United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Grants Pass Resource Area
2164 N.E. Spalding
Grants Pass, Oregon 97526

IN REPLY REFER TO:

JUL 03 2013

1792 (ORM070)
DOI-BLM-OR-M070-2013-004 EA

Dear Interested Party:

The Grants Pass Resource Area has completed the Environmental Assessment (EA) (#DOI-BLM-OR-M070-2013-004 EA) for the Gold Run #1 Mining Plan of Operations. This EA discloses the environmental effects of the Proposed Action (Alternative 2) and No Action Alternative (Alternative 1). The Mining Plan was submitted pursuant to the 43 CFR 3809 surface management regulations.

It is the responsibility of the BLM under the Federal Land Management Policy Act (FLPMA) to ensure that this Plan conforms to the provisions of the 43 Code of Federal Regulations (CFR) 3809 surface management regulations. It is the responsibility of the BLM's under the Federal Land Policy and Management Act (FLPMA) to ensure that the Plan action does not cause unnecessary or undue degradation of the public lands, as defined at (43 CFR 3809.5).

The Plan must incorporate mitigation measures specified by the BLM that are consistent with the Medford District Resource Management Plan (1995), and conduct all operations in a manner that complies with all pertinent Federal and State Laws (43 CFR § 3809.420(a)(4) and 43 CFR § 3809.420(a)(6)). BLM may require the Proponent to incorporate conditions required by other state and federal agencies.

The legal description of the Gold Run #1 mining claim is T. 32 S., R. 4 W., Section 31, NW1/4, Willamette Meridian, Douglas County, Oregon.

Approval of a mine Plan of Operation does not authorize the start of operations. The Proponent must obtain all necessary Federal and State permits before beginning mining activities. Additionally, they must-provide a reclamation bond sufficient to pay third party contractors for reclamation of the proposed disturbance (43 CFR § 3809.412).

As the Grants Pass Field Manager, I am seeking public comment on the Gold Run #1 Environmental Assessment. A publication of legal notice in the Grants Pass Daily Courier will initiate the official 15 day comment period. Comments received will be considered in making the final decision. Written comments may be mailed, or hand delivered to the Grants Pass Interagency Office, 2164 NE Spalding Avenue, 97526. Office hours are Monday through Friday, 8:00 A.M. to 4:30 P.M., closed on holidays. You may access the Gold Run #1 Mining Plan of Operations Environmental Assessment on the Medford District's internet site at http://www.blm.gov/or/districts/medford/plans/index.php. Hard copies of the EA are also available at the Grants Pass Interagency Office. If you have any questions about this project, please contact Leah Schofield, Planning and Environmental Coordinator, at (541) 471-6504.

Comments submitted will become part of the public record for this project. Individual respondents may request confidentiality. If you wish to withhold your personal information from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored by the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection on their entirety.

Thank you for your interest in public land management in the Grants Pass Resource Area.

Sincerely,

Allen Bollschweiler
Field Manager
Grants Pass Resource Area

Environmental Assessment

DOI-BLM-OR-M070-2013-004-EA

Gold Run #1 Mining Plan of Operations

June 2013

Prepared by:

U.S. Bureau of Land Management
Medford District Office
Grants Pass Resource Area

It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

DOI-BLM-OR-M070-2013-004-EA

Contents

1.0 Purpose and Need

1.1 Introduction

The Gold Run # 1 Plan of Operation (Plan) was submitted to the Bureau of Land Management (BLM) by Mr. Blaine Barron (Proponent), for the use of mechanized equipment on the Gold Run #1 placer mining claim in order to test for the quantity and quality of gold in alluvial sediments.

This Environmental Assessment (EA) analyzes the effects of the Plan alternatives on the human environment and will assist the Grants Pass Resource Area Field Manager (Authorized Officer) in determining if an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI) is appropriate for approval of the Plan.

1.2 Purpose and Need

It is BLM's responsibility under the Federal Land Management Policy Act (FLPMA) to ensure that a Plan conforms to the provisions of the 43 Code of Federal Regulations (CFR) 3809 surface management regulations. The BLM is mandated to act timely in processing Plans submitted under the mining laws, including completion of an environmental review, which is the purpose of this EA. The purpose of this EA is to respond to the Gold Run #1 Plan. It is BLM's responsibility under the Federal Land Policy and Management Act (FLPMA) to ensure that the Plan action does not cause unnecessary or undue degradation of the public lands, as defined at 43 CFR § 3809.5. The Plan was submitted pursuant to the 43 CFR § 3809 surface management regulations.

This EA will analyze the environmental effects of the alternatives and determine if the project conforms to BLM's surface management regulation (43 CFR § 3809). BLM may require the Proponent to incorporate conditions required by other state and federal agencies. The Plan must incorporate mitigation measures specified by the BLM that are consistent with the Medford District Resource Management Plan (1995), and conduct all operations in a manner that complies with all pertinent Federal and State Laws (43 CFR § 3809.420(a)(4) and 43 CFR § 3809.420(a)(6)).

Approval of a mine Plan of Operation does not authorize the start of operations. The Proponent must obtain all necessary Federal and State permits before beginning mining activities. They must provide a reclamation bond sufficient to pay third party contractors for reclamation of the proposed disturbance (43 CFR § 3809.412).

1.3 Location

The Gold Run #1 claim is located on BLM administered lands in T. 32 S., R. 4 W., Section 31, NW1/4, Willamette Meridian, Douglas County, Oregon. It is located within the Middle Cow Creek 5th field watershed (HUC 10) near the confluence of Ramsey and Bull Run Creeks. This area is in the Riparian Reserve land use allocation (LUA) (RMP pp.29-30). See Appendix 1 for a detailed map of the planning area.

1.4 Conformance with land use plans and other documents

The EA tiers to or is consistent with the following Medford District land use plans and documents:

- *Final EIS/ROD for Medford District Proposed Resource Management Plan* (RMP 1995)

- *Final Supplemental Environmental Impact Statement and Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (Northwest Forest Plan FSEIS 1994 and ROD 1994)

- *Final SEIS for Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (2000), and the ROD and *Standards and Guidelines for Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (2001)

- *Final Supplemental Environmental Impact Statement: Management of Port-Orford-Cedar in Southwest Oregon* (FSEIS 2004 and ROD 2004)

- *Medford District Integrated Weed Management Plan Environmental Assessment* (1998)

1.5 Decision Factors

The BLM reviews a Plan and completes an environmental assessment under the National Environmental Policy Act (NEPA). From the review, the BLM may decide to:

1. Approve the plan alternative as submitted (43 CFR § 3809.411 (d)(1));

2. Approve the plan alternative that includes conditions, design features, or mitigations deemed necessary to meet the performance standards at 3809.420 and to prevent unnecessary or undue degradation (43 CFR § 3809.411 (d)(2)), or
3. disapprove or withhold approval of the plan of operation because the plan:
   1) does not meet applicable content requirements of (43 CFR § 3809.401;
   2) proposes operations that are in an area segregated or withdrawn from the operation of mining laws unless the requirements of 43 CFR § 3809.1000 are met;
   3) proposes operations that would result in unnecessary or undue degradation of public lands; or
4. Require an EIS.

1.6 Scoping and Issues

Resource issues were considered by the interdisciplinary planning team during internal scoping. Primary resources present in the project area are analyzed in Chapter 3. Other resources were eliminated from further analysis because they were not within the scope of the project or were determined to be irrelevant to the decision making process. See Appendix 2 for a table of the resources.

The Grants Pass Resource Area Field Manager has decided that a Plan that has no measurable environmental effects to the human environment will not undergo external scoping. External scoping for EAs is optional (40 CFR § 1501.7). The need for external scoping considers factors such as the size and scale of the proposed action, the routine nature of the proposal, and interested and affected public. Public comments on this EA will be accepted for a 15-day period following publication of legal notice in the Grants Pass Daily Courier. Project

2.0 Proposed Action and Alternatives

2.1 Alternative 1: No Action

The No Action Alternative is defined as BLM not approving the Plan. The No Action Alternative also serves as the baseline for evaluating the environmental effects of the Proposed Action.

2.2 Alternative 2: Proposed Action

The Plan proposes to excavate eight test trenches to determine the quantity and quality of placer gold in the alluvial material that overlies bedrock on the Bull Run #1 claim (see Appendix 1-map for test locations). The proposed planning area is approximately 2 acres. The test trenches will be excavated with a Kobelco 905 excavator or equivalent. The excavator has a bucket with a width of 27 inches and a fill capacity of ¾ cubic yard. The completed excavations will have an approximate dimension of 6 feet wide by 6 to 14 feet long and a maximum of 18 feet deep, the limit of the excavator reach. The depth of the excavations would stop at bedrock, which is anticipated to be between 1 and 18 feet deep. The operation would take place during dry soil conditions during the summer months, June 1st thru October 15th and would occur over a period of less than two weeks. Fueling if needed would take place in a BLM rock quarry, over 150 feet from Bull Run creek.

Only one excavation trench would be open at any given time. A trench would be excavated, the gravel material processed, the excavation backfilled, and the topsoil and brush would be spread on the surface of the filled trench before starting a new excavation. During excavation, the topsoil and brush would be stockpiled separately from the test gravels. Water used to process the excavated material would be obtained from the excavation itself. A small pump would be placed in the pit and would recirculate seepage groundwater through the sluice.

The excavated gravels would be processed at each excavation site through screening and sluicing. The sluice tailings and the oversize cobble and gravels will be directed back into the excavated trench and the topsoil and removed vegetation would be mounded on the surface after back filling. The excavation will be level with the surrounding surface after settling and compaction occur. The heavy minerals trapped in the sluice will be further cleaned and a determination of the gold content made.

The test sites would be accessed by driving the excavator off of the existing native surface road to the individual test sites. Understory brush may be crushed beneath the excavator while it is accessing the trench areas. Understory brush (i.e. vegetation less than 3” dbh) would be removed and stockpiled at each test site. The existing access road would have minor ground disturbing activities, which include the excavator walking into the sight and exiting the site a maximum of 4 times per season, a total of two entries and two exits.

The planning area totals approximately 2 acres. The project area, or ground disturbance from the excavations, would total approximately 0.05 acres. No ground disturbing activities would be located within 25 feet of the top of the bank for both Ramsey and Gold Run creeks. It is anticipated that one test excavation would be completed per day for a total project duration of approximately 2 weeks or less.

The Proponent would be required to provide a reclamation performance bond, to follow best management practices, utilize project design features, adhere to state and federal regulations, and obtain all necessary state and federal permits as a condition of BLM authorization of the Plan. The Plan could not be approved before adjudication of the reclamation bond and before all BLM authorization contingencies were met.

2.3 Best Management Practices and Project Design Features

2.3.1 Best Management Practices

Best Management Practices (BMPs) are required by the Federal Clean Water Act to reduce nonpoint source pollution to the maximum extent practicable. The BMPs are methods, measures, or practices established from Appendix D of the 1995 ROD/ RMP, and the Oregon Department of Environmental Quality (DEQ) Erosion and Sediment Control Manual (April, 2005), and the Medford District Plan Maintenance (July 12, 2012) as per IM OR-2011-18. BMPs are essential for ensuring that water quality would be maintained at its highest practicable level. The following BMP's are applicable to the Plan:

1. The proponent must prepare a Spill Prevention, Control, and Countermeasure Plan for all hazardous substances to be used in the contract area, as directed by the Authorized Officer. Such plans must comply with the State of Oregon DEQ OAR 340-142, Oil and Hazardous Materials Emergency Response Requirements.

2. Hydraulic fluid and fuel lines on heavy mechanized equipment would be in proper working condition to minimize potential for leakage into streams. No re-fueling of heavy equipment or pumps would occur within 150 feet of streams or stream crossings. Absorbent materials would be required to be onsite to allow for immediate containment of any accidental spills.

3. Spilled fuel and oil would be cleaned-up and would be disposed of at a BLM approved disposal site.

4. To prevent the potential spread of noxious weeds within the Medford District BLM and surrounding landowners, the operator would be required to clean all equipment prior to entry on BLM lands. Cleaning shall be defined as removal of dirt, grease, plant parts, and material that may carry noxious weed seeds onto BLM lands. Cleaning prior to entry onto BLM lands may be accomplished by using a pressure hose.

5. Only equipment inspected by the BLM would be allowed to operate within BLM lands. All subsequent move-ins of equipment as described above shall be treated the same as the initial move-in.

6. Prior to initial move-in of any equipment, and all subsequent move-ins, the operator would make the equipment available for BLM inspection at an agreed upon location off federal lands.

7. The operator shall ensure that exposed surfaces (slope faces, stockpiles, and stripped overburden) shall be secured to prevent erosion, slumping, or subsidence. Any combination of weed-free mulches or erosion control structures may be used.

2.3.2 Project Design Features

Project Design Features (PDFs) are measures included in the site specific design of the Proposal to eliminate or minimize adverse impacts on the human environment. The Plan has incorporated the following PDF's:

1. Based on site specific field conditions, there would be a 25 foot no touch, undisturbed buffer maintained between all proposed activities and both Ramsey and Bull Run Creeks. Within this buffer, excavation activities, placement of excavated material including top soil, brush and alluvial (gravel) subsoil would not occur, including complete exclusion of equipment. The 25 foot no entry vegetation buffer would be measured from the top of stream bank, which is defined as the first significant slope break next to the stream where high flows would enter the project area.

2. Topsoil and brush would be stockpiled during excavation then placed on the surface of backfilled reclaimed test trenches.

3. Excavated gravel material would be placed immediately upslope and adjacent to each test hole.

4. All excess water from excavated material and from washing operations would be directed back into the test hole.

5. All processing water would come from ground water seepage in the bottom of test hole.

6. Only one test hole would be excavated at a time with each test hole being backfilled and reclaimed before beginning excavation on a new test hole.

7. Trees greater than 3 inch diameter at breast height (dbh) would not be disturbed during operations. No excavation would occur within the canopy driplines (outer edge of the longest limbs as measured from the trunk) and ensuring that reclamation activities do not disturb canopy dripline areas.

8. Existing access roads would have minor ground disturbing activities, which include the excavator walking into the sight and exiting the site a maximum of four times per season (a total of two entries and two exits).

9. The operation would take place during dry soil conditions during the drier summer months, June 1st through October 15th.

10. If any cultural resources or vertebrate fossils are discovered during project implementation, work would be suspended immediately in the area until the BLM is notified and appropriate procedures can be implemented. Mining operations would be redesigned to protect any cultural resource values present, or evaluation or mitigation procedures would be implemented based on recommendations from the Resource Area Archaeologist with concurrence from the Resource Area Manager and appropriate regulatory agencies.

11. The BLM archaeologist would be notified at least one week before excavation work begins to allow for cultural resource monitoring during ground disturbing activity.

3.0 Affected Environment and Environmental Consequences

This section provides the basis for the comparisons of the alternatives and the reasonably foreseeable environmental consequences to the human environment of the proposed action. This analysis considers both the direct effects, or effects that are caused by the action and would occur at the same place and time, and the indirect effects, or effects that are caused by the action, but would occur at a different location or later in time (40 CFR 1508.8).

Cumulative Effects

As the Council on Environmental Quality (CEQ), in guidance issued on June 24, 2005, points out, the "environmental analysis required under NEPA is forward-looking," and review of past actions is required only "to the extent that this review informs agency decision-making regarding the Proposed Action." A description of current conditions inherently includes the effects of past actions and serves as a more accurate and useful starting point for a cumulative effects analysis than by "adding up" the effects of individual past actions. "Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." (CEQ Memorandum 'Guidance on the Consideration of Past Actions in Cumulative Effects Analysis' June 24, 2005.)

When encountering a gap in information, the question implicit in the CEQ regulations on incomplete and unavailable information was posed: is this information "essential to a reasoned choice among the alternatives?" (40 CFR §1502.22[a]). While additional information would often add precision to estimates or better specify a relationship, the basic data and central relationships are sufficiently well established that any new information would not likely change relationships or conclusions. Although new information would be welcome, the team did not identify any missing information as essential for the Decision Maker to make a reasoned choice among the alternatives.

The Interdisciplinary Team (IDT) weighed the scientific evidence gathered by each resource specialist. Internal scoping for this project did not identify any need to exhaustively list individual past actions or analyze, compare, or describe the environmental effects of individual past actions in order to complete an analysis which would be useful for illuminating or predicting the effects of the Proposed Action.

3.1 SOILS AND HYDROLOGY

3.1.1 Affected Environment

The proposed Plan is located in the Middle Cow Creek HUC10, fifth field watershed. The Middle Cow Creek watershed is approximately 113,023 acres in size and is a tributary to Lower Cow Creek. The watershed is located within the Klamath Mountain Geomorphic Province of southwestern Oregon, approximately twenty-two miles north of the City of Grants Pass. It has approximately 1,339 stream miles that drain into Lower Cow Creek and eventually drain into the South Fork Umpqua River. Its terrain ranges from 1,029 feet at the confluence with West Fork Cow Creek to an elevation up to 5,103 feet on the watershed divide. The watershed's soils formed from exposed marine volcanic, metamorphic sedimentary rocks and ultra-mafic rock.

According to the BLM Manual Supplement Handbook 5251-1, Timber Production Capability Classification Handbook, the site of the Plan is not located on critical slope, severe surface erosion or mass movement fragile classified soils.

The claim is located on a triangular shaped, alluvial outwash terrace between Bull Run and Ramsey Creeks. The slope of the planning area is between 0 and 12%. Soils in the planning area are classified as Acker gravelly loam, which usually occur on 12 to 30 percent slopes. This deep, well-drained soil is located on mountain footslopes. It formed in colluvium and residuum derived from metamorphic rock. It is well vegetated with grasses and forbs and has a brush understory. The overstory includes conifers, oak and alder. There is an existing road that traverses the Plan area.

Bull Run Creek is a perennial stream with a 10-20 feet wide channel at the ordinary high water mark. It has some floodplain development, with bedrock- boulder substrate and good bank stability.

Ramsey Creek is an intermittent stream. The channel is highly incised and 3 to 4 feet wide at ordinary high water. The floodplain for this stream is not well defined and the stream channel substrate consists of cobble-gravel, and has poor bank stability. The proposed excavation sites are located well above the streams flood prone areas and there was no evidence of high flows inundating the project area.

3.1.2 Environmental Consequences

Alternative 1: No Action

Direct/Indirect Effects

Under the no action alternative, the existing condition of the project area would not be altered. There would be no direct or indirect effects to water quality in the project area.

Cumulative Effects

Since there are no direct or indirect effects, there are no cumulative effects of the no action alternative.

Alternative 2: Proposed Action

Direct/Indirect Effects

Erosion hazard is an indicator of a soil's susceptibility to particle or mass movement from its original location. The dominant erosion process is concentrated flow erosion: gully, rill, and sheet. This form of erosion occurs when water accumulates on the soil surface predominately where there is little or no protective organic matter. As the water flows downslope it builds energy which allows for detachment of soil particles that then travel as sediment in the flowing water.

Soil in the project area is protected by vegetation, litter, and duff, such that no mineral soil is exposed, concentrated flow erosion is not likely to occur and mass movement or streambank erosion is less likely to occur. There is little opportunity for sediment to leave the site and reach either of the streams.

The main mechanism for erosion and sediment delivery is disturbed, bare soil, steepness of slope and water routing the sediment to the stream. Due to the small scale of disturbed soil; the gently

sloping to flat terrain; and the implementation of BMPs and PDFs (such as the minimum 25 foot no-entry vegetative buffer, which would prevent off-site sedimentation) there would be no effect to water quality in Bull Run and Ramsey Creeks.

Cumulative Effects
The proposed action would have no direct or indirect effects. Therefore, there will be no cumulative effects to water quality in Bull Run and Ramsey Creeks.

3.2 FISHERIES

3.2.1 Affected Environment
The Middle Cow Creek HUC10, fifth field watershed supports both resident trout and anadromous fish. The watershed contains approximately 85 miles of stream habitat for winter steelhead, coho and fall Chinook salmon. Resident cutthroat and rainbow trout inhabit about 154 miles (Middle Cow Creek WA, 1999).

3.2.2 Environmental Consequences
Alternative 1: No Action
Direct/Indirect Effects
Under the no action alternative, the existing condition of the project area would not be altered. There would be no direct or indirect effects to fisheries in the project area.

Cumulative Effects
Since there are no direct or indirect effects, there are no cumulative effects of the no action Alternative.

Alternative 2: Proposed Action
Direct/Indirect Effects
The main mechanism for erosion and sediment delivery is disturbed, bare soil, steepness of slope and water routing the sediment to the stream. Due to the small scale of disturbed soil and the implementation of BMPs and PDFs (such as the minimum 25 foot no-entry vegetative buffer, which would prevent off-site sedimentation, and retaining trees greater than 3 inch dbh, which would protect future LWD recruitment) there would be no causal effect to coho critical habitat and essential fish habitat in Bull Run and Ramsey Creeks.

Cumulative Effects
Since there are no direct or indirect effects, there are no cumulative effects of the proposed action.

3.3 WILDLIFE

3.3.1 Affected Environment
The proposed action occurs within the outer home range (between ½ mile and 1.3 miles) of an occupied spotted owl site, and within subunit KLE 2 (Klamath East) of Critical Habitat Unit 10. The KLE-2 subunit occurs in Josephine and Douglas Counties, Oregon, and comprises Federal lands managed by the USFS and the BLM under the NWFP (USDA and USDI 1994, entire). Special management considerations or protection are required in this subunit to address threats to the essential physical or biological features from current and past timber harvest, losses due to

wildfire and the effects on vegetation from fire exclusion, and competition with barred owls. This subunit is expected to function primarily for east-west connectivity between subunits and critical habitat units, but also for demographic support. This subunit facilitates northern spotted owl movements between the western Cascades and coastal Oregon and the Klamath Mountains.

There are no special status species or habitat present or effected within the project area (see Appendix 2).

3.3.2 Environmental Consequences

Alternative 1: No Action

Direct/Indirect Effects

Under the no action alternative, the existing condition of the project area would not be altered. There would be no direct or indirect effects to wildlife in the project area.

Cumulative Effects

The no action would have no direct or indirect effects. Therefore, there will be no cumulative effects to of the no action alternative.

Alternative 2: Proposed Action

Direct/Indirect Effects

The Proposed Action would not affect the existing forest primary constituent elements (PCEs) supporting the life history, biology, and ecology of the northern spotted owl and the requirements of the habitat to sustain its essential life history functions. These forest elements, such as mature and old-growth forests, moderate to high canopy cover, large trees, snags, and down wood, support the nesting, roosting and foraging (NRF), and dispersal habitat for the spotted owl. These elements would not be altered. No noise disturbance to nesting owls would occur.

There would be no direct or indirect effects to Sensitive wildlife species, Survey and Manage wildlife species, migratory birds or game birds in the project area.

Cumulative Effects

Since there are no direct or indirect effects, there are no cumulative effects of the Proposed Action.

3.4 BOTANY/NOXIOUS WEEDS

3.4.1 Affected Environment

The project area is out of the range of Medford District BLM's botanical Threatened and/or Endangered (species, including *Fritillaria gentneri*, *Lomatium cookii*, and *Limnanthes floccosa* var. *grandiflora)*. No effects are anticipated to Medford District BLM's botanical and/or Endangered listed species.

The area is known to harbor noxious weed species, including *Centaurea pratensis* (Meadow knapweed) and *Rubus armeniacus* (Himalayan blackberry).

3.4.2 Environmental Consequences

Alternative 1: No Action

Direct/Indirect Effects

Under the no action alternative, the existing condition of the project area would not be altered. There would be no direct or indirect effects to botany or noxious weeds in the project area.

Cumulative Effects
The no action would have no direct or indirect effects. Therefore, there will be no cumulative effects to the no action alternative.

Alternative 2: Proposed Action
Direct/Indirect Effects
T/E Plants - There are no T/E plant species within the project area, therefore there are no direct or indirect effects to T/E plant species.

Noxious weeds - Under Alternative 2, there will be soil disturbance, increased vehicular activity, and heavy machinery usage within the floodplain. Four main vectors of weed establishment are disturbed and/or bare soil, vehicular traffic, heavy machinery, and proximity to the floodplain. However, due to the small scale of disturbed soil and the implementation of BMPs and PDFs (such as washing the undercarriages of vehicles and heavy equipment, which would prevent importing weed seeds from off-site sources, and re-seeding disturbed areas with an approved seed mix, which would outcompete noxious weeds and decrease the amount of bare ground) there would be no net increase in noxious weed establishment as compared to the No Action Alternative, where noxious weed populations would continue to expand if left unchecked.

Cumulative Effects
T/E Plants – There are no direct or indirect effects to the proposed action, thus no cumulative effects of the no action alternative.

Noxious weeds – Under Alt 2 there would be increased opportunities for the establishment of new noxious weed populations. However, over the long term, after BMPs and PDFs have been implemented, it would be difficult to attribute, with certainty, new noxious weed populations with the proposed activity. Noxious weeds are naturally spreading across the landscape at a rate that varies depending upon a number of factors, including but not limited to 1) the species in question; 2) the land management activities that are occurring within the vicinity; and 3) the mode and direction of avian/mammalian transportation patterns. The chances of this project contributing to noxious weed spread, to a detectable degree, are negligible.

3.5 CULTURAL RESOURCES

3.5.1 Affected Environment
A cultural resource survey of the Project Area was conducted on February 27, 2013. Survey guidelines followed compliance procedures set forth in Section 106 of the National Historic Preservation Act and in accordance with the National Cultural Programmatic Agreement and the Protocol for Managing Cultural Resources on Lands Administered by the BLM in Oregon. No cultural resource sites were identified during survey.

3.5.2 Environmental Consequences
Alternative 1: No Action
Direct/Indirect Effects

Under the no action alternative, the existing condition of the project area would not be altered. There would be no direct or indirect effects to cultural resources in the project area.

Cumulative Effects
Since there are no direct or indirect effects, there are no cumulative effects of the no action alternative.

Alternative 2: Proposed Action
Direct/Indirect Effects
Since there were no cultural resource sites were identified during survey, activities proposed in the Gold Run #1 Plan of Operations (OR67649) will have No Effect to cultural resources.

Cumulative Effects
Since there are no direct or indirect effects, there are no cumulative effects of the Proposed Action.

4.0 Agencies and Persons Contacted

4.1 Public Comment Period

A formal 15-day public comment period will be initiated by publish of legal notice in the Grants Pass Daily Courier. If you would like a hardcopy of the EA, one may be obtained at the Grants Pass Interagency Office or by contacting Ferris Fisher, Planning and Environmental Coordinator at (541) 471-6639. You may also access project information on the Medford District website: http://www.blm.gov/or/districts/medford/plans/index.php. Written comments should be addressed to Allen Bollschweiler, Field Manager, Grants Pass Resource Area, at 2164 NE Spalding Avenue, Grants Pass, OR, 97526. For comments to be considered as part of the project record they must be postmarked within 15-days following the legal notice in the Daily Courier.

4.2 Consultation

4.2.1 United States Fish and Wildlife Service (USFWS)

No disturbance to nesting spotted owls or removal of spotted owl habitat or spotted owl critical habitat would occur for the proposed action; therefore the project is no effect to spotted owls or spotted owl critical habitat and no consultation is required.

Since the Project Area is outside the natural range of the marbled murrelet and there are no known bald eagles on BLM land within the Project Area, no consultation is required for these species.

Since no threatened or endangered plant species were found within the Project Area, no consultation is required.

4.2.2 National Marine Fisheries Service (NMFS)

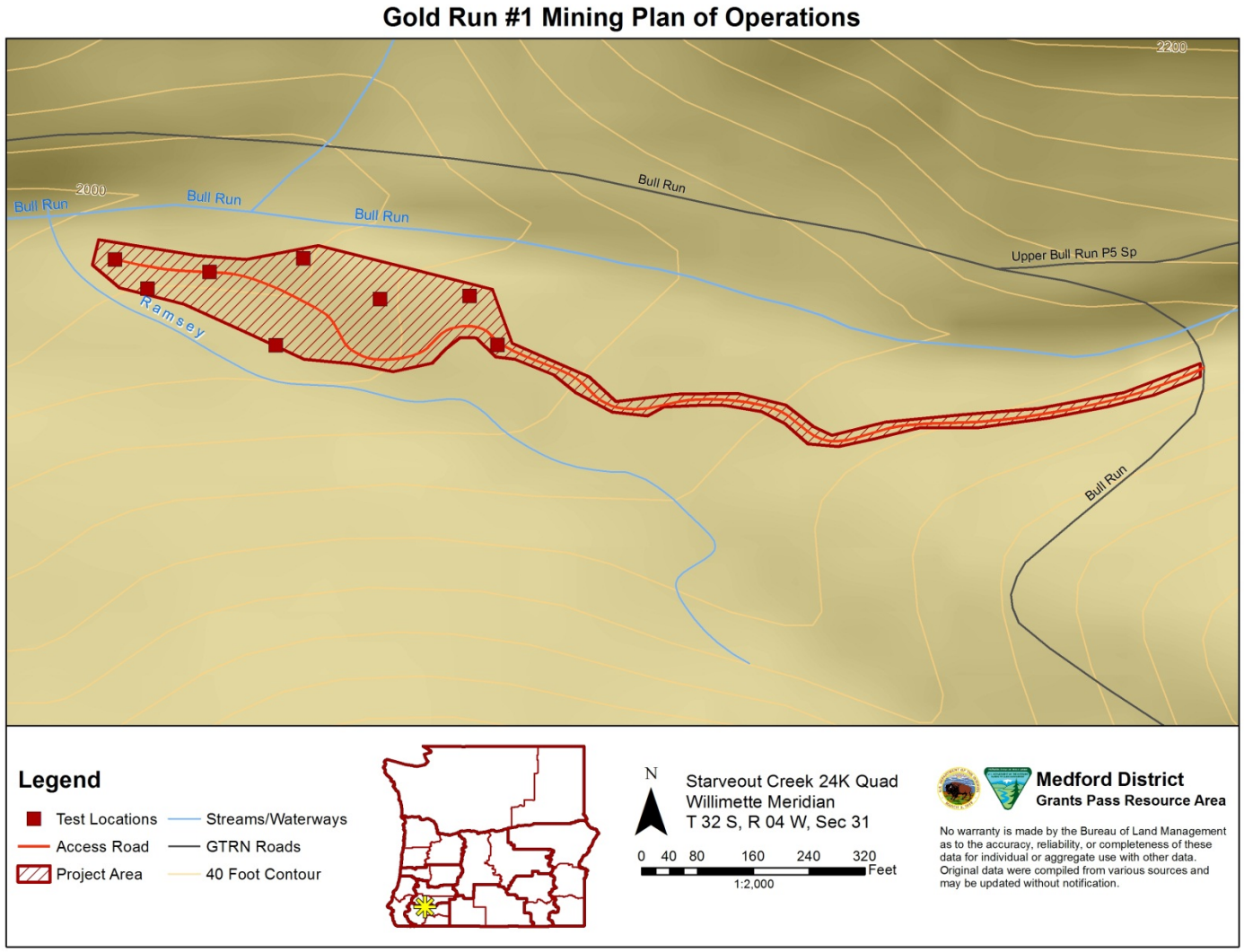
Consultation with the National Marine Fisheries Service is not required for the Proposed Action because there are no adverse effects to Endangered Species Act listed fish. Oregon Coast (OC) coho salmon and coho critical habitat is present within the Planning Area but the proposed activities with implementation of applicable BMP's and PDF's will have no effect on these species and their habitat. Consultation with the National Marine Fisheries Service is not required as there would be no adverse effects to essential fish habitat.

5.0 List of Preparers

The following individuals were consulted in the preparation of this EA:

Name	Title	Primary Responsibility
Richard Chaney	Geologist	Plan contact, Minerals specialist
Michael Crawford	Fish Biologist	Fisheries
Aaron Ennis	Archeology	Cultural Resources
Ferris Fisher	Ecosystem Planner	Environmental Compliance, NEPA
Douglas Fitting	Hydrologist	Soils and Water
Merry Haydon	Archeology	Cultural Resources
Marlin Pose	Wildlife Biologist	Wildlife
Rachael Showalter	Botanist	Botany, Noxious weeds, T/E plants

Appendix 1 – Map of Gold Run #1



Appendix 2 – Environmental Elements

Gold Run #1 Project Environmental Assessment

(DOI-BLM-M070-2013-003-EA)

In accordance with law, regulation, executive order and policy, the interdisciplinary team reviewed the elements of the human environment to determine if they would be affected by the Proposed Action described in Chapter 2 of the EA (environmental assessment). The following tables summarize the results of that review. Those elements that are determined to be "affected" will define the scope of environmental concern, Chapter 3 of the EA.

Table 1 lists supplemental authorities that may apply if the Proposed Action (Alternative 2) described in the Environmental Assessment was to be implemented (BLM Handbook 1790-1 Appendix1). In addition to the supplemental authorities listed in Table 1, Table 2 lists other environmental elements. Both Tables include the interdisciplinary team's analysis of environmental impacts per element if the Proposed Action (Alternative 2) described in the Environmental Assessment was implemented.

Table 1. Supplemental Authorities to be considered

Critical Element of the Human Environment	**Status** **1/ Not Present** **2/ Not Affected** **3/ Affected**	**Interdisciplinary Team Remarks** **1/ If not affected, why?** **2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, design features not already identified in Appendix D of the 1995 RMP to reduce or avoid environmental harm**
Air Quality (Clean Air Act)	Not Affected	
Areas of Critical Environmental Concern	Not Present	
Cultural, Historic, Paleontological	Not Present	Activities proposed in the Gold Run #1 Plan of Operations (OR67649) will have No Effect to cultural resources. See Section 3.5. No known Paleontological resources exist within the Project Area.
Energy (Executive Order 13212)	Not Present	
Prime or Unique Farm Lands	Not Present	

Critical Element of the Human Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, design features not already identified in Appendix D of the 1995 RMP to reduce or avoid environmental harm
Flood Plains (Executive Order 11988)	Not Present	Planning area is not in FEMA designated floodplain boundary according to the FEMA issued flood maps found on the FEMA Map Service Center web page. (https://msc.fema.gov/webapp/wcs/stores/servlet/CategoryDisplay)
Hazardous or Solid Waste	Not Affected	BMPs incorporated into the Proposed Action will prevent any affects to this element.
Invasive, non-native species (Executive Order 13112)	Not Affected	See Section 3.4
Native American Religious Concerns	Not Affected	The tribes take an active role in the management of their native lands and the BLM works with relevant federally recognized Tribes to further identify and address Native American concerns and traditional uses of lands administered by the BLM. Consultation with Tribes has not identified cultural resource concerns within the Area of Potential Effects of ground disturbing activities proposed in the Gold Run #1 Plan of Operations (OR67649).
T/E (Threatened or Endangered) Fish Species or Habitat	Not Affected (Oregon Coast coho salmon Evolutionarily Significant Unit (ESU))	Salmon are listed under the Endangered Species Act by evolutionarily significant units (ESU). An ESU is a stock of Pacific salmon that is 1) substantially reproductively isolated from other specific populations units; and 2) represents an important component in the evolutionary legacy of the species. The southernmost extent of the federally listed threatened Oregon Coast (OC) coho salmon is the Umpqua Basin. OC Coho Salmon are within the Middle Cow Creek Watershed. Excavation and reclamation would have no effect on OC coho salmon (ESA-Threatened) and coho critical habitat (CCH). The closest CCH in streams of the Gold Run #1 is approximately 25 feet from the closest ground disturbance. No overstory removal is being proposed for this project thus no increase in stream temperatures within CCH. With dry condition work period, well vegetated riparian, no proposed road building, sediment would not be of a magnitude that would result in a measurable increase in the overall stream sediment deposition within any of the stream channels. Project activities would follow all provisions of the Clean Water Act (40 CFR Subchapter D) and Department of Environmental Quality's (DEQ's) provisions for maintenance of water quality standards.
T/E (Threatened or Endangered) Plant Species or Habitat	Not Present	

Critical Element of the Human Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, design features not already identified in Appendix D of the 1995 RMP to reduce or avoid environmental harm
T/E (Threatened or Endangered) Wildlife Species, Habitat and/or Designated Critical Habitat	Not Affected	No change to nesting, roosting, foraging or dispersal habitat. No noise disturbance to spotted owls. No modification of primary constituent elements of habitat supporting nesting and roosting, foraging, or dispersal habitat within spotted owl critical habitat.
Water Quality (Surface and Ground)	Temperature: Not Affected Chemical/Nutrient Contamination: Not Affected Sediment: Not Affected	Temperature: There would be no removal of shade providing overstory vegetation. There would be no affect to stream temperature. Chemical/Nutrient Contamination: There would be no affect to chemical/nutrient contamination. Sediment/Turbidity: There would be no sediment moving off site into a waterbody. There would be no sediment delivery to stream courses and no affect to water quality.
Wetlands (Executive Order 11990)	Not Present	
Wild and Scenic Rivers	Not Present	There are no eligible, suitable, or designated Wild and Scenic Rivers within the Lower Grave Planning Area.
Wilderness	Not Present	
Essential Fish Habitat (Magnuson-Stevens Fisheries Conservation and Management Act)	Not Affected (EFH within the Middle Cow Creek HUC 5 watershed)	Bull Run, approximately 0.6 miles below Planning Area, is designated as EFH (Essential Fish Habitat) under the Magnuson-Stevens Fishery Conservation and Management Act. Excavation and reclamation activities would not adversely affect coho and Chinook salmon Essential Fish Habitat. With dry condition work period, well vegetated riparian, no proposed road building, sediment would not be of a magnitude that would result in a measurable increase in the overall stream sediment deposition within any of the stream channels. Project activities would follow all provisions of the Clean Water Act (40 CFR Subchapter D) and Department of Environmental Quality's (DEQ's) provisions for maintenance of water quality standards.
Fire Hazard	Not Affected	
Fire Risk	Not Affected	

Critical Element of the Human Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, design features not already identified in Appendix D of the 1995 RMP to reduce or avoid environmental harm
Recreation	Not Affected	
Rural Interface Areas (RMP, Map 13)	Not Present	
Special Areas (not including ACEC)	Not Present	
Special Status Species (Not including T/E): Fish Species/Habitat	Not Affected (Oregon Coast steelhead ESU within Middle Cow Creek HUC 5 watershed) Umpqua chub	On July 26, 2007 a new Special Status Species list went into effect (BLM 2007). This new list has two categories, Sensitive and Strategic. The former categories of Bureau Assessment and Bureau Tracking no longer exist. Fish species are listed as special status species by ESUs. See the "T/E (Threatened or Endangered) Fish Species or Habitat" section above for the definition of ESUs. Oregon Coast steelhead are within the Bull Run, Ramsey Creek and Middle Cow Creek HUC 5 watersheds. Their habitat is contained within the Critical Habitat analyzed for OC coho salmon. Excavation and reclamation would not have any adverse effect on OC Steelhead (ESA-species of Concern). The closest steelhead presence in streams of the Gold Run #1 Project Planning Area is approximately 25 feet from test trench. Sediment resulting from excavation and reclamation activity would not be of a magnitude that would result in a measurable increase within any of the stream channels. Project actions would follow all provisions of the Clean Water Act (40 CFR Subchapter D) and DEQ's provisions for maintenance of water quality standards. Umpqua chub are a sensitive species found in Cow Creek. No changes to Umpqua chub habitat would occur because no measurable effects (sediment) would reach Cow Creek.
Special Status Species (Not including T/E): Plant Species/Habitat	Not Present	
Soil Productivity	Not Affected	
Vegetation Resources	Not Affected	

Critical Element of the Human Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, design features not already identified in Appendix D of the 1995 RMP to reduce or avoid environmental harm
Soil Erodibility	Not Affected	There are no TPCC classified critical slope, severe surface erosion or mass movement fragile soils in the project area. The proposed project is located on gently sloping to flat terrain. There was no evidence of erosion or sediment delivery to the streams. There would be no affect to soil erodibility. See Section 3.1.

Table 2. Other Elements of the Environment

Other Element of the Human Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, design features not already identified in Appendix D of the 1995 RMP to reduce or avoid environmental harm
Soil – Mass Wasting	Not Affected	There are no TPCC classified critical slope, severe surface erosion or mass movement fragile soils in the project area. The proposed project is located on gently sloping to flat terrain. There would be no affect to soil mass wasting.
Bird Species of Conservation Concern (BCC) 2008 – Bird Conservation Region 5	Not Affected	Both the U.S. Fish and Wildlife Service (2002) and Partners in Flight (Altman 1999) consider the state and regional approach a key to the conservation of migratory songbirds. The Birds of Conservation Concern (USFWS 2008a) identifies species, subspecies, and populations of migratory and non-migratory birds in need of additional conservation actions that are deemed to be the highest priority for conservation actions. Proposed Action would not have negative impacts on habitat or populations of species. Species that are known or may occur in or near the Grants Pass Resource Area: Bald Eagle (b*), Peregrine Falcon (b*), Rufous Hummingbird, Allen's Hummingbird, Olive-sided Flycatcher, Willow Flycatcher (c*), Horned Lark (strigata ssp.) (a*), Oregon Vesper Sparrow (affinis ssp.), Purple Finch. * (a=ESA candidate, b= ESA delisted, c= non-listed subspecies or population of T&E species)
Survey and Manage and Special Status Species (Not including T/E): Wildlife Species/Habitat	Not Affected	No suitable habitat for great gray owl, red tree vole, or Oregon shoulderband snail. No suitable habitat for wildlife Survey and Manage species occurs, therefore no surveys are required

Other Element of the Human Environment	Status 1/ Not Present 2/ Not Affected 3/ Affected	Interdisciplinary Team Remarks 1/ If not affected, why? 2/ If affected, develop cause/effect statement, unit of measure to describe environmental impacts, and if applicable, design features not already identified in Appendix D of the 1995 RMP to reduce or avoid environmental harm
Special Status Species (Not including T/E): Species/Habitat	Not Present/ Not Affected	Bureau Sensitive not expected to be present in Project Area: Tricolored blackbird, white-tailed kite, streaked horned lark, American peregrine falcon, bald eagle, Lewis' woodpecker, white-headed woodpecker, purple martin, black salamander, Siskiyou Mountains salamander , Oregon spotted frog, pallid bat, Townsend's big-eared bat, Oregon shoulderband snail, Chase sideband snail, travelling sideband snail, Siskiyou hesperian snail, evening fieldslug, Franklin's bumblebee, Johnson's hairstreak, mardon skipper, coronis fritillary, Siskiyou short-horned grasshopper. Fisher are not known to occur, and no suitable habitat would be removed. Bureau Sensitive species that may be near but not expected to be affected: Pond turtles, and foothill yellow-legged frogs may occur in Quines Creek or upper tributaries. Maintaining ACS objectives, habitat and riparian conditions. The fringed myotis may roost in large decadent trees and snags, which are unaffected in the Proposed Action.
Visual Resources	Not Affected	
Water Resources (Not including water quality)	Not Affected	
Greenhouse Gases and Carbon Storage	Not Affected	
Water Quantity	Not Affected	
Late-successional Forest	Not Affected	
Fire Risk	Not Affected	
Port-Orford-cedar	Not Present	

Appendix 3 – Aquatic Conservation Strategy Consistency Analysis

The Aquatic Conservation Strategy (ACS) was developed to restore and maintain the ecological health of watersheds and aquatic ecosystems contained within them on public lands. The ACS must strive to maintain and restore ecosystem health at watershed and landscape scales to protect habitat for fish and other riparian-dependent species and resources and restore currently degraded habitats. This approach seeks to prevent further degradation and restore habitat over broad landscapes as opposed to individual projects or small watersheds. (Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl, page B-9).

ACS Components:

Riparian Reserves (ACS Component #1)

Riparian Reserves were established. The ROD/RMP (pg. 26) specifies Riparian Reserve widths equal to the height of two site potential trees on each side of fish-bearing streams and one site-potential tree on each side of perennial or intermittent non-fish bearing streams, wetlands greater than an acre, and constructed ponds and reservoirs. Riparian Reserve widths were developed using the Regional Ecosystem Office approved methodology in determining site potential tree heights. This methodology uses average site index computed from inventory plots throughout the fifth field watershed. The site potential tree height for the Middle Cow Creek fifth field watershed is 195 feet.

Key Watersheds (ACS Component #2)

Key Watersheds were established "as refugia . . . for maintaining and recovering habitat for at-risk stocks of anadromous salmonids and resident fish species [ROD/RMP, pg. 22]." Middle Cow Creek, 113,023 acres, is not a key watershed.

Watershed Analysis (ACS Component #3) and other pertinent information:

In developing the project, the Middle Cow Creek Watershed Analysis was used to evaluate existing conditions, establish desired future conditions, and assist in the formulation of appropriate alternatives. The Middle Cow Creek Watershed Analysis is available for public review at the Medford District office or can be viewed under "Plans & Projects" on the Medford District website at http://www.blm.gov/or/districts/medford/plans/inventas.php

Watershed Restoration (ACS Component #4)

According to the Middle Cow Creek Water Quality Restoration Plan (2004), since 1995, numerous stream enhancement projects have been implemented in the Middle Cow Creek Watershed. This includes replacing 14 culverts identified as barriers to fish passage to open up access to additional habitat, or improving or decommissioning 25 miles of road to reduce road sediment impacts to aquatic systems. Since 2009, Grants Pass Resource Area has focused on large woody debris projects within the fifth field to improve threatened Oregon Coast coho habitat. Fourteen streams and over 7 miles of habitat have been restored. While the proposed project is not restorative in nature, it will not prevent attainment of ACS objectives.

Range of Natural Variability within the Watershed:

Based on the dynamic, disturbance-based nature of aquatic systems in the Pacific Northwest, the range of natural variability at the site scale would range from 0-100 percent of potential

for any given aquatic habitat parameter over time. Therefore, a more meaningful measure of natural variability is assessed at scales equal to or greater than the fifth-field watershed scale. At this scale, spatial and temporal trends in aquatic habitat condition can be observed and evaluated over larger areas, and important cause/effect relationships can be more accurately determined.

Natural disturbance events to aquatic systems in the Pacific Northwest include wildfires, floods, windstorms, and landslides. The following is an excerpt from the Middle Cow Creek Watershed Analysis:

> "Fire has also greatly affected the vegetation patterns in the watershed. Frequent, low intensity fires were the rule in this area, resulting from both lightning and Native American ignitions. There have been large, stand-replacement fires, most recently in the Stevens Creek and Whitehorse drainages. Effective fire suppression has allowed many areas to develop a higher level of stocking of small Douglas fir, hardwoods or brush. This shift in plant species composition and density in some areas has generated concerns for long term forest health. The high density of small trees and brush may result in large, intense fires or widespread disease or insect damage. The extent and locations of these conditions are not well documented, but are known to exist in the Dad's Creek area and elsewhere (Middle Cow Creek WA, 1999, p.34)."

Historic fire regime in this watershed can be as low as 0-35 year intervals for mixed conifer types. From 1960-2011, the watershed has experienced 106 fires, the largest of which being 1,360 acres (Y. Gallimore, personal communication).

The Middle Cow Creek watershed is located within the Klamath Mountains province and is characterized by a mixture of metamorphic sedimentary and ultramafic rock types. For a more detailed characterization of the geology, refer to the Middle Cow Creek Watershed Analysis, 1999.

Timber harvesting and road construction over the past 50 years have substantially increased the frequency and distribution of landslides above natural levels in the Middle Cow Creek Watershed. However, there is a downward trend in landslide incidence over the last 50 years that is associated with improved management practices. On BLM-managed land, future landslides, occurring mostly during large storm events, are expected to deliver large wood and rock fragments to lower-gradient streams. This is a direct result of Riparian Reserve protection and the recognition of their role as critical source areas for large wood and sediment to downstream habitats. As a result, these events would more closely resemble landslides within relatively unmanaged forests. These disturbance events are the major natural sources of sediment and wood to a stream system and are very episodic in nature.

Due to the dynamic nature of these disturbance events, stream channel conditions vary based on the time since the last disturbance event. This results in a wide range of aquatic habitat conditions at the site level. Site level habitat conditions can be summarized by Oregon Department of Fish and Wildlife (ODFW) habitat surveys. ODFW Survey data exist for many of the Middle Cow Creek Fifth Field streams (Middle Cow Creek Watershed Analysis,

1999). Bull Run Creek was surveyed by ODFW in 1996. Reach 1 is the closest fish-bearing (coho and steelhead) stream to the proposed project at approximately 25 feet top of bank and 35 feet from ordinary high watermark. Surveys of the Reach 1 indicated approximately 15 percent fines and 55 percent gravel in riffle units. These levels would receive ratings of *adequate* for sediment and *desirable* for riffles using the ODFW Habitat Benchmark rating system. Pool habitat components accounted for 19 percent of overall habitat units and were rated as *adequate*. Surveyors counted an average of 7.8 pieces of wood and 10.7 cubic meters of wood per 100 meters of stream. Both of these levels received ratings of *undesirable*. Because of its dynamic nature, sediment effects to streams can only be described in general terms. It is important to remember that ODFW instream habitat data is a snapshot in time.

Changes in stream flow can result from consumptive withdrawals and effects of land use activities on storm water runoff, infiltration, storage and delivery. In this watershed, factors such as placer mining, water diversion, and conversion of forest land to agricultural use are significant (Middle Cow Creek WA, 1999). Many tributaries within the Middle Cow Creek Watershed have been cleaned (had large wood removed) or salvage logged because of past management practices, practices that are no longer applied on federal lands. This project within the Middle Cow Creek Watershed would be designed to reduce or prevent watershed impacts.

Individual Aquatic Conservation Strategy Objective Assessment.

ACS Objective	Site/Project Scale Assessment	Fifth-Field Watershed Scale Assessment
	Scale Description: The planning area encompasses approximately 2 acres. Actual ground disturbance within those 2 acres is approximately 0.05 acre in size and located in one seventh-field drainage totaling 1,449 acres. The BLM manages approximately 1,264 acres in this drainage (87%). The proposed area for mining represents 0.003% of the drainages and 0.004% of the BLM-managed lands in the drainages.	Scale Description: This project is located in the Middle Cow Creek fifth-field watershed. This watershed is approximately 113,021 acres in size. The BLM manages approximately 45,642 acres in this watershed (40%). The proposed activties (0.05 acre) represent less than 0.00004% of the total watershed area, and less than 0.0001% of the BLM-managed lands in the watershed.
1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.	No entry vegetation buffer of 25 ft. along Bull Run and Ramsey Creek would maintain functional shade zones and subsequent stream temperature regimes. Only small brush (i.e. vegetation less than 3" dbh) could be removed in riparian areas adjacent to streams in the project area. This disturbance would be consistent with natural annual disturbance. Therefore, the distribution, diversity and complexity of watershed and landscape features would be maintained at the site scale. The 25ft no-entry vegetation buffers established on Bull Run and Ramsey Creek would prevent disturbance to stream channels	As no effects on the distribution, diversity, and complexity of watershed features at the site scale, this treatment would maintain attainment of this objective at the watershed scale.

ACS Objective	Site/Project Scale Assessment	Fifth-Field Watershed Scale Assessment
	and stream banks. During mining operations, implementation of BMPs and PDFs will allow for the interception and filtration of surface run-off before sediment reaches active waterways (EA, pgs. 4-5) and would prevent impacts to aquatic resources.	
2. Maintain and restore spatial and temporal connectivity within and between watersheds	Within the drainage, the proposed activities would have no influence on aquatic connectivity because of the 25 ft. no-entry vegetation buffer. Additionally, this project is situated lower in the drainage and therefore has no impact on connectivity between drainages. Therefore this proposed activity would maintain the existing connectivity condition at the site scale.	Within the watershed, the proposed project would have no influence on aquatic connectivity. Therefore this treatment would maintain the existing connectivity condition at the watershed scale.
3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations	Adjacent to the proposed action, within the 25 ft. no-entry vegetation buffer, all vegetation would be retained thus maintaining root strength and physical integrity of the stream banks and the aquatic system at the site scale.	Since this project would not affect the physical integrity of the aquatic system at the site scale due to established no-treatment buffers, the project would also maintain the physical integrity of the aquatic system at the watershed scale.
4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.	Riparian Reserves and no-entry vegetation buffers established along Bull Run and Ramsey Creek would retain stream shade and subsequent temperature regimes. Water quality would not be adversely impacted by the proposed action. Implementation of BMPs and PDFs will allow for the interception and filtration of surface run-off before sediment reaches active waterways. Therefore, this treatment would maintain the existing water quality at the site scale. Any intercepted ground water used for washing operations will be directed back into the test hole and not flow overland or through substrate to either Bull Run or Ramsey Creek.	Based on established Riparian Reserves and no-treatment buffers that would maintain water quality necessary to support healthy riparian at the site scale, this project would also maintain water quality at the watershed scale.
5. Maintain and restore the sediment regime under which aquatic ecosystems evolved.	As mentioned above, implementation of BMPs and PDFs will allow for the interception and filtration of surface run-off before sediment reaches active waterways. Although vegetation will be removed, only small brush (i.e. vegetation less than 3" dbh) could be taken from riparian areas adjacent to streams in the project area. This disturbance would be consistent with natural annual disturbance. Removal of this brush would not accelerate erosion or add sediment pulses to the aquatic system. Brush would be	The proposed project is designed with no-treatment buffers that would arrest sediment delivery to CCH at the site scale; this project would maintain the existing sediment regime at the watershed scale as well.

ACS Objective	Site/Project Scale Assessment	Fifth-Field Watershed Scale Assessment
	stockpiled during excavation then placed on the surface upon project completion. Therefore, this project would maintain the existing sediment regime.	
6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing.	No trees over 3 inches diameter would be removed and therefore canopy closure would not be reduced to any degree. Project activities t would involve partial removal of understory vegetation, but not to a degree that would influence evapotranspiration or peak flows. In addition, since no new or temporary road construction is being proposed, the drainage network would not be extended or increase peak flow because the project will use only existing roads with adequate cross drain structures. Therefore, this treatment would maintain stream flows within the range of natural variability at the site scale.	As discussed at the site scale, with no new road building being proposed, and no reduction in canopy closure that could influence in-stream flows. Canopy closure would not be reduced to an extent that could potentially influence in-stream flows. Therefore, at the larger watershed scale, this treatment would also maintain stream flows within the range of natural variability.
7. Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and woodlands.	As discussed in Objective 6 above, this project would maintain stream flows within the range of natural variability at the site scale. Therefore, it would also maintain stream interactions with the floodplain and respective water tables at the site scale.	At the watershed scale, this project would also maintain stream interactions with the floodplain and respective water tables within the range of natural variability due to established no-treatment buffers.
8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.	Within Riparian Reserves, the proposed project is designed to not remove overstory canopy and maintain riparian stands within a natural density and growth trajectory. Therefore this treatment would serve to maintain plant species composition and structural diversity at the site scale.	The proposed project is designed to maintain riparian stands within a natural density and growth trajectory. This treatment would serve to maintain plant species composition and structural diversity at the larger watershed scale as well.
9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.	As mentioned previously, one of the objectives of this project is to maintain riparian stand conditions within the project area. Implementation of BMPs and PDFs will help maintain adequate habitat to support riparian-dependent species at the site scale.	As mentioned previously, the intent of this project is to maintain riparian stand conditions within the proposed treatment areas. Implementation of BMPs and PDFs will help maintain adequate habitat to support riparian-dependent species at the watershed scales.

Aquatic Conservation Strategy (ACS) Summary:

Based on this analysis at both the site and landscape scale of the proposed activity of Gold Run #1, it was determined that the action would not prevent attainment of the nine ACS objectives. This determination was based on the small scale nature associated with the proposed activity; the project is within the Riparian Reserve, not within a Key Watershed; not a watershed restoration activity; does not include permanent or temporary road construction; does not include overstory canopy removal, and includes adequate buffer distances along Bull Run and Ramsey Creek. The Grants Pass Resource Area completed the Middle Cow Creek Watershed Analysis in 1999. The proposed activity is consistent with the watershed analysis.

Appendix 4 – References Cited

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