ENVIRONMENTAL ASSESSMENT

For

BRISTOL SILICA QUARRY

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT
ASHLAND RESOURCE AREA

EA No. OR-110-02-035

This Environmental Assessment (EA) for the proposed Plan of Operations for Bristol Silica Quarry was prepared utilizing a systematic interdisciplinary team approach integrating the natural and social sciences and the environmental design arts with planning and decision-making.

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JACKSON COUNTY, OR

EA No.: OR-110-02-035

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CHAPTER 1: PURPOSE AND NEED

A. BACKGROUND

The Medford District BLM has received a proposed Plan of Operations from Magma Gold, Incorporated (MGI), to renew silica quarrying on BLM managed lands adjacent to the patented Bristol Silica Quarry. The proposed Plan of Operations was submitted in compliance of 43 CFR 3809; this plan and supplemental information provide the basis for the Proposed Action that is analyzed in this Environmental Assessment (EA).

The Bristol Silica Quarry is located in Jackson County between Gold Hill and Rogue River Oregon about two miles south of the Rogue River and Interstate 5 corridor, in the upper elevations of Millers Gulch. The Bristol Silica site has been quarried since 1938, producing an estimated 5 million tons of very high purity silica. The legal description of the site is T. 36 S., R. 3 W., in section 30; W.M.; Jackson County, Oregon.

The Bristol deposit is the only large, economically retrievable high quality silica deposit (99.7 percent silica) known in this area; therefore, there is local demand for silica from the Bristol quarry. The six acres of BLM administered land that are proposed for renewed quarrying was extensively mined prior to 1981. Because mining of the silica body has not been completed, no site reclamation has occurred. The permit renewal area has an existing Oregon Department of Geology and Mineral Industries permit.

B. PURPOSE AND NEED

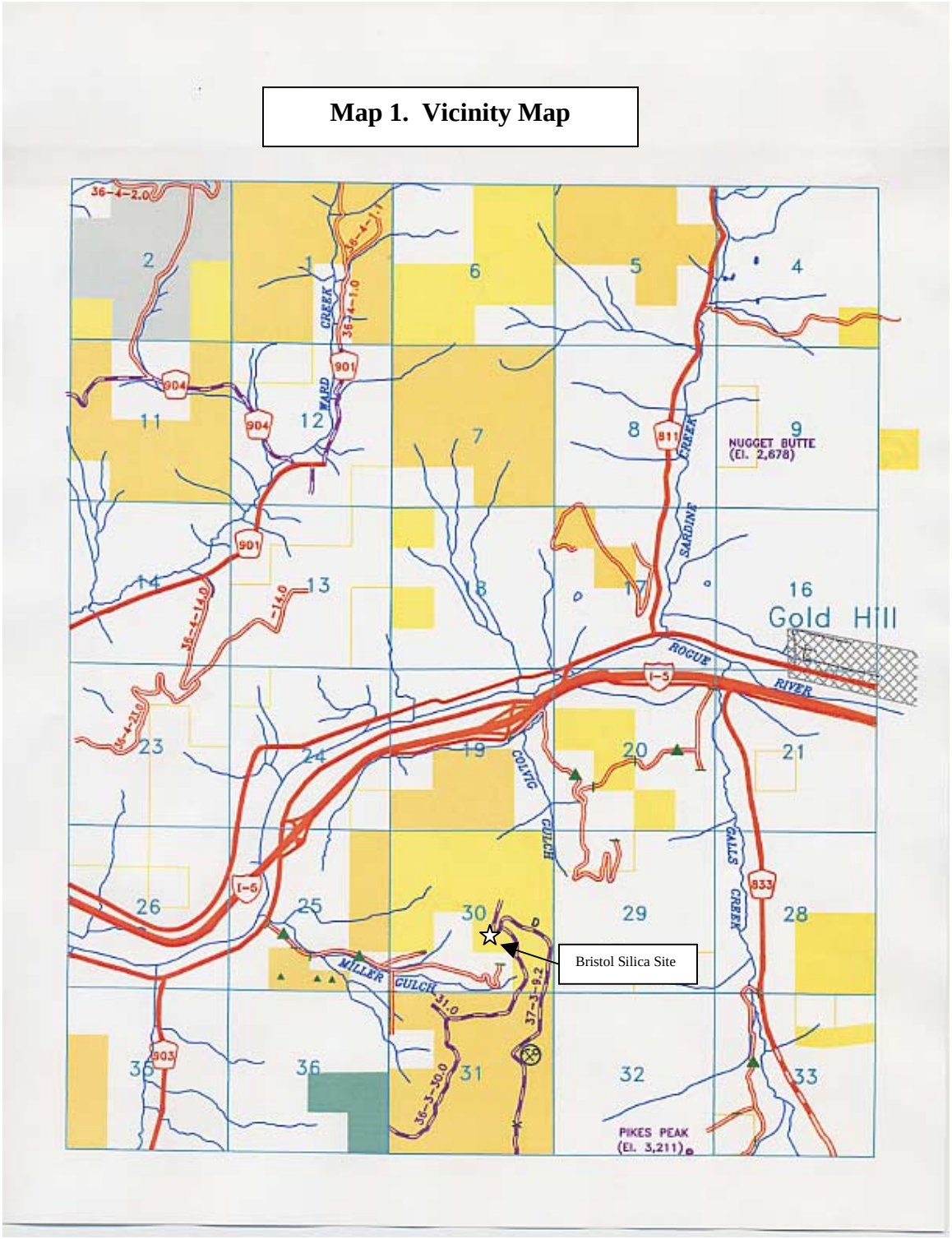
The primary purpose and need of Magma Gold, Incorporated, is to profitably recover silica from the Bristol Quarry site by fully exercising their rights under the General Mining Law of 1872 as related to federal lands. Currently, the north slope of the existing quarry is too steep for safe and orderly operation of the quarry. The quarry wall would be reduced to more modest slope angles to ensure orderly development and long-term safe operation of the quarry.

As part of BLMs multiple use mandate legislated in the Federal Land Policy and Management Act of 1976, it is BLMs responsibility to process mineral material applications on public land open to mineral entry. The purpose for preparing this Environmental Assessment (EA) is to:

- Respond to the proposal for renewed quarry operations received from Magma Gold Incorporated, while ensuring that unnecessary and undue resource degradation is prevented; and

- Disclose the consequences that could result from implementation of the proposal in compliance of NEPA.

Map 1. Vicinity Map



C. CONFORMANCE WITH EXISTING LAND USE PLANS

The proposed activities are in conformance with and tiered to the *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (USDI, USDA 2001) and the *Medford District Record of Decision and Resource Management Plan* (RMP) (USDI 1995). These

Resource Management Plans incorporate the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl and the Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* (NFP) (USDA and USDI 1994). These documents are available at the Medford BLM office and the Medford BLM web site at <http://www.or.blm.gov/Medford/>.

D. RELATIONSHIPS TO STATUTES, REGULATIONS AND OTHER PLANS

The Proposed Action and alternatives are in conformance with the direction given for the management of public lands in the Medford District by the Oregon and California Lands Act of 1937, the Federal Land Policy and Management Act of 1976, and the 1872 General Mining Law.

E. DECISIONS TO BE MADE

The Ashland Resource Area Field Manager, as the responsible official, must decide whether to implement the Proposed Action and associated Project Design Features, or defer to the No-Action Alternative. Under the 1872 mining law, a person has statutory right consistent with other laws to go upon open public lands for the purpose of mineral prospecting, exploration, development and extraction.

There will also be a determination on the significance of effects. If the impacts are not significant, a Finding of No Significant Impact (FONSI) can be issued and a decision can be implemented. If any impacts are determined to be significant to the human environment, an EIS must be prepared before the manager makes a decision.

F. SCOPING AND ISSUES

Scoping is conducted early in the NEPA process to identify issues associated with the implementation of the Proposed Action and depth of analysis needed. An interdisciplinary team of resource specialists reviewed the proposal and all pertinent information, and identified relevant issues to be addressed during the environmental analysis. "Government-to-Government" consultation was initiated with two federally recognized tribes with historic ties to the project area (see Chapter 4, Consultation with Others). The list of relevant issues below also includes those issues for which a disclosure of environmental effects is required by law or policy.

The following issues were determined to be relevant to the Proposed Action:

- Hydrologic Function, Water Quality, and Soils
- Threatened, Endangered or Sensitive Species
- Northwest Forest Plan Survey and Manage plant and animal species
- Air Quality
- Cultural Resources
- Attainment of Aquatic Conservation Strategy Objectives

CHAPTER 2: PROPOSED ACTION & ALTERNATIVES

Two potential alternatives were considered in detail by the IDT. The Proposed Action represents the proposal (plan of operations) as received from Magma Gold, Incorporated (MGI). A No-Action Alternative is also considered.

PROPOSED ACTION

This alternative represents the proposal received from MGI to resume quarry operations on six acres of BLM administered lands within the existing Bristol Silica quarry site. The six-acre area proposed for renewed quarrying is located on the uphill side of the existing quarry, and entirely within two current mining claims controlled by MGI, Bristol Silica No. 1 (ORMC 150816) and Silica No. 1 (ORMC 150617). Claims located on BLM lands are adjacent to the patented portion of the quarry, which are private lands.

Quarry Production

Planned silica production from the entire quarry, including BLM and private lands, is anticipated to range between 15,000 tons per year to a maximum of 60,000 tons per year under full expansion. The expected life of the quarry is about ten years. Quarrying would be planned and supervised by an experienced quarry operator or mining engineer and an Oregon-registered engineering geologist.

The existing steep quarry slopes would be reduced to create more modest slope angles in order to provide for orderly development and safe quarry operations. The operation would involve periodic drilling and blasting of rock, and the use of an excavator and front-end loader to move and load the silica. Rock waste would be disposed of and reclaimed in the existing quarry located on private lands. Any topsoil removed would be stockpiled for future reclamation operations. Exploration holes may be drilled in the permit area. The quarry is expected to be in production for two to four months out of the year, due to the small annual tonnage production. No surface structures would be constructed in the permit area on BLM administered lands.

Quarry Reclamation

At the completion of operations, all equipment and supplies would be removed from the permit application area. Topsoil salvaged during quarry operations would be used to recapture the margins of the quarry. Quarry slopes would be left at a stable angle to form naturally appearing rock faces that would be more aesthetically pleasing than conventional bench reclamation practices. Native seed would be used for revegetating areas where topsoil has been disturbed or placed.

Haul roads on BLM lands would be removed to prevent vehicular access from below. Rock barriers would be placed at any points where vehicle access could potentially occur. To prevent accidents and ensure public safety, large rock barriers would also be placed along the rim of the quarry at any point where vehicle access is possible.

Project Design Features

This Proposed Action alternative includes project design features (PDFs). Included below are PDFs for the purpose of mitigating, reducing, or eliminating anticipated environmental impacts.

Analysis supporting the inclusion of PDFs can be found in the RMP, Appendix D: Best Management Practices.

Hydrologic Function, Water Quality, and Soils

Haul would occur along existing roads or through the quarry itself, no new roads would be constructed.

Access to the site would be gated when quarry is not in operation.

During heavy rain and storm events, the quarry site would be inspected daily during operations and weekly during inactivity.

Roads on BLM managed lands would be maintained and decommissioned using Best Management Practices (RMP p. 163-165).

Roads accessing benches should have a "lip" that prevents water from being channeled off the bench down the access road or roadside ditches during major precipitation events.

Roads located on BLM managed lands would be improved or maintained utilizing the Best Management Practices outlined in the RMP, pages 157-165. Waterbars or rolling water dips at intervals not less than those specified in the RMP (table, page 167) would be used on BLM roads.

Dust abatement and other activities occurring on BLM lands would not utilize water originating from springs or streams on BLM lands within Millers Gulch.

No fuel tanks would be placed on proposed permit lands, and vehicles and equipment would be inspected daily for leaks of petrochemical fluids. Any spills would be cleaned up promptly.

Cultural Resources

The area to the east of the rock art site would be preserved to create a peninsula that includes the site to provide easy future access for traditional practitioners.

A barrier fence would be installed around the rock art site during active quarry operations.

Monitors from the Confederated Tribes of the Grand Ronde would be notified so they could be on site during quarry operations around the rock art site.

A minimum of a 50-foot buffer would be preserved around the rock art site.

Noxious Weeds

Yellow star thistle occurs in a few locations in the project area. Soil stockpiled for future reclamation activities would be treated to reduce the existing population. The Bristol Silica Quarry Project incorporates the following control treatments: insect release as bio-control, weeding by hand, and using fire to burn plants before seed release. As a last resort, additional treatment with herbicides (as outlined in the Medford District's Integrated Weed Management Plan and EA #OR-110-98-14) would occur.

Public and Worker Safety

Drill holes for exploration would be backfilled and cemented at the surface.

All operations would be conducted according to MSHA guidelines and be subject to MSHA inspections.

Drilling and blasting would be conducted by an experienced specialty contractor with a current explosive users permit from the U. S. Bureau of Alcohol, Tobacco & Firearms, and a Certificate of Possession of Explosives from the Office of the State Fire Marshal, as well as other permits required of local jurisdictions.

Mining and hauling operations would occur between 7:00 am and 6:00 pm on weekdays.

Federal noise level safety guidelines would be followed.

Oregon Department of Forestry fire restrictions and guidelines would be adhered to.

NO-ACTION ALTERNATIVE

This alternative represents no change from the existing condition and is used as a baseline against which to compare other alternatives. Under this alternative, a permit to conduct quarrying operations on BLM administered lands would not be authorized for renewal. The reclamation of lands affected by past mining operations would not take place. Quarrying operations on the patented mining claim located on private lands would continue; however, orderly operations would be adversely impacted if operations on adjacent BLM lands were not approved.

CHAPTER 3: AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

This chapter briefly describes the environment that would be affected by the Proposed Action or No Action Alternative, and discusses the environmental consequences of implementing each alternative considered in detail, in terms of the direct, indirect, and cumulative effects on the human environment. The analysis documented in this chapter provides the scientific and analytic basis for comparison of alternatives.

A. PROPOSED MITIGATION MEASURES

The following mitigation measures are proposed to reduce the potential for indirect effects that may result from the implementation of the Proposed Action:

- Route all surface water originating from the mining operations through a settling pond or similar system designed to minimize the delivery of fine sediment into Millers Gulch. This settling pond would have a designed overflow capable of withstanding a 100-year flood event. Accumulated sediment would be removed every year or as needed from the settling pond during the dry season when no surface flow is exiting the pond. Responsibility for all design work and necessary permits related to the settling pond would be the responsibility of the quarry operator.

- Roads located on operators private lands would be improved or maintained utilizing the Best Management Practices outlined in the Medford District RMP, pages 157-165. Waterbars or rolling water dips at intervals not less than those specified in the Medford District RMP (table, page 167) would be used on all roads.

The ***acceptance and implementation of the proposed mitigation measures*** on the adjacent private portions of the quarry, combined with Project Design Features on BLM administered lands, should improve water quality/sedimentation conditions on downstream BLM and private lands, and would result in immediate improvements to water quality (sediment delivery) downstream of the quarry. If mitigation measures are accepted and implemented, the Proposed Action would be a No Effect for coho salmon and their habitat.

B. HYDROLOGIC FUNCTION, WATER QUALITY, AND SOILS

The Project Area is located along upper slopes and ridge areas in the upper reaches of an unnamed tributary to Millers Gulch. There are no Riparian Reserves in the project area. A drainage located approximately 0.1 to 0.2 mile to the east of the quarry operations proposed on BLM managed land was reported as an intermittent stream with Riparian Reserve designation in the 2001 South Rogue-Gold Hill Watershed Analysis, based on air photo interpretation. On-the-ground stream inventory work conducted after publication of the Watershed Analysis resulted in the reclassification of this drainage as a dry draw without Riparian Reserve designation, since it lacked annual scour, deposition and a defined channel. Several other dry draws exist in the area proposed for quarry operations. These draws show no evidence of surface flow, due to deep duff and colluvial deposits in the draw bottoms. Removal of these duff layers and quarrying in this area would result in more rapid runoff from this area during storm events.

The majority of the mainstem of Millers Gulch is located on private land ownership. The main access road to the Bristol Silica Quarry parallels both Millers Gulch and, on the upper end, an unnamed intermittent tributary to Millers Gulch. Active road-related erosion is causing sediment delivery to a tributary of Millers Gulch. Although this intermittent stream has not had any major flow for the past one or two seasons, high flows periodically flush sediment accumulated in tributaries down into Millers Gulch and on into the Rogue River 0.9 miles downstream of the private land on which the quarry is located. The mainstem of Millers Gulch from the mouth to 0.9 miles is classified as perennial stream with year around flow on the surface. Millers Gulch from 0.9 miles to 1.4 miles is also classified as perennial; however, flow on 90 percent of this reach runs subsurface through accumulated duff layers, colluvial deposits, and disturbed ground. Portions of the mainstem of Millers Gulch on BLM lands in Section 25 (downstream of the quarry) and in Section 31 (upstream of intermittent tributaries originating out of the quarry area) both had flow present when surveyed in October of 2001, prior to onset of winter rains. Other intermittent streams in the area are generally ephemeral in nature, flowing for a time every winter, but only in direct response to precipitation. These "short duration" intermittent streams generally do not flow more than 30 consecutive days during the year. The very low flow in the upper perennial reaches of Millers Gulch originates from several springs in Section 31. A spring on BLM land in Section 31 at the headwaters of Millers Gulch is diverted into a water tank and pipes leading away from the spring. This water development was granted a perpetual easement in 1942. According to BLM serialized case file ORE0954, the 700-foot right of way is registered to Northwest Basic Industries. This spring contributes much of the surface and subsurface summer flow to Millers Gulch, and when fully diverted, has the capability to dry up portions of the stream and negatively affect aquatic and riparian conditions downstream. Renewed quarry operations on BLM lands would not utilize water from this spring or other tributaries to Millers Gulch.

There are no Riparian Reserves on the six acres of BLM lands proposed for renewed quarrying. There are Riparian Reserves along perennial non-fish sections of Millers Gulch down slope of the project area that could be indirectly affected by renewed quarry operations.

Proposed operations on BLM lands were reviewed for the potential for impacts to water quality from increased temperatures, sediment, or petro-chemicals. There is little potential for impacts to downstream water temperatures since the project is located outside of Riparian Reserves and no shade producing vegetation would be removed. A Project Design Feature prohibiting the use of Millers Gulch water on BLM lands is included to eliminate the potential for this normally perennial stream to go dry, which could lead to a dieback or reduction of some existing riparian vegetation, in turn causing slight increases in water temperature downstream.

Silica rock is very stable, resistant to mechanical erosion, and produces very little soil. The proposed quarry renewal area has been previously disturbed by mining operations and most soil that previously covered the silica body has been removed. Additionally, the project area is located high on the slopes or ridges areas. The potential for increased sediment to be transported to streams located down slope is very low. More rapid runoff from the project area is a possibility, and would slightly increase the risk of additional erosion occurring downslope. Most of the quarry-related sedimentation occurring downstream in Millers Gulch and it's tributaries is not the result of the quarry itself, but from old, poorly designed or damaged road drainage facilities and roads intercepting flow during major precipitation events from small draws and channeling this flow down the roads and roadside ditches.

There is low potential for impacts to water quality from petrochemical pollution, based on Project Design Features and distance to major waterways.

Quarry reclamation involving the decommissioning of roads and placement of soil to reclaim quarry margins may produce short-term (about 1 year) sediment. However, watershed conditions would improve over the long-term by reducing sediment produced from road drainage and road related erosion.

Much of the proposed project area has shallow or no soil on top of bedrock. Quarrying in this area would remove existing vegetation. Existing soil would be removed and stockpiled for reclamation use in the future. The proposed quarry expansion would not penetrate the water table. Any surface runoff would be intermittent. Slight increases in peak flows could be expected, but these would probably be intercepted and held on site by the benched faces of the quarry during the operational life of the quarry. In the future, once benches are reclaimed and more natural slopes are re-established and vegetated, timing and volume of runoff should return to normal levels.

There is virtually no risk of groundwater contamination or alteration from this project. The silica bedrock is chemically inert, and can produce no chemical or physical contamination of groundwater. All quarry operations would remain well above the existing water table.

Under the No-Action Alternative, no activities would be authorized on BLM administered lands and no site reclamation would occur. There would be no effects to water quality and hydrologic function from the implementation of quarry expansion. The benefits of quarry reclamation on BLM administered lands (reclamation of quarry margins, benching of pit walls, and road decommissioning) would not be realized.

C. FISH

The private land portion of the Bristol Silica Quarry is located approximately one mile from the confluence of Millers Gulch and the Rogue River; BLM lands proposed for renewed quarrying are approximately 2 miles from the confluence. Steelhead may spawn and rear in the lower sections of Millers Gulch but their upper distribution is unknown. Coho are known to spawn and rear in the Rogue River but are not known in the Miller's Gulch drainage.

The Proposed Action may increase rapid runoff, which could lead to a slight increase in road related erosion already occurring downslope on private lands (see Hydrologic Function, Water Quality, and Soils, EA p. 10). Given the distance from known coho habitat, the action is considered a Not Likely to Adversely Affect (NLAA). This action is also considered a NLAA for Essential Fish Habitat (EFH). This project is covered under the August 8, 2001 Programmatic Biological Opinion.

Under the No-Action Alternative, no activities would be authorized on BLM administered lands and no site reclamation would occur. There would be no effects to downstream habitat from the implementation of quarry expansion. Roads on private lands downslope of the project area would continue to produce sediment to Millers Gulch and potentially the Rogue River.

D. SPECIAL STATUS SPECIES

The Proposed Action was reviewed for the potential for effects to Special Status Wildlife Species. Surveys of the project area did not identify any Special Status species in the project area that would be impacted by the proposed project. Therefore, there would be no effect to Special Status wildlife species with the implementation of the Proposed Action or No-Action Alternative.

Surveys for special status vascular and non-vascular plants did not identify any species of concern in the area impacted by the proposed project. Therefore, there would be no effect to Special Status plant species with the implementation of the Proposed Action or No-Action Alternative.

E. NORTHWEST FOREST PLAN SURVEY AND MANAGE PLANT AND ANIMAL SPECIES

Animals

The proposed quarry area on BLM lands was visited and surveyed to determine if there was any potential habitat for Survey and Manage wildlife species. The proposed area is mostly within the existing quarry and has been heavily disturbed. The remaining area was mostly chaparral with a few interspersed Douglas-fir and Ponderosa Pine. It was determined that the site does not provide suitable nesting habitat for the Great Gray owl (*Strix nebulosa*). A search for red tree vole nests was conducted with negative results. Due to the prior level of disturbance at this site, there is no habitat for mollusks. Based on the results of this site visit and survey, there would be no effect to any Survey and Manage animal species with implementation of either the Proposed Action or No-Action Alternative.

Plants

Surveys for vascular and non-vascular plants did not identify any survey and manage species in the area impacted by the proposed project. Therefore, there would be no effect to Survey and Manage species with the implementation of the Proposed Action or No-Action Alternative.

F. AIR QUALITY

The Clean Air Act, as amended, directs the State of Oregon to meet or exceed National Ambient Air Quality Standards by 1994. The population centers of Grants Pass, Medford/Ashland (including Central Point and Eagle Point), and Klamath Falls in the past were in violation of the national ambient air quality standards for PM 10, and are classified as nonattainment for this pollutant. Over the past seven years the population centers of Grants Pass and Medford/Ashland have been in compliance for the national ambient air quality standards for PM 10.

The impacts of resource management on air quality were analyzed in the RMP/EIS (p. 3-5 to 3-8 and 4-8 to 4-12). Major sources of particulate matter within the Medford/Ashland nonattainment area are smoke from woodstoves, fugitive dust, and industrial sources. Dust from the use of unsurfaced roads is listed as one of the main sources of air pollutants associated with BLM resource management. Under the Proposed Action and No-Action Alternative dust would be

produced from unpaved roads (private and BLM) that provide access to and within the Bristol Silica quarry. Dust from the use of unpaved roads normally settles within a short distance from the point of origin, and has negligible effects away from the point origin (RMP/EIS p. 4-8). Project Design Features are included to lessen the effects of dust at the site level; roads would be periodically watered as needed for dust control when the quarry is active. Silica rock does not produce significant dust during normal mining operations.

G. AQUATIC CONSERVATION STRATEGY OBJECTIVES

The Aquatic Conservation Strategy, a component of the Northwest Forest Plan and incorporated by the RMP, was developed to restore and maintain the ecological health of watersheds and aquatic ecosystems contained within them on public lands. The No-Action Alternative involves continued quarry operations on adjacent private lands. Aquatic Conservation Strategy Objectives (ACSO) apply only to federally managed lands; therefore, ACS does not apply to the No-Action Alternative. The Proposed Action Alternative on BLM administered lands was analyzed for attainment of ACS.

ACSO #1: The project area is located outside of Riparian Reserves; there would be no direct effects to Riparian Reserves or instream aquatic habitat. The site has been previously quarried, and all six acres of the site have been disturbed from mining activities including soil excavation and vegetation removal (EA p. 11).

ACSO #2: There would be no activities within any Riparian Reserves; there is no potential for chemical contamination of ground or surface water; and the project area is located in an area previously disturbed by quarry operations; there would be no changes in temporal or spatial connectivity within and between watersheds at the project or watershed scale.

ACSO #3: There would be no activities within Riparian Reserves (including the stream channel); therefore, there would be no direct impacts to the physical integrity of the aquatic system. Bank and bottom configuration could continue to be at risk for degradation due to small peak flow increases and associated sedimentation and bank erosion. Over the long-term, once benches are reclaimed and more natural slopes are re-established and vegetated, timing and volume of runoff should return to normal levels (EA p. 12), and the trend in the physical condition of aquatic systems would be maintained or improved.

ACSO #4: There would be no activities within Riparian Reserves and no potential for impacts to water quality at the project scale. There would be no removal of shade producing vegetation that could lead to increased water temperatures (EA p. 11). There is no potential for chemical pollution from quarry operations (EA p. 11). More rapid runoff from the project area is a possibility, which would slightly increase the risk of additional erosion and sedimentation occurring downslope (EA p. 11). Over the long-term, once benches are reclaimed and more natural slopes are re-established and vegetated, timing and volume of runoff should return to normal levels (EA p. 12).

ACSO #5: The "current sediment regime" is characterized by unnaturally high levels of sediment delivery to the downstream aquatic system, including BLM lands only a few thousand feet downstream of the project and associated quarry area. The Proposed

Action is located along upper slopes and ridge areas and would have a low potential for producing additional sediment to down slope streams (EA p. 11). See also, response to ACSO #4.

ACSO #6: Slight increases in peak flows could be expected, but these would probably be intercepted and held on site by the benched faces of the quarry during the operational life of the quarry. In the future, once benches are reclaimed and more natural slopes are re-established and vegetated, timing and volume of runoff should return to normal levels.

ACSO #7: The project area is located outside of Riparian Reserves, including wetlands and floodplains. None of the proposed quarry expansion would penetrate the water table (EA p. 12). Any surface runoff would be intermittent. ***See also ACSO #6.***

ACSO #8: The project area is located outside of Riparian Reserves; there would be no direct effects to Riparian Reserve vegetation at the project or watershed scale. A Project Design Feature prohibiting the use of Millers Gulch water on BLM lands is included to eliminate the potential for this normally perennial stream to go dry as a result of the proposed action. If the stream were to go dry, it could lead to a dieback or reduction of some existing riparian vegetation, in turn causing slight increases in water temperature downstream.

ACSO #9: See Responses to ACSOs #1-8.

H. CULTURAL RESOURCES:

A rock art site occurs along the south central margin of the quarry area. This site has been known to the previous owners of the mine who protected it from quarry operations. This site has been determined eligible to the National Register of Historic Places.

Because of the 50-foot buffer around the rock art site, there would be no adverse impact to this National Register eligible site.

I. NOXIOUS WEEDS:

Yellow starthistle occurs in existing disturbed areas along roads. Since the Proposed Action would remove any remaining topsoil to stockpile for future reclamation, there would be no opportunity for seeds to colonize in the expanded quarry area. Soil stockpiled for future reclamation activities would be treated to reduce the existing population. The Bristol Silica Quarry Project incorporates the following control treatments: insect release as bio-control, weeding by hand, and using fire to burn plants before seed release. As a last resort, additional treatment with herbicides (as outlined in the Medford District's Integrated Weed Management Plan and EA #OR-110-98-14) would occur. Under the No-Action Alternative, there would be no increased potential for spread of yellow starthistle on BLM managed lands.

J. CRITICAL ELEMENTS

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EAs.

Critical Element	Affected Yes	Affected No	Critical Element	Affected Yes	Affected No
Air Quality		✔ **	T & E Species		✔
ACECs		✔	Wastes, Hazardous/Solid		✔
Cultural Resources		✔	Water Quality		✔ **
Farmlands, Prime/Unique		✔	Wetlands/Riparian Zones		✔
Floodplains		✔	Wild & Scenic Rivers		✔
Nat. Amer. Rel. Concerns		✔	Wilderness		✔
Invasive, Nonnative Species		✔*	Energy Resources (EO 13212)		✔
			Environmental Justice		✔

*****These affected critical elements could be impacted by the implementing the Proposed Action. Impacts are being avoided by project design.

******These affected critical elements would be impacted by implementing the Proposed Action. The impacts are being reduced by designing the Proposed Action with Best Management Practices, Management Action/Direction, Standard and Guidelines as outlined in the Environmental Impact Statements (EIS)/Record of Decisions *(RMP) (USDI BLM 1995)(USDA FS; USDI BLM 1994*) tiered to in Chapter 1. The impacts are not affected beyond those already analyzed by the above-mentioned documents.

CHAPTER 4: CONSULTATION WITH OTHERS

An interdisciplinary team of resource specialists reviewed the proposal and all pertinent information, and identified relevant issues to be addressed during the environmental analysis.

Native American Consultation:
"Government-to-Government" consultation was initiated with the two federally recognized tribes with historic ties to this part of the Medford District: the Confederated Tribes of the Grand Ronde and the Confederated Tribes of the Siletz. The Confederated Tribes of the Grand Ronde identified their concerns as protection of the site from quarry operations, and access to the site for members of the tribe. These concerns have been addressed by the Project Design Features.

EA Availability and Distribution List
Upon completion of this EA, a legal notification was placed in the Medford Mail Tribune offering a 30-day public review and comment period. For additional information, please contact Kristi Mastrofini or Bill Yocum at (541) 618-2384.

This EA was distributed to the following agencies, organizations, and tribes:

Association of O&C Counties
Audubon Society
Headwaters
Jackson County Commissioners
Jackson Co. Soil and Water Conservation District
Klamath Siskiyou Wildlands Center
Little Butte Creek Watershed Council
Medford Water Commission
Northwest Environmental Defense Center
Oregon Department Forestry
Oregon Natural Resources Council
Klamath Siskiyou Wildlands Center
Oregon Department of Fish and Wildlife
Rogue River National Forest
The Pacific Rivers Council
Southern Oregon University
The Confederated Tribes
Cow Creek Band of Umpqua Indians
Confederated Tribes of Grand Ronde
Confederated Tribes of Siletz
Klamath Tribe
Quartz Valley Indian Reservation (Shasta Tribe)
Shasta Nation
Confederated Bands [Shasta], Shasta Upper Klamath Indians
Confederated Tribes of the Rogue-table Rock and Associated Tribes

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