the purpose and need for the Proposal, and the agency's Proposal for achieving the Purpose and Need. This section also details how the Forest Service informed the public of the proposal and how the public responded.

Chapter 2. Alternatives, including the Proposed Action: This chapter provides a more detailed description of the agency's Proposed Action as well as alternative methods for achieving the stated Purpose and Need. These alternatives were developed based on significant issues raised by the public and other agencies. This discussion also includes mitigation measures. Finally, this section provides a summary table of the environmental consequences associated with each alternative.

Chapter 3. Affected Environment: This chapter describes the existing environmental condition of the lands affected by this action. This section is organized by resources.

Chapter 4. Environmental Consequences: This chapter describes the environmental effects of implementing the Proposed Action and its Alternatives. This chapter is organized by alternative and resource area. Cumulative effects by resource area are addressed within its resource section. Overall cumulative impacts are addressed by alternative in the latter part of the chapter.

Chapter 5. Supporting Information: This chapter provides a list of preparers and agencies consulted during the development of the environmental impact statement. It also contains a glossary of terms and a literature cited section.



INTRODUCTION

This environmental impact statement (EIS) is being prepared to disclose the site-specific direct, indirect, and cumulative environmental effects from approving proposed Plans of Operation on mining claims located in the Granite area, within the Granite Creek watershed, a tributary to the North Fork John Day River. During the past 2 years, several species of fish residing within streams located in or near the project area have been listed as threatened under the Endangered Species Act. After reviewing the new listings, the District Ranger

determined that some current mining operations could significantly affect these fish species. Therefore it is necessary for persons operating on mining claims in the project area to submit new or modified Plans of Operations to the Forest Service. Under the regulations at 36 CFR 228.4 and 228.5, and because of the potential significance of the effects, these plans must be analyzed in an Environmental Impact Statement.

LOCATION AND OVERVIEW OF THE AREA

The analysis area is located on the North Fork John Day Ranger District, Umatilla National Forest (Figure 1.1). The decision area includes approximately 320 acres of claimed lands within Grant County, Oregon. It is within the Boundary of the Granite Creek Watershed. The legal description of the decision area is as follows: T8-10S, 35, 35-1/2E, W.M. surveyed. Some proposed activities are within the boundary of the North Fork John Day Wilderness Area.

BRIEF HISTORY

Gold was discovered near the town of Granite, July 4, 1864, and a small gold rush shortly followed. Initially gold production in this area was placer gold mined from the gravel and bars of streams. During the late 1860 and 1870's, mining districts were established as placer miners scattered about the territory. Since there were not yet any counties established, the districts were a means of keeping track of where specific claims were located. Vein deposits were discovered soon after the advent of placer mining. Quartz mines were worked as early as the 1870's in the Granite area. In the late 1880's, lode mining began to develop rapidly with the advent of equipment such as the "pneumatic" drill, the stamp mill for crushing ore, and new chemical methods to extract gold from it's alloys. The major lode mines in the Granite area were the Buffalo, Monumental, La Belleview and Cougar-Independence. In 1938, the Porter Brothers dredge was built near Granite. During the next several years, portions of Granite, Bull Run, Clear and Olive creeks were dredged. Numerous rock piles, the result of the dredging operations, are still visible along these streams.

The critical point in the downfall of gold mining in the area was the onset of World War II. The U.S. Government issued Administrative Order L-208 ("War Act"), which was designed to stop mining of non-essential minerals (mostly gold and silver), and focus on strategic mineral production such as chrome, tungsten, copper and iron. Shutdowns in underground mines are a serious matter because mines must be continually maintained or they deteriorate. After the war, several mines, which had been operating before shutdown, were found in ruin. Many of the building structures had been destroyed by fire and water had filled many of the tunnels. Currently, some exploration is taking place but no major production is occurring. Most of the existing mining activity consists of small-scale placer operations.

MINING LAW ADMINISTRATION

The 1872 Mining Law, as amended, provides for the exploration and purchase of all valuable mineral deposits in lands belonging to the United States. The Federal Land Policy and Management Act of 1976 (FLPMA) requires that all mining claim locations be recorded with the Bureau of Land Management.

The Mining Law Administration program is managed by the Bureau of Land Management (BLM), as authorized by the Secretary of the Interior, and involves the recordation, maintenance (annual assessment requirements), and mineral patents. The Forest Service administers surface management on National Forest System lands. Joint administration of the mining laws on National Forest System lands is provided for in a Memorandum of Understanding (MOU) between the BLM and the Forest Service. The purpose of the MOU is to ensure coordination between the general surface resource management of the Forest Service and the administration of the mining laws by the BLM. Operations on mining claims within the surface jurisdiction of the Forest Service must comply with the surface management requirements as set forth in the Federal Regulations for the Forest Service, 36 CFR 228, Subpart A.

The Forest Service has been charged with making minerals available for the economy, while at the same time, minimizing the adverse impacts of mining activities on other resources. The Organic Administration Act of 1897 provides for the continuing right to conduct mining activities under the general mining laws, rules and regulations. It also states that miners and prospectors have access rights into National Forests for all proper and lawful purposes, including that of prospecting, locating and developing the mineral resources in the forests. Therefore mining on the National Forest System lands is a statutory right.

There are four types of mining claims: lode, placer, mill site and tunnel site, although the latter two are not often used in the area of this analysis. A lode mining claim is defined as a claim that covers a vein, ledge, tabular deposit, or other rock in place. A placer mining claim is defined as including all forms of deposits except veins of quartz or other rock in place, typically found in stream or river gravel deposits. An individual is allowed a maximum of 20 acres per placer claim while an association of eight or more persons may claim up to 160 acres. There is no statutory limit on the number of individual mining claims a person may locate. A mining claim is a property right and cannot be taken without due process. The Forest Service does not have the authority to invalidate a mining claim. However, through the MOU, the Forest Service has the authority to determine the existence of a discovery of valuable minerals.

As discussed in Forest Service Manual 2811.5 - Requirements for Valid Mining Claim, the general mining laws impose certain obligations on a claimant who wishes to take advantage of the privileges those laws provide. A claimant must:

1. Discover a valuable deposit (FSM 2815.1, item 1) of a locatable mineral in federally owned public domain land open to the operation of the mining laws. Satisfaction of other requirements of the 1872 act does not make a claim valid absent a discovery of a valuable deposit.
2. Locate a claim on the valuable deposit.
3. Identify and monument the claim in the manner required by State law.
4. File in the appropriate office of the Bureau of Land Management a copy of the official record of the notice of location or certificate of location, including a description of the location of the mining claim or mill or tunnel site sufficient to locate the claimed lands on the ground. The copy must be filed within 90 days after the date of location of the claim(s).

5. Perform annual assessment work or annual labor worth at least \$100 on, or for the benefit of, the claim.
6. File a copy of an affidavit of assessment work or notice of intent to hold in the county office where the location notice or certificate is recorded.
7. File in the appropriate office of the Bureau of Land Management a copy of the affidavit of assessment work or notice of intent to hold. The copy must be filed by December 30 of each year following the calendar year in which the claim was located.

With the fulfillment of these requirements, a claimant obtains a valid mining claim. So long as such conditions continue to exist, the claimant is entitled to possession of the claim for mining purposes. It is optional with the claimant whether to apply for patent. Patent procedures and requirements, are described in FSM 2815.

The term "valid claim" often is used in a loose and incorrect sense to indicate only that the ritualistic requirements of posting of notice, monumentation, discovery work, recording, annual assessment work, payment of taxes, etc., have been met. This overlooks the basic requirement that the claimant must discover a valuable mineral deposit. Generally, a valid claim is a claim that may be patented.

Although the statutes require the discovery of a valuable mineral deposit prior to the location of a claim, the courts and the Department of Interior have recognized a right of possession, in the absence of the discovery required by statute, if the claimant is diligently prospecting. The Forest Service recognizes this principle, and in keeping with the policy of encouraging bona fide prospecting and mining, will not discourage or unduly hamper these activities. Rather, the Forest Service should aid the legitimate activities of a prospector making bona fide efforts to obtain a discovery on a good prospect. On the other hand, the Forest Service should oppose attempts by prospectors to build permanent structures, cut timber, build or maintain roads, unless authorized by special use permit or approved operating plan.

A mining claim may lack the elements of validity and be invalid in fact, but it must be recognized as a claim until it has been finally declared invalid by the Department of the Interior or Federal courts.

A claim unsupported by a discovery of a valuable mineral deposit is invalid from the time of location, and the only rights the claimant has are those belonging to anyone to enter and prospect on National Forest lands.

However, an operator may prospect or explore (test) for minerals without having a mining claim, as every American citizen has the right to prospect and explore for minerals on lands open to mineral entry

An examination to determine the validity of a mining claim would be conducted 1) if the claimant wants to patent his claim (acquire title to it as private land); 2) to resolve a conflict between a mining claim and other land uses; or 3) if the area is withdrawn from mineral entry. If the area is withdrawn, operations on those claims examined and found to have valid existing rights may continue to operate. A certified mineral examiner, in conducting a validity examination, must either verify or refute that a discovery exists within the bounds of the claim, as alleged by a mining claimant. The cost of a validity examination varies widely; however, an average cost to the government is approximately \$30,000.

LAWS, REGULATIONS, POLICY ON MINING:

FEDERAL: The authority for exploration, development and removal of gold on public lands is the General Mining Law of 1872, (17 Stat. 91: 30 U.S.C. 21-54), which declares all valuable mineral deposits in lands belonging to the United States...to be free and open to exploration and purchase. Most National Forest System Lands in the western United States are open to 1872 Mining Law activities. Special areas, such as Wilderness, Wild and Scenic Rivers designated “wild”, and various administrative sites are withdrawn from mineral entry. Mining claims in withdrawn areas can be operated only if Valid Existing Rights, at the time of withdrawal and today, are established through Forest Service mineral examination. The Forest Service regulates surface resource management pursuant to the authority of the Organic Administration Act of 1897 and regulations at 36 CFR 228 Subpart A.

RIGHTS OF MINERS UNDER THE 1872 MINING LAW: Mining is unlike the “multiple use” activities on federal lands in that the General Mining Law of 1872 grants the federal land management agencies far less authority over mining activities than over timber harvesting, recreation, grazing and other activities. Under the General Mining Law of 1872, a valid mining claim is a property right owned by the claimant. All State and Federal regulations must be complied with; and proper permits from State and Federal agencies must be obtained where applicable. The Forest Service minerals regulations, 36 CFR 228 require that where feasible, mining operations be conducted to minimize environmental impacts. The Forest Service does not have the authority to deny mining on valid claims, or condition the activities so that it results in the taking of a claimant’s property rights.

REGULATING AUTHORITIES UNDER 36 CFR 228: The Forest Service minerals regulations state that a person proposing an action which “might cause disturbance of surface resources” is required to submit a Notice of Intention to the Forest Service District Ranger on whose District the mining is proposed. The operator is required to submit a Plan of Operations if the District Ranger determines “that such operations will likely cause significant disturbance of surface resources,” (36 CFR 228.4). If a Plan of Operations is submitted, the Forest Service conducts an environmental analysis resulting in an Environmental Assessment (EA) or Environmental Impact Statement (EIS).

The regulations require that all mining operations are conducted, where feasible, to minimize adverse environmental impacts, and to comply with the Air Quality, Water Quality, and Solid Waste statutes and standards. In addition, the regulations require that measures are taken to protect scenic values, fisheries and wildlife habitat. The regulation also requires the proponent to reclaim surface disturbance and to prevent or control on-site any off-site damage to the environment (36 CFR 228.8).

FOREST SERVICE POLICY: It is the policy of the U.S. Forest Service and direction under the Umatilla Forest Plan to encourage and facilitate the orderly exploration and production of minerals, which is consistent with the Mining and Minerals Policy Act of 1970. The Act of 1970 fosters and encourages private enterprise in the development of domestic resources to help assure satisfaction of industrial, security, and environmental needs. Within this context, the National Forests and Grasslands have an essential role contributing to an adequate and stable supply of mineral and energy resources while continuing to sustain the land’s productivity for other uses and protecting and maintaining ecosystem components and functions.

PROPOSED ACTION

The proposed action is to approve 16 plans of operation for mining claims located within the Granite watershed on the Umatilla National Forest (Figure 1.2). The proposed action is a compilation of plans submitted by claimants operating within this area. A plan of operation includes “Information sufficient to describe or identify the type of operations proposed and how they would be conducted, the type and standard of existing and proposed roads or access routes, the means of transportation used or to be used as set forth in 36 CFR 228.12, the period during which the proposed activity will take place, and measures to be taken to meet the requirements for environmental protection in 36 CFR 228.8”. Generally, plans of operation are reviewed and updated every 5 years or sooner if unforeseen circumstances arise and a change in the operation is necessary. In preparation for this analysis, claimants were contacted and asked to update their plans of operation. In some cases, revised plans were submitted and two claimants who recently purchased existing claims submitted new plans. However, in most cases claimants said they did not wish to change their existing plan and the plan currently on file with the Forest Service should be included in the proposed action. Several of the miners contacted indicated that they were only going to do assessment work in the foreseeable future and it was determined that a Plan of Operation was not necessary. On claims where no valid plan of operation was on file, and the claimant did not submit one for this analysis, it was assumed that assessment work was the only activity planned during the next 5 years.

Listed below are brief descriptions of each project and the work planned on the claim in the next 5 years. A copy of the actual Plan of Operation submitted by each claimant is filed in the Planning Record.

Lower Granite Creek

The Lower Granite Creek subwatershed project area extends from the confluence of Granite Creek and the North Fork of the John Day River upstream to the confluence of Clear Creek and Granite Creek.

REPUBLICAN COMEBACK #7

Claim Description

The Republican Comeback #7 placer claim is located on Rabbit Creek at its confluence with Granite Creek. The claim is accessed by an approximately 30-foot wide (August 2000), 12- to 18-inch deep hardened ford across Granite Creek. Substrate in the ford consists of rounded to sub-rounded rocks ranging from 1 to 14 inches.

The claim is situated on a relatively broad alluvial fan developed at the mouth of Rabbit Creek, at an elevation of approximately 4240 feet. On the claim, Rabbit Creek consists of several distributary channels. Groundcover on the claim consists of native grasses, herbs, shrubs mixed with lodgepole and Douglas fir to 40 feet high.

The visibly active portion of the claim consists of a small pit excavated into a high bar 30 feet east of Rabbit Creek and several hundred feet south of Granite Creek. The high bar is estimated by the claimant to contain approximately 50,000 cubic yards of material. An old trailer is located on the north side of Granite Creek, east of Rabbit Creek.

Plan of Operations

The owner submitted the updated POO on February 20, 2001. The owner proposes to excavate and wash approximately 300 cubic yards of material annually. Processing water will be withdrawn from Rabbit Creek, passed through the wash plant, be discharged to a settling pond, and recirculated. The owner plans to test several other areas located on the south side of Rabbit Creek, and proposes to use a suction dredge on both Granite Creek and Rabbit Creek.

Top soil will be stockpiled for use in reclamation, which will be kept current with the operation. Petroleum fuels will be stored in the vehicles in which it is transported to the site.

REPUBLICAN COMEBACK #10 AND #11Claim Description

The Republican Comeback (RC) #10 and #11 placer claims are located within the North Fork John Day Wilderness. RC #10 is reached by a jeep trail, which crosses Granite Creek at a hardened ford, and RC#11 can be reached either by the jeep trail or a trail that traverses the northern hillside approximately 100 feet above the creek. The claims encompass both the north and south banks of the creek.

Plan of Operations

The claimant proposes to mine approximately 1/8 acre per year of alluvial material from the open pit on the north side of the creek described above. Gravel from hand testing on the south side of Granite Creek will be hauled across Granite Creek to the processing plant, located on the east end of RC #1.

Equipment to be used in the operation will include a loader, propane-powered backhoe, trommel, 2" pump, gold grabber, gold spinner, and a pickup trommel capable of processing 3 to 4 CY per hour. A suction dredge will be used in ponds, and in Granite Creek from July 15 to August 15. Fuel will be stored in the back of a pickup truck, which will be kept at least 50 feet from ponds and Granite Creek. A zero-discharge recycling system will be used, and the creek will be visually monitored whenever material is being processed.

Washed placer tailings will be returned to the excavation. Topsoil will be stockpiled above the annual floodplain, and be used during reclamation. Reclamation will be ongoing and will include use of a Forest Service approved seed mixture. The claimant will maintain the two rock fords and not allow them to widen. Roads will be water-barred and rocked, as needed. Surface water will be controlled with ditches. Garbage will be hauled offsite.

HOPEFUL #2 AND #3Claim Description

The claim is developed with a small wood-frame cabin, three storage sheds, and a metal-siding clad building, all on the north side of Granite Creek. A variety of heavy equipment is kept on the property including a dump truck, a grader, a small dozer, and a small backhoe. Equipment is stored at least 100 feet north of the creek.

The westernmost building is used to filter water, piped from a mineral spring on the south side of creek, through activated charcoal to recover metals dissolved in the water. Once passed through the filters, water is discharged to Granite Creek. The sheds are used for storage.

The actively mined portions of the claims are on the north and south sides of Granite Creek, and total $\frac{1}{4}$ to $\frac{1}{2}$ acre. Workings on the south side are reached by two hardened fords. On the south side the gravels being mined are approximately 40 feet above the creek and 50 to 100 feet south of the creek bank.

Plan of Operations

An undated POO was submitted for the Hopeful 2 & 3 for the 2001 season. The POO calls for work on the claim to begin in May 2001, and is expected to last for 5 years. A small cat or backhoe will be used to dig test holes on the north and south sides of Granite Creek. Up to 300 cubic yards of material could be processed each year. Material will be processed through a trommel at the two mining sites, and existing settling ponds will be used to catch and recirculate process water. Process water will be withdrawn from a nearby, nonfish-bearing stream. Some tree-cutting is anticipated.

Fuel will be stored in a 55-gallon drum in the back of a pickup truck. If the existing fuel tank on the property is to be used, it will first be bermed as directed by the Forest Service. Mined materials will be stockpiled for later use in reclamation. A cabin is used as quarters when the owner is present.

HOPEFUL

Claim Description

The Hopeful placer claim is located along Granite Creek in T8S, R35E, NW1/4 Section 29. The "Miners Road" along the northern side of Granite Creek provide access to the claim. Valley bottom gravels are disturbed, having been placer mined earlier. Historical placer mining activities appear to have involved stripping and stockpiling fine-grained topsoils in elongated piles approximately 50 to 100 feet to the north and south of the creek, and then processing the more coarsely grained creek gravels.

There is a small cabin on the claim. The active working consists of an approximately 10 by 10 foot pit excavated into the stockpiled topsoil pile on the south side of the creek, approximately 50 feet east of the cabin and 30 feet north of Granite Creek.

Plan of Operations

The owners will continue to work the small pit described above, which was originally opened in 1989. Upon completion, the pit is expected to be no larger than 30 by 30 feet. The current POO does not call for working tailings on the south side of the creek, precluding the necessity of fording the creek.

Equipment to be used will include a small backhoe, pick and shovel, pan-o-matic, and a small trommel. Wash water from the plant will be pumped from the creek and recirculated through a shallow pit excavated in dredge tailings gravels approximately 15 feet north of the

creek. The small volume of tailings generated will be disposed of in an old dredge hole 20 to 30 feet north of Granite Creek.

Any petroleum products used will be stored vehicles and be removed from the site at season's end. Topsoil will be stockpiled and used later for reclamation.

Ten Cent Creek

The Ten Cent Creek project area extends from the confluence of East Ten Cent Creek and an unnamed tributary upstream a distance of approximately one mile. Elevations of the various claims range from 4820 feet to 5190 feet above sea level. The lower reaches of Ten Cent Creek within the study area have been highly disturbed by historic placer mining.

PBGF #1, #2, AND #3 CLAIMS

Claim Description

The PBGF #1, #2, and #3 placer claims are located within the East Ten Cent Creek RHCA, immediately north of FS Road 7350.

The gradient of East Ten Cent Creek averages 2 percent to 3 percent. Substrate includes sand and gravel, and there are piles of cobbles/boulders from historical placer operations along the approximately 30 foot wide flood plain. Creek banks are steep, approximately three to four feet high, and consist of a mixture of silt and sand.

Hillsides to the east and west of the claims rise at approximately 10 percent to 15 percent, and are covered with mixed conifers. Alder occurs within the disturbed riparian area.

The claims show little in terms of their development. There are no buildings or any equipment on the claims. There was no evidence of recent excavation or operation evident on the claims.

Plan of Operations

The current POO calls for mining gravels from pits located over 30 feet from Ten Cent Creek, using a backhoe. Excavations will be dug to bedrock, and only one test hole will be open at one time. Topsoil will be stockpiled for later use in reclamation work.

Placer gravels will either be processed on site or be trucked off-site for processing. A suction dredge may be used in the pits, and may be used in Ten Cent Creek during the dredging season in accordance with permits. Washed gravels will be returned to holes, and covered with stockpiled topsoil that will be covered with straw. No trees that provide shade to the creek will be removed, and shrubs/brush along the creek will be left undisturbed.

Process water will be from seeps, and will be recycled through three (3) settling ponds located approximately 100 feet from the creek. A small washing plant will be set up in the old placer tailings at least 100 feet from the creek.

An area along a small tributary creek will also be tested. Backhoe excavations in this area will be at least 20 feet from the tributary in areas where the banks are not steep. A 10-foot

wide undisturbed area will be maintained between the test sites and dredge ponds, and a 30-foot wide buffer between the test sites and Ten Cent Creek.

EAST TEN CENT CLAIM

Claim Description

The East Ten Cent Claim is located along a highly disturbed reach of East Ten Cent Creek immediately upstream from the PBGF group of placer claims. Access is provided by FS Road 7350, then by dirt road ¼ mile.

East Ten Cent Creek is relatively narrow and confined upstream from the claim. Substrate consists mainly of gravel, cobbles, and sand. The valley widens at the claims, resulting in the deposition of the placer gravels that were hydraulically mined earlier. Placer gravels are mantled by up to 24-inches of fine-grained ash-derived soils which are easily eroded where not stabilized by vegetation. The placer-mined area measures approximately 100 feet by 600 feet, and is characterized by piles of cobbles and boulders stacked alongside the creek.

The claim is developed with a small wood cabin and a shed. Workings consist of a small pit excavated into the steep creek bank on the west side of the creek. Bales of hay to prevent the introduction of sediment into East Ten Cent Creek enclose the current active area.

Plan of Operations

Placer gravels will be mined from existing pits located 20 feet from Ten Cent Creek. Pits will be backfilled with washed gravels, covered with topsoil, and then by straw to help minimize erosion. Additional test pits will be excavated with a backhoe. A 30-foot wide buffer between test sites and East Ten Cent Creek will be maintained. Topsoil will be stockpiled separately at least 30 feet from the creek for later reclamation use. No shade-providing trees or brush along the creek will be destroyed. A suction dredge may be used with groundwater as a water source in test pits.

A dredge may be used in the creek during dredging season if permits are available. Process water will come from settling ponds and a spring, and will not be withdrawn from the creek. The primary processing plant will be set up on the north end of the claim on the west side of the creek. Any additional processing sites, which may consist of settling ponds and/or material storage areas, will be situated at least 30 feet away from the creek.

Gravels will be tested using hand tools along a small tributary stream. Testing will occur from 2 to 20 feet from the tributary.

Equipment to be present on the claim may include a small washing plant and trommel, a rock crusher, a sluice, a backhoe, water pumps, a generator, pickup trucks, a dump truck, a conveyor, trailers, ATVs, motor homes, a dredge, and hand tools. None of the equipment will be driven across East Ten Cent Creek.

The current claimants plan to remove a small cabin left on the claim by the previous claimant.

BRICE #1, #2, AND #3Claim Description

The Brice group of claims (#1, #2, and #3) are located in the headwaters of East Ten Cent Creek in T8S, R351/2E, near the center of Section 21. The claims lie at elevations ranging from approximately 5000 to 5160 feet. Access is provided by a gated Forest Service road (055) along the east side of the East Ten Cent Creek canyon.

Claim development is minimal, except for the presence of several small pits of unknown age. A sluicebox is located near the creek where FS Road 055 ends at the creek.

Plan of Operations

Pick and shovel work along the Ten Cent Creek will begin on May 1. A sluice and hand-fed washing plant, which uses 4 – 6 gallons of water per minute, will be used to process gravels. Process water will be withdrawn from the creek, and discharged into low rocky areas situated away from the stream. The pump will be screened to ¼ inch to protect small fish. Washed material will be returned to the holes from which it was mined.

The claimant plans to dredge Ten Cent Creek during the State instream period of July 15 to August 15 using a 4-inch suction dredge. The claimant will visually check East Ten Cent Creek to ensure that the sediment plume has settled within 300 feet of dredging operations.

The claimants will avoid placing rocks and materials within the riparian zone. Any large woody debris (LWD) moved during mining operations will be replaced.

Miners will live in travel trailers, which will be removed from the site at the end of the season. Reclamation will include seeding areas of bare soil.

TARHILL TEN CENT CLAIMClaim Description

The Tarhill Ten Cent placer claim is located immediately upstream of the East Ten Cent claim. The claim lies at an elevation of approximately 5960 feet and is accessed by a gated dirt road spur off FS 050, which also provides access to the East Ten Cent Claim.

The claim is situated upon the same alluvial deposits as the East Ten Cent Claim, which were deposited where the canyon of East Ten Cent Creek widens and gradient decreases. The narrow flood plain (100') in the area has been disturbed by placer activity, and subsequently re-contoured and seeded. The creek flows along the east side of the canyon, and may have been moved there by the re-contouring program. The creek is moderately confined by one-to four-foot high banks along the Tarhill claim reach, with banks consisting of light brown mineral soil. The creek gradient averages 2 percent to 3 percent, and substrate consists of sand and gravel. The west side of the creek, which was mined, has been re-graded and seeded. There is a small, very old sluice gate at the north end of the seeded area. There are no buildings or equipment on the claim.

Plan of Operations

A backhoe will be used to open test pits no more than 0.25 acre at one time. Topsoil will be stockpiled for later reclamation use. The claimant would prefer to haul mined materials

approximately 5 miles to private property for processing, and to back-haul the material to the claim for disposal in mined areas. Equipment to be used includes a D6 cat, backhoe, trommel, pickup truck, pump, small dump truck, and hand tools. The claimant plans to use a 4-inch suction dredge in East Ten Cent Creek in accordance with their State permit.

If mined material can not be hauled offsite, the claimant will use an 8' by 24" trommel to process approximately five to ten (5-10) cubic yards of material per day. Ten-gallons per minute will be required for the washing plant. Process water would be pumped from Ten Cent Creek until settling ponds (10' X 20' X 8' deep) are full, and water would then be recycled through the system.

Some small trees and 12 western larch snags will need to be removed during mining. Reclamation will entail re-contouring the land surface, covering with stockpiled topsoil, and seeding with a Forest Service recommended mix free of noxious weeds. The claimant will maintain a ten-foot wide buffer between excavations and East Ten Cent Creek, and will visually monitor the creek to ensure sedimentation impacts are minimized.

Upper Granite Creek

SW SAINT PAUL

Claim Description

The SW Saint Paul lode claim is located on the steep (30 - 40 degree) western (east-facing) slope of the Granite Creek drainage, approximately 100 feet to the west of the creek. A steep hillside to the east and NF Road 73 to the west along this reach confine Granite Creek. NF Road 73 and an unimproved jeep trail that traverses the hillside and also provides access to the Independence Fraction provide access to the claim.

Development on the SW Saint Paul claim consists of two adits (apparently caved), a well-maintained cabin, a shed, an outhouse, and the collapsed wooden remains of either a tippie or stamp mill. The lower adit is approximately 200 feet west of Granite Creek. The disturbed area is less than 0.25 acre and is at least 100 feet from Granite Creek.

Plan of Operations

Both tunnels will be sampled for assay. There will be little new disturbance of the surface area other than an increase in the size of the tailings dump. Explosives may be used underground, but not on the surface. Ore will be removed from the adits and be hauled to a mill at Cabell City for processing. Mining timbers may be cut on the claim. A backhoe will be used at the lower portal to remove slough. The entrance will be shored up and the first 20 feet on the tunnel will be timbered for safety. A door will then be installed on the lower adit to prevent public entry. The upper tunnel will be cleaned out and sampled by hand.

The cabin will be occupied during mining operations. The operator will remove garbage and debris from the site. No fuel will be stored on site.

MAGNOLIA

Claim Description

The Magnolia Group comprises eight (8) lode claims (Magnolia, Violet, Jupiter, Tacoma, Rose, Atlas, Helena and Emporium). The Magnolia Group is located in Lucas Gulch approximately 0.5 mile north of its confluence with Granite Creek. Access is by an unimproved jeep trail, which is gated at NF Road 73. The unimproved road fords Granite Creek several hundred feet west of NF Road 73.

The Magnolia claim group is developed with at least three (3) adits, and a single wood cabin. Two (2) adits were driven eastward into the ridge between Chipman Creek and Lucas Gulch. A third adit was driven westward into the slope on the west side of Lucas Gulch. Only the lower of the first two mentioned adits is active, and was caved at the portal during the first site visit. An adit located several hundred feet upslope from the active adit was also caved, and the adit on the west side of the gulch is open but is not being worked.

Plan of Operations

Only maintenance and assessment work is being proposed on the Magnolia Mine. Equipment to be operated on the claims includes a backhoe, small cat, one-yard loader, air compressor, a pickup truck, and hand tools. Fuels are to be stored out of the flood plain. A small cabin on the site is used for storage. Two wastewater ponds will be maintained to manage mine effluent discharging from the main portal. Road maintenance will be accomplished annually on the one mile of road needed to access the claim.

OLD ERIC #1 AND #2

Claim Description

The Old Eric #1 and Old Eric #2 placer claims are located immediately upstream of the confluence of Granite Creek and Bull Run Creek, at the intersection of NF Road 73 and County Road 24. The claims and surrounding area were dredged over 50 years ago, and the dredge spoils are now covered with small lodgepole pine. The claims are primarily within the Granite Creek floodplain, although portions of the claim impinge upon an andesitic bedrock knoll to the southwest. The substrate in Granite Creek consists of sand, gravel, and boulders to 12 inches, and the creek is locally confined and channeled by dredge spoils. The creek is approximately 8 feet wide along this reach.

The two Old Eric claims are essentially unimproved and little disturbed by recent activity. A small wooden bridge crosses Granite Creek on the claims to provide access to a small pit excavated to bedrock approximately 70 feet west of Granite Creek. An approximately 80 by 54 by one (1) foot deep settling pond, apparently used to catch and filter process water, is thickly overgrown with native grasses. There are no buildings on the claims, although a small mobile trailer is moved onto the site during operations. The area of disturbance is less than 0.25 acre.

Plan of Operations

Work on the claims would include hand digging, and processing gravels through a small wash plant. Process water will be pumped from a holding pond, and wash water is to be

discharged back to the holding pond. The claimant may also operate a small suction dredge under the terms and conditions of a dredging permit from July 15 to August 15. A backhoe may be used to deepen the prospect hole. Other equipment to be used on the claims includes a pickup, and a small trailer that is removed from the claims in the fall. All petroleum products will be stored away from the creek. A travel trailer will be used for camping while the claim is being operated.

ROSEBUD #1, #2, #3, AND #4

Claim Description

The four (4) Rosebud placer claims are located on the north side of NF Road 73 approximately 0.5 miles upstream from the confluence of Granite Creek and Clear Creek. Granite Creek flows in a westerly direction approximately 500 to 600 feet to the south of the claims on the opposite side of NF Road 73, which forms a barrier between the claims and Granite Creek.

The claims enclose a large, linear area of historic dredge spoils (gravel, cobbles and boulders) in the flood plain of Granite Creek, and an andesitic bedrock ridge to the north of the floodplain. A series of ponds has formed in low-lying areas where the dredge spoils do not exceed the level of groundwater under the highly disturbed floodplain. The ponds are filled with hydrophytic plants such as sedges (*Carex*), cattails (*Typha*), and duckweed (*Lemna*). Small lodgepole pines, scrub willow, and native grasses have taken hold in the spoil piles. The ponds drain through a culvert beneath FS Road 1035 into Granite Creek near the western end of the claim group.

The claims show little evidence of recent work due in large part to the coarse, sparsely vegetated nature of the spoil piles, which does not readily record recent disturbances. There are no buildings or equipment on the claims.

Plan of Operations

Approximately one to two cubic yards of material are to be excavated by hand or backhoe each year from individual holes cut into the hillside high bar, to a maximum of 10 cubic yards per year. Test areas are located outside the riparian area on level ground. Equipment to be used on the claims includes a pickup truck, small backhoe, trommel, water pump, gold spinner, and 3 cubic yard dump truck. No fuel is stored on the site.

Excavated material will be processed through a small trommel and gold spinner located near the test holes. Process water will be pumped from water-filled depressions in historic placer tailings, and be discharged to natural depressions where it will soak into the ground. No process water will directly enter Granite Creek.

Tailings will be stockpiled and returned to excavations at the end of the season. Topsoil will be stockpiled for later use in reclamation. Reclaimed areas will be seeded with a Forest Service approved seed mix. All garbage will be hauled offsite for disposal.

TROY D

Claim Description

The claim is about 1½ miles east from the intersection of NF Roads 73 and 13. It lays on a large, linear area of historic dredge spoils (gravel, cobbles and boulders) in the flood plain of Granite Creek just south of NF Road 13. A number of old mining ponds are located next to Forest Road 13. The ponds are filled with hydrophytic plants such as sedges (*Carex*), cattails (*Typha*), and duckweed (*Lemna*). Small lodgepole pines, scrub willow, and native grasses have taken hold in the spoil piles that are located between the ponds and Granite Creek. Granite Creek flows through the southern half of the claim, is well entrenched, and is separated from the proposed work area by a large, linear pile of historic dredge tailings.

A portion of the claim was used for gravel storage during reconstruction of NF Road 13.

Plan of Operations

A wash plant will be placed in the tailings area near the east end of the claim. Existing ponds will be used to store and recirculate water. A test hole will be excavated to bedrock at least 50 feet from Granite Creek. Water will be pumped from the hole to the existing ponds and vein material will be sampled. The test site will be refilled if values of test material to not prove productive and other holes will be dug and sampled in the same manner.

After testing, mining will begin in the piles of placer tailings. A backhoe will be used and up to 50 cubic yards of material will be processed daily. Black sand concentrates will be collected and shipped off site for processing. Access to the south side of Granite Creek will be across private land. Granite Creek will not be forded.

Water from the discovery pit will be tested. Carbon columns will be placed in a small trailer and water will be pumped through them. Electroplating will also take place in the trailer. Two power poles will be placed to facilitate running electricity to the claim to power the extraction system. A second trailer will be moved to the site and used when the extraction system is operating.

Clear Creek

The Clear Creek subwatershed project area extends from the confluence of Clear Creek and Congo Gulch upstream to the confluence of Clear Creek with Lightning Creek. Elevations of the various claims in this portion of Clear Creek range from approximately 4780 to 5057 feet above sea level.

GRUBSTAKE CLAIM

Claim Description

Access to the claim is by NF Road 13, and a narrow wood bridge across Granite Creek. Clear Creek was heavily placer mined along the reach of the creek along which the claim is located, and the streambed and flood plain are heavily disturbed. Log weirs have been built above, along, and below the reach of Clear Creek encompassed by the Grubstake claim, and the banks are locally armored with rip-rap. The entire reach comprises pools developed behind log weirs. Improvements on the claim include several sheds, near which is stored a

variety of washing equipment. The visibly active area of the claim is a ten-foot deep pit, located several hundred feet west of Clear Creek. A washing plant, set up near the pit at the time of the 2000 site visit, consisted of a screen, a trommel, and a sluice box. Several reclaimed pits were noted in the vicinity as well.

Plan of Operations

The POO calls for excavating and washing materials from locations at least 100 feet from Clear Creek. Wash water will be pumped from an off-channel pond, and be recycled through settling ponds approximately 10'x10'x 4' deep, located at least 100 feet from Clear Creek. A rock tailing and vegetated buffer strip at least 100 feet wide will be maintained between the processing plant and the creek.

Test holes will be backfilled with washed gravels. Stockpiled topsoil will be used for reclamation when testing in each area is completed, and reclamation will be ongoing. Trees will be replaced to the approximate density as before mining. Once mined out, the bridge and equipment will be removed from the site.

BUNCH BUCKET #1 AND #2

Claim Description

The Bunch Bucket #1 and #2 placer claims are located along a reach of Clear Creek where the creek turns from north to east near its confluence with Ruby Creek. Access to the claims is by FS Road 1310. The creek does not appear to have been as heavily placer mined along the Bunch Bucket reach since it was farther downstream, although there are indications of local explorations.

The Bunch Bucket #1 claim is located between FS Road 1310 and Clear Creek. A large portion of the claim is disturbed, having been cleared. This area appears to be underlain by soils derived from Mazama Ash, which are fine-grained, easily eroded, and do not appear to support the growth of ground covering plants well. The eastern approximately one-half of the cleared area is covered with lodgepole saplings approximately 10 feet high. An approximately 50 to 80 foot wide zone of native vegetation buffers the cleared area from Clear Creek. A depression on the claim may have been used as a settling pond at one time. The claim includes a large tailings pile at the mouth of the Scandia Tunnel, which is located on the north-facing hillside on the south end of the claim.

Bunch Bucket #2 is located between the road and the hillside to the south and southeast of the road. The proposed placer mining area consists of a low alluvial terrace which stands a few feet above the grade of Clear Creek, and is east of FS Road 1310. The claim is covered with lodgepole pine

Plan of Operations

Eight 2-foot wide trenches will be excavated to bedrock using a backhoe, and will be situated in such a manner as to spare lodgepole saplings in the area, where possible. Four of the trenches will be located on the east end of Bunch Bucket #1, and four will be located near the center of Bunch Bucket #2. Overburden and/or topsoil will be stockpiled along the trenches for later use in reclamation. Excavated materials will be trucked to the trommel, which will probably be set up on the southeast side of Bunch Bucket #1, approximately 150 to 200 feet

south of Clear Creek. The trommel site will remain the same for the life of the project. Equipment to be used on site will include a medium size backhoe.

Up to 600 cubic yards of material may be processed the first year. A trommel capable of washing up to 30 cubic yards per hour will be used. Washed gravels will be used as backfill in the trenches. Water will presumably be withdrawn from Clear Creek, and be re-circulated through settling ponds. The claimant proposes to place log dams across a seasonal stream that drains the site to minimize the amount of sediment that might otherwise wash into Clear Creek. All garbage will be hauled off site for disposal.

The site will be seeded and reclaimed upon completion of mining work.

Lightning Creek

The Lightning Creek subwatershed (93K) extends from the confluence of Clear Creek southward to the headwaters of Lightning Creek near the former town of Robinsonville.

LUCKY STRIKE

Claim Description

The claim, which is located at least 1000 feet south of the headwaters of Quartz Gulch and 2500 feet east of Lightning Creek, lies on a ridge dividing Lightning Creek and Quartz Gulch. The claim has been developed over the years with a cabin, a shed, a 2-stamp stamp mill, and a small head- frame. Mine workings include a shallow adit (locked), a shaft, and several prospect pits, which are scattered about the ridge above the cabin. Light gauge track (150') services the adit.

Plan of Operations

The claimant proposes to reclaim the existing tunnel system, and backfill exploratory holes excavated by the original claimant. A tunnel will be extended through an existing "vertical tunnel" (shaft) along the vein. The stamp mill and cabin will be restored to original condition. Any "viable" material will be hauled offsite for processing, or may be processed in the mill onsite depending on ore quality. Ongoing tunnel extension, including exploratory testing in an adjacent tunnel, is anticipated.

Equipment to be used on site will include a rubber-tired backhoe, pick, shovel, ore car, chainsaw, electric roto-hammer, and 4000-watt generator. Small volumes of fuel will be kept on site.

As this is essentially a hand operation, the volume of tailings generated will be small. Tailings will be cribbed using downed timber to minimize erosion. The operators are currently reforesting the original mine site with native species.

PURPOSE AND NEED

On July 10, 1998, Columbia River bull trout (*Salvelinus confluentus*) were listed as threatened under the Endangered Species Act (ESA). On May 24, 1999 Mid Columbia steelhead trout (*Oncorhynchus mykiss*) were listed as threatened under the ESA. Both of these species are found in streams located within the Granite Creek watershed.

Under the Surface Use Regulations (36 CFR 228.4), a Notice of Intent is to be filed for any mining operation, which might cause disturbance of surface resources. If through an analysis of the Notice of Intent, the District Ranger determines that the proposed operation will likely cause a significant disturbance, or if the operator initially plans a significant surface disturbance, the regulations require that a Plan Of Operations be filed. Operations, which cause a significant surface disturbance, may require a reclamation performance bond. At any time during operations under an approved plan of operations, the authorized officer may ask the operator to furnish a proposed modification of the plan detailing the means of minimizing unforeseen significant disturbance of surface resources. A Plan of Operations is not a permit. The General Mining Law of 1872 gives miners a statutory right to prospect and mine. The Plan of Operations is an agreement between the miner and the Forest Service about what will be done to mitigate surface resource impacts.

The District Ranger on the North Fork John Day Ranger District has determined that many of the existing mining claims located within the Granite Creek watershed will likely cause significant disturbance of resources. This finding is based on the direct and indirect effects the mining operations could have on threatened bull trout and steelhead trout and the potential effect they may have on State listed 303(d) streams.

Claims in the area fall into one of two categories. On some claims, there is an existing Plan of Operations that was approved before the listing of bull trout and steelhead trout as threatened. Since conditions have changed since the Plans were approved, there is a need to approve modifications to these plans, as specified in 36 CFR 228.4(e), which include the changes that will be made to mitigate the effects on the two newly listed species.

Other mining operations located within the watershed and determined to likely cause significant disturbance, do not have an approved Plan of Operations. There is a need to approve the Plans for these operations, as specified in 36 CFR 228.4(a), submitted by the operators.

MANAGEMENT DIRECTION

This Environmental Impact Statement (EIS) process and documentation has been done according to direction contained in the *National Forest Management Act*, the *National Environmental Policy Act*, the *Council on Environmental Quality (CEQ) regulations*, *Clean Water Act*, *Clean Air Act*, and the *Endangered Species Act*. This EIS is tiered to the *Umatilla National Forest Land and Resource Management Plan (Forest Plan)*. This includes the clarifying direction of Plan Amendment #10 “*The Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California*” (PACFISH), dated February 24, 1995, which is intended to arrest and

reverse the decline in anadromous fish habitat in the Pacific Northwest Region until a more in depth analysis is completed. It also includes Plan Amendment #11 “*Continuation of Interim Management Direction Establishing Riparian, Ecosystem, and Wildlife Standards for Timber Sales*”, dated June 12, 1995, which is intended to maintain options for old growth-related and other species until a more in-depth analysis is completed. It is also tiered to the *Managing Competing and Unwanted Vegetation FEIS*, its *Mediated Agreement*, and *Record of Decision* (December 8, 1988). This EIS incorporates by reference the Environmental Assessment (EA) for the *Management of Noxious Weeds* and its Decision Notice (May 24, 1995), and other sources of information, documents, published studies, and books referred to in this document and its analysis file.

FOREST MANAGEMENT PLAN

The goal in the Forest plan for minerals and energy is to “provide for exploration, development and production of a variety of minerals on the Forest consistent with various resource objectives, environmental constraints, and considering cost efficiency”. Mineral exploration and mineral removal are permitted throughout the Forest except in withdrawn areas. During development of operating plans of plan modifications, reasonable alternative mitigation measures and/or operating requirements will be developed to define the appropriate stipulations needed to protect other resources while still meeting the objectives of the mineral operator. The test for operating plan requirements is “reasonableness.” Reclamation standards will be developed using an interdisciplinary process to insure land restoration to a productive condition to the extent reasonable and practicable. When reasonable, opportunities to enhance other resources will be considered. Concurrent reclamation will be stressed. Reclamation bonds will be based on actual reclamation cost.

The Forest Plan divided the Umatilla National Forest into management areas, each with a specialized management strategy that emphasizes particular resources and values. A management area’s Desired Future Condition describes how the Forest should look to provide the associated resources and Standards and Guidelines provide the guiding direction for achieving the Desired Future Condition. The analysis area includes the management areas listed below (Figure 1.3). The management area’s goals and primary description of the Desired Future Condition are included in italics, while activities proposed within that allocation and other pertinent information occur in regular type. For further description of the Desired Future Condition and Standards and Guidelines, please refer to Chapter 4 of the Forest Plan.

A3 – Viewshed 1 (Forest Plan p. 4-99 to 104): *Manage the area seen from a primary travel route, use area, or water body, where forest visitors have a major concern for the scenic qualities (sensitivity level1) as a natural appearing landscape. Viewsheds will be managed primarily to meet the visual objectives of retention and partial retention. An attractive, natural appearing landscape will be created or maintained. One claim (Magnolia) is located in this area. It is not visible from the primary travel route.*

A4 – Viewshed 2 (Forest Plan p. 4-105 to 110): *Manage the area seen from a travel route, use area or water body where some forest visitors have a major concern for the scenic qualities (sensitivity level2) as a natural appearing to slightly altered landscape. No claims are located within this area.*

A8 – Scenic Area (Forest Plan p. 4-128 to 4-130): *Protect or enhance the unique natural characteristics of landscapes noted for their scenic beauty. This includes Greenhorn Mountain Roadless Area*

plus Lost Lake, Olive Lake, and north of the Greehorn Townsite and the Jumpoff Joe Roadless Area. No claims are located within this area.

A9 – Special Interest Area (Forest Plan p. 4-131 to 1-133): *Manage, preserve and interpret areas of significant cultural, historical, geological, botanical, or other special characteristics for educational, scientific, and public enjoyment purposes. Cultural-Historic Areas include Greehorn and Olive Lake-Fremont Powerhouse. No claims are located within this area.*

B1 – Wilderness (Forest Plan p. 4-138 to 143): *Manage to preserve, protect and improve the resource and values of the forest wilderness, as directed by the Wilderness Act of 1964 ...will appear to be affected primarily by the forces of nature, with the imprint of human activities substantially unnoticeable. Natural processes, including fire, will continue to be the primary forces affecting the condition of wildernesses ...There will be some evidence of human influence due to the existence of valid mining claims and past use; however, mitigation techniques will be utilized which minimize the impact of these activities. The surrounding area will be managed so as to not adversely affect the wilderness resource... Portions of the North Fork John Day Wilderness are located within the analysis area. Republican Comeback 10 & 11 claims are located within this area.*

C1 – Dedicated Oldgrowth (Forest Plan p. 4-144 to 146): *Provide and protect sufficient suitable habitat for wildlife species dependent upon mature and/or overmature forest stands, and promote a diversity of vegetative conditions for such species. Oldgrowth areas will be characterized by stands of naturally appearing overmature trees. No claims within the analysis area are located in C1 designated oldgrowth.*

C7 – Special Fish Management Areas (Forest Plan p. 4-167 to 170): *Maintain and enhance water quality and produce high levels of anadromous fish habitat on an area-wide basis. In riparian areas, a natural to near natural setting and vegetation development will predominate, with a variety of plant communities, sizes and age classes.... Thirteen claims are located within this area.*

D2 – Research Natural Area (Forest Plan p. 175-177): *Preserve naturally occurring physical and biological units where natural conditions and process are maintained, insofar as possible. Vinegar Hill Research Natural Area is located within the Analysis area, but will not be affected by any of the proposed activities. No claims are located within this area.*

TREATY RIGHTS

The Forest Service, through the Secretary of Agriculture, is vested with statutory authority and responsibility for managing resources of the National Forests. No sharing of administrative or management decision-making power is held with any other entity. However, commensurate with the authority and responsibility to manage is the obligation to consult, cooperate, and coordinate with Indian Tribes in developing and planning management decisions regarding resources on National Forest system land that may affect tribal rights.

In 1855, three treaties that affect the Umatilla National Forest were signed between the United States Government and several Indian tribes. The treaty with the Walla Walla, Cayuse, and Umatilla tribes and bands of Indians in Washington and Oregon Territories (today referred to as the Confederated Tribes of the Umatilla Indian Reservation) was signed on June 9, 1855. On June 26, 1855, a treaty was signed with the Tribes of Middle Oregon (these groups are now known as the Confederated Tribes of the Warm Springs Indian Reservation).

In the treaty between the Confederated Tribes of the Umatilla Indian Reservation and the United States the Tribes reserved for themselves the following provisions:

....'That the exclusive right of taking fish in the streams running through and bordering said reservation is hereby secured to said Indians, and at all other usual and accustomed stations in common with citizens of the United States, and of erecting suitable buildings for curing the same; the privilege of hunting, gathering roots and berries and pasturing their stock on unclaimed lands in common with citizens, is also secured to them.

(Treaty with the Walla Walla, Cayuse and Umatilla, June 9, 1855)

The Granite mining EIS analysis area lies within the area ceded to the United States Government by the Warm Springs Indian tribe and Confederated Tribes of the Umatilla Indian Reservation (CTUIR), as a result of the 1855 Treaty. The Treaty was subsequently ratified by Congress and proclaimed by the President in 1859. As a result of the treaty, elements of the Tribes culture, such as tribal welfare, land and resources were entrusted to the United States government. Trust responsibilities resulting from the Treaty dictate, in part that the United States Government facilitate the execution of treaty rights and traditional cultural practices of the Tribes by working with them on a government to government basis in a manner that attempts a reasonable accommodation of their needs, without compromising the legal positions of the Tribes or the Federal Government.

After reviewing the proposed action for this project the CTUIR expressed concerns regarding the proposed project and outlined Treaty Rights resources that could be affected by the project. The concerns included:

- ❖ Potential impacts to Fish habitat and population
- ❖ Implementation of adequate measures to protect the fishery resource and production in the John Day Basin
- ❖ Potential impacts of the proposed projects on salmonids species listed as threatened and endangered under the Endangered Species Act
- ❖ Impacts of the proposed projects on PACFISH and water quality standards, and measures the Forest Service will implement to adhere to those standards.
- ❖ Impacts to wildlife in the CTUIR usual and accustomed use areas
- ❖ Project impacts on archaeological sites and Traditional Cultural Properties

In response to the concerns expressed by the CTUIR, Water Quality and Fish and Aquatic habitat in Granite Creek and it's tributaries have been identified as Key Issues and will be used to develop alternatives to the proposed action. Other concerns will be incorporated into the document as tracking issues.

Because tribal trust activities often occur in common with the public, the Umatilla National Forest will strive to manage tribal ceded land in favor of the concerns of the tribes, as far as is practicable, while still providing goods and services to all people.

DECISIONS TO BE MADE

This environmental Impact Statement documents results of the environmental analysis conducted for the proposed action and its alternatives. The North Fork John Day District Ranger will determine which alternatives best implements the Forest Plan at this time. Specific determinations to be made are:

- ❖ Whether Plans of Operation submitted by operators on 16 mining claims located within the Granite watershed should be approved.
- ❖ Which, if any mitigation measures are necessary for individual plans.
- ❖ Whether a reclamation bond is necessary for individual plans.
- ❖ What monitoring measures should be taken?

SCOPING

Scoping is used to identify major issues and determine the extent of environmental analysis necessary for an informed decision on a proposed action. The North Fork John Day Ranger District sought information, comments, and assistance from federal, state, and local agencies, local Tribes, and from other groups and individuals interested in or affected by the proposed action. The Notice of Intent to prepare an environmental impact statement was published in the Federal Register on March 9, 2000. On March 29, 2000, a scoping letter was mailed to over 150 groups and individuals who had previously shown interest in District projects. Letters were also sent to all mining claimants in the area who could potentially be affected by this analysis and decision. This project was included in the 2000 Winter, Spring and Summer quarterly issues of the Umatilla National Forest Schedule of Proposed Activities (SOPA).

KEY ISSUES

Water Quality

Past management practices have altered water quality throughout the Granite Creek Watershed. Mining has reduced the potential of the riparian areas. Shade has been removed along some streams, resulting in increased summer water temperatures. Historic mining is the overriding influence on morphology of the streams. Placer, hydraulic, and dredge mining affected many channels in this watershed and few have been able to repair their morphology. Past timber harvest and road building has also negatively affected water quality in the watershed. Stream flow, water quality and the timing of flows have been affected by changes in vegetative cover. Road density is high in many of the subwatersheds, and roads located within riparian areas are common. Roads can affect routing of water by intercepting precipitation, which would otherwise infiltrate, and by intercepting subsurface flows, directing this runoff into channels.

Most of the respondents to scoping expressed concern about the effects continued mining would have on the water quality in the Granite Creek watershed. They point out that

continued mining, in combination with other activities within the watershed, further degrade water quality. It was pointed out that Granite Creek and Clear Creek are on Oregon's 303(d) list of impaired waters, and their tributaries. It was suggested that any activities permitted in the area must be designed to improve water quality.

Others believe that the mining being proposed will have no effect on water quality. They state that existing State regulations, as well as Forest Service mandated mitigation are sufficient to protect water quality. They further point out that almost all the current and proposed mining activities are occurring on lands that have been disturbed by previous mining operations. No new roads are being proposed and few if any trees will be harvested.

Measurements used to compare each alternative's response to this issue include:

1. The numbers of Plans of Operation that include suction dredging.
2. The total estimated acres of disturbance per year.
3. Total miles of road decommissioning planned.

Fish and Aquatic Habitat

Both the Wallowa-Whitman and Umatilla Forest Plans recognized the importance of Granite Creek and its tributaries as an important fisheries resource. Granite Creek and its tributaries support runs of spring Chinook salmon and summer steelhead. Granite Creek is a major tributary to the North Fork John Day River. The John Day River is the last major stream in the Northwest to have free runs of Chinook and Steelhead, due to the lack of dams on the River itself. Historically, bull trout, redband trout and the anadromous fish species are believed to have occupied the entire watershed. Stream surveys for streams in the watershed indicate there is some good habitat, but other areas have poor to fair habitat. Stream cover, streambank stability, pool habitat, and stream temperatures are limiting spawning and rearing habitat for anadromous fish species and bull trout.

The long-term trend for average number of redds per mile has been declining since 1959 for spring Chinook. Historically the North Fork John Day River and the mouths of its tributaries have been used by steelhead for spawning and rearing habitat. Presently, fish populations are at a low level. Historically bull trout inhabited most of the North Fork John Day River drainage and its tributaries. Presently only small populations exist in isolated sections of the drainage. Bull trout are at moderate to high risk throughout this drainage and are at high risk in the upper North Fork.

There is little question that an overall decline in the fisheries resource within the Granite Creek watershed has occurred. However, there is disagreement over what factors are responsible for this decline. Many of the miners believe that the decline has more to do with ocean harvest, dams and Columbia River gill nets than mining operations. They point out that mining has occurred in the drainage for over 100 years, yet fish populations only started to decline within the last 20 years.

Others believe that mining, together with the cumulative effects of other activities managed by the Umatilla National Forest has caused significant watershed and fish habitat damage within the project area and downstream. They are concerned that mining activities could potentially degrade already impaired streams in the project area and point out the need to improve degraded conditions in those streams. Concerns focus on the potential for further

degrading Granite and Clear Creeks, streams on Oregon's 303(d) list of impaired waters and the potential impacts of mining on bull trout, steelhead, spring Chinook, and cutthroat trout and their habitats. Some go so far as to say that all mining should be prohibited within the John Day River Basin due to the critical importance of the river as essential habitat for salmon, steelhead and bull trout.

Local Indian tribes have pointed out that the project lies within ceded lands and to meet its federal trust responsibilities to protect Treaty Rights, the Umatilla National Forest is obligated to manage its lands consistently with efforts to rebuild anadromous fish runs.

Measurements used to compare the response of each alternative to this issue include:

1. The risk of contamination from suction dredging operations
2. Risk to aquatic species from project related sediments yields.

TRACKING ISSUES

Issues that were not considered key, but relate to existing regulation or which help to better understand the consequences of proposed activities, were considered as issues to be tracked throughout the document. These tracking issues are generally of high interest or concern to the public, or are necessary to understand the full extent of the alternatives. Tracking issues provide additional information for the analysis but do not drive the formulation of alternatives.

Recreation

The analysis area is a popular place for sight seeing, hunting, accessing wilderness trailheads, and snowmobile use is increasing during the winter months. The newly renovated Fremont Powerhouse complex, which now includes overnight rentals, is drawing an increasing number of visitors to the area each year. There is a potential for conflicts between recreation users and mining operations in the area.

Management Indicator Species

The National Forest Management Act requires the Forest Service to maintain the viability of wildlife populations. As a result, the Forest Plan selected management indicator species to represent the welfare of a larger group of wildlife species presumed to share the same habitat requirements. Rocky Mountain elk were selected to represent general forest habitat and winter ranges. Pileated woodpecker characterize dead/down tree habitat in mature and old growth mixed conifer stands, while northern three-toed woodpecker represent dead/down tree habitat in mature and old growth lodgepole pine stands. Pine marten were identified for mature and old growth stands at high elevation and the primary cavity excavator guild was identified for snag and down tree habitat. Steelhead and rainbow trout were selected to represent stream and riparian habitats. Planned mining operations could affect management indicator species.

Proposed, Endangered, Threatened, and Sensitive Species

Five documented Region 6 Sensitive *Botrychium* plant populations are present within the proposed analysis area.

Several “Sensitive”, “Threatened”, or “Endangered” fish and wildlife species or their habitats could be affected by proposed management activities. The Canada lynx, bald eagle, bull trout, and mid-columbia steelhead are listed as “Threatened” under the Endangered Species Act and the gray wolf is listed as “Endangered”. Mid-Columbia spring Chinook, Columbia spotted frog, and interior redband trout are on the Regional Forester’s “Sensitive” species list.

Interior redband trout, mid-Columbia steelhead, northern bald eagle, and Columbia spotted frog have been documented within the analysis area and mid-Columbia spring Chinook occur within streams in the area. Though their presence is not documented in the analysis area, some potential habitat components exist for California wolverine, Canada lynx, and gray wolf.

Noxious Weeds

Exposure of mineral soil caused by mining operations can create ideal conditions for the spread of noxious weeds. Dalmatian Toadflax, (*Linaria dalmatica*) has become established in the project area and mining operations have the potential to spread this plant. Precautions are needed when ground-disturbing activities occur near presently infested locations of this and other noxious weeds to prevent spread. Noxious weeds are easily spread by vehicular traffic and establish easily where mineral soil is exposed.

Heritage Resources

The National Historic Preservation Act and Executive Order 11593 require that areas be inventoried before any ground disturbing activity occurs. Because of the past mining activity, this area is rich in historic artifacts. The area is also a significant usual and accustomed area to the Confederated Tribes of the Umatilla Indian Reservation; so prehistoric sites are also present in the analysis area. All high probability terrain within the area has been inventoried for heritage resources. This resulted in the documentation of numerous historic and prehistoric properties. Mining activities have the potential to affect the integrity of these cultural properties, which could require avoidance or mitigation.

Economics

The project area is located in a rural area and monies generated from mining operations and spent by miners can benefit local communities. Unrealistic mitigation requirements could affect the viability of individual mining operations

Miners Rights

Mining on National Forest System lands is a statutory right. There is a concern among some miners that regulation protecting forest resources from mining activities may prohibit prospecting or mining or could be so restrictive as to amount to prohibition.

Health and Safety

Mining operations can pose a safety risk to the general public. Uniformed recreationists may inadvertently travel onto active mining sites. Trucks and other vehicles used in the mining operation may pose a hazard to recreationists using the same roads. Pits and unguarded adits also pose a risk.

Figure 1.1. Vicinity Map.

