

**Thunder Mountain Quarry Expansion
Environmental Assessment
DOI-BLM-OR-R040-2014-0009-EA
Swiftwater Field Office, Roseburg District
DRAFT Finding of No Significant Impact**

Overview

The Thunder Mountain Quarry Expansion project was designed to apply management direction from the 1995 Roseburg District *Record of Decision and Resource Management Plan* (ROD/RMP), which is tiered to the 1994 Roseburg District *Proposed Resource Management Plan/Environmental Impact statement* (PRMP/EIS).

The environmental assessment analyzed two alternatives, No Action (Alternative One), and the Proposed Action (Alternative Two). Alternative Two proposes the expansion of existing surface disturbance of approximately 3.5 acres within the 20 acre Thunder Mountain Quarry Community Pit designation, by up to eight additional acres, in up to three phased increments for the East Expansion, and up to two phased increments for the North Expansion, over a period of 25 to 50 years. These phases would be concurrent with reclamation of the disturbed surface no longer needed for operations. Quarry expansion and reclamation activities would take place in the Adaptive Management Area (AMA) and General Forest Management Area (GFMA) land use allocations.

Both context and intensity must be considered in determining significance of the environmental effects of agency action (40 CFR 1508.27):

Context

The project area is within the Little River and Middle North Umpqua watersheds, which collectively drain an area of approximately 277,000 acres. Portions of the lands in the project watersheds managed by the Swiftwater Field Office total approximately 31,200 acres (EA p. 5), representing approximately 11 percent of the land base.

Alternative Two would expand the existing rock quarry by up to eight acres; approximately 0.003 percent of all lands in the project watersheds, and 0.03 percent of BLM-administered lands in the project watersheds. This would not bear any regional, statewide, national or international importance.

Intensity

The Council on Environmental Quality includes the following ten considerations for evaluating intensity.

1. Impacts may be both beneficial and adverse. - 40 CFR 1508.27(b) (1)

The proposed quarry expansion could have potentially beneficial and adverse impacts, but these would not be significant as they would be consistent with the range and scope of effects associated with timber management that were described and analyzed in the 1994 Roseburg PRMP/EIS (Chapter 4), to which the EA is tiered.

The proposed quarry expansion would provide opportunities for extraction of salable minerals by other government entities, private industry, individuals, and nonprofit organizations (EA p. 6; ROD/RMP p. 66).

As described in the EA (p. 1), the quarry is located within a region which, over the next 25 year period, has a projected need for between 115,000 and 120,000 loose cubic yards (LCY) of rock for road surfacing and maintenance. Currently, within the present limits of the developed quarry, an estimated volume of only 31,625 LCY of rock exists and remains available. The proposed quarry expansion would (1) emphasize long-term regional quarry use (ROD/RMP p. 67), provide opportunities for extraction of salable minerals by other government entities, private industry, individuals, and nonprofit organizations (Rod/RMP p. 66), and address quarry development, management, and reclamation needs through implementation planning (ROD/RMP p. 67) (EA pp. 5-6).

Beneficial Effects

Fuels Management

Under the Proposed Action Alternative, all vegetation in the area would be felled and sold and/or burned during the quarry expansion, removing any threat of fire from the quarry or other activities. Fuel levels and fire hazard would decrease from current conditions, since all fuels would be removed and/or burned (EA p. 40).

Under the reclamation plan, the construction of a heliport, staging area, and potential safety zone for possible future firefighting needs would decrease risk of large fires in the entire area by increasing the effectiveness of potential initial attack firefighting. The reclamation plan would minimize the risk of large wildfires. Heliports are generally considered maximally effective within a 3 mile radius, in this case incorporating much of the populated areas in the Little River area and along the North Umpqua Highway (EA p. 40).

Adverse Effects

Forest Vegetation

The proposed action would convert approximately eight acres of the existing forest to non-forest for an extended period of 25 to 50 years (EA p. 22).

Endangered or Threatened Species

Potential adverse effects to species listed under the Endangered Species Act, and Critical Habitat designated for their survival and recovery are addressed below at consideration 9.

Soils

Quarry expansion of up to eight acres would result in the removal of soil and soft rock overburden which would be stockpiled for reclamation. The loss of soil and overburden would result in a loss of productivity while the quarry remains active, which is estimated to continue for the next 25 to 50 years. The project design features would generally keep erosion levels low during quarry operations and reclamation phases (EA p. 39). As surfaces no longer needed for rock production are reclaimed, soil productivity would be restored in areas that undergo reclamation (EA p. 39).

Soil heating during pile burning would result in a short-term loss of microbial biomass or a shift in community structure. These impacts would not affect the long term productivity because the piles would occupy a minor component of the project area (EA p. 39).

The long-term effect after all reclamation is completed would be a slight decrease in acres that are highly productive. The reclamation plan calls for returning soil to most disturbed surfaces, however some areas including the helipond that would be created and steep rock faces would not be returned to productivity (EA p. 39).

2. *The degree to which the proposed action affects public health or safety. - 40 CFR 1508.27(b) (2)*

The proposed action is a forest management project that is located in a rural setting, removed from urban and metropolitan areas, on a landscape of Federal and private lands that are principally managed for timber production, and as such would not be expected to have any demonstrable effects on public health and safety.

The project is within the North Umpqua wildland urban interface as described in the Douglas County Community Wildfire Protection Plans (EA p. 40). Under Alternative Two – the Proposed Action, activity slash generated during land use conversion activities would be machine-piled and burned within the quarry expansion footprint (EA p. 13). Fuel levels and fire hazard would decrease from current conditions, since all fuels would be removed and/or burned (EA p. 40).

With the application of Oregon smoke management restrictions and PDFs, prescribed burning would have no cumulative or long-term effects to local air quality. All burning of machine piles would be conducted under the requirements of the Oregon Smoke Management Plan. The fuels management PDFs would minimize the risk of smoke settling into the river drainage or along roadways and persisting for an extended period of time (EA p. 14).

3. *Unique characteristics such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. - 40 CFR 1508.27(b) (3)*

Four previous cultural resource surveys have been conducted in the project area including CRS Nos. SW9805, SW9903, SW1104, and SW1111. These surveys resulted in negative findings within the proposed project area. The BLM has met the requirements of Section 106 of the National Historic Preservation Act under the guidance of the 2012 National Programmatic Agreement and the 1998 Oregon Protocol (EA p. 17).

If any cultural resources (e.g. historic or prehistoric objects, features, or structures) are found during the implementation of the proposed action, activities would be suspended until the site has been evaluated to determine its significance and the appropriate mitigation action that would be applied (EA p. 15).

As discussed in the EA (p. 17), the project area does not contain any Areas of Critical Environmental Concern, Research Natural Areas, prime or unique farmlands, parklands, Wilderness, or Wild and Scenic Rivers.

4 *The degree to which the effects on the quality of the human environment are likely to be highly controversial. - 40 CFR 1508.27(b) (4)*

The environmental effects of the project are within the scope of those considered in the 1994 Roseburg District PRMP/EIS. The Thunder Mountain Quarry has existed and been in operation since 1988. Effects are expected to be consistent with those of the published literature cited in the EA, and are not expected to be highly controversial, in a scientific sense.

The public has had the opportunity to comment on this project through informal scoping and will be given a 30-day opportunity to review and comment on the EA.

A notice of project initiation was published in the Summer 2014 Roseburg District Quarterly Planning Update, informing the general public of the nature of the proposed action. Letters were sent to landowners with property adjacent to BLM-administered lands where the quarry expansion is proposed, and those whose property lies beside or astride identified haul routes. They were encouraged to share any concerns or special knowledge of the project area that they may have (EA p. 7). Letters were also sent to the Confederated Tribes of Grand Ronde, Confederated Tribes of Siletz, and Cow Creek Band of Umpqua Tribe of Indians requesting identification of any special interest they might have in the lands in question. No responses were received (EA p. 7).

Formal scoping period is not required for the preparation of an environmental assessment. Informal scoping comments were not received (EA p. 7).

5. *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks. - 40 CFR 1508.27(b) (5)*

As stated above, the Thunder Mountain Quarry has existed and been in operation since 1988. The environmental consequences of all of the alternatives are fully analyzed in Chapter Three of the EA (pp. 20-44). The actions analyzed in Alternative Two are routine in nature, which includes project design features (PDFs), best management practices (BMPs), and seasonal restrictions designed to address the potential effects identified in the analysis. These effects are well known and do not involve unique or unknown risk to the human environment.

Climate change and greenhouse gas emissions have been identified as a resource concern by the Secretary of the Interior (Secretarial Order No. 3226; January 16, 2009), and the OR/WA BLM State Director (Instruction Memorandum OR-2010-012, January 13, 2010).

The U.S. Geological Survey, in a May 14, 2008 memorandum (USDI/USGS 2008) to the U.S. Fish and Wildlife Service, summarized the latest science on greenhouse gas emissions concluding that it is currently beyond the scope of existing science to identify a specific source of greenhouse gas emissions or sequestration and designate it as the cause of specific climate impacts at a specific location. Given this uncertainty, this analysis is focused on calculating carbon emissions and storage, in the context of release and sequestration (EA p. 41).

As described (EA, pp. 42-44), Alternative Two would result in the direct release of carbon. The amounts of carbon release would be undetectable, though, at only 0.00002 percent of annual emissions in the United States, and 0.000002 percent of annual global emissions (EA, p. 43).

6. *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration. - 40 CFR 1508.27(b)(6)*

The proposed action was subject to a rigorous analysis of potential environmental consequences. The proposed quarry expansion and reclamation plan would not set a precedent or a decision in principle about future actions or considerations, as any new proposals for quarry expansion or reclamation plans would be subject to their own site-specific evaluation and analysis.

7. *Whether the action is related to other actions with individually insignificant impacts but cumulatively significant impacts. - 40 CFR 1508.27(b) (7)*

The interdisciplinary team considered the proposed action in the context of past, present, and reasonably foreseeable actions. As documented in the EA, no cumulatively significant effects to the following resources are predicted from implementation of the preferred alternative: Forest Vegetation (p. 22); Wildlife (pp. 34-38); Soils (p. 40); Fire and Fuels Management (p. 40); and Carbon Storage and Release (p. 43).

8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Historic Register or may cause loss or destruction of significant scientific, cultural, or historical resources. - 40 CFR 1508.27(b) (8)*

As discussed above, four previous cultural resource surveys have been conducted in the project area including CRS Nos. SW9805, SW9903, SW1104, and SW1111. These surveys resulted in negative findings within the proposed project area. The BLM has met the requirements of Section 106 of the National Historic Preservation Act under the guidance of the 2012 National Programmatic Agreement and the 1998 Oregon Protocol (EA p. 17).

If any cultural resources (e.g. historic or prehistoric objects, features, or structures) are found during the implementation of the proposed action, activities would be suspended until the site has been evaluated to determine its significance and the appropriate mitigation action that would be applied (EA p. 14).

9. *The degree to which an action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973. - 40 CFR 1508.27(b) (9)*

Botany

Surveys were conducted for all Threatened or Endangered and Bureau Sensitive species considered to have the potential to be present in the proposed quarry expansion project area, as documented in Table E-1, *Appendix E – Botanical Species Considered but Dropped from Detailed Study*. No Threatened or Endangered species of vascular or nonvascular plants were identified (EA p. 17).

Wildlife

In accordance with the Endangered Species Act, this project is in compliance with the Biological Opinion on the Thunder Mountain Quarry Expansion project (Tails #: 01EOW00-2016-F-0065). The Biological Opinion includes a finding by the Service that “the District’s proposed action is...not likely to jeopardize the spotted owl” and “...is not likely to adversely modify spotted owl critical habitat” (USDI FWS 2016, p. 1).

Northern Spotted Owl

As described (EA, p. 34), no effects from potential disturbance to nesting northern spotted owls or their young would be anticipated because seasonal restrictions (EA, pp. 16-17) would be applied where activities would occur. Effects would be solely associated with removal of dispersal habitat. Effects to the northern spotted owl associated with removal of dispersal habitat under Alternative Two would be consistent with those described in the Roseburg District Proposed Resource Management Plan/Environmental Impact Statement (Chapter 4, pp. 62-65).

The proposed project would remove eight acres of dispersal habitat, and therefore would be downgraded to non-capable habitat because it would no longer contain habitat elements important to northern spotted owl foraging and roosting, including horizontal and vertical structure, canopy cover, hardwoods, snags and coarse downed wood. However, there would be no discernable effects because a negligible amount (0.7 percent) of dispersal habitat would be removed within the analysis area (EA pp. 33-34).

The quarry expansion and fuels treatment activities would remove dispersal habitat, including coarse downed wood and snags, on about 0.2 percent of 3, 609 acres of WCR-6 within the action area. The amount of coarse downed wood and snags removed is discountable to the CHU as a whole, and would not change the amount or pattern of dispersal habitat within or between CHUs (EA p. 35).

The proposed quarry reclamation, once completed, would provide foraging opportunities due to planting of vegetation within the reclaimed area. The quarry reclamation would not provide roosting opportunities; however, the viability of the home ranges would not be affected (EA p. 34).

Marbled Murrelet

The proposed project is outside of the distribution range of the marbled murrelet (*Brachyramphus marmoratus*) (EA p. 22). There would be no effects to occupied marbled murrelet habitat due to actions.

Fish, Aquatic Habitat and Water Resources

No water resources are present within the project area; therefore, quarry expansion activities would not take place in any aquatic habitat (EA p. 18).

10. Whether the action threatens a violation of Federal, State, or local law or requirement imposed for the protection of the environment. - 40 CFR 1508.27(b) (10)

The proposed action was designed in conformance with management direction from the Roseburg District Record of Decision and Resource Management Plan (ROD/RMP), which itself is in conformance with all applicable laws and regulations. Furthermore, the design features described within the EA ensure that the proposed action complies with all applicable laws (ROD/RMP pp. 8-10).

Environmental Justice

The proposed action is consistent with Executive Order 12898 which addresses Environmental Justice in minority and low-income populations. The BLM has not identified potential impacts to low-income or minority populations, internally or through the public involvement process (EA p. 18).

Native American Religious or Ceremonial Sites

No Native American religious concerns have been identified by the interdisciplinary team or through correspondence with tribal governments having historic interests in the area (EA p. 18).

Noxious Weeds

As discussed in the EA (pp. 15 and 18), implementation of the Roseburg District Integrated Weed Management Program, in association with yearly monitoring and noxious weed treatments combined with PDFs would maintain a minor effect on spreading noxious weeds. Measures would include manual, mechanical, or chemical treatments to manage invasive plant infestations, mulching disturbed areas and seeding with native grasses to discourage establishment of new weed populations, and pressure washing or steam cleaning equipment prior to move-in to avoid introducing weeds from outside the project area (EA p. 15). These actions would be consistent with the requirements of the Lacey Act; the Federal Noxious Weed Act of 1974, as amended; and Executive Order 13112, Invasive Species.

Finding

Based on the analysis of potential environmental impacts contained in the EA, I have determined that Alternative Two would not have any significant impact on the human environment within the meaning of Section 102(2) (c) of the National Environmental Policy Act of 1969, and an environmental impact statement is not required. I have further determined that Alternative Two conforms to management direction from the Record of Decision and Resource Management Plan (ROD/RMP) for the Roseburg District, approved by the Oregon/Washington State Director on June 2, 1995.

Max Yager

Date

Field Manager

Swiftwater Field Office