Initial Study/
Proposed Mitigated Negative Declaration

for the

Laytonville Rock Quarry Renewal
Mining and Reclamation Plan 2013 (UR 15-92/13)

Lead Agency:

Mendocino County
Planning and Building Services
860 North Bush Street
Ukiah, CA 95482

Prepared by:

Uma Hinman Consulting
PO Box 1251
Cedar Ridge, CA 95924

October 2014

Revised May 20, 2015

Revisions

This document includes revisions to the Initial Study/Mitigated Negative Declaration for the Laytonville Rock Quarry Renewal Mining and Reclamation Plan 2013 (UR 15-92/13) dated October 2014. The following is a summary of the revisions and where they can be found in the document, in order of appearance. Revisions are identified in italic text.

Project Information. Contact information for Cathy McKeon, P.E., has been updated.

2. Project Description. Correct various APN references in Environmental Setting section.

4.1 Aesthetics. Provide mitigation measure.

4.3. Air Quality. Revise mitigation measures for consistency with MCQAMD approved Asbestos Dust Mitigation Plan.

4.4 Biological Resources. Provide mitigation measure for oak woodlands.

Project Information

This Project Information, Description, and Environmental Checklist contained herein constitute the contents of an Initial Study in accordance with Section 15063 of the California Environmental Quality Act (CEQA) Guidelines:

Project Title:	Laytonville Rock Quarry Renewal
Lead Agency Contact and Address:	John Speka, Planner Mendocino County, Planning and Building Services 860 Bush Street Ukiah, CA 95482 (707) 463-4281
Project Sponsor's Name and Address:	Shawn Studebaker, Owner/Operator Laytonville Rock 1136 Laytonville Dos Rios Road Laytonville, CA 95454 (707) 984-6437
Contact Person and Phone Number:	Shawn Studebaker, Owner/Operator Laytonville Rock (707) 984-6437 Cathy McKeon, P.E. *Crawford & Associates, Inc.* *(707) 240-4400*

Project Location

The Project, known as the Laytonville Rock Quarry, is located on property owned by the applicant, Laytonville Rock (Operator/Applicant) and an adjacent property owner, Jean Nordeman. The project site (APNs 035-460-02 and 035-460-06) is located in Section 7, Township 21 North, Range 14 West, Mount Diablo Base and Meridian, Mendocino County, California. The project location is generally east of the community of Laytonville and Highway 101 on the Laytonville Dos Rios Road (see **Figure 1**).

General Plan Designation

The General Plan designation of the project parcels is Remote Residential (RMR). Within the RMR classification, mining and extraction are conditional uses, subject to approval of a major use permit.

Zoning

The project parcels and vicinity are zoned Upland Residential with a 20-acre minimum (UR-20). Within the UR designation, mining and extraction are conditional uses, subject to approval of a major use permit.

Surrounding Land Uses

The project is located within two parcels totaling 80.51 acres. One parcel, (APN 035-460-06) is owned by the Applicant and the other parcel (APN 035-460-02) is owned by the adjacent property owner, Jean Nordeman. Uses of the subject property and surrounding properties are primarily residential, cattle raising/grazing and forestry. Surrounding properties are all similarly zoned UR-20 and Rangeland (RL) and are privately owned (**Figure 2**). The nearest residential structure is a residence owned by the Applicant, which is approximately 250 feet to the south of the quarry. The next nearest residence is approximately 670 feet southwest from the west edge of the quarry. The Laytonville Dos Rios Road is located approximately 50 feet south of the quarry shop at its nearest point.

Other Public Agencies Whose Approval May be Required

The Laytonville Rock Quarry has been in operation since the 1960s and was originally permitted by the County in 1977 for a rock quarry and processing operation. This application for use permit renewal and an expansion of the quarry requires approval from the following agencies:

- Mendocino County Planning Commission – adoption of a Mitigated Negative Declaration, pursuant to CEQA; approval of a Mining and Reclamation Plan and Use Permit renewal
- California Department of Conservation – approval of a Mining and Reclamation Plan pursuant to Surface Mining and Reclamation Act (SMARA)
- North Coast Regional Water Quality Control Board – consultation for Project input, review and approval as part of mining operations; review and approval of a Stormwater Pollution Prevention Plan (SWPPP) for Project operations
- State Water Resources Control Board – Statewide General Permit for Discharges of Storm Water Associated with Construction Activity for construction projects with soil disturbances in excess of one acre
- Mendocino County Air Quality Management District (MCAQMD) – renewal of air quality permit for Project operations

Figure 1 – Vicinity Map

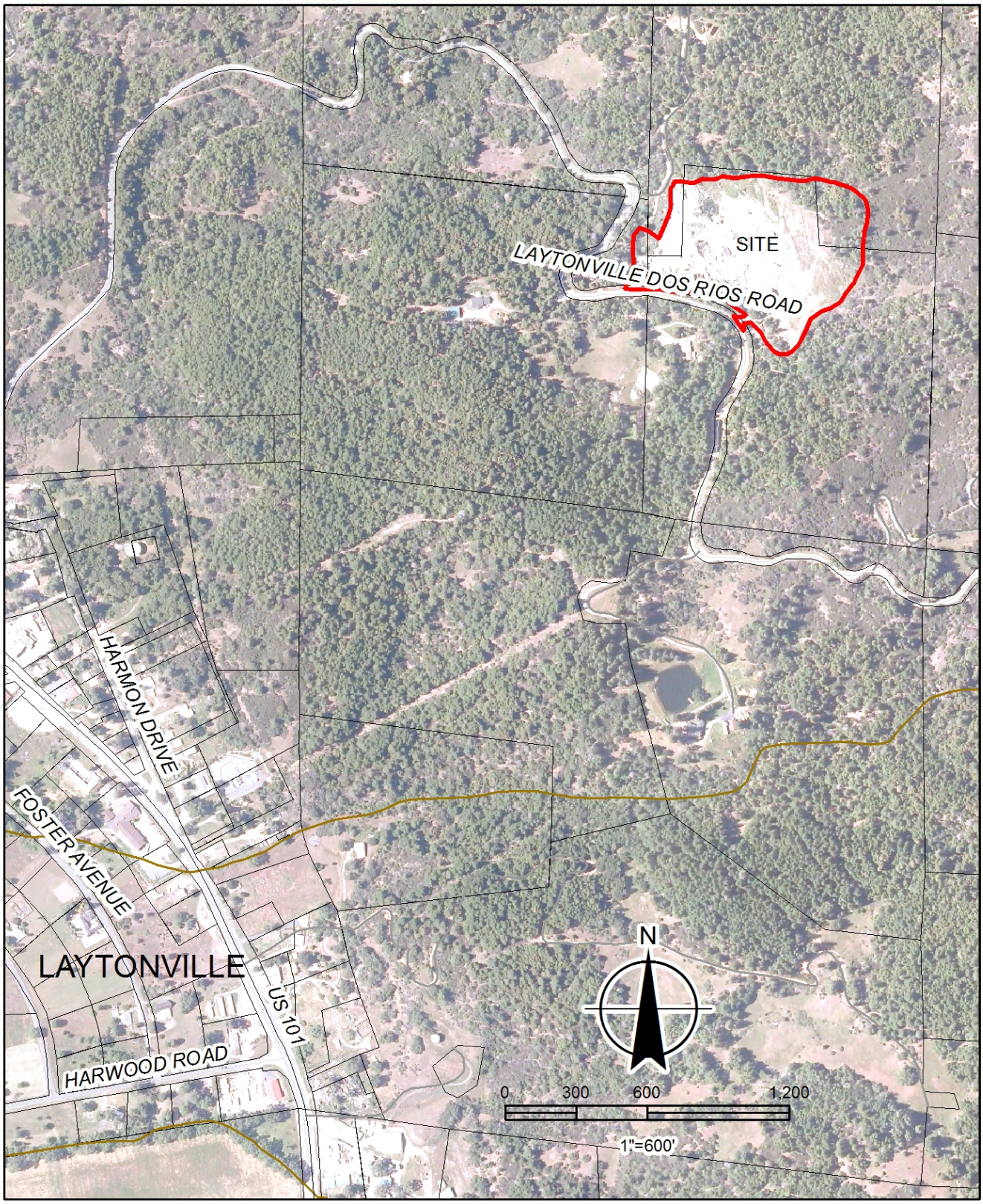

Figure 2 - Ownership Map

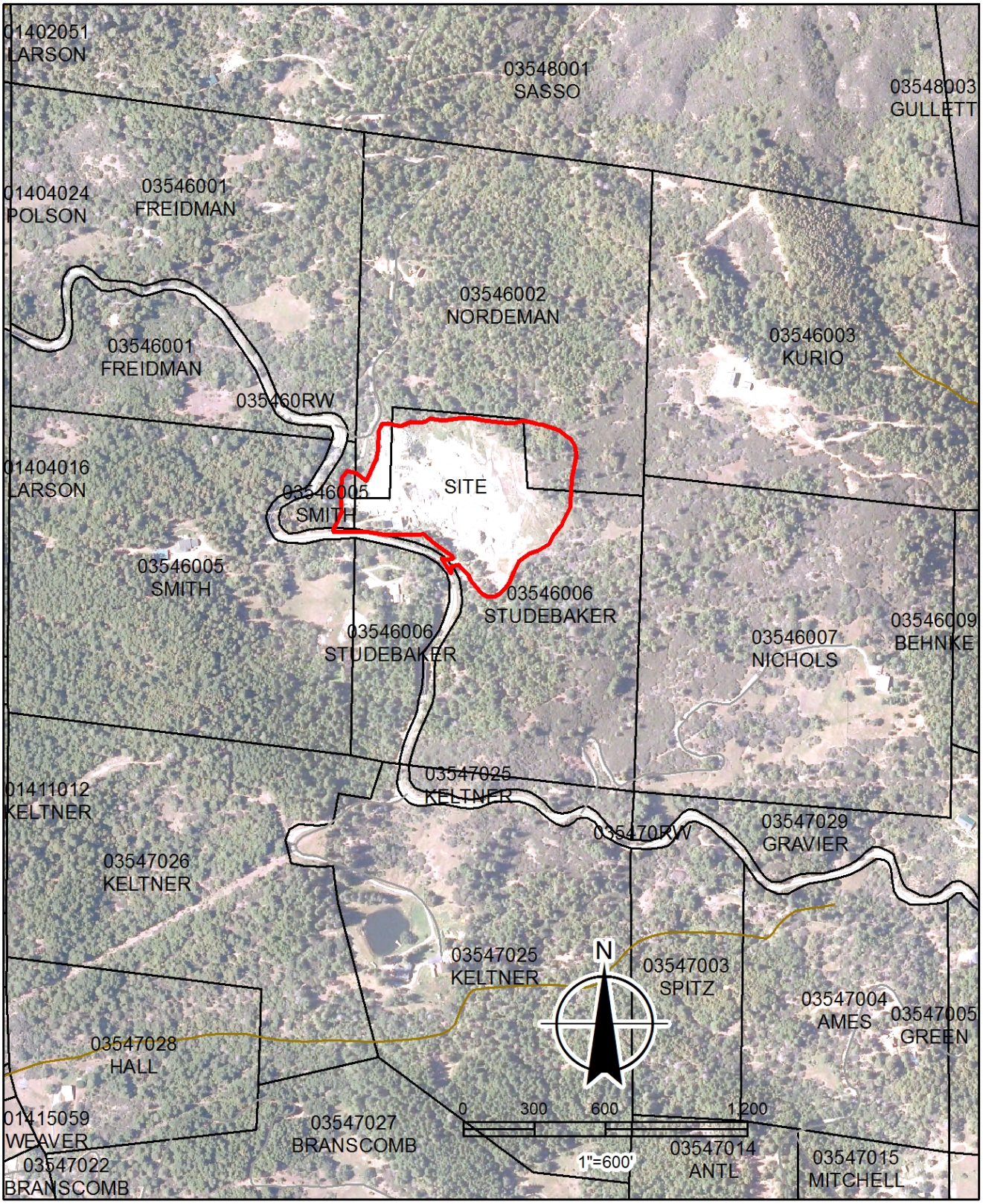

Figure 3 – Site Map

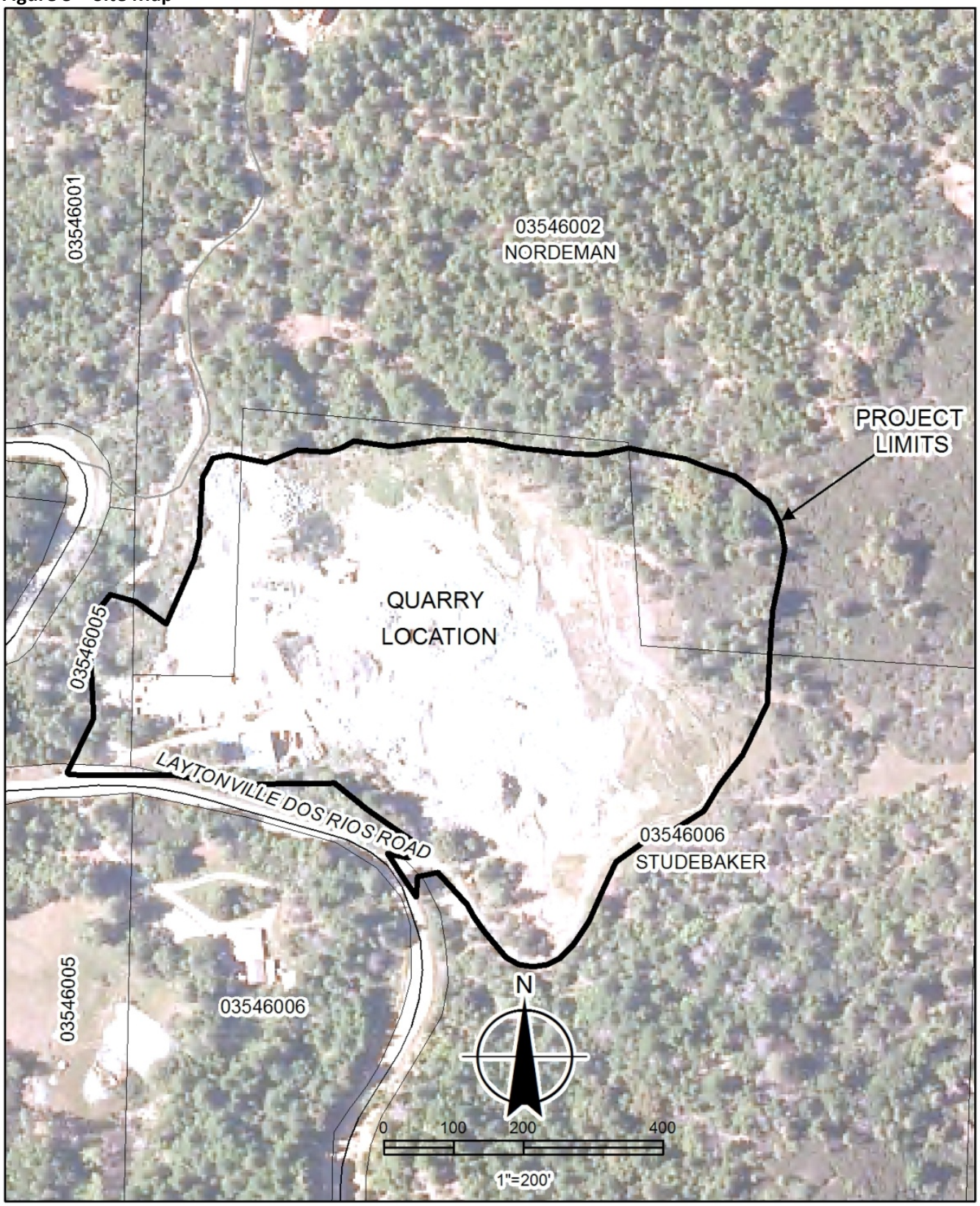

Table of Contents

1. INTRODUCTION 9

2. PROJECT DESCRIPTION 10

Environmental Setting 10
Project Background and Purpose 10
Mining Activities 11
Reclamation Plan 16
Required Permits and Approvals 18

3. ENVIRONMENTAL DETERMINATION 19

Environmental Factors Potentially Affected 19
Determination 20

4. ENVIRONMENTAL CHECKLIST AND SUPPORTING DOCUMENTATION 21

1. Aesthetics 22
2. Agricultural and Forestry Resources 24
3. Air Quality 25
4. Biological Resources 30
5. Cultural Resources 35
6. Geology and Soils 37
7. Greenhouse Gas Emissions 40
8. Hazards and Hazardous Materials 42
9. Hydrology and Water Quality 45
10. Land Use and Planning 51
11. Mineral Resources 52
12. Noise 53
13. Population and Housing 56
14. Public Services 57
15. Recreation 58
16. Traffic and Transportation 59
17. Utilities and Service Systems 61
18. Mandatory Findings of Significance 63

5. PREPARERS AND REFERENCES 65

Report Preparation 65
References 65
Applicable Court Cases 67

6. ACRONYMS AND ABBREVIATIONS 68

1. INTRODUCTION

This document is an Initial Study with supporting environmental studies, which provide justification for a Mitigated Negative Declaration (MND) pursuant to the California Environmental Quality Act (CEQA). This has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines 14 California Code Regulations Section 15000 et seq.

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment. In accordance with the CEQA Guidelines Section 15063, an EIR must be prepared if an Initial Study indicates that the proposed project under review may have a potentially significant impact on the environment. An MND may be prepared instead, if the lead agency prepares a written statement describing the reasons why the proposed project would not have a significant effect on the environment, and therefore, why it does not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, an ND/MND shall be prepared for a project subject to CEQA when either:

a) The initial study shows there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or

b) The initial study identifies potentially significant effects, but:

(1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur and;

(2) There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

Based on the results of this Initial Study, it has determined that the Project would have less than significant impacts on the environment with the incorporation of mitigation measures. The County may approved the Project with the adoption of a Mitigated Negative Declaration (MND).

The remainder of this document is organized into the following sections:

- **Section 2: Project Description** – Provides a detailed description of the proposed Project
- **Section 3: Environmental Checklist and Supporting Documentation** – Provides Initial Study resource impact checklists and supporting documentation. Identifies thresholds of significance, evaluates potential impacts, and describes mitigation necessary to reduce impact significance.
- **Section 4: Initial Study Findings** – Provides a determination of the County's CEQA findings.
- **Section 5: Supporting Information Sources** – Identifies the personnel responsible for the preparation of this document and provides a list of the references cited throughout the document.

2. PROJECT DESCRIPTION

Environmental Setting

The Project, known as the Laytonville Rock Quarry, is located on property owned by the applicant (Operator/Applicant) and an adjacent property owner, Jean Nordeman. Laytonville Rock is a rock quarry and aggregate processing facility, located east of the town of Laytonville, CA, on the Laytonville Dos Rios Road. The site is approximately 0.5 mile east of the intersection of the Laytonville Dos Rios Road with State Highway (SH) 101. The Project includes two parcels, APNs 035-460-02 (40.14 acres) and APN 035-460-06 (40.37 acres), and is situated on an east-west trending side hill ridge with a westerly aspect. The side hill forms the drainage divide between two local, ephemeral watercourses that coalesce near the valley floor; neither support fish. Elevation of the Project site ranges from 2,120 to 2,380 feet above mean sea level (msl).

The majority of the quarry is located on APN 035-460-06, which is bisected by the Laytonville Dos Rios Road; the quarry is located on the northern portion of the parcel and the portion south of Laytonville Dos Rios Road contains a residence owned by the applicant. APN *035-460-02* is also included in the Project description because the upper portion of the quarry highwall extends into this parcel. The applicant currently has an existing easement for the majority of this improvement and is will obtain an easement over the remaining portions of the parcel to the north of the Project site. Of the *combined 80.51 acres for both parcels* on which the facility is located, 11.5 acres make up the mine boundary, 8.8 of which will be disturbed for rock quarry and processing operations. The Project site is located within a sub-unit of the Franciscan consisting of mélange and is directly underlain by a landscape-scale, relatively coherent knocker of blueschist facies metamorphic rock that contains areas of serpentinization (LACO, 2014; 5).

Inland Mendocino County has a moderate Mediterranean climate; summers are hot and winters are generally cold and wet. Average annual precipitation is approximately 82 inches (USGS, 2014) with the majority falling between November and April. Average daily low temperatures range from 45 degrees in January to 67 degrees in August, with average daily high temperatures ranging from 53 degrees to 83 degrees, although lows can reach into the upper 20s and the highs can reach above 100 degrees. Relative humidity during the summer ranges from 25-75 percent with high overnight recovery in the range of 70-90 percent (City Data, 2014).

Project Background and Purpose

Although the site has been an active quarry since the 1960s, the Laytonville Rock Quarry was first permitted by the County of Mendocino in 1977 (U 10-77) for a rock quarry and crushing operations for 5 years, with a subsequent permit renewal in 1982 (UR10-77/82) for a period of 10 years. The last permit renewal was approved in 1993 (U 15-92) and extended quarry operations for an additional 20 years. A mitigated negative declaration (MND) was prepared for the permit renewal and adopted with the 1993 use permit approval. The use permit allowed for an average extraction rate between 15,000 and 20,000 cubic yards (CY) per year, with a maximum extraction of 50,000 in any given year and a total allowed extraction of 325,000 CY over the life of the use permit. The existing quarry access is directly from the

Laytonville Dos Rios Road. The Applicant is requesting a renewal of the use permit and expansion of the existing mining operation to allow mining for an additional 30 years.

The Laytonville Rock Quarry is the only permitted quarry within the Laytonville area, and provides rock to local residents and businesses. The closest quarries include Rowland Bar and McKenzie Bar, both gravel bar extraction mines near Dos Rios approximately 25 road miles (via SH 101 and SH 162) to the east. Without this quarry, rock would have to be hauled in from surrounding areas such as Grist Creek Aggregate Plant on SH 162 (approximately 13 miles south and east) and Harris Quarry south of Willits (approximately 25 miles south).

Because quarry production fluctuates with market demand, it is difficult to get an accurate picture of operations as a single snapshot in time. Recent court cases have established that in the case of mining operations, an average of typical years may be used to develop the baseline conditions for CEQA analysis (Jeffrey K. Dorso, 2012). In the case of the Laytonville Rock Quarry, extraction rates in recent years have been substantially lower than previous years – a trend that has followed the national recession of 2008. Further, there are gaps in annual reports of extraction volumes over the past 10 years, which were a result of an interim operator and changes in ownership. To determine a more accurate average extraction rate for baseline purposes, Rau Engineering prepared a topographic analysis based on aerial photos between 1992 and 2003. While an average of reported volumes in the same time-period equated to 15,063 CY per year, the topographic analysis resulted in an average extraction rate of 14,794 CY per year. For the purposes of establishing a baseline for this analysis, the more conservative figure of 14,794 CY was used. The period includes one year that neared the maximum annual extraction rate permitted under the 1993 use permit (50,000 CY), which was in response to emergency conditions that required quarry rock: approximately 40,000 CY were extracted in 1990.

The proposed Project is renewal of the County use permit to provide for the following:

- Modification of the Laytonville Rock Quarry site plan to accommodate additional mining of the quarry over a 30-year period, and to continue to allow processing on the existing permitted parcels (APNs 035-460-02 and 035-460-06); and
- Amendment of the existing Reclamation Plan to correspond with the proposed mine development and end use for rangeland.

Mining Activities

The proposed operation is generally consistent with the operational quantities currently permitted under U 15-92 and no increase in extraction rates is proposed. With the renewal of the use permit and Mining and Reclamation Plan (MRP), the applicant is seeking a 30-year permit to continue mining operations at the existing quarry. Additionally, the applicant is seeking to expand the mine boundary to allow for a 1.3-acre expansion of quarry operations and to provide sufficient room for grading and re-sloping associated with final reclamation activities. The following table, **Table 1**, provides a breakdown of the differences in acreages between the permitted, existing, and proposed Project areas:

TABLE 1. SUMMARY OF EXISTING AND PROPOSED PROJECT AREAS

Permitted Area Description	Permitted (U 15-92) (Acres)	Existing (Acres)	Proposed (UR 15-92/12) (Acres)
1. Mining Area	3.6	3.8	5.2
2. Product Stockpile	1.7	1.7	1.0
3. Topsoil Storage (temporary)	0.6	0.6	1.1
4. Misc. Areas (ditches, access, etc.)	1.6	2.7	1.5
Total Area Disturbed	**7.5**	**8.8**	**8.8**
Note: The "Existing" and "Proposed" acreage will remain the same due to reclamation of an area on the southeast side of the quarry. The reclaimed area was not included in the proposed Project.			

The proposed Project expansion and permit renewal includes a maximum extraction of 325,000 CY over 30 years. The proposed annual average production rate is 11,000 CY, a reduction from the previously permitted average volume of 15,000 to 20,000 CY. The Project includes provision for a maximum extraction of 50,000 CY in any given year, of which a limit of 20,000 CY would be for rock extraction and processing; the remaining 30,000 CY would consist of overburden extraction, which could be sold without being processed. The following table, **Table 2**, provides a summary of mining operations and limitations.

TABLE 2. SUMMARY OF PROPOSED MINING OPERATIONS

Design/Operating Characteristics	Description/Parameters/Assumptions
Operational Activities	
Mining	Excavation using loader and dozer, blasting
Processing	Crusher and screen
Reclamation	Extract and place overburden to accomplish slopes in conformance with grading plan (Mining and Reclamation Plan; Appendix B, Sheet 4); place 8–24 inches of top soil on reclaimed areas. Revegetate with grasses, brush and trees in conformance with the Mining and Reclamation Plan (MRP); Appendix B, Sheet 8.
Mine and Reclamation Data	
Acreage	
Total Parcels	80.51 acres (APNs 035-460-02, 035-460-06)
Acreage to be Disturbed	8.8 (5.2 mining; 3.6 product storage, roads, misc.)
Acreage to be Reclaimed	5.7 acres
Acreage not being Reclaimed	3.1 acres ranch roads, structures, and unvegetated rock slopes

Volume	
Maximum Daily Extraction	250 CY
Maximum Hourly Processing	300 tons/hour
Maximum Daily Processing	850 CY
Average Annual Production	11,000 CY
Maximum Annual Production	50,000 CY (20,000 CY rock; 30,000 CY overburden)
Maximum Quarry Production	325,000 CY
Operations Schedule Period	
Hours of Operation	6 a.m. – 6 p.m.
Length of Permit	30 years
Reclamation	
End Use	Rangeland

In general, mining will begin by sub-excavating the lower quarry floor, which will be used for storage of material containing NOA and unsold overburden from the upper face of the quarry. The operator may proceed with subfloor excavation or mine the face of the quarry as long as adequate overburden and/or naturally occurring asbestos (NOA) storage is available on the floor of the lower quarry. The method of extraction will be by bulldozer and/or frontend loader. Some of the harder rock areas will require blasting prior to removal with construction equipment, which could occur two to three times per year. All blasting will be performed by an independent specialist who will bring blasting materials onsite only during blasting activities; no blasting materials will be stored onsite. Rock not requiring further processing will be loaded on trucks and hauled away.

Processing

Project operations also include the use of crushing and screening equipment onsite, which will be moved into and out of the flat area on the quarry floor as it is used. The applicant estimates that approximately 85 percent of the excavated rock will require processing. Rock to be processed onsite will be loaded by frontend loader into a portable screening and crushing plant, which will be moved within the quarry as extraction proceeds. Processing will be performed a maximum of 20 days per year, with 75 percent of those days occurring during the dry season (Rau and Associates, Inc., 2013; Section 3.3). At the proposed maximum rock extraction rate of 20,000 CY per year, the resulting operation would process a maximum of approximately 17,000 CY of rock per year.

Water Demand

Water demand for the Project consists of dust suppression during rock processing activities and for the roads and quarry floor. The expected annual water demand for all mining activities is 145,000 gallons. During the peak season (June–October), projected daily dust suppression efforts for processing activities will require as much as 3,750 gallons per day (GPD) of water. An additional 750 GPD will be applied for dust suppression on the quarry floor and access roads. Off season (November–May) water demands are substantially less at 1,000 GPD combined road and processing activities.

Water Supply

Two separate water sources are utilized for Project activities. A small spring located southeast of the quarry will be used for domestic and utilitarian uses around the shop and the processing operations. The spring currently does not run freely to any watercourse, but seeps into the ground onsite. The water from the spring is transported to a 10,000-gallon water tank near the southeast corner of the shop via a ¾-inch waterline. The capacity of the spring is 10 gallons per hour (GPH) during the spring and fall. This water is primarily used for utilitarian purposes. The second water source is two ponds on the floor of the quarry. These ponds are established in bedrock and retain water from diffuse surface runoff during early spring and late fall. Water from the settling ponds is also utilized for dust suppression activities when available. Water is loaded onto a water truck from the ponds and then unloaded via a ¾" waterline to the screen/crusher. The combined capacity of the two ponds is 212,000 gallons, which is more than adequate for the water demand noted above. Pond No. 3 is also available for supplemental water supply should it be necessary or desired.

The project is located in the mountainous area just east of Long Valley and the town of Laytonville. This area is located within the Franciscan Bedrock complex, which in general is not considered water bearing. Based on recent subsurface exploration and existing surficial conditions, two groundwater zones are apparent at the project area. Shallow groundwater percolates along the rock/overburden boundary, and deeper groundwater percolates through fractures in the rock. The proposed lower quarry floor will be roughly 40 feet below the existing quarry, and during the fall of 2013 several borings in the existing quarry face recorded hydraulic head more than 10 feet above the existing quarry floor, which is consistent with the emergent groundwater present in shallow ponds dug within the existing quarry floor. Borings installed within the overburden recorded perched groundwater at a depth of less than 20 feet during the fall of 2013. Water that seeps from the walls and captured on the quarry floor will be pumped to the ponds on the upper quarry floor as necessary to allow for rock extraction. The floor will be graded to concentrate any captured water and keep sediment out of the concentrated water storage areas.

Equipment

The project will require the use of the following equipment, all of which is rented except for the screen:

- 2 – Loaders (966D, 966 C)
- 1 – Dozer (D9H)
- 1 – Screen
- 1 – Crusher
- 1 – Water Truck (4,000 gallon)

Two 1,000-gallon diesel tanks are stored onsite, just east of the shop area in the southwestern portion of the quarry. The tanks are staged in a concrete containment facility, which will be covered to prevent rainwater intrusion and potential overflow.

Traffic

The maximum expected extraction rate is approximately 250 CY per day. The maximum expected hauling could be up to 1,000 CY per day, which is consistent with existing quarry limits. Traffic generated during this peak hauling period is expected to be a maximum of 12 trip ends (6 haul loads) in a peak hour and 128 trip ends (64 haul loads) during a maximum day (Rau and Associates, Inc., 2013; Section 3.5). These volumes would only be expected during an emergency situation that required acquisition of rock. During an average day, when a client is being served, the Project would generate approximately 32 trip ends (16 haul loads) per day. The quarry work force consists of two employees in addition to the operator. Occasionally a subcontractor will travel to the Project site for activities such as blasting, borings, and geologic testing.

Schedule of Mining Activities

The Project is the renewal of a major use permit for continuation of an existing rock quarry for a period of 30 years, and a revised MRP, including an expanded mining boundary. Approval of the application will extend quarry operations to 2043. Consistent with the pervious permit, Project operations will occur between the hours of 6:00 a.m. and 6:00 p.m.; no nighttime operations will occur.

Mine Waste Management

Naturally Occurring Asbestos (NOA)

The Geotechnical Report has identified two areas within the proposed mining limits that contains naturally occurring asbestos (NOA) (Rau and Associates, Inc., 2013; Section 3.9, Appendix B Sheet 2). Outcrop exposures of the shear zone are up to 100 feet wide or more and indicate NOA will be present in the upslope and downslope directions and will be encountered as mining progresses to greater depths (LACO, 2014; page 11). During mining operations, the geotechnical report recommends periodic review of this area to confirm that the subsurface conditions/limits are clearly identified as mining progresses. Prior to excavating rock or overburden in the NOA occuring area, the operator will flag the limits of the exposed NOA. NOA will then be removed, placed on the lower quarry floor and buried with a minimum of six inches of overburden (Rau and Associates, Inc., 2013; Section 3.9). During removal and burial, the material/face of the NOA rock will be wetted to prevent airborne transmission.

Overburden

Estimated overburden depths make up approximately 24 percent of the overall extraction, or 77,000 CY. This volume includes the estimated volume of NOA discussed above. It is proposed that up to 30,000 CY of overburden may be a sold in a year, which will remain unprocessed. Unsold overburden will be stored in the lower quarry floor and will be used to cover the NOA. A minimum amount of overburden (approximately 1,500 CY) will be retained to allow for a minimum of 6 inches of cover over NOA in the lower quarry floor during the operations and during final reclamation. Fill slopes will be no steeper than 2:1, seeded and mulched after disturbance prior to the wet season each year.

Reclamation Plan

Reclamation of the Project site will occur at the end of the proposed mining period (30 years); no phasing is proposed. The goal of the reclamation plan is to stabilize the site, rehabilitate some of the prior ecosystem functions, mitigate the loss of oak woodland habitat, provide for visual mitigation, and establish an end use of rangeland. The upper slopes will be replanted with oaks and shrubs and the perimeter of the floor of the upper quarry will be planted with native oaks and herbaceous vegetation. The interior of the floor will be reclaimed to allow for rangeland use by incorporating an open grassland area and a low area to catch diffuse surface water for seasonal rangeland and wildlife water use.

Ultimate reclamation of the quarry site will be re-establishment for rangeland. A total of approximately 5.7 acres will be reclaimed, including the quarry floors, benches, and the perimeter of the quarry site. A total of 3.10 acres of ranch roads, structures, and unvegetated rock slope will not be reclaimed, including the existing access road to and through the quarry floor. Pond No. 1 will be relocated to the lower quarry floor. At final reclamation, the two remaining ponds on the upper quarry floor will remain in place, as will the pipes, to provide watering for wildlife and general rangeland use. Pond No. 2 will also function as a safe overflow in the event that the lower floor of the quarry fills up to the upper quarry floor elevation. A connecting pipe will be in place to provide for a connection between the lip of the lower floor and Pond No. 2.

Topsoil

Topsoil will be salvaged from the mining areas and relocated to temporary stockpiles (Rau and Associates, Inc., 2013; Appendix B, Sheet 4). Approximately 12,000 CY of topsoil will be required for reclamation activities, which will be temporarily stockpiled at a maximum 6-foot depth, shaped with maximum slopes of 3:1, compacted, seeded and mulched prior to October 15. All topsoil will be compacted to 85 percent and track-walked perpendicular to the slope prior to seeding.

For final reclamation, the areas to be reclaimed will be covered with topsoil to the depth shown on the plans, ranging from 8 to 24 inches. Areas to be reclaimed shall be prepared in accordance with the MRP (Rau and Associates, Inc., 2013; Appendix B, Sheet 8). Where quarry floor surfaces are hard rock or compacted surfaces, they shall be over-blasted or scarified to a minimum depth of four inches prior to placement of topsoil. A minimum of six inches depth shall be applied over the areas containing NOA, then reshaped and reseeded being careful not to mix the cover material into the underlying material containing NOA.

Reclamation Strategy

The following summarizes the reclamation strategies detailed in the Laytonville Rock Quarry Mining and Reclamation Plan 2013, prepared by Rau and Associates, Inc.

TABLE 3 LAYTONVILLE ROCK QUARRY RECLAMATION GOALS AND STRATEGIES

Reclamation Goal	Area (acres)	Features	Reclamation Strategy
Upper Quarry Floor			
Replacement planting for mitigation for loss of oak woodland resulting from quarry operations	1.61	Ponds 2 and 3; soil/rock storage bins; processing equipment; truck scale	• 100% oak woodland • Retain Ponds 2 and 3 • Remove processing equipment and scales
Lower Quarry Floor/Upper Topsoil Storage Area			
General rangeland use, periodic inundation	2.07	Pond 1, NOA containment, Upper topsoil Storage Area	• 100% grasslands
Upper Slopes			
Visual relief and overall stability	1.34	Slopes 1.5:1	• 50% oak woodland • 25% shrubs • 25% grassland
Benches			
Visual relief and overall stability	0.68	Flat benches	• 50% grasslands • 50% shrublands
Pilot Planting Area (northeast portion of quarry)			
Testing of planned reclamation plantings and conditions to ensure viability of final reclamation plan	0.24[2]	Representative of all areas to be reclaimed	Representative of all planting proposed; to be installed 10 years prior to end of mining plan
Totals (acres)	**5.70[1,2]**		**2.62 acres oak woodland** **0.68 acres shrublands** **2.40 acres grasslands**

[1] Approximately 3.10 acres of the quarry will not be reclaimed, including ranch roads, structures and unvegetated rock slopes.
[2] Acreage included in the reclamation areas, above.
Source: (Rau and Associates, Inc., 2013; Section 4.7)

Required Permits and Approvals

Based on the environmental conditions of the Project area and the analysis of potential impacts provided in Section 3, Project implementation will require the following agency reviews, approvals and/or issuance of permits:

TABLE 4 REQUIRED PERMIT APPROVALS

Approving Agency	Required Permit/Approval	Required For	Timing
State Agencies			
Department of Conservation	Mining and Reclamation Plan approval (SMARA)	Project operations	Prior to Project approval
State Water Resources Control Board, Regional Water Quality Control Board	General Construction Activity Storm Water Permit, Notice of Intent, (NPDES, SWPPP)	Storm water discharges associated with construction activity for greater than one acre of land disturbance	Prior to Project operations
North Coast Air Quality Management District (NCAQMD)	Air Quality Permit (1365-5-01-03-37-01)	Potential for fugitive dust emissions from Project operations	Prior to Project operations
Local Agencies			
Mendocino County	Use Permit Renewal, CEQA Compliance	Discretionary review and approval of Mining and Reclamation Plan and operations	In-progress

3. ENVIRONMENTAL DETERMINATION

Environmental Factors Potentially Affected

The environmental factors checked below could be potentially affected by this Project; however, with the incorporation of mitigation measures, "potentially significant impacts are reduced to a less than significant level by the Project" (CEQA Guidelines Section 15382).

☐ Aesthetics	☐ Agricultural/Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☒ Hazards/Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☒ Noise
☐ Population & Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance

Each of the above listed environmental categories was fully evaluated and one of the following four determinations was made for each checklist question:

- "**No Impact**" – no impact to the environment would occur as a result of implementing the Project.
- "**Less than Significant Impact**" – implementation of the Project would not result in a substantial and/or adverse change to the environment and no mitigation is required.
- "**Potentially Significant Unless Mitigation is Incorporated**" – the incorporation of one or more mitigation measures would reduce the impact from potentially significant to less than significant.
- "**Potentially Significant Impact**" – there is either substantial evidence that a Project-related effect would be significant or, due to a lack of existing information, could have the potential to be significant.

Determination

On the basis of this initial evaluation:

❑ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

❑ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

❑ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

❑ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Printed Name	For

4. ENVIRONMENTAL CHECKLIST AND SUPPORTING DOCUMENTATION

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards, (e.g., the project will not expose sensitive receptors to pollutants based on a project-specific screening analysis.)

2) All answers must take account of the whole action involved including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used: Identify and state where they are available for review.
   b) Impacts Adequately Addressed: Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures: For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significant.

1. Aesthetics

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				**X**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		**X**		
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				**X**

Environmental Setting

The Project is located in a rural, mountainous area of Douglas fir, madrone and oak forest and chaparral. The existing quarry is located just off the Laytonville Dos Rios Road with dense stands of tall trees and topography shielding the majority of the Project site from public roadways and neighboring properties. The existing operation occupies the entire flat area of the primary parcel on the north side of the road and is relatively devoid of vegetation except for the two ponds on the quarry floor and one pond below the quarry floor. The entrance to the Project is briefly visible to vehicular traffic on Laytonville Dos Rios Road, and some locations within Long Valley have views of the quarry high wall. The photos used for the visual analysis are included in Appendix L of the MRP.

Potential Environmental Impacts

a–b) No impact. The Mendocino General Plan Resources Element does not identify any scenic vistas or roadways within or near the vicinity of the Project site (Mendocino County, 2009; page 4-31). Neither is there any state scenic highways or designated scenic vistas within the vicinity of the Project (Caltrans, 2014).

c) Less than significant with Mitigation. The undisturbed portion of the Project site is characterized by Ponderosa Pine/Douglas fir and oak forests with small open meadows primarily used for rangeland use (agriculture/livestock). As previously noted, the quarry has been in operation since the 1960s; extraction operations will consist of continued excavation into the hillside in an easterly direction from the existing quarry floor. Brief views of the quarry are visible from the Laytonville Dos Rios Road at the main quarry entrance as you head eastbound, and again at the smaller utility entrance to the north as you head westbound. However, the majority of the site is obscured from localized views by the 50-foot buffer of trees between the road and the quarry, which will remain intact under the proposed Project expansion.

The existing upper wall of the quarry is somewhat visible from Long Valley and SH 101 for brief intervals of vehicular travel time. However, views of the quarry are limited from SH 101 where only the very top of the quarry is visible due to the intervening topography. The highwall is also visible from several residents in Long Valley and from the high school; however, the view is remote and the proposed quarry expansion is not expected to substantially increase in visibility over existing conditions. There are a few homes on the ridge to the north of the Project; however, they do not have line-of-sight to the quarry highwall, as the views are obscured by intervening tree cover (Rau and Associates, Inc., 2013; Appendix L).

Upon completion of extraction operations, reclamation will occur in the form of resloping, replacement of top soil, and revegetation with a site-similar range mixture of grasses suitable for grazing. Additionally, replacement oak trees planted on the upper slope as part of final reclamation will blend reclaimed transition areas into the surrounding forest. Limited views of the upper face of the quarry occur from sections of SH 101 and Long Valley, which may slightly increase over the life of the permit as extraction occurs into the hillside resulting in temporary impacts to the aesthetic value of localized views. However, the reclamation plantings required in the 2013 Mining and Reclamation Plan prepared by Rau & Associates, which consist of re-establishing oaks, shrubs, and grasslands, will eventually obscure the upper wall from views in Long Valley and from SH 101, thereby reducing impacts to a level less than significant.

d) No impact. Consistent with existing operations and the 1993 use permit conditions, there will be no night operations of the quarry. Therefore, no lighting will be required and no impacts resulting from lighting will occur.

Mitigation Measures

The applicant shall install prescribed soil and planting and provide monitoring for all aspects of the Reclamation in accordance with the approved Mining and Reclamation Plan for the project.

2. Agricultural and Forestry Resources

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Farmland (Prime, Unique or of Statewide Importance), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the CA Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?			X	
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?			X	

Environmental Setting

The subject parcels have a General Plan land use designation of Remote Residential (RMR) and a zoning designation of Upland Residential, 20 acre minimum (UR-20). The property is an active quarry, which has been in operation since the 1960s. The Farmland Mapping and Monitoring Program (FMMP) map for Mendocino County indicates that no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance occurs in or adjacent to the Project area (DOC, 2014).

The existing quarry is operating under the 1993 use permit, which expired in 2013; the application for renewal was submitted to the County prior to its expiration. With this permit renewal, the applicant is proposing to expand the operation by approximately 1.3 acre, to a total disturbance area of 8.8 acres. The operation of the quarry will not impede surrounding agriculture or forest uses. Furthermore, the quarry site will ultimately be reclaimed to rangeland uses.

Potential Environmental Impacts

a) No impact. The Project is not located on any farmlands of state or local importance as mapped by the California Department of Conservation; therefore, there will be no impact.

b) **No Impact.** The Project is not located on lands under Williamson Act (DOC, 2011); therefore, there will be no impact.

c–e) **Less Than Significant Impact.** The Project site is not designated as forestland in the County's General Plan and the expansion of the quarry, which equates to approximately 1.3 additional acre of disturbance, will not result in the permanent conversion of forestland. In addition to the existing quarry, the property is used for ranching and residential use. The project will not interfere with the existing ranch uses and will be returned to grazing and forest uses upon final reclamation. Therefore, there will be no permanent conversion of rangeland or forestlands and impacts will be less than significant.

Mitigation Measures

None Required.

3. Air Quality

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?		X		
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?		X		
d) Expose sensitive receptors to substantial pollutant concentrations?		X		
e) Create objectionable odors affecting a substantial number of people?			X	

Environmental Setting

The Project is located within the North Coast Air Basin (NCAB), as established by the California Air Resources Board (CARB). The NCAB extends south from the coast of Oregon between 20 and 100 miles wide and includes Mendocino, Humboldt, Trinity, Del Norte Counties, and Northern Sonoma Counties. The NCAB consists of three air districts: the North Coast Unified Air Quality Management District (NCUAQMD), the Mendocino County Air Quality Management District (MCAQMD), and the Northern Sonoma County Air Pollution Control District. The Project is located in the MCAQMD.

The Federal Clean Air Act of 1977 established national ambient air quality standards (NAAQS). These standards are divided into primary and secondary standards. Primary standards are designed to protect public health and secondary standards are designed to protect other values. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed "criteria" pollutants. California has adopted its own, more stringent, ambient air quality standards (CAAQS). The MCAQMD administers the state and federal Clean Air Acts in accordance with state and federal guidelines. The MCAQMD regulates air quality through its district rules and permit authority. It also participates in the planning review of discretionary project applications and provides recommendations.

Criteria Pollutants

The entire NCAB is currently designated as nonattainment for the State 24-hour PM_{10} standard. The MCAQMD is listed as "attainment" or "unclassified" for all federal and state ambient air quality standards except for the state 24-hour particulate (PM_{10}) standard (MCAQMD, 2005; page 5). PM_{10} is defined as course particulate matter measuring 10 microns or less in diameter; primarily fugitive dust.

The air quality of a region is determined by the air pollutant emissions (quantities and type of poluutants measured by weight) and by ambient air quality (the concentration of pollutants within a specified volume of air). Air pollutants are characterized as primary and secondary pollutants. Primary polutants are those emitted directly into the air (e.g., carbon monoxide (CO)) and can be traced to a single pollutant source. Secondary pollutants are those pollutants that form through chemical reactions in the atmosphere (e.g., reactive organic gases (ROG) and nitrogen oxides (NOx) combine to form ground level ozone, or smog). The MCAQMD has established a signficance threshold of 82 lbs/day for construction-related exhaust emissions of PM_{10} and 54 lbs/day each for construction-related ozone precursors such as ROG and NOx (MCAQMD, 2010).

Naturally Occuring Asbestos

Asbestos is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity), and asbestosis (a non-cancerous lung disease which causes scarring of the lungs).

The CARB has adopted, and the MCAQMD is responsible for enforcing two Airborne Toxic Control Measures (ATCMs) which regulate the control of NOA during construction, surfacing, grading, mining and quarrying operations (CARB, 2008). The MCAQMD has instituted a registration program for all construction, grading, quarrying, and surface mining operations within the District (MCAQMD, 2013).

An evaluation of the Project site was preformed by LACO in January 2014, which found naturally occuring asbestos (NOA). Two zones of Termolite-Actinolite were identified in the Project site. The southern zone comprised an approximate east-northeast to west-northwest trending pocket of schistose material extending along the lower working face near the southern limits of the current quarry excavation. Outcrop exposures of the southern shear zone are up to 100 feet wide and, based on the

orientation of the shear zone, it is anticipated to be present in the upslope and downslope directions and will likely be encountered as mining progresses to greater depths. The eastern zone comprised a narrow north-south striking seam of schistose material above the limits of the working face within a melange unit. (LACO, 2014; page 11.) The anticipated limits of the NOA are shown on Sheet 3 of the MRP.

Potential Environmental Effects

a-b) Less Than Significant With Mitigation Incorporated. Quarry operations would result in fugitive dust emissions, which would vary daily depending on weather conditions and level and type of activity. Operations will involve removal of overburden, grading and removal of topsoil, excavation, blasting and processing activities. Additional dust will be generated during the dry season as rock at the quarry is transported by truck for deliveries. Anticipated emissions generated from site extraction and operations include the following:

- Dust (including PM_{10} and $PM_{2.5}$), primarily from fugitive sources such as soil disturbance, processing plant operations, and vehicle travel over unpaved surfaces
- Combustion emissions of air pollutants (including ROG, NO_x, PM_{10}, CO, SO_2, CO_2), primarily from operation of heavy off-road equipment, worker and haul truck trips.

Operations would also result in the emission of pollutants from quarry equipment exhaust, worker and haul truck trips. During peak operations (i.e., emergencies requiring rock), traffic generated could result in a maximum of 128 trip ends in a maximum day (64 haul loads), with a peak hour maximum of 12 trip ends (6 haul loads). During typical Project supply deliveries, quarry traffic during peak season consists of approximately 32 trip ends (16 haul loads) per day with an average of 2-3 trucks per hour. Workers at the quarry consist of the owner/applicant and two employees. Travel to and from the site consists of driving approximately one mile round trip on established, paved, local roads and SH 101. The Laytonville Rock Quarry is the only permitted quarry in the Laytonville area and customer base for the quarry is typically localized with deliveries made directly from the quarry to the local customers. The quarry access road is approximately 175 feet long and enters a paved portion of the Laytonville Dos Rios Road via an established and permitted encroachment. This portion of the Laytonville Dos Rios Road is paved towards SH 101 and Laytonville and is County maintained. To the east, towards Dos Rios, the road is unpaved and is not maintained during winter months.

Project operations will require the use of the following equipment:

TABLE 5. EQUIPMENT USED IN QUARRY OPERATIONS WITH ASSOCIATED AIR QUALITY PERMIT STATUS

Quantity	Equipment	Estimated Annual Usage (hours)	Vehicle Permit Status
1	Crusher	92	Rented
1	Screen	92	Owned, registered with MCAQMD
2	Loader	250	Rented
1	Dozer	40-50	Rented
1	Water Truck (4,000 gallon)	10	On-highway ARB

The majority of the equipment is rented. The owner owns the screen, which is registered with the MCAQMD. The water truck is covered under the current "on-highway" CARB rules. Occasionally, customers will pick up rock at the quarry site; it is assumed that customer trucks are also operating under the CARB rules since they must utilize paved county and/or state roadways for access to the property.

The water for dust control will be applied to the quarry floor and processing operation by use of a water truck. Projected daily dust suppression will require one water truck load per day during the dry summer months, which equates to approximately 4,000–5,000 gallons per day. Historical water use for the crushing process is approximately 3,000–4,000 gallons per day and the remainder is used for dust suppression on the quarry floor. Water usage will remain consistent with past operations and requirements and is in conformance with the existing Mendocino County Air Quality Management District permit requirements.

The applicant has a current permit from the Mendocino County Air Quality Management District (MCAQMD), which is required to be renewed annually for continued operations of the quarry. Applicable regulations include those for fugitive dust emissions (MCAQMB Rule 1-430), which are included in the permit conditions. Continued compliance with MCAQMD permit conditions regarding fugitive dust emissions and pollutants will limit impacts to a less than significant level (**MM Air Quality 1**).

c) Less Than Significant Impact With Mitigation Incorporated. The proposed Project will not generate additional traffic on Laytonville Dos Rios Road or SH 101 above existing conditions, and therefore will not increase operational emissions above baseline conditions. Similarly, quarry activities will remain at existing levels, or slightly below. Implementation of the air quality permit conditions and mitigation will reduce PM_{10} emissions impacts to a less than significant level (**MM Air Quality 1**).

d) Less Than Significant with Mitigation Incorporated. Potential sources of asbestos emissions from the Project include excavation, processing, and transport of NOA laden rock. The southern shear zone includes a vein of NOA approximately 100 feet wide where visible. The assessment and mitigation recommended by LACO include removal of the NOA and burial of the material in the lower floor of the quarry. Mitigation for disturbance of NOA is consistent with fugitive dust emission best management practices. However, the presence of NOA includes specific notificaton to the MCAQMD at ast 14 days before any activity begins. Registration is also required for existing operations, projects and facilities, and requires submittal of a dust control plan. Mitigation measures included below will effectively reduce air quality impacts for NOA as well as fugitive dust contributing to PM_{10} (**MM Air Quality 2 and 3**).

e) Less Than Significant Impact. Quarry operations involve the use of construction equipment and, which have distinctive odors. Land uses in the area are very rural, primarily cattle ranching and forestry rural residential uses. The closest residences include the owner/applicant's residence on the Project

property and neighboring residence to the north. The closest neighbor is approximately 670 feet north from the boundary of the quarry site. Furthermore, the quarry is located on a hillside with intervening Douglas fir, oaks and madrones, which provides a vegetated screening around the majority of the Project. Odors are considered less than significant because of the limited number of the public affected in the rural area of the Project and the short-term nature of emissions.

Mitigation Measures

MM Air Quality 1 – The Operator shall maintain a current air quality permit with the MCAQMD and continue compliance with the requirements therein, including those relating to dust control measures.

MM Air Quality 2. – As mining progresses, the operator shall avoid mixing NOA material with the commercially available stockpiles. The following measures address segregating the asbestiform-laden material from the rock to be quarried and stockpiles as aggregate:

a. Proximal to and within the mapped NOA zone, the material may periodically be over-excavated to depths attainable by an excavator. The excavated material shall be stockpiled onsite and covered to protect it from wind and rain. During over-excavation, dust-suppression methods shall be employed, including periodic wetting. Over-excavation could occur on an as needed basis so as to allow for the removal of aggregate from the working faces and benches while minimizing the potential contamination with the NOA. A qualified geologist shall be retained to observe the over-excavation and map the newly exposed limits of the NOA.

b. Periodic collection of composited samples from the aggregate stockpiles in compliance with the MCAQMD requirements to verify the concentration of NOA in the commercially available materials is less than 0.25 percent. Stockpile sampling shall be conducted by the operator:

    i. Initial sampling for existing stockpiles every 10,000 CY until stockpiles are sold.
    ii. Every 20,000 CY after existing stockpiles sold.

    Sampling shall be performed in accordance with an approved Asbestos Dust Mitigation Plan.

c. Excavation of the proposed quarry face slopes may expose differing site conditions which may increase the potential for NOA to be exposed. Periodic sampling of the exposed slopes is required to verify that the NOA recommendations remain valid. If the review of newly exposed site conditions record new areas of NOA, additional mapping/measurement of newly exposed NOA and updated mitigation recommendation may be required. A periodic review should occur for every 40,000 cubic yards of excavation.

MM Air Quality 3 – To mitigate the impacts of quarry operations encountering NOA, the operator shall notify the MCAQMD a minimum of 14 days prior to quarry operations in the vicinity of NOA. Consistent

with MCAQMD NOA regulations, the applicant is required to submit a dust control plan that includes, at a minimum, the following:

a. Visible dust emissions from equipment and operations shall not cross the property line.

b. Crushers shall not discharge emissions for a 3-minute period in any hour that are greater than 15 percent opacity.

c. Grinding mills, screens and transfer points on conveyors shall not discharge emissions for a 3-minute period in any one hour that are equal or greater than 10 percent opacity.

d. A 15 mph maximum speed limit at the work site.

e. Storage piles and disturbed areas must be stabilized by adequate wetting, treatment with a chemical dust suppressant, or covered with material containing less than 0.25 percent asbestos.

4. Biological Resources

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Environmental Setting

The Project site is situated on a west-facing slope and includes the existing Laytonville Rock Quarry and immediately surrounding area. The vegetation within the Project area is comprised primarily of oak woodland, non-native grassland, scrubland and emergent wetland vegetation (Geri Hulse-Stephens, 2013). Upland of the quarry is a Ponderosa pine/Douglas fir and oak forest.

Non-native grasslands and shrubs extend north above the highwall. The majority of the quarry floor is devoid of grasses and consists of exposed bedrock. On the westerly perimeter of the quarry floor are tall brush consisting of common manzanita, toyon and coyote brush. A few seeps are evident on the southeast slopes above the quarry, which will not be disturbed as a result of quarry operations. A small stand of fir forest, approximately 50 feet in width, exists between the shop area and Laytonville Dos Rios Road. These trees will not be removed with the Project as they provide a visual buffer between the quarry and the road. No listed plant or wildlife species were found within the study area (Geri Hulse-Stephens, 2013; page 8) (NCRM, 2014; page 4).

There are three ponds within the quarry site, all of which were constructed under previous use permits as a series of connected catchment basins or settling ponds to capture sediment from quarry operations in the form of stormwater runoff. These ponds are regularly maintained for capacity by removal of sediment and vegetation (Rau and Associates, Inc., 2013; Appendix D). The first pond is located on the north side of the quarry, on the lower quarry floor. The second pond is less than half the size of the first and is located approximately 120 feet to the south of the first on the upper quarry floor. The third pond is located below the upper quarry floor on the west side of the Project area and is slightly larger than the second.

Additionally, two intermittent streams are adjacent to the Project area. One occurs on the south side and crosses Laytonville Dos Rios Road before reaching the quarry, then drains to Ten Mile Creek. Another small road side ditch drains the southern edge of the Project area along a narrow channel behind the structures that make up the office and shop area. This ditch drains into a pipe that delivers water into the third pond. The other stream occurs as an intermittent stream on the north side of the Project area and also drains to a culvert under Laytonville Dos Rios Road, then to Ten Mile Creek. Overflow from the first pond drains by pipe into the second pond that is then drained by pipe into the third catchment pond. Water from the third pond overflows into a narrow seasonal stream channel that flows via culvert under the Laytonville Dos Rios Road to the northwest. This intermittent stream ultimately drains into Ten Mile Creek that flows northward and westward until it discharges into the South Fork of the Eel River, which discharges into the Pacific Ocean near Ferndale, California in Humboldt County. (Geri Hulse-Stephens, 2013)

Potential Environmental Effects

a) Less than Significant. Field surveys were performed by professional biologists on September 6, 2012 (botanical), April 26 2013 (botanical), June 21, 2013 (botanical), and December 20, 2013 (wildlife). Botanical surveys and reporting were performed by Geri Hulse-Stephens (Geri Hulse-Stephens, 2013); wildlife surveys and report were performed by North Coast Resource Management (NCRM, 2014). Both reports determined that there were no listed plant or wildlife species identified within the Project's boundary. The Project will result in disturbance of approximately 65 oak trees within the immediate fringe of identified oak woodland area, which will result in temporary impacts to oak woodland habitat within 40 feet of the Project [see item (e)] below for further discussion). However, the proposed area of expansion will not impact any potentially significant wildlife habitat as it consists primarily of barren ground, grass and shrub species in proximity to the existing quarry (NCRM, 2014; page 4). The majority of the expansion area is covered by star thistle, an invasive species which provides very low-quality wildlife habitat. Additionally, the proposed Project does not include an increase in rock processing or blasting, which would result in an increase in noise and activity levels above existing conditions. Given the existing relatively high noise and activity level in the area, and the low quality of wildlife habitat present onsite, the expansion of the quarry is not likely to cause any long-term or irreversible impacts to biological resources (NCRM, 2014; page 4). Therefore, impacts will be less than significant.

b) No Impact. Cattail marshes were identified in all three sediment ponds/catchment basins. Additionally, above the cattail stands along the edges of the ponds grow a variety of marshy vegetation; including non-native coyote mint, pale spikerush, white sweet clover, nut-sedge, Bolander's sedge, Mediterranean beard grass, and red willow. However, the botanical report for the Project site did not identify any of these marshy areas as riparian habitat, sensitive plant communities or rare species (Geri Hulse-Stephens, 2013; page 8). The three onsite sediment ponds established under the 1993 use permit were developed to address potential water quality issues from sediment-laden runoff. Although there is evidence of riparian plants in these ponds, they were established and continue to be used for industrial use and are maintained annually by the operator (Rau and Associates, Inc., 2013; Appendix D). Consequently, it is believed that the ponds are considered non-jurisdictional. Ultimately, one of the three ponds will be relocated to the lower floor of the quarry during final reclamation. This pond will be

relocated and established before the existing Pond No. 1 is removed. The lower quarry floor will develop into a seasonal pond that will be used for rangeland use (Rau and Associates, Inc., 2013). Because no sensitive riparian or natural communities were identified within the Project site, there will be no impact.

c) No Impact. A small isolated wetland was identified outside of the impact area on the east side of the quarry, perched on a terrace above the quarry operations. However, the wetland will not be impacted by mining or reclamation activities and there will be no impact.

d) Less Than Significant Impact. No special status species were identified in the Project area and no fish-bearing watercourses are located onsite. Further, the quarry has been in operation for nearly 50 years, and there has been a consistent and relatively high noise and activity level in the area, making it unlikely that the continued operation of the Project will significantly impact wildlife use above existing levels.

Expansion of the Project will result in the removal of up to 65 native oak trees ranging from 4 to 48 inches in diameter, which are located within 40 feet of the existing quarry. While it is possible that raptors and migratory birds may use the surrounding trees for nesting and foraging, the existing year-round level of noise and activity are likely deterrents which will remain consistent with the proposed Project. Quarry operations typically continue throughout the year, including the nesting season, which is February 1 through August 31. In general, if a nest becomes active after construction has started, or as in the case of this Project, remains ongoing, then the bird is considered adapted to construction disturbance. Because the Project operations will remain consistent with existing operations, and no lapse in those operations have occurred, impacts to wildlife migratory and nursery use are considered less than significant.

e) Less Than Significant With Mitigation Incorporated. Mendocino County has approximately 374,000 acres of hardwood rangeland (University of California, 2003). The biological assessment identified an intact oak woodland within and adjacent to the area proposed for mine development. Although the County of Mendocino does not have a codified oak-woodland protection ordinance, the County General Plan's Resource Management Element includes the following goals and policies (Mendocino County, 2009; Chapter 4):

- Goal RM-5 states "Prevent fragmentation and loss of the county's oak woodlands, forests, and wildlands and preserve their economic and ecological values and benefits."
- Policy RM-24: "Protect the county's natural landscapes by restricting conversion and fragmentation of timberlands, oak woodlands, stream corridors, farmlands, and other natural environments."
- Policy RM-25: "Prevent fragmentation and loss of our oak woodlands, forests, and wildlands and preserve the economic and ecological values and benefits."
- Action Item RM-28.1: The County shall develop CEQA standards that require disclosure of impacts to all sensitive biotic communities during review of discretionary projects. These standards shall require the following mitigation:

- Oak Woodland – maintain and improve oak woodland habitat to provide for slope stabilization, soil protection, species diversity and wildlife habitat through the following measures (applicable measures only):
    - Comply with the Oak Woodlands Preservation Act (PRC Section 21083.4) regarding oak woodland preservation to conserve the integrity and diversity of oak woodlands, and retain, to the maximum extent feasible, existing oak woodland and chaparral communities and other significant vegetation as part of the residential, commercial, and industrial approvals.
    - Provide appropriate replacement of lost oak woodlands or preservation at a 2:1 ratio for habitat loss.

The biological assessment identified impacts to native oak woodlands within 40 feet of the Project impact area, and concluded that 65 native oak trees will be removed or impacted by the proposed mining operation over the 30 year life-span of the Project (see Table 6Table 6 Number and size of native oak trees within impact area of the Laytonville Quarry Project below) (Geri Hulse-Stephens, 2013). The reclamation plan includes restoration of 5.7 acres of the site with oaks, brush and grasslands. During final reclamation, oaks will be planted at a 6:1 ratio for a total of 390 oaks, allowing for a 50 percent die-off and ultimate 3:1 replacement, which will exceed the General Plan mitigation goal of a 2:1 success rate. The oaks will be planted on the perimeter of the upper quarry floor, on the 1.5:1 slopes above the quarry, and on the benches. The replanting is double the replacement volume to provide a contingency of 50 percent die-off during the monitoring period. Section 4 of the MRP provides a detailed description of the planting, maintenance, and monitoring plan for the oak tree planting. The table below provides a list of oak species and number of trees with potential to be impacted as a result of the Project:

TABLE 6 NUMBER AND SIZE OF NATIVE OAK TREES WITHIN IMPACT AREA OF THE LAYTONVILLE QUARRY PROJECT

California Native Oaks	Diameter at Breast Height (dbh) (inches)						Total by species
	<6	6-11	12-23	24-36	37-48	>48	
Canyon live oak (*Quercus chrysolepis)*	4	7	3	1	2	0	17
Oregon oak (*Quercus garryana)*	4	7	9	5	0	1	26
Black oak (*Quercus kelloggii)*	0	5	8	0	1	0	14
Valley oak (*Quercus lobata)*	0	0	4	3	1	0	8
Totals	8	19	24	9	4	1	**65**

Source: (Geri Hulse-Stephens, 2013)

Reclamation will be accomplished through the planting of native tree and shrub species whose propagules (seed, cuttings, etc.) are collected from on-site tanoak and shrubland habitats prior their removal, as well as undisturbed habitats adjacent to the quarry. If a sufficient supply of propagules are not available adjacent to the site, or the time gap between plant removal and reclamation is too long, the collection zone will be expanded to similar vegetative habitats in the Ten-Mile Creek watershed and further expanded to South Central Mendocino County ecotypes, as needed. The operator will contract with a native plant nursery to conduct seed collection and propagation for the required plantings. Reclamation planting plans are included on Sheets 8 and 9 of the 2013 Mining and Reclamation Plan

(Rau and Associates, Inc., 2013). The reclamation plan includes a monitoring program that will ensure oak plantings will be maintained, and dead or diseased trees replaced, for seven years after the trees are planted. With the incorporation of **MM Biological 1** below, impacts will be mitigated to level less than significant.

f) **No Impact.** There are no HCP/NCCPs applicable to the Project area. Therefore, there will be no impact.

Mitigation Measures

MM Biological 1 – The Project will result in the loss of up to 65 native oak trees within 40 feet of the existing quarry.

a. Reclamation, including replacement planting of oak woodlands to ensure a survival ratio of 3:1, which exceeds the Mendocino County General Plan recommendation of 2:1, shall be performed upon final reclamation in accordance with the 2013 Mining and Reclamation Plan Section 4.8 (Revegetation), and Section 4.9 (Maintenance Plan) and Section 4.10 (Monitoring).
b. *Contribute to the California Wildlife Conservation Board's Oak Woodland Conservation Fund or other mitigation fund established by the County. The contribution shall be computed as follows:*
    i. *1.0 x acres of impacted woodland x current land value*
    ii. *Acceptable method of established current land value is*
        (a) *Appraisal of woodland area impacted*
        (b) *Sale values for like property for which the woodlands are being removed and which are located in the same general area.*

5. Cultural Resources

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?				**X**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				**X**
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			**X**	
d) Disturb any human remains, including those interred outside of formal cemeteries?			**X**	

Environmental Setting

Native Americans of the Cahto People inhabited the Long Valley area. In response to the 1992 use permit application, the Mendocino County Archaeological Commission reviewed records to determine the known presence of prehistoric or historic archaeological resources. The determination was that there was a low possibility of archaeological sites within the Project Area, and no further study was recommended (Commission, 1992).

Potential Environmental Effects

a–b) No impact. The quarry site has been under continuous operation since the 1960s and went through the County permitting process in 1992. At that time, a review of the potential for archaeological sites to occur within the Project area determined there was a low possibility for occurrence. Although the applicant is proposing expansion of the quarry disturbance area by approximately 1.3 acres, the expansion will extract further down into the quarry floor and into the hillside, which consists of hard rock. Because of the Mendocino County Archaeological Commission's previous recommendation, and the history of previous quarry operations on the site, no significant adverse impacts to cultural resources are anticipated as a result of the proposed Project. No impact is anticipated as a result of this Project.

c–d) Less Than Significant With Mitigation Incorporated. Because the Project operations consist of continued mining into hard rock features, it is unlikely that discovery of human remains will be encountered during excavation and operations. However, consistent with County General Plan Policies DE-115 and DE-116 regarding Projects with ground-disturbing activities, mitigation measures **MM Cultural 1** and **MM Cultural 2** will minimize potential impacts to a less than significant level.

Mitigation Measures

MM Cultural 1 – If, during the course of the Project, cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features) are discovered, all work shall be halted immediately within 50 feet of the discovery, the County Planning and Building Services Department shall be notified, and a profession archaeologist that meets the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in archaeology shall be retained to determine the significance of the discovery.

MM Cultural 2 – If, during the course of implementing the project, any paleontological resources (fossils) are discovered, all work shall be halted immediately within 50 feet of the discovery, the County Planning and Building Services Department shall be immediately notified, and a qualified paleontologist shall be retained to determine the significance of the discovery.

6. Geology and Soils

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i.) Rupture of a known earthquake fault, as delineated on the Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?			X	
ii.) Strong seismic ground shaking?			X	
iii.) Seismic-related ground failure, including liquefaction?			X	
iv.) Landslides?			X	
b) Substantial soil erosion or the loss of topsoil?			X	
c) Located on a geologic unit or soil that is unstable, or would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

Environmental Setting

The Project site lies within the Coast Ranges Geomorphic Province of California, a seismically active region in which large earthquakes and strong ground shaking should be expected to occur during the life span of the Project. The Coast Ranges are composed of thick sequence of late Mesozoic and Cenozoic strata consisting locally of the Coastal Belt Franciscan Complex. According to LACO's geologic report, the local area is underlain by Tertiary to Cretaceous age Franciscan Complex rock. The Project site specifically is located within a sub-unit of the Franciscan consisting of mélange and is directly underlain by a landscape-scale, relatively coherent knocker of blue schist facies metamorphic rock that contains areas of serpentinization. The blueschist block underlying the Project site is part of a larger north-northwesterly trending zone of map-scale blueschist blocks that occupy the west-facing slopes along the

eastern range front of the Laytonville valley (LACO, 2014; 6). The depth below the current mine pit floor to the contact with less resistant and lower-strength mélange matrix is unknown, but is anticipated to be lower than an elevation of 2,080 feet msl, based on data obtained from onsite borings and information reported by the quarry owner from historic exploratory borings drilled in the quarry floor. (LACO, 2014; page 5)

The Project occupies an east-west trending side hill ridge with a westerly aspect that has formed the flank of the valley-bounding, northwesterly trending range front. The side hill ridge forms the drainage divide between two local seasonal streams that coalesce near the valley floor. Elevation of the Project site ranges from 2,120 to 2,380 msl when including the undisturbed forested areas near the top of the ridge. The current average quarry slope of the existing ground surface measures from the back edge of the pit floor to the upper limits of the disturbed areas is approximately 1.35:1 horizontal to vertical. The highwall consists of multiple benches with bench faces sloped at 0.5:1 or steeper with heights up to 30± feet. Bench face slopes are separated by bench widths of about 40± feet (LACO, 2014: page 5). A detailed geological resource report, including soil maps, is included in the *Engineering Geologic Exploration, Quantitative Slope Stability Assessment, and Evaluation for the Presence of Naturally Occurring Asbestos,* prepared by LACO, May 9, 2014.

The northern Coast Ranges trend northwest, sub-parallel to the San Andreas and Maacama faults. Both of these fault zones are north-northwest trending, right-lateral strike slip faults. The San Andreas fault represents the boundary between the relatively stationary North American Plate and the northward-migrating Pacific Plate. The Maacama fault zone has been interpreted as the northern extension of the Hayward and Rodgers Creek faults, all of which are products of distributed slip associated with the San Andreas fault along the North American Plate margin. The San Andreas fault and Maacama fault as designated as being active by the State of California, and capable of generating moderate to strong future earthquakes with estimated moment magnitudes of 7.9 and 7.1, respectively. (LACO, 2014; pg 6)

Potential Environmental Effects

a) Less Than Significant Impact. The geologic report for the site describes the underlying rock classification and limitations (LACO, 2014). Based on the geologic maps and the exposed formations at the quarry, the underlying rock consists of glaucophane schist and blueschist within a mélange of Coastal Belt Franciscan. The shale matrix is highly erodible, generally considered unstable, and in the Laytonville area is prone to landsliding. However, no evidence of large-scale active slope failure at the Project site was observed, nor were any evidence of incipient block failures in the pit walls (LACO, 2014; page 11).

Faults, fractures, and systematic joint sets are present in the exposures throughout the working faces of the Project site. The geologic report identified the failure mechanism as localized raveling and rock fall of loose material out of the working rock faces (LACO, 2014; page 7). However, the geologic report found that the proposed pit walls are expected t be stable from a rock mass slope failure under both static and psuedostatic conditions (LACO, 2014; page 11).

Because the grading and reclamation plans for the Project site conform to the minimum sloping requirements identified in the geologic report, the impacts will be less than significant.

b-c) Less Than Significant Impact. Based on the results of the rock mass stability analysis performed and reported in the geologic report prepared for the site, the factor of safety of the proposed quarry faces are estimated to be greater than 1.9 under static conditions and 1.2 under psuedostatic conditions and are considered adequately stable for industry standards (LACO, 2014; page 10).

The report recommends that overburden soil exposed at the top of the quarry should be sloped at a 1:1 or flatter for granular materials and 1.5:1 or flatter for fine-grained materials. Exposed mélange soils should be sloped at 2:1 or flatter and include a minimum 10-foot wide bedrock bench along the base of the contact. Further, the geologic report determined that, based on the predicted shallow nature of the modeled failures and the design for low gradient benches every 50 vertical feet, should any shallow failures occur, they will be contained by the benches (LACO, 2014; page 10).

The configuration of the slope of the quarry walls will be determined using the following criteria, are based on the geologic report prepared by LACO, and will consist of the following:

- Cuts:
  - Melange Soils: 2:1
  - Decomposed bedrock and granular soil – 1.5:1 (Final)
  - Moderately to intensely weathered bedrock – 1:1 (Intermediate)
  - Fresh to slightly weathered bedrock – 0.75:1 (Intermediate)

- Fills
  - Overburden – 2:1 overall (Final)

- Benches
  - Placed at a maximum 50-foot vertical distance in rocky soil and be a minimum of 15 feet in width. A registered professional engineer or geologist shall review the slopes every five years, or when the grading is within 100 feet of the final slope configuration to confirm the slope criteria is met and stable. Overburden material not sold as product will be compacted to no less than 90 percent. Where mélange soil is exposed, intermediate 10-foot benches will need to be incorporated between the contact with rock. Fills will be placed in the lower quarry floor.

At final reclamation, the fill slopes will be graded at an overall 2:1 slope, which are considered acceptable for the location and intended use (Rau and Associates, Inc., 2013; Section 4.5). Highwall topography will be shaped at 1.5:1, covered with 8 to 24 inches of topsoil, compacted to 85 percent, and reclaimed with a mix of grasslands, shrubland and oak woodland (Rau and Associates, Inc., 2012; Section 4.6. Because the grading and reclamation plans for the Project conform to the minimum sloping requirements identified in the geologic report, the impacts will be less than significant.

d) **No Impact.** Although expansive soils can be located within the Franciscan mélange, no structures are proposed with the Project that would trigger compliance with the UBC. Therefore, there will be no impact.

e) **No Impact.** The project does not require any support structures that would necessitate the construction of septic or wastewater disposal systems. Further, final reclamation of the site will be for an end use of rangeland, which also not require wastewater disposal systems on the site. Therefore, there will be no impact.

Mitigation Measures

None Required.

7. Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Environmental Setting

Greenhouse Gases (GHGs) are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts. The most common GHGs that results from human activity include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) (OPR, 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

Assembly Bill 32 (AB 32), adopted in 2006, established the Global Warming Solutions Act of 2006 which requires the State to reduce greenhouse gases (GHGs) to 1990 levels by 2020. The reduction to 1990 levels will be accomplished through an enforceable statewide cap on GHG emissions that was enacted in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 (described below) should be used to address GHG emissions from vehicles.

In October of 2008, CARB published its Climate Change Proposed Scoping Plan, which is the state's plan to achieve GHG reductions in California required by Assembly Bill 32 (AB 32). The scoping plan contains the main strategies California will implement to achieve reduction of 169 million metric tons (MMT) of carbon dioxide emissions (CO_2e), or approximately 30 percent from the state's projected 2020 emission level of 595 MMT of CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO_2e, or

almost 10 percent, from 2002–2004 average emissions). The scoping plan also includes CARB recommended GHG reductions for each emissions sector of the state's GHG inventory.

The Mendocino County Energy Working Group (EWG) developed a GHG emissions inventory for the County as part of the general plan update process. The EWG, a volunteer citizens group, estimated 2002 County emissions of 1,084,573.7 tons CO_2e. Transportation accounted for 51.49 percent of the inventory, higher than the state average. The focus of this inventory was on energy usage (including transportation fuels) and includes only CO_2 and methane (CH_4). Nevertheless, it provides useful information on the existing environmental conditions (ESA, 2009).

Mendocino County is primarily rural; the amount of GHGs generated by human activities (fossil fuel burning for vehicles, heating, and other uses) is small in total compared to other more urban counties, and miniscule in statewide or global terms (Mendocino County, 2009). To date, Mendocino County has not prepared a GHG reduction plan, climate action plan, or GHG policies and standards. However, MCAQMD's advisory threshold for GHGs is 4,000 metric tons per year of CO_2e (ESA, 2009).

Potential Environmental Effects

a) Less Than Significant Impact. To quantify the GHGs for this project, a comparison analysis was made with the Kunzler Terrace Mine Project, for which an EIR was certified by the County of Mendocino in 2010[1]. That project is located approximately one mile south of Ukiah in Mendocino County. The analysis was for a rock quarry operation with a maximum limit of 250,000 CY/year, which included extraction, processing, and hauling. The calculated GHG emissions for the Kunlzer project totaled 2,056 metric tons per year CO_2e, which is below the threshold of significance advised by the MCAQMD (ESA, 2009). Based on a comparative ratio, assuming the maximum of 50,000 CY/year, the Laytonville Rock Quarry will emit approximately 411.2 metric tons/year of CO_2e – an amount substantially below the advisory threshold of 4,000 metric tons/year of CO_2e during quarry operations and hauling. Therefore, impacts resulting from the project would be less than significant.

b) Less Than Significant Impact. The Mendocino County Air Quality Management District has adopted thresholds based on emissions of GHG from projects that can be used by lead agencies to judge their significance. The District does not have construction-related emission thresholds, but considers operational emissions significant if they exceed 1,100 metric tons annually. Given that the proposed

---

[1] Certification of the Kunzler Terrace Mine EIR was contested by Masonite Corporation in the Mendocino County Superior Court. The judgment denying the petition for writ of mandate was reversed, with directions to issue a writ requiring the County to set aside its certification of the EIR, set aside its approvals of the conditional use permit and reclamation plan for the Project, and prepare and circulate a supplemental EIR, which includes the EIR's provisions pertaining to the yellow-legged frog, and addresses the deficiencies identified in the EIR concerning: the feasibility of Agricultural Conservation Easements and in-lieu fees as mitigation for the Project's conversion of farmland to nonagricultural use; the discussion of cumulative impacts on agricultural resources; and the efficacy of the mitigation measures for truck traffic on Kunzler Ranch Road. (Masonite Corporation v. County of Mendocino and Grainte Construction Company, 2013)

operations will remain consistent with existing quarry operations, and the less than significant qualitative estimate of GHG emissions noted in a) above, these emissions are compared to the District's operational thresholds and found to be less than significant.

Mitigation Measures

None Required.

8. Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?		X		

Environmental Setting

Blasting occurs at the quarry two to three times per year. The blasting is performed by an independent company, which transports the explosives to the site and conducts the blasting. No explosives are stored onsite. Two 1,000-gallon diesel fuel tanks are stored just east of the shop. The tanks are stored in a concrete containment facility, which will be covered to prevent rainwater intrusion and overflow and provides more than three times the necessary volume for diesel containment. Fuel, lubricants and oils are stored onsite in the existing shed. An industrial SWPPP has been prepared for the Project and includes best management practices (BMPs) for storage and use. The SWPPP is included as Appendix F of the MRP.

The Geotechnical Report has identified an area on the southeast side of the quarry, within the proposed mining limits, that has Naturally Occurring Asbestos (NOA) (see Sheet 2 of the Mining and Reclamation Plan). This material will be excavated in advance of mining in that area and buried with a minimum six-inch cover within the lower quarry floor. During the mining operations, the geotechnical report recommends periodic review of this area to confirm that the subsurface conditions/limits are clearly identified. Prior to excavating in this area, the operator will flag the limits of the exposed NOA, remove and bury the NOA. During this operation, the material and face of the NOA rock will be wetted to prevent airborne transmission. See the Air Quality Section above for more discussion and identification of mitigation measures.

Potential Environmental Effects

a) Less Than Significant Impact. No storage of explosives will be onsite. While the transport of blasting equipment poses a potential risk to the public, this impact is considered to be less than significant given continued compliance by the company who transports the explosives with applicable State laws and regulations governing these explosives, as well as the limited transport to the site of two to three times per year.

b) Less Than Significant With Mitigation Incorporated. Naturally occurring asbestos (NOA) has been identified within a portion of the quarry. NOA is a known carcinogen and toxic contaminant and is

regulated by the California Air Resource Board, which delegates assessment and permitting to the regional Air Quality Management District. The MCAQMD has specific notification and measures that are required for disturbance of NOA, which have been detailed and included as mitigation in the Air Quality Section of this document. With the incorporation of **MM Air Quality 2 and 3**, impacts to the public and environment resulting from disturbance of naturally occurring hazardous materials will be less than significant.

c, d, g) No Impact. The Project will be a continuation of operations that have been in practice for the past 50 years. The Project will not emit any hazardous emissions within one-quarter mile of a school, as the nearest school is approximately one mile away. The site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Neither would the Project interfere with implementation of an adopted emergency response plan or emergency evacuation plan.

e, f) No Impact. There are no public use airports within Long Valley and the site is not within an area that falls under an airport land use plan (ALUP). A private strip is located approximately two miles southwest of the project site on the opposite side of SH 101; however, there are no safety hazards associated with use of the private airstrip on employees of the quarry or vice versa.

h) Less Than Significant With Mitigation Incorporated. There is potential for wildland fire ignition with equipment use, particularly during blasting operations that will occur two to three times per year. Laytonville is located in Cal Fire's Mendocino Unit Laytonville Battalion (Battalion 4), in which equipment use accounts for approximately 34 percent of all fire (Cal Fire, 2005). The project site is located in a state response area (SRA) with the nearest Cal Fire station being the Laytonville Station located northwest of the Project site approximately two miles. Cal Fire's Laytonville Station is seasonally staffed and has two fire engines. The Laytonville Volunteer Fire Department (LVFD) provides year-round service in Long Valley and has two stations; one in Laytonville and one in the community of Branscomb to the west. The LVFD consists of approximately 35 volunteers and has emergency response equipment including five engines, a rescue unit, and two Advanced Life Support (ALS) ambulances. Additionally one of the County's OES engines is located at the Laytonville Station (Cal Fire, 2011). To minimize the threat associated with potential ignition from equipment use during high and very-high fire danger weather, mitigation is recommended requiring the operator's water truck be located at the project site during equipment use (**MM Hazards 1**). Further, to advise local fire suppression agencies of the increased risk associated with blasting activities, the operator shall notify the LVFD and Cal Fire's Laytonville Station prior to blasting operations (**MM Hazards 2**).

Mitigation Measures

MM Hazards 1 – During "high," "very high," and "extreme" fire danger rating levels, the operator shall have the water truck on standby during equipment use at the quarry.

MM Hazards 2 – During "high," "very high," and "extreme" fire danger rating levels, the operator shall provide notice to the Laytonville Volunteer Fire Department and Cal Fire's Laytonville Station a minimum of 24 hours prior to blasting activities.

9. Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

Environmental Setting

The Project is located in the Ten Mile Creek watershed and is in the mountainous regions of interior Mendocino County. The site drains into a tributary of Ten Mile Creek, which ultimately drains north into the South Fork Eel River and the Pacific Ocean in Humboldt County. There are three ponds within the quarry site, all of which were constructed as a series of connected catchment basins or settling ponds to capture sediment from quarry operations in the form of stormwater runoff. These ponds are regularly maintained for capacity by removal of sediment and vegetation (Rau and Associates, Inc., 2013; Appendix D). The first pond is located on the north side of the quarry, on the lower quarry floor. The second pond is less than half the size of the first and is located approximately 120 feet to the south of the first on the upper quarry floor. The third pond is located below the upper quarry floor on the west side of the Project area and is slightly larger than the second.

Two intermittent streams are adjacent to the Project area. One occurs on the south side of the quarry and one on the north side of the quarry. Both streams are disconnected from the quarry drainage and are directed towards and under Laytonville Dos Rios Road via cross culverts. These flows then drain to Ten Mile Creek. Another small roadside ditch drains the southern edge of the Project area along a narrow channel behind the structures that make up the office and shop area. This ditch drains into a pipe that delivers water into the third pond. Overflow from the first pond drains by pipe into the second pond that is then drained by pipe into the third catchment pond. Water from the third pond overflows into an existing roadside channel that flows via culvert under the Laytonville Dos Rios Road to the northwest. All flows ultimately converge in Ten Mile Creek and from there travel northward and westward until it discharges into the South Fork of the Eel River, which discharges into the Pacific Ocean near Ferndale, California in Humboldt County. (Geri Hulse-Stephens, 2013)

Two separate water sources are utilized for Project activities. A small spring located southeast of the quarry will be used for domestic and utilitarian uses around the shop and the processing operations. The spring currently does not run freely to any watercourse, but seeps into the ground onsite. The water from the spring is transported to a 10,000-gallon water tank near the southeast corner of the shop via a ¾-inch waterline. The capacity of the spring is 10 gallons per hour (GPH) during the spring and fall. This water is primarily used for utilitarian purposes. The second water source is two ponds on the floor of the quarry. These ponds are established in bedrock and retain water from diffuse surface runoff during early spring and late fall. Water from the settling ponds is also utilized for dust suppression activities

when available. Water is loaded onto a water truck from the ponds and then unloaded via a ¾" waterline to the screen/crusher. The combined capacity of the two ponds is 212,000 gallons, which is more than adequate for the water demand noted above. Pond No. 3 is also available for supplemental water supply should it be necessary or desired.

The Project is located in the mountainous area just east of Long Valley and the town of Laytonville. This area is located within the Franciscan Bedrock complex, which in general is not considered water bearing. Based on recent subsurface exploration and existing surficial conditions, two groundwater zones are apparent within the Project area. Shallow groundwater which is percolating along the rock/overburden boundary and deeper groundwater percolating through fractures in the rock. The proposed lower quarry floor will be roughly 40 feet below the existing quarry and during the fall of 2013, several borings in the existing quarry face recorded hydraulic head more than 10 feet above the existing quarry floor, which is consistent with the emergent groundwater present in shallow ponds dug within the existing quarry floor. Furthermore, borings installed within the overburden recorded perched groundwater at a depth of less than 20 feet during the fall of 2013. Water intruding onto the quarry floor will be pumped to the ponds on the upper quarry floor, as necessary, to allow for rock extraction. The lower quarry floor will be graded to concentrate any captured water and keep sediment out of the concentrated water storage areas.

The operator has two significant water demands: dust suppression during rock processing and dust suppression for the roads/quarry floor. The expected water demand for the project is shown in Table 7.

TABLE 7 LAYTONVILLE QUARRY WATER DEMAND

Table 1. Laytonville Quarry Water Demand

		Existing					Proposed				
Water Use	**Period**	**Max Daily Demand (gpd)**	**Max Weekly Demand (gpd)**	**Max Processing Rate (Tons/Hr)**	**Days of Operation**	**Total Water Demand (gal)**	**Max Daily Demand (gpd)**	**Max Weekly Demand (gpd)**	**Max Processing Rate (Tons/Hr)**	**Days of Operation**	**Total Water Demand (gal)**
Processing				6 hours/day					8 hours/day		
	Peak Season @ 6 days/wk	3,750	22,500	400	20	75,000	5,000	30,000	300	15	75,000
	Off Season @ 5 days/wk	500	2,500	400	5	2,500	500	2,500	300	5	2,500
	Total Process Water Demand				25	77,500				20	77,500
Washing	Peak Season	-	-		-	-	0	0		0	0
	Off Season	-	-		-	-	0	0		0	0
	Total Wash Water Demand									0	0
Dust Suppression	Peak Season (Driest Days)	750	4,500		30	22,500	750	4,500		30	22,500
	Peak Season (Remainder)	500	3,000		90	45,000	500	3,000		90	45,000
	Off Season	0	0		30	0	0	0		30	0
	Total Dust Sup Water Demand				150	67,500				150	67,500
Total Water Demand						**145,000**					**145,000**

Notes:
Peak Season: June - October
Off Season: November - May
Processing does not occur every day.
Dust suppression assumed 6 days/week during peak season, 4 months
Dust suppression assumed 3 days/week during off season for only 1 months out of season, with no dust suppression for remainder (November only)
70 processing days based on 20,000 CY Peak production, assuming 85% processed.
Will use more dustoff to suppress dust for roads/

Source: Rau and Associates, Laytonville Rock Quarry Renewal Mining and Reclamation Plan, 2013.

The Drainage Design Documentation for the future conditions, included in Appendix D.2 of the MRP, concludes that the quarry floor will be adequate to contain 3 consecutive 100-year storm event or 4 consecutive 25-year storm events without infiltration (conservative), with all overburden placed in the quarry floor. The existing ponds can hold up to a single 25-year storm events. The minimum retention without infiltration will ensure that the water quality of the surrounding channels will continue to be unaffected by the operation. A minimum volume equivalent to a single 25-year storm event (212,535 CF) will be provided at all times in the lower floor once pond No. 1 is relocated.

As noted above, the proposed quarry design will separate industrial and non-industrial runoff. All industrial runoff from the quarry operation will be directed to the quarry floor and retained. Non-industrially related runoff will be directed to the surrounding natural channels south of the quarry via three rock lined interceptor ditches. These ditches are shown on Sheet 4 of the MRP. The roads to and in the quarry will be watered during the dry weather periods or treated with dust suppressant coating (Dust-Off®).

As the quarry floor is lowered, the 6.1 acres of diffuse surface runoff will be captured and infiltrated into the floor of the quarry and only sediment from the upper quarry traffic and storage areas will be diverted into the existing sediment pond (No. 2) on the upper quarry floor and from there diverted to the lower pond (No. 3) below, west of the quarry floor. The far northwest pond (No. 1) will be replaced with the pond on the lower quarry floor, once the lower pond is established. Cleanout of this pond would be as desired by the operator. In the event that there is little infiltration, overflow water will be directed to pond (No. 2) on the upper quarry floor via an overflow pipe.

Typical operations during the summer months will require dust suppression on the quarry floor and for processing. Projected daily dust suppression will require one water truck load per day during the dry summer months, which equates to approximately 4,000-5,000 gallons per day. Historical water use for the crushing process is approximately 3,000-4,000 gallons per day and the remainder is used for dust suppression of the quarry floor. This operation is consistent with the existing Mendocino Air Quality Management District Permit requirements included in Attachment G.

The water supply for the quarry operations will continue to be the existing sediment ponds on the upper quarry floor, shown on Sheet 2 and 4 of Appendix B. These ponds have a capacity of 212, 000 gallons. The water is drafted from the ponds into a water truck and used for either the processing and onsite dust suppression. The use of "Dust-off" product may also be used reduce the use of water. The existing and proposed water use is shown on Table 7.

The lower floor of the quarry, once fully established, can also retain water for use in dust suppression. The existing quarry configuration accepts diffuse surface runoff from a limited drainage area consisting of 6.1 acres above the quarry highwall. A series of three rock lined brow ditches will be constructed on the south side of the quarry highwall to redirect non-industrial upslope runoff to the channel south of the quarry. The north side of the quarry receives limited runoff upslope of the quarry highwall due to the topography of the quarry/slope and does not require brow ditches. These ditches are shown on the grading plan, Sheet 4 of Appendix D, MRP. All surface runoff associated with the quarry rock extraction

is directed to the lower quarry floor where it is retained. All quarry operations are performed in conformance with the NPDES Industrial Permit for the quarry. A copy of the current SWPPP is included in Attachment F of the MRP. The primary sediment control BMPs for the project are the existing and future sediment ponds and the redirection of offsite water away from the quarry highwall.

Potential Environmental Effects

a, c-f) Less Than Significant Impact. One of the three existing containment ponds, Pond No. 1, will relocated from the upper quarry floor to the lower quarry floor. Upon final reclamation, the lower quarry floor will be graded for use as temporary additional stormwater storage, Pond No 1 (relocated), and will be adequate to contain 4 consecutive 25-year storms or three consecutive 100-year storm events without infiltration, even with all the overburden stored in the floor of the quarry. Further, throughout Project operations, a minimum volume equivalent to a single 25-year storm event (212,535 cubic feet) will be provided at all times in the lower quarry floor once pond No. 1 is relocated. The minimum retention without infiltration will ensure that the water quality of the surrounding channels will continue to be unaffected by the Project. (Rau and Associates, Inc., 2013; Section 3.1)

The proposed quarry design will separate industrial and non-industrial runoff, with industrial runoff from the quarry operation being directed to the lower quarry floor and retained. Non-industrial runoff will be directed to the surrounding natural channels south of the quarry via three, rock-lined interceptor ditches (see Sheet 4, Appendix D, MRP). As noted above, the proposed quarry design will separate industrial and non-industrial runoff. All industrial runoff from the quarry operation will be directed to the quarry floor and retained. Non-industrially related runoff will be directed to the surrounding natural channels. Therefore, there will be a less than significant impact on drainage patterns and runoff. If seeps are exposed on the quarry all, water will drain to the lower quarry floor wehre it will be retained or infiltrated. (Rau and Associates, Inc., 2013; Section 3.1)

As the lower quarry floor is lowered, the 6.1 acres of diffuse surface runoff will be captured and infiltrated into the lower quarry floor of the quarry; only sediment from the upper quarry traffic and storage areas will be diverted into the existing sediment pond 2 on the upper quarry floor. Pond 2 then drains to the lower pond 3, west of the upper quarry floor. In the event there is little infiltration, and the lower quarry floor retains water, the overflow water will be directed to pond 2 on the upper quarry floor via an overflow culvert. (Rau and Associates, Inc., 2012; Section 3.1)

All toxics are stored in closed containers and are not subject to stormwater runoff. The fueling area, just to the west of the shop, consists of two diesel tanks in a concrete containment. The volume of the containment system is 7,180 gallons (Rau and Associates, Inc., 2013; Section 2.1). Upon final reclamation, the tanks and containment area will be removed. The Industrial Storm Water Pollution Prevention Plan (SWPPP) for the Project contains best management practices (BMPs) that will minimize the potential for spills and impacts to water quality.

During quarry operations, water quality will be protected by implementation of BMPs of the California Stormwater Quality Association (2003) to minimize the potential for siltation and downstream sedimentation of Ten Mile Creek. The BMPs are described in the Industrial SWPPP prepared for the

Project, as required under the National Pollutant Discharge Elimination System (NPDES) permit. The SWPPP will also contain a visual monitoring program, a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs.

With the design of the Project drainage and sediment controls, there will be very little increase in offsite drainage, potential for flooding, erosion, or sedimentation. With implementation of the MRP and Industrial SWPPP, impacts will be less than significant.

b) Less Than Significant Impact. The Project is located in the mountainous area just east of Long Valley and the town of Laytonville. This area is located within the Franciscan Bedrock complex, which in general is not considered water bearing (DWR, 2004). However, based on recent subsurface exploration and existing surficial conditions, two groundwater zones have been identified at the Project site (LACO, 2014). Shallow groundwater, which is percolating along the rock/overburden boundary, and deeper groundwater percolate through fractures in the rock. The proposed Project includes lowering the quarry floor by roughly 40 feet below existing conditions. During the fall of 2013, several borings in the existing quarry face recorded hydraulic head more than 10 feet above the existing quarry floor, which is consistent with the emergent groundwater present in shallow ponds dug within the existing quarry floor. Additionally, borings installed within the overburden recorded perched groundwater at a depth of less than 20 feet during the same timeframe. Water, which intrudes into the lower quarry floor, will be pumped to the ponds on the upper quarry floor as necessary to allow for rock extraction. The lower quarry floor will be graded to concentrate any captured water and keep sediment out of the concentrated water storage areas (ponds 2 and 3). Groundwater that intrudes into the lower quarry floor will be used for dust suppression activities during the dry season. However, no groundwater will be pumped from an aquifer for Project use. Further, upon final reclamation, the lower quarry floor will be graded to function as a temporary stormwater storage area, which will allow water to percolate back into the groundwater zone in that area. Therefore, impacts to groundwater supplies resulting from this Project are expected to less than significant.

g–j) No Impact. The Project is not located within a mapped 100-year flood zone. Additionally, no new structures or dams will be constructed with the Project. Due to the conditions of the Project area, there will be no risk due to seiche, tsunami, or mudflow; therefore, there will be no impact.

Mitigation Measures

None required.

10. Land Use and Planning

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Environmental Setting

The applicable land use plan in the Project area is the 2009 County of Mendocino General Plan. Land use in the area surrounding the Project includes both developed and undeveloped rural remote residential and rangeland. Both parcels included in the Project are classified as upland residential (UR-20). Mining is allowed within RMR and UR classified lands with a use permit, provided it is compatible with primary uses of the zoning designation and surrounding land uses. The property is primarily used for cattle ranching – with the proposed expansion, the quarry will occupy approximately nine acres of the more than 40-acres owned by the applicant on which the quarry is sited.

Potential Environmental Effects

a) No Impact. The quarry has been in operation since the 1960s and will ultimately consist of a total of 8.8 acres of disturbed area upon final extraction. The Project area includes two parcels, owned by the operator and an adjoining neighbor, and consisting of approximately 80.51 acres. The Project is located approximately a half mile east of the community of Laytonville on the Laytonville Dos Rios Road. Surrounding land uses are rural residential, ranching, and timber management. The Project is a continuation of an existing use and will not physically divide an established community; therefore, there will be no impact.

b) Less Than Significant Impact. The Project is consistent with conditional uses on UR classified lands. Mining is allowed within this zoning designation, provided it is considered compatible with the allowed uses of the site, which include rural residential and agricultural uses. The Project does not propose any increase in extraction rates or change in operations above levels permitted in the 1993 use permit, although the ultimate disturbance area will increase by approximately 1.3 acres. With Project approval, the quarry will continue operating for an additional 30 years, until 2043. The ultimate Project area will comprise approximately 11 percent of the combined property area, and reclamation of the site will return all but 1.7 (rock slopes) acres of the site to rangeland uses [(either by reclamation or

reverting the current use to rangeland use (roads and structures)]. Therefore, there will be no impact on land use codes and policies applicable to the site and surround area.

c) **No Impact.** There are no applicable HCP/NCCPs for the site. Therefore, there will be no impact.

Mitigation Measures
None Required.

11. Mineral Resources

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				**X**
b) Result in the loss of availability of a locally important mineral resource recovery site on a local general plan, specific plan or other land use plan?				**X**

Environmental Setting
The California Mineral Land Classifications System was established by the State to help identify and protect mineral resources in areas subject to urban expansion and other irreversible land uses that would preclude mineral extraction. As of yet, Mendocino County has not been classified.

This initial study considers to what degree the proposed project would interfere with the extraction of commodity materials or otherwise cause any short-term or long-term decrease in the availability of mineral resources that would otherwise be available for construction or other consumptive uses.

Potential Environmental Effect
a–b) **No Impact.** This project consists of the hillside extraction of hard rock within a 40-acre ranch otherwise used as cattle grazing and residence use. Approval of the MRP and use permit will allow for extraction of 325,000 CY over a 30-year period. It is unknown if additional rock resources exist beyond the planned mine limits, but it is considered unlikely. However, if additional rock resources exist, the proposed Project would not prohibit further future extraction, should it be desired. The project is not located within or adjacent to any important mineral resource areas as identified by the State of California or by the County of Mendocino General Plan; therefore, the project would not impact the availability of mineral resources that would be of value to the region.

Mitigation Measures
None Required.

12. Noise

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Environmental Setting

The 2009 Mendocino County General Plan Development Element established policies and standards for noise exposures at noise sensitive land uses. The Development Element indicates the exterior noise level standard for single-family residential uses (levels not to be exceeded more than 30 minutes in any hour) is 60 A-weighted decibels (dBA) from 7 a.m. to 10 p.m. and 50 dBA from 10 p.m. to 7 a.m. (Mendocino County, 2009; page 3-90). The land use designation of the Project site and surrounding area is RMR with a 20-acre minimum requirement, although most parcels in the vicinity are larger. Since the Project is located on a residential designated parcel, the noise standards for single-family residential uses apply (Mendocino County, 2009; page 3-91). No other noise sensitive land uses occur within a quarter mile of the Project site.

The Project is located in a rural, mountainous area of dense Douglas fir, madrone and oak forest, and chaparral. The existing quarry is located just north of Laytonville Dos Rios Road with dense stands of tall trees and topography mostly shielding the site from public roadways and neighboring properties. The

nearest residence is owned by the operator and is located approximately 250 feet to the south of the Project site on the opposite side of Laytonville Dos Rios Road. The nearest offsite residence is approximately 670 feet to the north of the quarry. The quarry has been in continuous operation since the 1960s, although it was first permitted by the County in 1977 and most recently in 1993.

Potential Environmental Effect

a) Less Than Significant Impact With Mitigation. While preparing the Mendocino County General Plan Noise Element, the County reviewed several aggregate plants throughout Mendocino County and found that the 60 day-night average sound level (Ldn) contour for similar plant sites ranged between 250 feet (with asphalt batch plant) and 200 feet (without asphalt batch plant) from the source. This Project does not include an asphalt batch plant and therefore the more appropriate 60 Ldn contour is 200 feet from the quarry source. Typical Mendocino County use permit conditions of approval for a quarry require that the operation noise levels not exceed 55 Ldn at the nearest receptor. The hours of operation may affect the Ldn, as the Ldn is the average equivalent A-weighted sound level during a 24-hour day, obtained after addition of 10 decibels to sound levels in the night before 7 a. m. and after 10 p.m. The general rule of sound pressure is that the sound is reduced 6 dBA when the distance from the source is doubled (Everest, 1981; pg 67). This would result in the 54 Ldn contour being 400 feet from the source. The nearest offsite residence is approximately 670 feet from the quarry. Additionally, the intervening dense stands of trees and brush will further reduce the impacts of noise. Further, the noted residence does not have a line of site to the loading area, which substantially reduces the potential for excessive noise impacts. The previous use permit conditions of approval specified operational hours be limited to between 6:00 a.m. and 8:00 p.m. on weekdays and Saturdays. The County has no record of complaints relating to noise having been received in regards to the Project. The permit renewal requests operational hours between 6:00 a.m. and 6:00 p.m., a timeframe that is consistent with the previous permit conditions. To ensure that potential impacts resulting from Project generated noise on the nearest residential receptors remains less than significant, **MM Noise 1** and **MM Noise 2** is recommended.

b) Less Than Significant Impact. Some of the harder rock areas will require blasting prior to removal with construction equipment. Blasting would continue to occur two to three times per year based on annual extraction limits and results in the temporary generation of airborne noise and groundborne vibration. Noise and vibration levels generated by blasting for quarry expansion are expected to be very similar to existing conditions. Due to the distance to the nearest offsite residence and screening of woodland vegetation, as well as infrequency of blasting operations, impacts to noise levels are expected to remain less than significant.

c–d) Less Than Significant Impact. Permanent and temporary ambient noise levels in the Project vicinity are affected by traffic on the Laytonville Dos Rios Road, nearby SH 101, ranch operations, and existing quarry operations. There are no change in Project operations proposed with the Project, and extraction limits and operation parameters will remain the same, or slightly below, existing conditions as they have been for more than 20 years since the 1993 use permit.

Project operations involve removal of overburden, grading, and removal of topsoil, which will be stockpiled for use in future reclamation. These activities would be of limited duration. Rock at the quarry is excavated, stockpiled, processed, and/or transported by truck. Blasting occurs at the quarry two to three times per year. Additionally, processing will occur approximately 20 days per year, primarily during the dry season. Processing consists of crushing and screening operations and at the maximum extraction rate of 20,000 CY in a given year, up to 17,000 CY of rock could be processed in a year.

However, because the Project extraction limits will remain the same or slightly below past operations, as well as due to the distance and intervening natural conditions of the area (i.e., thick woodland/forest stands), no change in temporary ambient noise levels above existing conditions will occur with this Project. Furthermore, upon expiration of the 30-year permit and reclamation of the site there will be no permanent ambient noise levels associated with the quarry. Therefore, impacts will be less than significant.

e–f) No Impact. No public airstrips are located within two miles of the Project site and there are no applicable airport land use plans. However, a small, private airstrip is approximately two miles south of the Project site, along SH 101. Neither the private airstrip nor the Project operations will result in interference with the other. Therefore, there will be no impact.

Mitigation Measures

MM Noise 1 – Noise levels created by the operation as measured at the nearest residence other than that of the mine owner or operator shall not exceed 55 dBA Ldn.

MM Noise 2 – The hours of operation shall be limited to between 6:00 a.m. and 6:00 p.m. on weekdays and Saturdays. Additionally, due to the potential for temporary increases in noise levels associated with blasting and processing, these activities shall be limited to 7:00 a.m. to 6:00 p.m. during the days of operation noted above.

13. Population and Housing

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?				**X**
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				**X**
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				**X**

Environmental Setting

The unincorporated community of Laytonville is the nearest concentration of people to the Project site, and is located approximately one-half mile west of the Project. The community had a 2010 population of 1,227 (City Data, 2014). Laytonville straddles SH 101 between Willits to the south and Leggett to the north. The area is very rural in nature, with agriculture and forestry being the basis of the local economy. The Laytonville Rock Quarry is the only rock quarry in the Long Valley area, and rock extracted from the quarry primarily serves the needs of the local residents and businesses.

Potential Environmental Effect

a–c) No Impact. The quarry is located within two parcels that comprise a total of 80 acres east of the community of Laytonville and all but 3.1 acres of the 8.8-acre quarry will be reclaimed as rangeland. Surrounding land uses are rural residential, ranching, and timber management. The Project remains consistent with past operations and will continue to be operated by the property owner. Therefore, there will be no impact to population growth, nor will it displace housing or people.

Mitigation Measures

None Required.

14. Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Fire protection?				**X**
b) Police protection?				**X**
c) Schools?				**X**
d) Parks?				**X**
e) Other public facilities?				**X**

Environmental Setting

The unincorporated community of Laytonville is the nearest concentration of people to the Project site. The Laytonville Fire Department and Cal Fire (located just north of town on SH 101) provide fire protection and emergency services. The Mendocino County Sheriff provides general public safety and law enforcement services. The County maintains public facilities including the Laytonville Dos Rios Road. Caltrans maintains SH 101, which runs through Laytonville and extends circulation from the Laytonville Dos Rios Road.

Potential Environmental Effect

a–e) No impact. The quarry has been in operation since the 1960s and was first permitted by the County in 1977. The Project consists of a renewal of the use permit and an increase in extraction area by approximately 1.3 acre. However, there will be no increase above currently permitted extraction limits and operations. Further, the quarry will continue to be operated by the owner and two employees. Therefore, there will be no changes in population or increased traffic to the area. No impact to public facilities will occur.

Mitigation Measures

None Required.

15. Recreation

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Environmental Setting

There are no recreation facilities within or adjacent to the proposed Project area. The Project will continue existing permitted operations with no increase in extraction rates or staffing.

Potential Environmental Effects

a–b) No Impact. The quarry has been in operation since the 1960s and was first permitted by the County in 1977. The project consists of a renewal of the use permit and an increase in extraction area of approximately 1.3 acre. However, there will be no increase above currently permitted extraction limits and operations. Further, the quarry will continue to be operated by the owner and two employees. Therefore, there will be no changes in population or increased traffic to the area. Because there will be no change in employment conditions, nor will it bring additional population to the area, no impact to recreation needs or facilities will occur.

Mitigation Measures

None Required.

16. Traffic and Transportation

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X

Environmental Setting

Access to the Project site is directly off of the Laytonville Dos Rios Road, which intersects with SH 101 approximately 0.5 miles from the site. The Laytonville Dos Rios Bridge (Burger Creek Bridge), located approximately 5 miles east of the project site had an AADT of 137 in 2011 (Rau and Associates, Inc., 2013; Section 3.5). It is expected that the project site on Dos Rios Road would have 2 times that amount

to account for the residential uses closer to Laytonville. This would compute to be an AADT of 275 vehicles per day.

Potential Environmental Effects

a–b) Less Than Significant Impact. The maximum expected extraction rate is approximately 250 CY per day. However, maximum hauling could be as much as 1,000 CY per day, which would most likely occur in the event of a natural disaster. Traffic generated during this peak hauling period is expected to be a maximum of 12 trip ends (6 haul loads) in a peak hour and 128 trip ends (64 haul loads) during a maximum day. These volumes would only be expected during an emergency situation that required acquisition of rock. During the peak season on an average day, when a client is being served, the Project would generate approximately 32 trip ends (16 haul loads) per day. Most jurisdictions do not require a traffic study unless there are more than 50 peak hourly trips generated by a project. This project falls well below that threshold.

The initial Environmental Assessment prepared for the 1993 use permit noted that the section of Laytonville Dos Rios Road adjacent to the Project site had an AADT of 200. Based on the County's current growth rate of approximately 1.83 percent, an extrapolation for the current AADT estimate would be approximately 293 vehicles/day. The Project will not result in a significant new source of traffic on the County road, which will remain at level of service (LOS) A.

In 2043, at the end of the MRP, the LOS for Laytonville Dos Rios Road is expected to continue to perform at an LOS A. The previous analysis for this Project noted that the intersection would function at very high level of capacity, LOS A. Based on the 1992 LOS conditions, it is expected that the intersection LOS criteria would remain acceptable for the full 30-year period. No additional traffic quantities will occur on the Laytonville Dos Rios Road above existing conditions, as the proposed Project is consistent with past and existing operations and limits. Therefore, impacts will be less than significant.

c) No Impact. Although there are no public airports in the vicinity of the Project, a small, private airstrip is located approximately two miles to the southwest. However, no hazards such as tall structures or light reflecting surfaces are included in the Project design, which could affect an overflight zone. Further, Project operations will remain substantially the same as existing conditions, which have not caused any impacts to air traffic in the area to date. Therefore, there will be no impact.

d–f) No Impact. The existing approach was improved in accordance with an encroachment permit as required by the 1993 use permit conditions of approval for the existing operation. Traffic in this area generally travels at 25 miles an hour or less due to the tight curves to the east (R=150') and west (R=100') of the quarry's main approach, which can support a design speed of 25 mph. Assuming that drivers are traveling 5 MPH faster than the design speed, a minimum 30 mph should be used, which would require a minimum of 215 feet of minimum sight distance. Sight distance to the east of the main access is approximately 425 feet. The sight distance to the west is obscured by a shrub and tree. This vegetation will be removed to provide a minimum of 215 feet or more if available, and has been included in the Project's MRP.

Since 1993, the National Traffic Safety Data Base indicates there have been no known accidents on Laytonville Dos Rios Road in the vicinity of the Project (Rau and Associates, Inc., 2013; page 20). Since the extraction rate will remain the same, and since the AADT is so small, the continued use is not expected to pose any significant impact. There will be no change to access or emergency access, nor will it conflict with any public transit plans. Therefore, there will be no impact.

Mitigation Measures

None Required.

17. Utilities and Service Systems

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				**X**
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				**X**
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				**X**
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				**X**
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				**X**
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				**X**
g) Comply with federal, state, and local statutes and regulations related to solid waste?				**X**

Environmental Setting

Mendocino County maintains the storm drainage facilities within the Project area, which consist of a constructed roadside ditch alongside the Laytonville Dos Rios Road. The existing shop has electrical, propane and telephone utilities. Propane is served via a tank. The project is served with a portable toilet that is serviced every other week.

Potential Environmental Effects

a–g) No Impact. The quarry has been in operation since the 1960s and was first permitted by the County in 1977. The Project consists of a renewal of the use permit and an increase in extraction area of approximately 1.3 acre. However, there will be no increase above currently permitted extraction volumes and operations. Further, the quarry will continue to be operated by the owner and two employees. The Project depends on private water sources and uses a portable toilet for wastewater; it does not connect to or impact any public water or wastewater facilities. Consistent with past and existing quarry operations, onsite water sources are supplemented with commercially purchased water delivered via truck. There will be no change in stormwater drainage from the site above existing conditions (see Hydrology/Water Quality Section for discussion regarding stormwater). No change to solid waste patterns and disposal will occur as a result of this Project. No impacts to utilities or service systems will occur.

Mitigation Measures

None Required.

18. Mandatory Findings of Significance

Mandatory Findings of Significance	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		**X**		
b) Does the project have impacts that are individually limited, but cumulatively considerable ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			**X**	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			**X**	

a) Less Than Significant Impact With Mitigation. Potential environmental impacts resulting from the renewal of the Laytonville Rock Quarry use permit, which will allow the continued operation of the quarry and include a 1.3-acre expansion of the quarry site, have been assessed by professional biologists and geologists and analyzed in the referenced reports and this document. No special status plants, wildlife, or habitat were identified onsite. The Project will result in the removal of as many as 65 oak trees. Oak woodlands have been identified by the State and the County General Plan as areas to be preserved. Consequently, the reclamation plan (and mitigation measures identified in the Biological Section above) includes replacement of oak woodland at a success ratio of 3:1 (See Biological Section for analysis and mitigation; **MM Biological 1**).

Additionally, cautionary cultural resources mitigation was included in the event human remains or cultural resources were encountered during excavation activities (**MM Cultural 1 and 2**).

b) Less Than Significant. The Project is the only permitted rock quarry in Long Valley. Surrounding land uses are similar to the subject property and consist of ranching and forestry. The County is unaware of any major projects within the Laytonville area that would contribute to cumulative impacts (Speka, 2014).

GHG emissions resulting from Project activity would be limited in quantity and scope, resulting in less than significant impacts. Thus, while the project would have an incremental contribution of GHGs within the context of the County and region, this increase would be temporary, and the project impact is not cumulatively considerable.

c) Less Than Significant With Mitigation Incorporated. The quarry has been in operation since the 1960s and was first permitted by the County in 1977. The Project consists of a renewal of the use permit and an increase in extraction area of 1.3 acre. Although no change in current operations or extraction limits are proposed with this project, there is the potential for wildfire hazards associated with equipment use and periodic blasting activities. Mitigation has been included to address those potential hazards, which minimizes the impact to less than significant (**MM Hazards 1 and 2**).

Naturally occurring asbestos has been identified within the Project site. When NOA becomes airborne in dust particulates, it can be a significant health hazard. Mitigation has been included under the Air Quality Section that will minimize the potential for NOA impacts to a less than significant level (**MM Air Quality 2 and 3**).

5. PREPARERS AND REFERENCES

Report Preparation

Mendocino County Planning and Building Services – CEQA Lead Agency
John Speka, Planner

Uma Hinman Consulting – CEQA
Uma Hinman, Environmental Planner

Rau and Associates, Inc. – Mining and Reclamation Plan, SWPPP
Cathy McKeon, P.E., Project Engineer

Geri Hulse-Stephens – Laytonville Quarry Botanical Report
Geri Hulse-Stephens, Botanical Consultant

North Coast Resource Management – Biological Assessment
Jeff Longcrier, Wildlife Biologist

LACO – Engineering Geologic Exploration, Quantitative Slope Stability Assessment and Evaluation for the Presence of Naturally Occurring Asbestos

References

Cal Fire. (2005). *Mendocino County Community Wildfire Protection Plan* . Retrieved January 7, 2014, from Cal Fire: http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf66.pdf

Cal Fire. (2011, June 15). *Unit Strategic Fire Plan - Mendocino Unit.* Retrieved January 7, 2014, from Cal Fire: http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf708.pdf

Caltrans. (2014). *Officially Designated State Scenic Highways*. Retrieved February 9, 2014, from Caltrans: http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm

CARB. (2008, July 2). *Naturally-Occurring Asbestos - Regulatory Information*. Retrieved February 24, 2014, from California Air Resources Board: http://www.arb.ca.gov/toxics/asbestos/reginfo.htm

CARB. (2010, April 22). *Naturally Occuring Asbestos*. Retrieved February 24, 2014, from California Air Resources Board: http://www.arb.ca.gov/toxics/asbestos/asbestos.htm

City Data. (2014, February). *Laytonville, California*. Retrieved February 7, 2014, from City Data: http://www.city-data.com/city/Laytonville-California.html

Commission, M. C. (1992, May 29). RE: U 15-92, Wyatt. Ukiah, CA, Mendocino: Mendocino County Archaeological Commission.

DOC. (2010). *Mendocino County Important Farmland Data*. Retrieved February 9, 2014, from California Department of Conservation: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/men10_no.pdf

DOC. (2011). *Mendocino County Williamson Act Contracts*. Retrieved February 9, 2014, from California Department of Conservation : ftp://ftp.consrv.ca.gov/pub/dlrp/WA/mendocino_no_10_11_WA.pdf

DWR. (2004, February 27). *Laytonville Valley Groundwater Basin, Bulletin 118.* Retrieved February 23, 2014, from Department of Water Resources: http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/1-12.pdf

EPA. (2004, August). *AP 42 Section 11.19.2 Crushed Stone Processing and Pulverized Mineral Processing.* Retrieved July 5, 2012, from Environmental Protection Agency: http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s1902.pdf

ESA. (2009, September). *Kunzler Terrace Mine Project Draft EIR.* Retrieved June 26, 2012, from Mendocino County: http://www.co.mendocino.ca.us/planning/pdf/Environmental_setting._impacts._mitigation.pdf

ESA. (2010, May). *Mendocino County.* Retrieved July 11, 2012, from Kunzler Terrace Mine Fine EIR: http://www.co.mendocino.ca.us/planning/pdf/208472-kunzler-feir-2010-05.pdf

Everest, F. A. (1981). *The Master Handbook of Acoustics.* Tab Books Inc.

Geri Hulse-Stephens. (2013). *Botanical Survey of the Laytonville Quarry, Laytonville, Mendocino County, California.* Willits: Geri Hulse-Stephens.

Jeffrey K. Dorso, E. (2012). *Pioneer Law Group, LLP.* Retrieved July 10, 2012, from Identifying the Appropriate CEQA "Baseline" for a Mine Extension, Expansion or Project Amendment: http://www.pioneerlawgroup.net/identifying-ceqa-%E2%80%9Cbaseline%E2%80%9D-extension-expansion-project-amendment/

LACO. (2014). *Engineering Geological Exploration, Quantitative Slope Stability Assessment, and Evaluation for the Presence of Naturally Occurring Asbestos.* Ukiah: LACO.

MCAQMD. (2005, January). *Particulate Matter Attainment Plan.* Retrieved February 24, 2014, from Mendocino County Air Quality Management District: http://www.co.mendocino.ca.us/aqmd/pdf_files/Attainment%20Plan_DRAFT.pdf

MCAQMD. (2010, June 2). *Adopted Air Quality CEQA Thresholds of Signficance*. Retrieved February 7, 2014, from Mendocino County Air Quality Management District: http://www.co.mendocino.ca.us/aqmd/pdf_files/MCAQMDCEQARecomendations.pdf

MCAQMD. (2013, December). *Policies for Areas Containing Naturally Occuring Asbestos (NOA).* Retrieved February 24, 2014, from Mendocino County Air Quality Management District: http://www.co.mendocino.ca.us/aqmd/pdf_files/NOA_Policy_ADVISORY.pdf

Mendocino County. (2009, August). *Mendocino General Plan* . Retrieved February 9, 2014, from Mendocino County: http://www.co.mendocino.ca.us/planning/plans/planGeneralTOC.htm

Mendocino County. (n.d.). *Department of Building and Planning Services.* Retrieved June 16, 2012, from Mendocino County : http://www.co.mendocino.ca.us/planning/zoning/inland/index.htm

NCRM. (2014). *Biological Assessment for the Laytonville Rock Mining and Reclamation Plan.* Calpella: North Coast Resource Management.

NCUAQMD. (2014, February). *Air Quality Planning and CEQA*. Retrieved February 7, 2014, from North Coast Unified Air Quality Management District: http://ncuaqmd.org/index.php?page=aqplanning.ceqa#T1.

OPR. (2008, June 19). *Technical Advisory: CEQA and Climate Change: Addressing Climate Change Through CEQA Review.* Retrieved February 10, 2014, from Governor's Office of Planning and Research: http://opr.ca.gov/docs/june08-ceqa.pdf

Rau and Associates, Inc. (2013). *Laytonville Rock Quarry Renewal Mining and Reclamation Plan 2013.* Ukiah: Rau and Associates, Inc.

University of California. (2003). *Description of County Oak Conservation Policies*. Retrieved February 17, 2014, from Oak Woodland Management: http://ucanr.edu/sites/oak_range/Description_of_County_Oak_Conservation_Policies/

Applicable Court Cases

Communities for a Better Environment v. South Coast Air Quality Management District, et al. (2010) 48 Cal.4th 310.

San Joaquin Raptor Rescue Center v. County of Merced (2007) 149 Cal. App. 4th 645.

Environmental Council of Sacramento v. City of Sacramento (2006) 142 Cal.App.4th 1018, 1035.

Fairview Neighbors v. County of Ventura (1999) 70 Cal.App.4th 238.

6. ACRONYMS AND ABBREVIATIONS

Agencies, Boards, Commissions, Districts

CARB ..... California Air Resources Board
DFG ..... (California) Department of Fish and Game
DTSC ..... (California) Department of Toxic Substances Control
EPA ..... Environmental Protection Agency
FEMA ..... Federal Emergency Management Agency
MCAQMD ..... Mendocino County Air Quality Management District
MCIZC ..... Mendocino County Inland Zoning Code
NCAB ..... North Coast Air Basin
NOAA ..... National Oceanic Atmospheric Administration
RWQCB ..... Regional Water Quality Control Board
USFWS ..... United States Fish and Wildlife Service
VFD ..... Volunteer Fire Department

Guidelines, Policies, Programs, Regulations

AB ..... Assembly Bill
A-P EFZ ..... Alquist-Priolo Earthquake Fault Zoning Act
CEQA ..... California Environmental Quality Act
CESA ..... California Endangered Species Act
CFR ..... Code of Federal Regulations
CWA ..... Clean Water Act
EIR ..... Environmental Impact Report
ESA ..... Endangered Species Act
HCP ..... Habitat Conservation Plan
MCGP ..... Mendocino County General Plan
MCIZC ..... Mendocino County Inland Zoning Code
MM ..... Mitigation Measure
NCCP ..... Natural Community Conservation Plan
NPDES ..... National Pollutant Discharge System
PRC ..... Public Resources Code

Miscellaneous

AF ..... Acre-feet
ADT ..... Average Daily Trips
CNDDB ..... California Natural Diversity Database
CSC ..... California Species of Special Concern
CH_4 ..... Methane
CO_2 ..... Carbon Dioxide
CO_2e ..... Carbon Dioxide Equivalent
CY ..... Cubic Yards

dB ..... Decibel(s)
FIRM ..... Flood Insurance Rate Map
GHG ..... Green House Gases
GPD..... Gallons Per Day
LOS ..... Level of Service
MSL..... Mean Sea Level
N_2O ..... Nitrous Oxide
NOA ..... Naturally Occurring Asbestos
$PM_{10 / 2.5}$ ..... Particulate Matter less than 10 / 2.5 Microns
TAF ..... Thousand Acre-feet
VPH..... Vehicles Per Hour