

Wallan Quarry

MINING AND RECLAMATION PLANS

Garberville, CA



As Part of an Application for renewing a Conditional Use Permit, Mining and Reclamation Plans for Ongoing Quarrying Activities.

Revised March 2008

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Response to Comments from CA , Dept of Conservation, OMR
dated September 12, 2007

Response to Comments from Humboldt Co. Public Works
Dated October 3, 2007

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ATTACHMENT 1 – ENVIRONMENTAL INFO SUPPORTING THE CEQA INITIAL STUDY CHECKLIST

I. GENERAL INFORMATION

1. CA Mine ID # 91-12-0011 (County of Humboldt)

2. General Ownership/Operator Information

a. Name of Mine/Activity Summary

Wallan Quarry (previously Monschke Quarry), Humboldt County (see Figure 1 – Vicinity Map).

This application is made to allow continuance of quarry activity involving extraction and sorting of quarry rock. The project site has been used to supply local rip rap and construction materials since at least the late 1950's. The earliest recorded testing by CalTrans Materials Lab occurred in 1965. Subsequent testing occurred in 1968, 1971, 1974, and 1988. Humboldt County Materials Lab utilized CalTrans results to classify the material. In all cases, the rock was found to be very durable (1 cubic yard = 1.9 tons), with specific gravities ranging between 3.03 to 3.2, surpassing CalTrans minimum requirements of 2.5.

Humboldt County Department of Public Works prepared an initial study and negative declaration in May, 1975, when it had plans of leasing the site to utilize approximately 2,000 cubic yards of materials annually for local County roads and streambank protection. The project was never implemented, due to lack of action by the Board of Supervisors.

The quarrying activity has occurred intermittently throughout the years and primarily consisted of blasting large sections of the rock, in excess of what would be required for a particular job contract, and making use of the extra rock as subsequent local need occurred. Major activity occurred between 1965-1972 when materials were used for 1964 flood damage repairs, subsequent highway construction on Highway 101 and local County roads, as well as several bridges across the South Fork Eel River (two of which were located at Benbow). As much as 50,000 cubic yards of materials may have been extracted from this project site prior to CUP-21-89/SMR-01-89.

The portion of the parcels (APN 223-136-03, 04) containing the mining area (Project Limits) is zoned Heavy Industrial (MH-Q) - 1 acre minimum parcel size to *"provide notice of and protect the site until such time as the quarry rock resource has been depleted"* (Ordinance 1803). The portion of the properties zoned MH-Q is regulated/limited under Humboldt County Ordinance 1803 and will continue under those allowable uses. An EIR was adopted by the Board of Supervisors (Resolution 87-82) for the Garberville/Redway/Alderpoint/Benbow Community Plan, which included this land use designation.

Since the approval of CUP-21-89/SMR-01-89 approximately 70,000 cubic yards of

material has been removed from the site and utilized for highway construction and rip rap. Approximately 190,000 cubic yards remain at the project site, as proposed to be extracted herein. Operations, as described herein, will resume immediately upon permit approvals.

b. Applicant/Lessee/Operator

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c. Property Owner

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d. Agent of Process

STREAMLINE Planning Consultants, 1062 G Street, Suite I, Arcata, CA 95521, (707) 822-5785, FAX - 822-5786, bob@streamlineplanning.net

e. Site Description

APN 223-136-03, 04 (Old 213-146-09), Humboldt County (see Figure 2). NW 1/4 of Section 18, T4S, R4E, H.B. & M. Located in the Garberville area on the north side of Alderpoint Road approximately 1.6 miles east of the intersection of Alderpoint Road with Redwood Drive. Garberville 7.5 min USGS quad sheet. Lat. N. 40° 06' 54", Long. W. 123° 46' 36".

The existing access drive to the project site (Rock Quarry Rd.) is off Quarry Road (private) which accesses onto Alderpoint Road (Co. Rd. #F6B165) 1.5 miles east of Highway 101. The quarry project site is approximately 1,200 feet northwest of the intersection of the Quarry Road and Alderpoint Road. Material will be transported along these access roads (see Figure 2) and then locally in the Southern Humboldt Area. Highway 101 is 3800 ft and the South Fork Eel River is 4500 ft. to the west of the project site. These areas will not be affected by this proposed project.

3. Operations Summary

a. Mining Operations Summary

As proposed herein, the proposed 9-acre quarry contains approximately 190,000 cubic yards of massive greywacke with minor amounts of gray shale and greenstone. The project area contains enough material to annually mine an average of 15,000 cubic yards for the next 13 years or longer when operated on an intermittent basis. Maximum quarry production rates are proposed to be limited to 45,000 cubic yards in any given year, while still maintaining the average annual rate of 15,000 cubic yards (averaged over a five-year period). Extraction has/will occur in a manner that minimizes future reclamation requirements, such as grading cut slopes to final elevations as quarrying proceeds. Quarry material will be used primarily for jetty rock, highway construction projects, rip rap, erosion control, and rockslope protection.

Currently there are two 30-foot tall faces separated by minimum 12-foot wide benches. At

the completion of quarrying these will be two approximate 30-foot tall faces separated by two 20-foot wide benches. Quarrying activities will extend easterly 60 feet and 45 feet lower from the existing staging area, creating a third and four rock face. Maximum final slopes, similar to what currently exists, will be at 1H:1V (See Figure 6).

At some point a portable screen plant could be brought on-site for specific contract needs. However for the majority of the time no mechanized sorting will be necessary.

b. Plan of Operations – See Chapter II

4. Lead Agency Information

a. Lead Agency Humboldt County Planning & Building Department

Attn: Anita Punla, Planner
3015 H Street, Eureka, CA 95501
(707) 268-3727, FAX (707) 445-7446

b. File No. _____

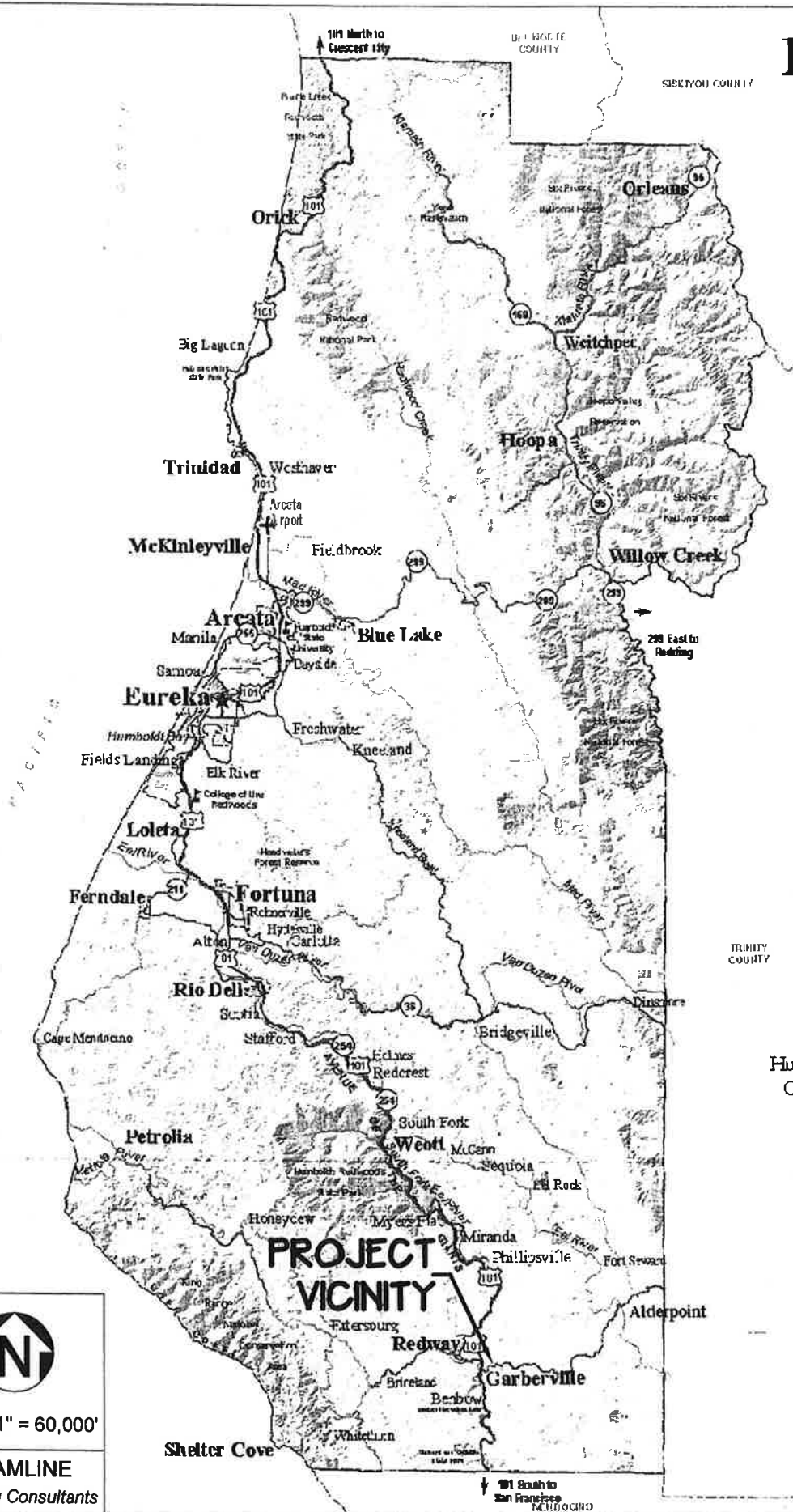
c. Case No. _____

d. Date Permit Approved _____

e. Date Permit Expires _____

f. Proposed Financial Assurances – See Section VI

HUMBOLDT COUNTY

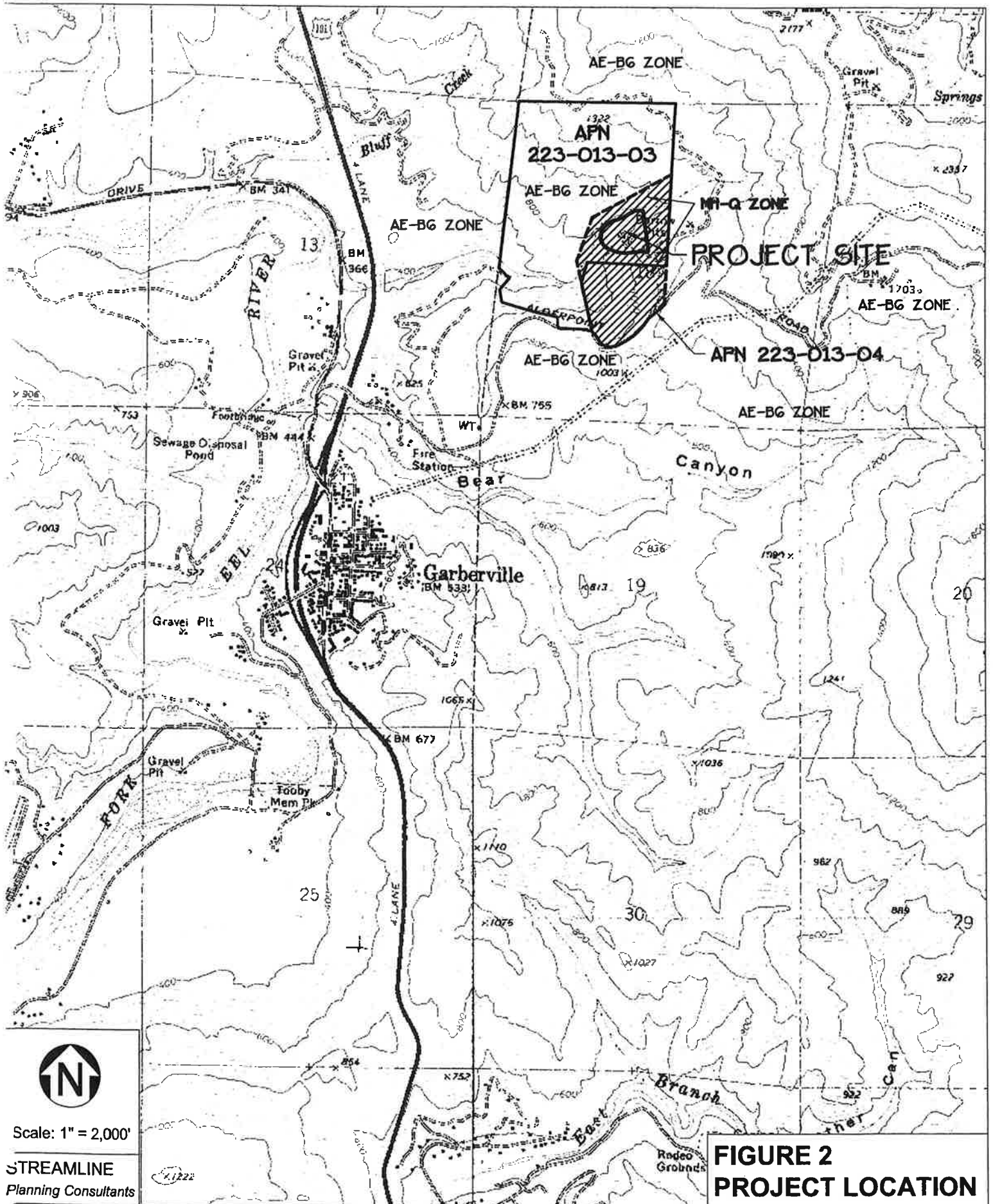


**FIGURE 1
PROJECT VICINITY**

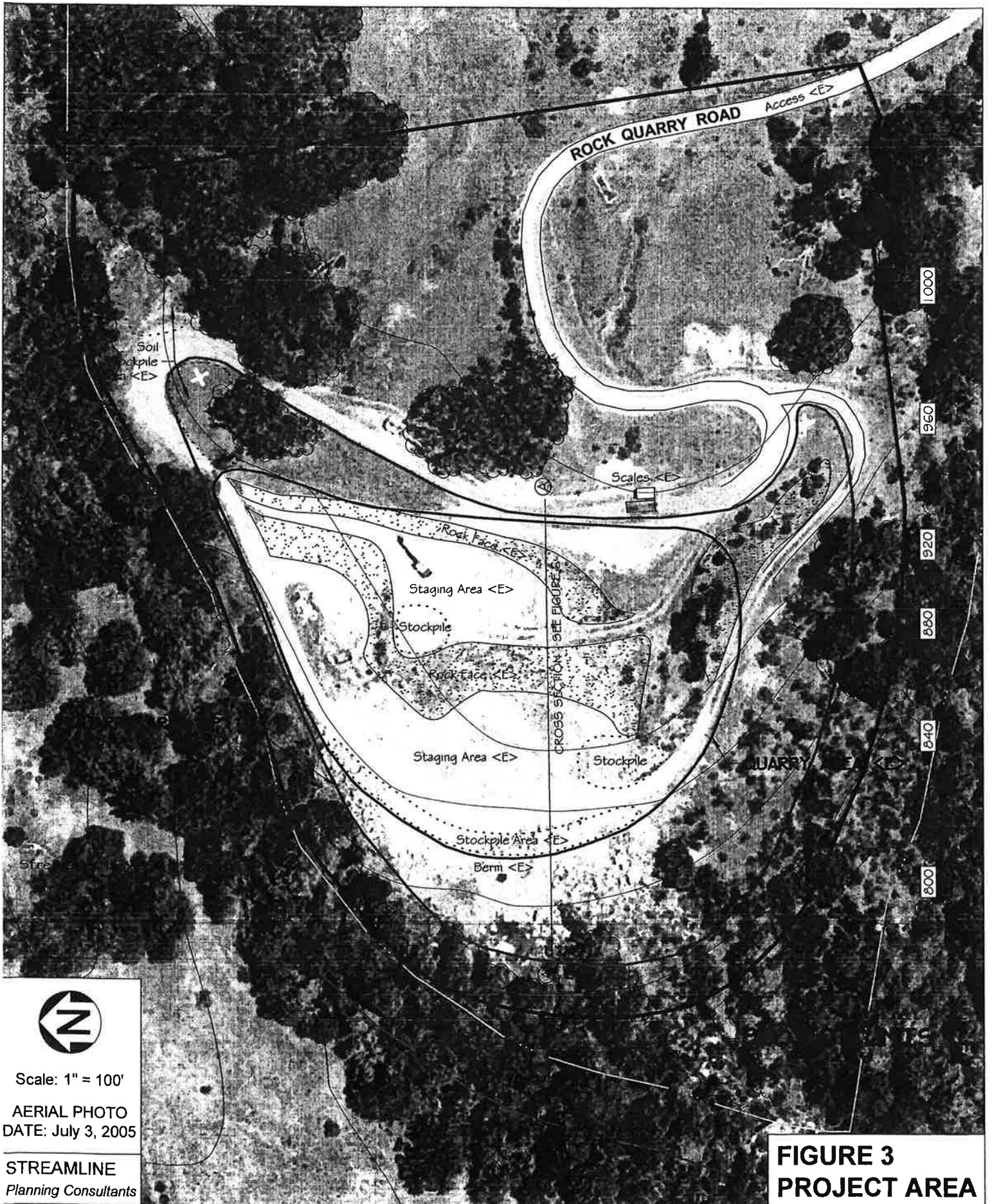


Scale: 1" = 60,000'

STREAMLINE
Planning Consultants



**FIGURE 2
PROJECT LOCATION**



II. MINING PLAN/PLAN OF OPERATIONS

A. Map of Operations - See Figure 5-Operations Plan for project site details.

B. Production Schedule

Estimated Life of Operation is unknown at this time, but would be reflective of specific needs of the area. An estimated 190,000 cubic yards are available. An average annual production rate of 15,000 cubic yards from the quarry is proposed, with a maximum production rate of 45,000 cubic yards for any given year as long as the average annual rate is not exceeded. At this rate the project would last 13 years. Based on past history of this quarry operation, the proposed operation will last longer since it is operated on an intermittent basis. For purposes of this mining plan a termination date for mining is December 31, 2023 or fifteen years from the effective date, whichever occurs later. An extension will most likely be required.

Operations will proceed reflecting contract needs. Seasonal, intermittent peak activity is anticipated during the non-construction season, but may occur anytime of the year, depending on need (i.e. flood damage repair). As occurs for other similar quarry operations, little or no activity may occur some years during the term of this permit.

C. Plan of Operations

1. Background/Existing Activities

The Wallan Quarry (previously Monschke Quarry) is located on parcel 223-136-03, 04 (old 213-146-09) in the Garberville area on the north side of Alderpoint Road approximately 1.6 miles east of the intersection of Alderpoint Road with Redwood Drive.

The project site has been used to supply local rip rap and construction materials since at least the late 1950's.

The two parcels containing the 9-acre mining area total approximately 225 acres in size. Quarrying activities are currently the primary use of the project parcel. Excavated materials are present at the staging area portion of the site (see Figure 3) from past quarrying activities.

2. Proposed Activity

The proposed 'Project Limits' consists of approximately 9 acres of land that is upward sloping from Highway 101 and consists of the quarry, the access road, and areas that will be left undisturbed. The proposed quarry area (3.5 acres) is currently 2 acres in size and approximately 300' at its base 400' back and 100' high (see Figure 5). The staging area below the quarry currently measures approximately 200 feet by 50 feet (0.25-acres). A minimum of overburden is present on-site.

The mineral commodity mined is moderately fractured massive greywacke which will generally be used locally for jetty rock, highway construction projects, rip rap, erosion

control, and rockslope protection. The quarry, consisting of massive greywacke with minor amounts of gray shale and greenstone, is typical of exposed Franciscan formation.

The operation will primarily involve blasting and excavation, on-site road and staging area improvements, on-site storage of rock, sorting, loading and hauling by truck, erosion control and incidental and final reclamation. The typical types of equipment that will be used for these operations includes: front-end loader, bulldozer, excavator, dump trucks, portable screen plant and weigh scales.

Phase 1 -Completed

Phase 1 of the previous permit consisted of removal of a knob that was completed in 2000.

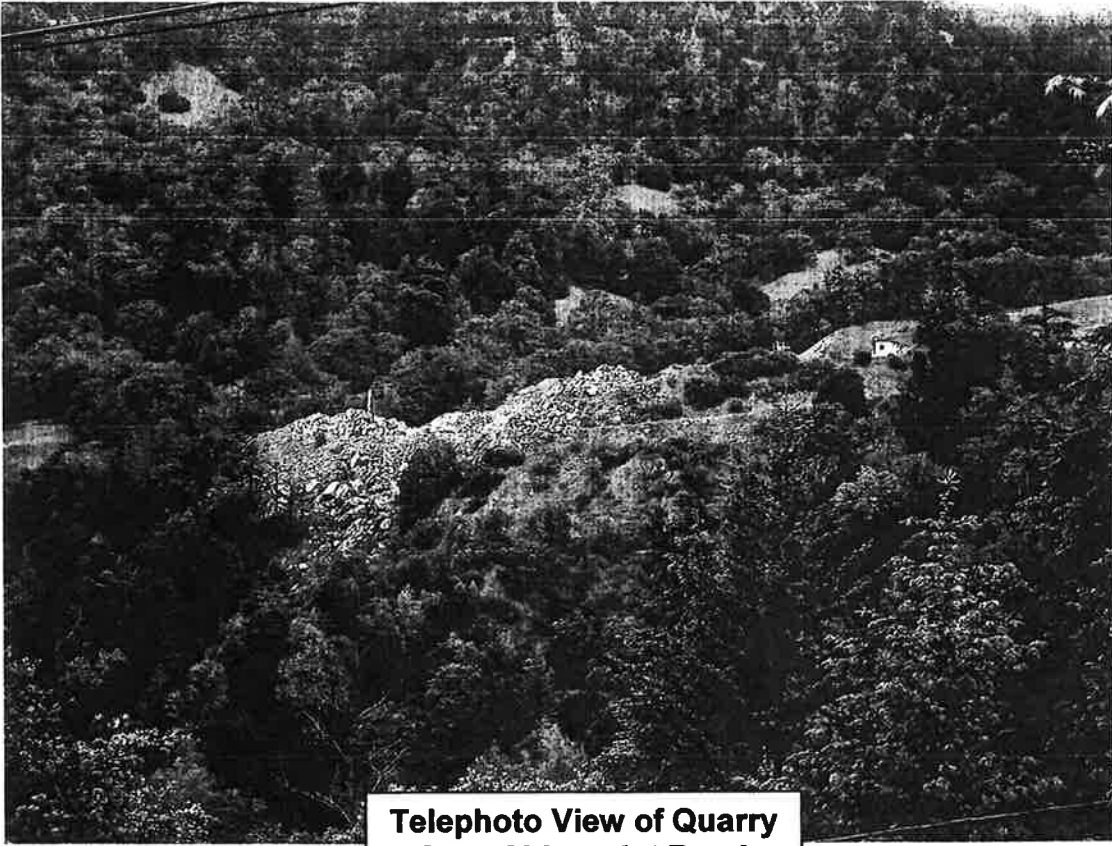
Phase 2 -Ongoing

Phase 2 began post-2000 for the continued extraction of heavy construction type rock. The project will ultimately entail mining the lower quarry staging area down an additional depth of approximately 45 feet. This lowest bench area will be brought easterly approximately 200 feet and will result in four final benches between top and bottom, similar to what is occurring (See Figure 6). This is the proposed maximum extent of the mining plan. Work (extraction) will most likely occur concurrently along both the top (eastern) and bottom (western) extent of the rock faces and work down towards the staging area, perpendicular to the slope of the hillside (see Figure 7). Benches and rock faces will be extracted and maintained concurrently and be at or less than the maximum grade proposed herein. In this manner should the operation be idle for a year or two, the intermittent mining plan consists of the proposed annual reclamation depicted on Figure 7 and described in the reclamation plan. Extracted materials will be stockpiled on the staging and stockpiling areas and benched areas. It is estimated that approximately 190,000 cubic yards of material will henceforth be removed as part of Phase 2.

Existing grading has directed surface run-off from the lower staging/stockpile area towards the rock face. Surface run-off directed towards the rock face will generally be dispersed and/or percolate into the surrounding fractured subsurface rock, gravel, and soil material. A berm currently exists, where necessary, and will be maintained, along the outer edge of the staging area which prevents any excess surface runoff or sediment from leaving the site. However runoff has not been a problem in the past due to the fractured nature of the subsurface materials.

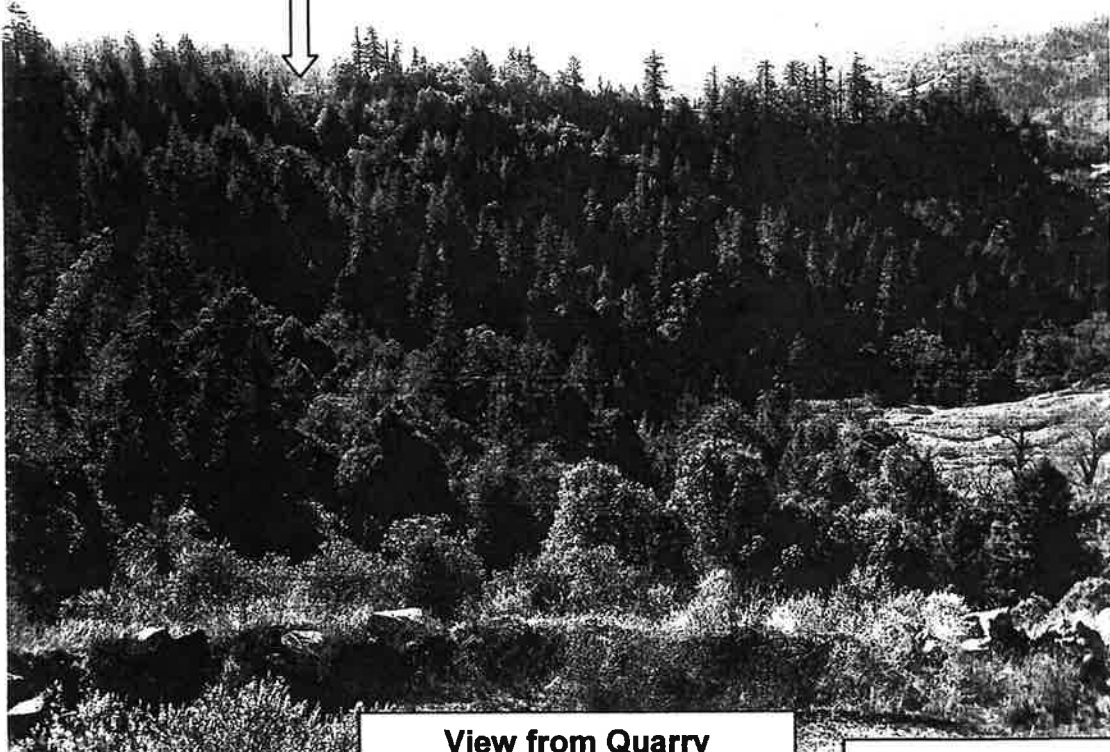
3. Schedule/Intensity of Activity

Activity will resume immediately after permit approval. Seasonal, intermittent peak extraction activity is anticipated during the wet winter season, but may occur anytime of the year, depending on need (i.e. flood damage repair, landslide clearing). Materials will be stored on-site for later use. The applicant, as well as subcontractors, will act as operator/hauler for this operation. All operations will be overseen by the applicant. Most of the time only the applicant will be working the site. However for contract jobs there may be an average of 1-3 quarry workers during times of operation, plus truck drivers. The hours of operation have been/will be during normal daylight working hours (6:00 a.m. – 6:00 p.m.), Monday through Saturday, but may be extended to meet emergency needs.



**Telephoto View of Quarry
from Alderpoint Road**

Photo Point

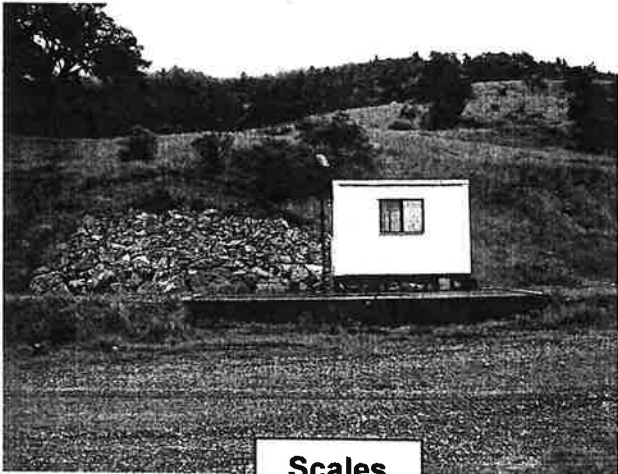


**View from Quarry
towards Alderpoint Road**

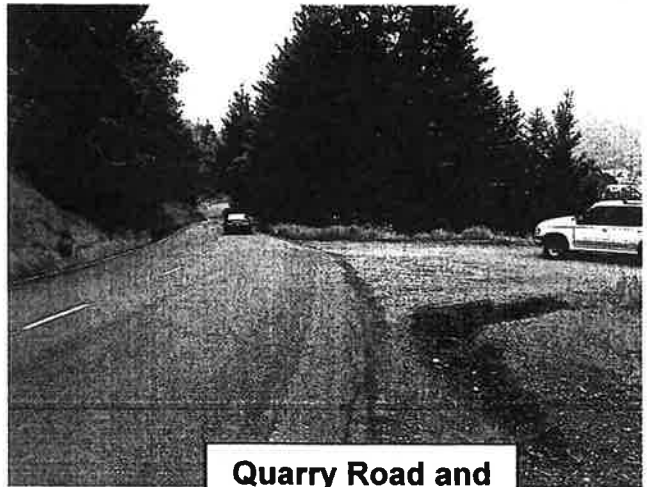
**FIGURE 4A
PHOTOS OF SITE**



**View of Existing Quarry
looking Northeast**



Scales



**Quarry Road and
Alderpoint Road**

Noise-producing activities will not occur before 7:00 a.m.

During a typical year, 15,000 cubic yards of material will be excavated and stockpiled on-site. The Wallan Quarry rock will be primarily used for rip rap, with smaller materials available for drainage rock and road base materials.

The limiting factor to the amount of activity at this site is the market area. The market area is defined as the area west to Shelter Cove, east towards Alderpoint, north towards Fortuna, and south towards Laytonville. A major highway reconstruction project might result in one or two seasons of high production with little additional major work needed on the highways for several years. Production opportunities are further limited by the existence of several other aggregate operations located in the Garberville area. However, the year-round availability of hard durable rock makes this site important in providing for County needs, especially in response to flood or seismic damage.

The duration and intensity of the operations will be dependent on demand, but can be expected to be active on an incidental basis year-round for more than (15) fifteen years. An extension will most likely be requested prior to expiration of this permit approval.

Annual reclamation activities specified in Section III leaves the site in a condition suitable as an inactive mine and proposes an interim management plan. In this manner details are provided herein that would allow this site to be regulated as an idle mine.

4. Noise/Dust

Noise

This project, by its relative nature, contributes to ambient noise levels only during periods of operation. Noise generated by this project would be similar to noise levels from similar quarry operations (See Table 1). Project-related sounds will generally be limited to daytime operations, Monday through Saturday from 6:00 a.m. to 6:00 p.m. Long periods of inactivity will occur when no project related sounds would be generated.

Noise sources in the project area include traffic noises on Highway 101 and Alderpoint Road, nearby agricultural and timber operations, and rural residences, so ambient noise levels have been historically and are currently low (38-43 dBA) in the vicinity of the project site. Noise sources that result from this project will include front-end loader, bulldozer, excavator, screen plant and dump trucks. Minor mechanized sorting but not crushing is proposed. Periodic blasting will also occur.

Consistent with similar quarry operations, the majority of noise generated by this project will be caused by equipment during extraction activity. Extraction/processing equipment noise will range from approximately 72 - 82 decibels at 50 feet away. Noise level ranges are used for equipment noise because levels vary depending on the equipment being used. A front-end loader idling can be as low as 72 decibels at 50 feet away, and a bulldozer operating can be up to 82 decibels at 50 feet. Equipment noise will decrease to approximately 60 decibels at Alderpoint Road (1,200 feet away) and to 57 decibels at the closest residence, 1500 feet away towards the east. Along Alderpoint Rd there are two residences approximately 1800 feet away and 12 residences between 2000 feet and ½

mile. (See Table 1). Equipment related noise levels will be below 55 dBA Ldn by the time it crosses the property. Truck traffic currently utilizing Alderpoint Road generates noise levels of 75-80 dBA 50 feet away. Noise is not only generated by trucks involved in quarry, timber and other commercial hauling but also personal vehicles traveling in excess of the speed limit along Alderpoint Rd. These levels were typically 68 -73 dBA.

Table 1: Distance/dB for Nearest Residences to Project Site

| | 50' | 1200' | 1500' | 1800' | 2000' | ½ Mile |
|------------|-------|-------|-------|-------|-------|--------|
| Extraction | 72-82 | 46-56 | 42-52 | 41-51 | 40-50 | 38-48 |
| Hauling | 86 | 60 | 57 | 55 | 54 | 52 |
| Blasting | 100 | 72.5 | 70.5 | 69 | 68 | 66 |

**Table 2
Reduction of A-Scale Sound Level at Various
Distances from a Vehicular "Point Source", Relative to
15 Meters Distance, Using the Drop-off Rate of 6 dB per Double Distance**

| Distance (ft) | Distance (m) | Reduction (dB) | Distance (ft) | Distance (m) | Reduction (dB) | Distance (ft) | Distance (m) | Reduction (dB) |
|---------------|--------------|----------------|---------------|--------------|----------------|---------------|--------------|----------------|
| 49 | 15 | 0 | 131 | 40 | 8.5 | 371 | 113 | 17.5 |
| 52 | 16 | 0.5 | 138 | 42 | 9 | 394 | 120 | 18 |
| 56 | 17 | 1 | 148 | 45 | 9.5 | 417 | 127 | 18.5 |
| 59 | 18 | 1.5 | 154 | 47 | 10 | 440 | 134 | 19 |
| 62 | 19 | 2 | 164 | 50 | 10.5 | 466 | 142 | 19.5 |
| 66 | 20 | 2.5 | 174 | 53 | 11 | 492 | 150 | 20 |
| 69 | 21 | 3 | 184 | 56 | 11.5 | 525 | 160 | 20.5 |
| 75 | 23 | 3.5 | 197 | 60 | 12 | 554 | 169 | 21 |
| 79 | 24 | 4 | 207 | 63 | 12.5 | 590 | 180 | 21.5 |
| 82 | 25 | 4.5 | 220 | 67 | 13 | 620 | 189 | 22 |
| 89 | 27 | 5 | 233 | 71 | 13.5 | 656 | 200 | 22.5 |
| 92 | 28 | 5.5 | 246 | 75 | 14 | 695 | 212 | 23 |
| 98 | 30 | 6 | 262 | 80 | 14.5 | 738 | 225 | 23.5 |
| 105 | 32 | 6.5 | 279 | 85 | 15 | 787 | 240 | 24 |
| 112 | 34 | 7 | 295 | 90 | 15.5 | 827 | 252 | 24.5 |
| 118 | 36 | 7.5 | 312 | 95 | 16 | 876 | 267 | 25 |
| 125 | 38 | 8 | 331 | 101 | 16.5 | 928 | 283 | 25.5 |
| | | | 351 | 107 | 16 | 981 | 299 | 26 |

Note: dBA Reduction = $20 \log \text{Distance}/15$
1 meter (m) equals approximately 3.28 feet.

Actual noise measurements were taken on January 19, 2007 with the excavator in operation at the site. While moving rock, the excavator registered a noise level of 75 dBA

at 50 feet. This level was reduced to 55-60 dBA at the boundaries of the existing quarry, 46-48 dBA at the closest point on Quarry Rd., and between 39 - 45 dBA along Alderpoint Road at 1800 to 2000 feet away. These are slightly lower than the levels noted in the table, but consistent. Both places measured along Alderpoint Rd. had direct line of sight. Those locations blocked by topography and vegetation would be expected to be lower.

The County noise standards for noise activities utilizes an averaging mechanism (dBA Ldn) applicable to activities that generate sound sources averaged over a 24-hour period of time such as commonly used for measuring highway noise or industrial operations. A ten-decibel addition is added to noise levels occurring at nighttime - between 10:00 p.m. and 7:00 a.m. Utilizing the County standard of 45 dBA Ldn interior noise level allows for a maximum of 60 dBA Ldn for 'normally acceptable' exterior levels. This standard was originally based on attenuation by single pane glass windows.

To reach the County maximum average 'acceptable' level of 60 dBA Ldn for residential use noise levels would have to be generated consistently throughout the period. For example: A normal eight-hour day at 60 dBA and no activity during the remainder of the 24-hour period would generate a 55.2 dBA Ldn level. Likewise eight hours at 65 dBA would result in a 60.2 dBA Ldn reading. If levels drop below 60 dBA anytime between the measured periods then there would have to be periods of noise levels in excess of 60 dBA for the same amount of time or level to achieve the 60 or 65 dBA Ldn level. For instance lowering the time to 5 hours/day at 67 dBA would generate a 60 dBA Ldn level. An eight-hour day at 64 dBA would produce a 59.2 dBA Ldn level. These numbers indicate that there is sufficient distance to residential receptors and County noise standards will be more than met.

Dust

There are two potential types of air-born pollutants resulting from this project. One is dust from extraction activities. The other is emissions from trucks used for transporting the rock off-site. The North Coast Unified Air Quality Management District currently enforces dust emissions utilizing the CA Health and Safety Code (Section 41701) that limits visible emissions that exceed 40% density to a maximum of 3 minutes for any one-hour period. The US EPA has determined that dust generally settles out of the atmosphere within 300 feet of the source. Emissions from the limited truck traffic proposed by this project fall well below the levels of concern.

Dust would only be created at times the site is active. The major sources of dust at the site would be from extraction of the rock face and equipment activity and loading within the staging area. The closest sensitive receptors are the residences in the vicinity, but because of the limited extraction activity that will occur, the rapid dissipation of the dust and the low density of residences, impacts will be minimal.

Application submittals included an investigation of whether asbestos-bearing materials exist at the site. Based on the results of the field investigation prepared by a registered geologist it was determined that asbestos-containing rocks occur in the area of the existing rock quarry. The results & conclusions section of the Geologic Assessment for Naturally-Occurring Asbestos completed by LACO Associates (March 8, 2006) states, "*Based on our field observations, asbestos-containing rocks occur in the area of the*

proposed rock quarry. Based on laboratory analysis (Attachments 1 and 2), naturally-occurring asbestos was identified in the samples. Tremolite-Actinolite was detected from 0.25 to 1.25 percent. Eleven out of the 14 samples did not contain asbestos. Naturally-occurring asbestos is present at low concentrations and occurs as thin veining or discontinuous smears randomly in the rock outcrop" (See attached Geologic Assessment).

According to the California Air Resources Board Asbestos ATCM, "asbestos-containing material" is defined as material with an asbestos content greater than 0.25 percent as determined by ARB Test Method 435. Due to the presence of asbestos at the project site, a '*Dust Mitigation Plan for Naturally-Occurring Asbestos*' (April 24, 2006) was prepared per the requirements of Section 93105 of the California Code of Regulations regarding Asbestos Airborne Toxic Control Measures for Construction, Grading, Quarrying, and Surface Mining Operations. Section II (Pgs. 3-5) of the '*Dust Mitigation Plan for Naturally-Occurring Asbestos*' contains the specific dust mitigation measures that are being implemented at the project site to control potential fugitive asbestos dust that may result from quarrying activities (See attached). These have been made a part of the Mining Plan; activities will remain consistent with CCR 93105 requirements, or the North Coast Unified Air Quality Management District requirements, as they are amended.

The following mining plan limitations are proposed to address the requirements of CCR 93105. These may be revised to meet current regulations. (See requirements of CCR 93105 and the Dust Mitigation Plan for complete list).

- a. Conduct extraction operations primarily during the wet winter season following sufficient rainfall such that the ground is adequately wetted to the depths of anticipated cuts or excavation.
- b. Pre-wetting the ground to the depth of anticipated cuts or grading activities during dry months.
- c. Suspension of grading activities during dry months when wind speeds are enough to result in dust emissions crossing the property line.
- d. Keeping asbestos-containing active stockpiles containing fine materials adequately wetted or covered during dry months.
- e. Maintaining maximum vehicle speed at 15 m.p.h. Speed limit to be posted on site.
- f. Restricting haul traffic on access road on the property to occur only on roads that are either: 1) adequately wetted; 2) maintained with a minimum 3" gravel coating of less than 5% silt content and 0.25% NOA content; 3) coated with a chemical dust suppressant, such as lignin or; 4) paved.
- g. Daily removal of any visible trackout onto Alderpoint Rd. unless trucks traverse a minimum 50 foot long consecutive paved section of roadway first.

- h. Require transported loads that generally have less than one-inch diameter materials be adequately wetted before loading and either covered or kept a minimum of six inches below the top of cargo compartment.
- i. Public access will be restricted to the site and posted on or near the gate with signs stating that "*WARNING! Naturally Occurring Asbestos Rock Exists Beyond This Point, Is A Suspected Carcinogen, And May Cause Cancer*".
- j. Unless an exemption according to Title 17, Code of Federal Regulations, Section 93106, Asbestos Airborne Toxic Control Measure for Surfacing Applications is approved in writing by the APCO, the applicant shall not use, apply, sell, supply, or offer for sale or supply any restricted material for surfacing, unless it has been tested using an approved asbestos bulk test method and determined to have an asbestos content that is less than 0.25 percent.
- k. When the applicant who sells, supplies, or offers for sale or supply restricted material for surfacing that has been tested using an approved asbestos bulk test method and determined to have an asbestos content that is less than 0.25 percent, the applicant must provide to the recipient of the restricted material a written receipt that contains the following information: (A) The amount of restricted material that was sold or supplied; (B) The date that the restricted material was sold or supplied; (C) The dates that the restricted material was sampled and tested, or verification that the material is exempt according to Title 17, California Code of Regulations, Section 93106; and (D) A statement that the asbestos content of the restricted material is less than 0.25 percent.
- l. When the applicant sells, supplies, or offers for sale or supply restricted material for non-surfacing applications, the applicant must provide with each sale or supply a written receipt containing the following statement:

"WARNING!

This material may contain asbestos.

It is unlawful to use this material for surfacing or any application in which it would remain exposed and subject to possible disturbances.

Extreme care should be taken when handling this material to minimize the generation of dust"

- m. Fugitive dust emissions from any surface, material, activity, or equipment within the quarry site, or from any access or haul road to the nearest public road, shall not cross property boundary lines. The exception to this would be road surfaces that occur after suitable track-out device or a minimum 50 feet of paved road surface.
- n. Fugitive dust shall not be visible from quarry materials being transported in trucks on public roadways.

5. Public Facilities/Utilities/Services

Roads

Materials will generally be transported to Alderpoint Road utilizing the project site private access road; Rock Quarry Rd. (approx. 14'-16' wide graveled), 750 feet of Quarry road (also approx. 14'-16' wide graveled) and then approximately 2 miles along Alderpoint Road to State Highway 101. The private access roads to the project site are in good condition. This road has been used intermittently for quarrying operations and timber harvesting activities over the last 50 years. A locked gate 130 feet in from Quarry Road restricts access to the project site.

Because of the on-going intermittent operation of this project, permit approval will not cause a significant increase in existing traffic volumes. Traffic on Alderpoint Road (ADT 800) is low compared to existing road improvements. Considering that Alderpoint Road is capable of handling considerably more vehicles per day, no significant impact from additional traffic generated by this project would be expected.

Truck traffic generated by the project will vary with seasonal and market conditions. Assuming 15,000 cubic yards of rock transported each year, the average number of truck loads per day (300 work days, carrying 15 cubic yards/trip) will be 3.3 (round trip). Considering that supply periods are seasonal, a more realistic figure, consistent with past use, will be from one to thirty truck loads daily (round trip). During periods of peak use, maximum truck traffic could be 4 truck loads per hour; there will be long periods with little or no project-generated traffic.

Most of the heavy equipment used for quarrying has been/will be left on-site during active periods, minimizing the amount of slow-moving/trailer traffic present on the access routes to and from the project site. Other transportation modes or emergency access will not be impacted by the project.

Utilities/Services

The proposed project, based on its description and location will not impact existing nor require additional utility services. Currently, there are no utilities connected to the parcel containing the project site. The weigh house & scale at the project site utilizes solar energy. The portable screen plant will contain its own motor. Electrical services are not required for this project, but are available adjacent to the site should they be needed in the future.

D. Plan of Operations - Details

1. Topsoil

Most of the project site has been disturbed by past quarrying activities and has no "topsoil" development. Existing vegetation primarily grows sporadically on top of fractured rock or rocky substrate. The minimal amount of topsoil that does occur on the hillsides surrounding the project site has been classified as Laughlin Series, which is a loam found on rolling to steep uplands with a typical grassland cover. Any substantial amounts of soil encountered will be set aside in a specific soil stockpile area (See Figure 5), which will be seeded and a low rocky berm will be placed at the base of the soil stockpile area to keep runoff from leaving the soil stockpile area. Maximum height of the

stockpile will be 25 feet. Existing trees adjacent to the soil stockpile area will remain as screening. At the completion of rock quarrying these materials will be spread across the site on benches and/or within the staging area, as described in Chapter III – Reclamation Plan Activity.

Due to naturally occurring asbestos (NOA) occurring at the site, should substantial materials, specifically fines, be encountered during the mining process, it is proposed to excavate pits surrounding the quarry site, backfilling with NOA materials and capping with native soils. These areas will be bermed and likewise will be graded and seeded with the noted agricultural erosion control mixture as described herein. Soil removed as part of this process will be added to the designated stockpile area(s) and utilized for intermittent and final reclamation. It is only during mining activities that the specific need will be determined. Sufficient area has been designated. A minor Reclamation Plan revision or grading permit will be obtained, when the applicant requests or the County, during its annual inspection, determines additional area is necessary.

2. Overburden

As described above, only a limited area of the quarry limits may contain overburden on-site. See Chapter III – Reclamation Plan Activity for additional information.

3. Mine Waste

No waste will occur from this project. All materials will be utilized. As discussed under "Dust" above, asbestos-containing stockpiles containing fine materials will be adequately wetted or covered during dry months.

4. Extraction Method

The primary method of mining used at this site is removal using an excavator, front-end loaders and/or caterpillar tractors (bulldozers) after periodic blasting to (1) loosen and remove rock from the base of the hillside/rock face and stockpile it surrounding the hillside/rock face, (2) loosen and push rock downslope to the staging/stockpile areas below for subsequent sorting and storage, or (3) a combination of 1 & 2. The lowest existing bench will be lowered an additional 45 feet and will extend back approximately 200 feet, with the proposed intermediate twenty-foot wide benches similar to what is occurring. Work (extraction) will most likely occur along the top (eastern) and bottom (western) extent of the rock face and work down towards the staging area, perpendicular to the slope of the hillside (See Figure 6). All benches will be concurrently worked back in a manner that allows stockpiling and loading of rock from each bench. Due to the fractured nature of the rock, the need for drilling and blasting will be minimized. Extracted materials will be sorted and stockpiled on the staging and stockpiling areas surrounding the rock face. It is estimated that approximately 190,000 cubic yards of material remains. Excavation and removal of rock occurs depending on contract requirements.

Existing roads access both the top, bottom and intermediate benches of the quarry. Minor grading will occur utilizing these existing accesses to the upper portion of rock. Final rock cut slopes will generally have an average 1H:1V slope, with average 30-foot

elevation difference between top and toe of each of the four rock faces, and average 20 foot wide benches. The method for removal of materials may require intermittent terracing as work proceeds. The dimension of these terraces will meet the minimum Bureau of Mines Standards (a minimum ten foot wide bench). This standard is designed to minimize potential rock fall, though this has not been a problem at this site.

Since this operation is intermittent in operation, it will be operated in a manner that maintains the site meeting idle mine status. This would mean: 1) that the site has been graded/bermed with erosion/sediment control measures and other annual reclamation measures described in the next section; 2) that cut slopes are left as described above; 3) that NOA dust measures are in place; 4) any derelict equipment be removed from the site and; 5) the gate is locked, securing the site.

E. Size

Of the total 225-acres, the project limits is 9 acres, which will ultimately be utilized for quarrying activities. Approximately 0.4 acres are currently utilized as a staging/stockpile area. The proposed quarry rock area will be increased from 2 to 3.5 acres. As a result of quarrying the lowest staging area flat will increase from 0.4 acres to 3 acres.

F. Water Requirements

No water is required for the proposed quarrying/processing method except for dust control, which has and will routinely occur at times of activity from water trucks filled off-site. Most quarrying activity will occur at times when the material is 'adequately wetted'. On-site water will be imported through use of the existing 3000-gallon water tank trucked to the site to ensure that adequate water supply is available to meet the conditions of the Dust Mitigation Plan.

G. Contaminants

By the nature of material mined, the potential for contaminants would be limited to operation-related such as potential equipment leaks or spills. Potential contaminants from equipment shall continue to be minimized through proper equipment maintenance and operation; major equipment maintenance work will be conducted off-site.

H. Wastewater

By the nature of the described excavation, no wastewater is produced.

I. Water Impoundments and Diversions

No water impoundments or diversions are proposed

See Chapter III Reclamation Plan Activity for additional details. Standards mentioned in subsequent sections of this report are incorporated into this Mining Plan by this reference.

WALLAN QUARRY CROSS SECTION A---A
See Figure 5 for location

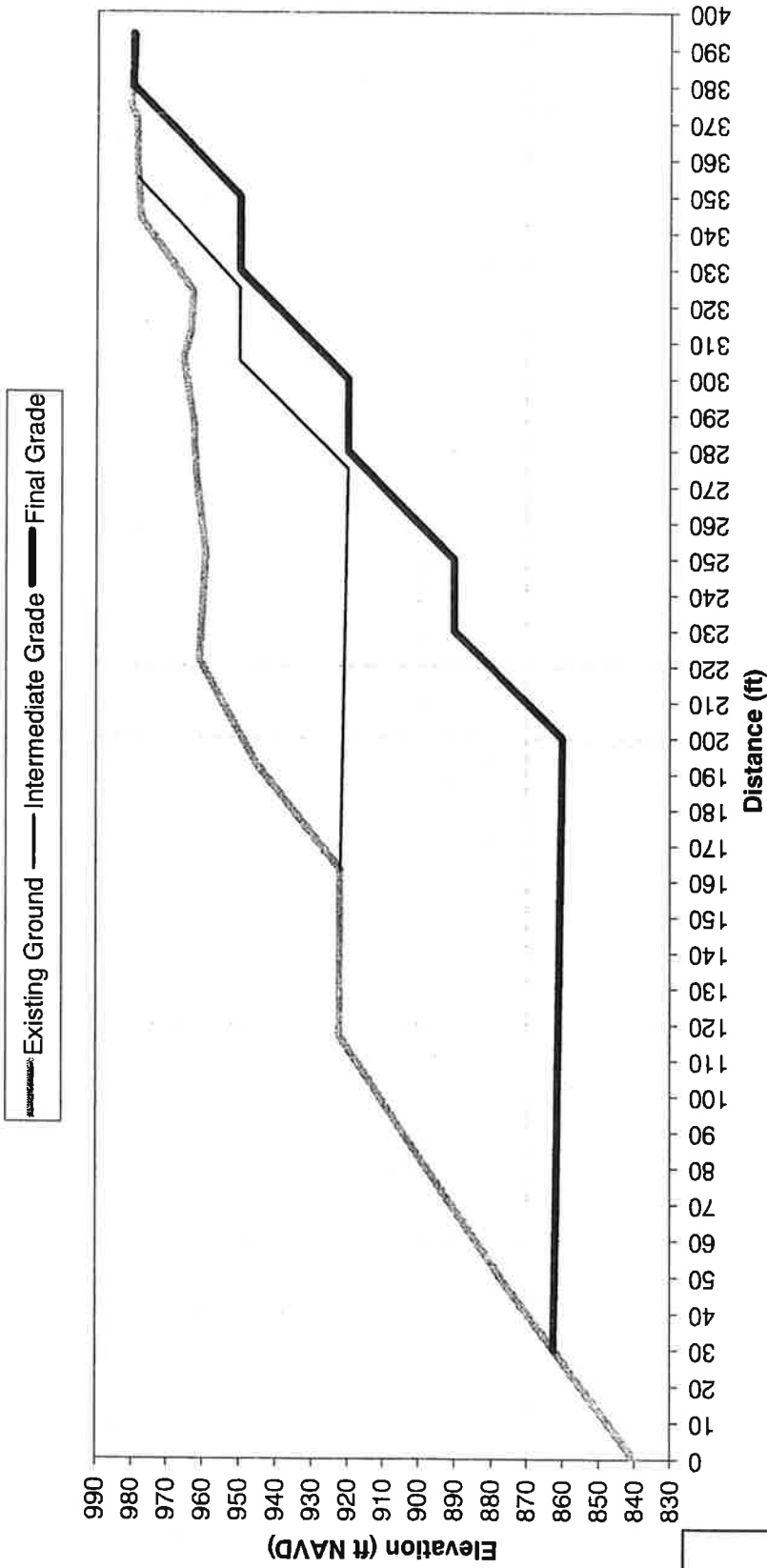


FIGURE 6
EXISTING/FINAL
PROFILES

III. RECLAMATION PLAN ACTIVITY

This Chapter contains a description of reclamation activity. Specific Reclamation Plan standards are included in Chapter IV.

A. Proposed Use of Site Afterwards - Grazing

The portion of the parcels (APN 223-136-03, 04) containing the mining area (Project Limits) is zoned Heavy Industrial (MH-Q) - 1 acre minimum parcel size. The portion of the properties zoned MH-Q is regulated under Humboldt County Ordinance 1803 and will continue under those allowable uses.

The remaining portion of the two parcels is zoned Agriculture Exclusive (AE) - 20 acre minimum parcel size and Agriculture Exclusive/No further subdivision (AE B-6), (See Figure 2). Surrounding the project parcel is land zoned similarly, which is used for grazing or rural residential use. Approximately 2-3 acres is currently used for quarrying. At project's end approximately 9 acres of the 225-acre project parcel will be disturbed by quarrying operations. Potential use of the 'Project Limit' area after the quarry project would be similar to surrounding land uses (grazing and/or rural residential). The remainder of the two parcels, approximately 216 acres outside of the project limits, will remain undisturbed by surface mining operations other than the existing access roads (See Figures 5 and 7).

The proposed grazing end use is consistent with the County's SMARA ordinance and previous approval by the Planning Commission. The portion of the properties zoned AE is extensive so that sufficient areas are left on each parcel for a subsequent alternative land use so that the property will not be rendered "unusable" by surface mining activities but be left in a 'useable condition'. The property utilized for the quarry will be left as it is and further utilized for agricultural purposes.

B. Time Schedule of Reclamation Activities

As described above and depicted in Figure 7, annual reclamation/site maintenance will occur. Final Reclamation will most likely occur when the rock is removed as described in Chapter II – Mining Plan/Plan of Operations and remaining slopes blend into surrounding ground elevations (see Figure 8). After the rock mass is excavated and benched, rock may continue to be stored on the site for several years or moved off-site to another location permitted for such use. Phased reclamation will not occur on the site, though annual maintenance will occur. The benches will have stockpiled soil distributed up to a depth of one-foot as a rooting medium for naturally occurring plant species if sufficient fine materials are generated. These areas will be initially seeded/mulched.

Activities to close the site include final grading and drainage corrections (if needed), ripping the staging areas, and distribution of any remaining rock materials onto the staging area and salvaged surface soils onto the staging and bench areas. The portable scales will be removed. Access roads have existed for fifty years and will remain for future post-mining land management (grazing) activities.

C. Rehabilitation to Pre-mining Drainage

Mining has not/will not affect pre-mining drainage outside of the project area. No backfilling is necessary for final site closure. Only minimal grading of the staging area, depending on the amount of remaining materials, will be needed for reclamation. The staging area and stockpile areas will be: 1) uncompacted; 2) graded in a manner that disperses rather than concentrates run-off; 3) graded/seeded/mulched for erosion control purposes and; 4) be left undisturbed for natural revegetation. Erosion and sediment control features (berms) will remain after final site grading. Final grades of the staging area/stockpile area will consist of a slightly sloping surface (1-2%) towards the rock face. Final drainage will be designed to generally simulate and utilize pre-project drainage patterns. However, no direct run-off from the mine area will be allowed into Quarry Creek adjacent to the quarry site during quarrying activities and after final closure. The quarry operations will not occur nearer than 50' from Quarry Creek that runs along the northern portion of the project site. This line will be flagged. At completion of quarrying the lower berm separating the quarry area from the creek will remain, where needed, for secondary erosion/sediment control purposes. Berms that are currently made up mostly of small rock fragments have not required seeding for erosion control.

No other significant streams or water courses occur on the property. Run-off will continue to be dispersed generally towards the rock face, which is designed to minimize erosion potential. Runoff currently percolates into the ground due to the fractured nature of the rock. Drainage at the top of the quarry will continue to be directed, as needed, away from the rock face towards the existing bio-retention swale and natural drainage features.

D. Resoiling and Revegetation

Soils are generally non-existent, as discussed previously, in the quarry/staging area. Rocky areas will remain exposed after the operation. No fines have been generated by the existing operations so it is unlikely that fines will need to be stockpiled, though a stockpile for fines, soils and other materials used for reclamation purposes locations has been defined (See Figure 5).

The soil stockpile area is adjacent to surrounding trees and woody vegetation (See Fig 3.). The low rocky berm around the soil stockpile site will be seeded with an erosion control mixture and mulched initially and will be monitored annually. Materials that are moved here will be reserved for reclamation/resoiling activities for the staging area.

Resoiling of the staging areas will occur from stockpiled soils, as indicated in Figures 5 and 7. Benches will be resoiled, to the extent that material is available on-site, to a depth of up to one-foot as a rooting medium for natural revegetation.

In order to address Naturally Occurring Asbestos (NOA) concerns (when needed), a pit (See Fig. 3) will be dug down 15 feet with the majority of excavated stockpiled or material moved to the soil stockpile area. The pit will be backfilled with unusable NOA materials and capped with native materials. At completion a second pit in the area will be dug. No more than one-half acre, with a capacity of 7,500 cubic yards, will be disturbed by this activity at a time. The pit will be bermed at its lower end and then seeded with an erosion control mixture and any other appropriate BMP's. At completion the non-NOA cap on the pit will be seeded at the appropriate time of the year (October – April) and monitored/reseeded annually as necessary.

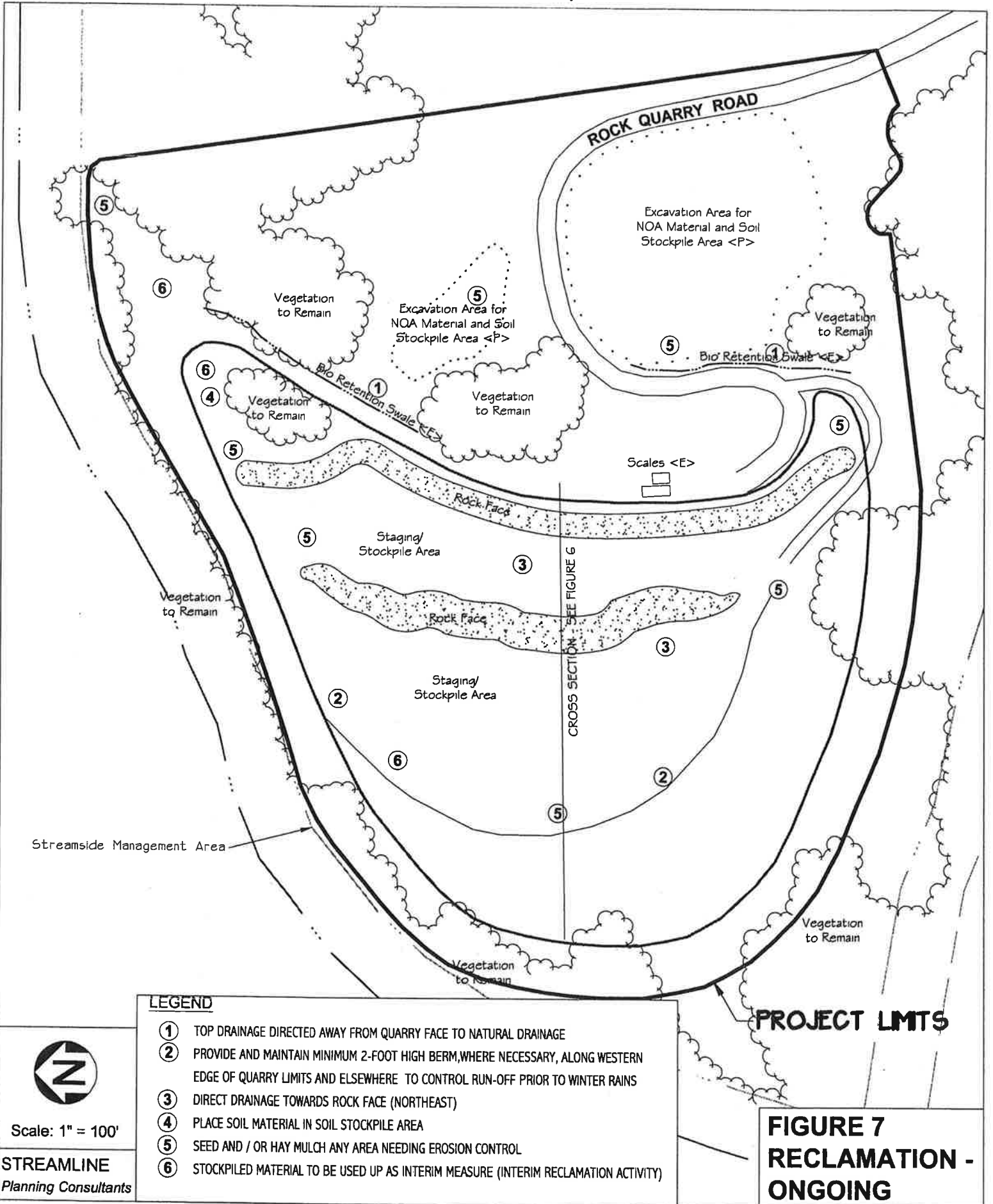
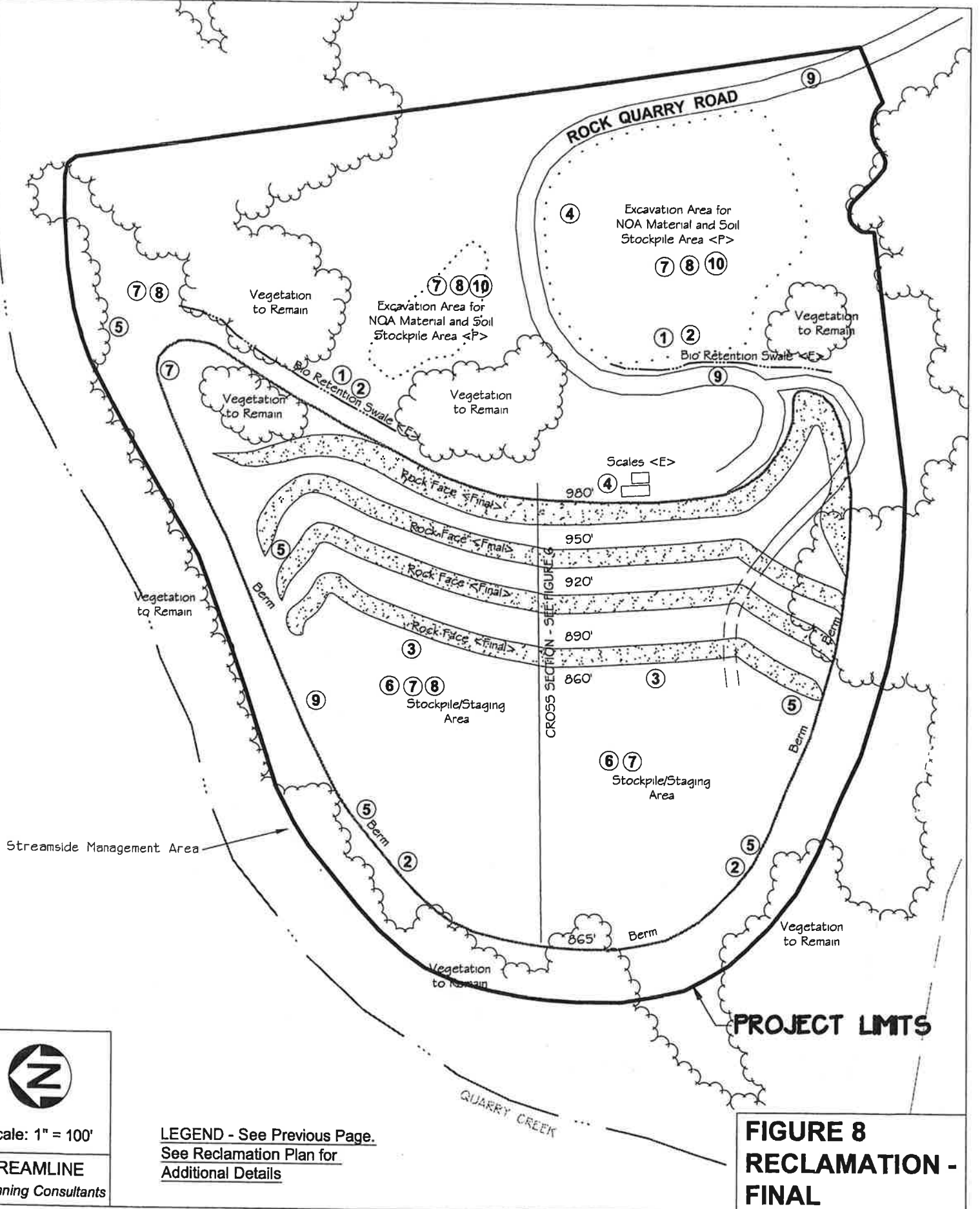


FIGURE 8 LEGEND

1. DRAINAGE ABOVE QUARRY LIMITS TO BE DIRECTED AWAY FROM QUARRY FACE TOWARDS NATURAL DRAINAGES.
2. RETAIN BERMS WHERE NECESSARY FOR RUN-OFF CONTROL.
3. DIRECT DRAINAGE TOWARDS ROCK FACE (NORTHEAST).
4. ALL EQUIPMENT AND BUILDINGS TO BE REMOVED AT TIME OF FINAL RECLAMATION UNLESS NEEDED FOR SUBSEQUENT USE.
5. SEED AND/OR HAY MULCH ANY AREA NEEDING EROSION CONTROL.
6. STOCKPILED MATERIAL TO BE USED UP
7. STOCKPILE AREAS TO BE GRADED TO ADJACENT TOPOGRAPHY, RIPPED TO ONE-FOOT DEPTH AND PLANTED WITH SPECIFIED GRASS SEED MIXTURE IF SUBSEQUENT USE NOT SPECIFICALLY PROPOSED.
8. SOIL STOCKPILE MATERIAL TO BE USED FOR PLANTING MEDIUM ON BENCHES AND STAGING AREAS.
9. ROAD ACCESS TO BE RETAINED FOR FUTURE PROPERTY ACCESS/MANAGEMENT PURPOSES.
10. EXCAVATION AREAS FOR STOCKPILING NOA MATERIALS TO BE FILLED/SLOPED TO MATCH ADJACENT TOPOGRAPHY AND TOPPED WITH MINIMUM SIX-INCHES NON-NOA MATERIALS AND SEEDED FOR EROSION CONTROL PURPOSES.



Scale: 1" = 100'

LEGEND - See Previous Page.
See Reclamation Plan for
Additional Details

STREAMLINE
Planning Consultants

**FIGURE 8
RECLAMATION -
FINAL**

Native soils stockpiled in this manner will add to the available substrate that is suitable for revegetation. The soil added to the stockpiled material could provide 1-1.5 feet depth of soil over the 3-acre reclamation site.

Though most of the area is currently disturbed, excavation will continue to occur in a manner that minimizes site disturbance until necessary. The project area was defined to minimize disturbance of mature vegetation and adheres to the required County creek setbacks. At the quarry area, where the substrate is solid rock or large fragmented rock, revegetation is not feasible. Such areas will be left to naturally occurring species (Douglas Fir, Black Oak, Madrone, coyote brush, grasses, etc.) as the rock faces become further weathered. At the staging area, where the substrate is a compacted combination of fragmented rock and fill material, revegetation with naturally occurring species (Douglas Fir, Black Oak, coyote brush, etc.) and grasses will occur. Preparation for revegetation of the staging area will include uncompaction of the substrate and uniform distribution of materials from the soil stockpile area to a depth of approximately one-foot, as material lasts. The area will then be seeded with an agricultural erosion control seed mixture and mulched at the appropriate time of year.

Intermittent and final revegetation shall include seeding with an agricultural erosion control plant seed mixture (See Table 3). This or other recommended mixture would be seeded at the appropriate time of year with straw mulch for: 1) the perimeter of the disturbed area of the quarry site; 2) road fill slopes and; 3) other substantial excavations requiring erosion control treatment. The mixture/application rate may be revised at time that the Natural Resource Conservation Service (NRCS) or professional landscaper or forester is requested by the applicant to review actual site conditions (during the project operation).

| Common name | Latin name | Pounds per acre PLS* |
|-------------------|---------------------------|----------------------|
| Orchard grass | <i>Dactylis glomerata</i> | 2 |
| Blue wildrye | <i>Elymus glaucus</i> | 6 |
| Regreen | Wheat x wheatgrass hybrid | 17 |
| Rose clover | <i>Trifolium hirtum</i> | 5 |
| Birdsfoot trefoil | <i>Lotus corniculatus</i> | 2 |
| Total | | 32 |

If actual extraction does not occur during one or more years intermittent activity may only include transporting stockpiled rock. Annual reclamation/inspection will occur each year, specifically checking for erosion control needs. It is anticipated that additional seeding/mulching may not be required in those years.

The Reclamation Plan promotes or encourages natural revegetation on the rock faces and benches. The rock benches cannot be successfully ripped and provide the safety factor for which they are proposed. The benches are not designed for revegetation but for safety purposes. However revegetation may occur in these locations given the advantage of resoiling/seeding as proposed. As suggested, seed and mulch will be provided to these areas as part of the final reclamation plan (See Fig. 8). Since revegetation of the rock face or benches is not required, there is no need for performance standards, test plots, success rates or caging

of plants etc. The applicant's annual review procedure and County's annual inspection provides a mechanism to assure that erosion control and associated treatments are carried through.

The area of the site included in mined lands not yet addressed is the staging area. As noted this area is currently utilized as a landing as well as permitted for processing and stockpiling. No additional areas are proposed other than the resulting increase from removal of the rock face back further than it currently exists. The proposed staging area is included to be ripped, resoiled and seeded/mulched if subsequent use (barn/corral) doesn't occur (See Figure 8). Revegetation will be established with a cover = 75% and species richness=6. The proposed end use and zoning (MH-Q) is consistent with the proposed reclamation treatment for this area.

The Reclamation Plan describes the annual maintenance and treatment of disturbed areas. The rock faces will not be vegetated and the staging area will be reclaimed at the end. As such the entire 9 acres will not be seeded and mulched at the end. The amounts listed under financial assurances provides sufficient materials to cover the three-acres of disturbed areas defined in the Reclamation Plan (Figure 7, etc) whether this site becomes "abandoned", for example, in the 3rd, 8th or 14th year or when final reclamation is implemented.

The Humboldt County Natural Resource Conservation Service (NRCS) has provided input for the recommended seed mixture for this area (Table 3). The Reclamation Plan describes the basis for the proposed seed mixture and allows this to be more specific when reclamation occurs. This will be utilized once operations resume. If the first year provides unsuccessful (as unlikely as that might be) then the NRCS will be consulted to determine the causes and adjust their recommendations accordingly. Financial assurances will be reviewed and adjusted as necessary according to County procedures.

CCR section 3705 (k) requires that noxious weeds be managed;(1) when they threaten the success of the proposed revegetation; (2) to prevent spreading to nearby areas; and (3) to eliminate fire hazard. Noxious weed species will be controlled through hand grubbing or grazing by goats in the spring. A weed density of three star thistle plants per 25 square meters will be utilized to trigger control and abatement procedures both during operations and during reclamation. Ongoing reclamation practices, coupled with the County annual inspection will assure this will happen.

E. Effect of Reclamation on Future Mining

The project site has been described as a distinct area. The method of extraction will remove existing quarry materials in a manner that will not affect the opportunity to mine adjacent areas (though this is unlikely to occur once mining is completed, as described herein). The site will also be mined in a manner that allows it to implement annual reclamation activities (See Fig. 7). and be idle for several years.

F. Public Safety

Public safety concerns include both on-site and off-site impacts. This project will not have a significant increase of risk to people on-site due to the following: it is in an isolated location; access is controlled by a locked gate; substantial amounts of fuel will not be stored on-site; the

quarrying method does not leave large pits or holes; and the material to be mined is structurally stable.

The entrance to the site has been posted as containing naturally occurring asbestos. Material will be adequately wetted during active periods. Other measures listed in the Mining Plan will be implemented.

Potential impacts off-site include increased truck traffic, wildfire hazard, noise, and dust. Traffic generated by this project, as discussed within this report, will occur intermittently and will not significantly change the current level of traffic. This project is located in a high wildfire hazard area. Though operations require fuel for equipment and explosives, standards of operation minimize any potential impacts from this project. Most activities will be occurring more than 50 feet from retained vegetation. Minimal fuel will be stored on-site; fuel will generally be transported and dispensed from pick-up trucks equipped for such a purpose.

Normal mining activities at the quarry may result in increased dust levels. This dust generation will be restricted to the immediate work site except in very windy conditions, when operations will be shut down. Dust abatement will occur as a routine maintenance procedure, which includes spraying from water trucks (See mining plan limitations included to address the requirements of CCR 93105. This will continue through the life of the project.

Drilling and blasting will be necessary. Blasting that may occur on-site will be detonated within the rock, minimizing both spark and thrust of material from the localized area. The operator is required to hire licensed professionals with experience in blasting this type of material and meeting strict state and federal standards. See Mine Safety and Health Administration (30 CFR § 56.6)

As a standard practice, prior to blasting, those on a concerned citizen's list will be notified of the activity so they are aware and can plan accordingly. During periods of blasting, a flagger will be posted on Quarry Road to control traffic. Methods to detain any rock materials that become dislodged and minimize public impacts include site grading, retained downslope stockpiles and vegetative cover and traffic control.

Hazards from the project are limited. Once final reclamation efforts are completed, no unstable rock piles or excavation "holes" will exist. No attractive nuisance to encourage trespass will remain. No residual equipment, structures, refuse, etc. will remain on the reclamation site or elsewhere on the parcel.

G. Control of Contaminants

By the nature of the material excavated, the potential for contaminants would be limited to operation-related activity such as potential equipment leaks or spills. Such contaminants from equipment shall continue to be controlled through proper equipment maintenance and operation; major equipment maintenance work will be conducted off-site. Any materials contaminated from equipment leaks will be properly disposed. Surface run-off from active work areas will be directed towards the existing rock face and detained on-site for percolation.

IV. RECLAMATION PLAN STANDARDS

3701. Definitions – Incorporated by Reference

3702. Financial Assurances – As noted in Section VI

3703. Wildlife Protection

Objective: Adjacent wildlife habitat outside of the mining area will be protected from mining activities. Reclamation activities in the mining area will provide an end use that provides a compatible habitat for wildlife.

1. Performance standards for rare or endangered species are not necessary since rare, threatened or endangered species or species of special concern (as defined by the California Department of Fish and Game, U.S. Forest Service, Bureau of Land Management or the U.S. Fish and Wildlife Service) or their respective habitat have not been identified on the project site.
2. Wildlife habitat will be established on disturbed land in a condition consistent with surrounding habitat. The proposed reclamation plan establishes a different habitat type than that which existed prior to mining – a steep rock outcrop replaced by flat, rocky grasslands on benches and staging areas.
3. No quarrying activity will occur within 50 feet of Quarry Creek that runs along the northern and western portions of the project site. The existing riparian canopy adjacent to the creek will remain intact. Erosion control methods will result in no sediment or storm water discharge from the project site to the Quarry Creek .

3704. Backfilling, Regrading, Slope Stability and Recontouring

Objective: Standards necessary for the future resource conservation proposed.

1. Final reclaimed fill slopes will not exceed 2H:1V (horizontal:vertical), except when site-specific geologic and/or engineering analysis demonstrates that the proposed final slope will have an adequate slope stability factor of safety that is suitable for the proposed end use and when the proposed final slope can be successfully revegetated as described herein. At closure, fill slopes will conform with the surrounding topography and/or approved end use
2. Cut slopes of quarry faces shall have a minimum slope stability factor of safety that is suitable for the proposed end use and with the surrounding topography and/or approved end use. A maximum 1H:1V slope is proposed for the rock quarry area, except when site-specific geologic and/or engineering analysis demonstrates that the proposed final slope will have an adequate slope stability factor of safety that is suitable for the proposed end use.

3705. Revegetation

Objective: Revegetation will occur to the extent that it is consistent with the proposed end use.

1. A vegetative cover suitable for the proposed end use and capable of self-regeneration without continued dependence on irrigation, soil amendments or fertilizer will be established on disturbed land. Vegetative cover or density and species-richness will be, where appropriate, sufficient to stabilize the surface against effects of long-term erosion and shall be compatible to naturally occurring habitats in the surrounding area. Revegetation will be established with a cover = 75% and species richness=6.
 - a. The surrounding land is managed for agricultural activities and rural residential use. The vegetative density, cover and species richness is determined by standard erosion control techniques.
 - b. Test plots are not proposed to be conducted simultaneously with mining due to (1) the limited requirement and extent of proposed reclamation measures; (2) the time tested success in previous reseeding efforts in surrounding areas and similar circumstances; and (3) recommendation of seeding was obtained by NCRS staff familiar with the area and requirements of the project. For these reasons, it is requested that the County (lead agency) waive the requirement to conduct test plots.
 - c. The proposed erosion control mixture was selected because it is utilized successfully by agricultural operations within the County and is out-competed in a short time by native vegetation.
 - d. Planting shall be conducted during the most favorable period of the year for plant establishment (Oct. – April.).
 - e. Soil stabilization practices shall be used when necessary to control erosion and for successful plant establishment.
2. Where surface mining activities result in compaction of the soil, ripping, disking or other means shall be used in areas to be revegetated to eliminate compaction and to establish a suitable root zone in preparation for planting.
3. Protection measures, such as fencing of revegetated areas and/or placement of cages over individual plants are not necessary at this location since public access is controlled and the project site is outside of public activity areas.
5. Success of revegetation shall be judged based upon meeting the approved end use, and by comparing the quantified measures of vegetative cover, density and species richness of the reclaimed mined lands to similar parameters of vegetation occurring in the area.

3706, 3710. Drainage, Stream Protection (including Surface and Groundwater) and Erosion Control

Objective: Quarry mining and reclamation activities shall be conducted to protect on-site and downstream beneficial uses of water, and be protected from siltation and pollutants in accordance with the Porter-Cologne Water Quality Control Act, Water Code Section 13000, et seq., and the Federal Clean Water Act, 33 U.S.C. section 1251, 1311, 1344 et seq. the Regional Water Quality Control Board of the State Water Resources Control Board.

1. Erosion and sedimentation shall be controlled during all phases of construction, operation, reclamation and closure of a surface mining operation to minimize siltation of watercourses, as required by the Regional Water Quality Control Board or the State Water Resources Control Board.
2. Surface runoff and drainage from quarry mining activity areas shall be controlled by berms, revegetation, hay bales, rock slope protection or other erosion control measures to ensure that surrounding land and water resources are protected from erosion, sedimentation and contamination. Erosion control methods shall be designed to handle runoff from not less than the 20 year/1 hour intensity storm event.
3. Erosion of rills greater in cross section than 5 square inches exceeding 5 feet in length will be arrested by placement of graded rock interceptors or straw bales to slow concentrated runoff within 1 week following any rainfall event. If erosion features meeting such thresholds do not occur, then no erosion control work would be required. However annual reclamation activities will assure that this threshold is not reached by utilizing standard runoff, erosion and sediment control measures.
4. All equipment, supplies and other materials shall be stored within the project limits (as shown in the approved reclamation plan). All waste shall be disposed of in accordance with State and local health and safety ordinances.

3707, 3708. Agricultural Resources

The project limits are zoned for Heavy Industrial (MH-Q) - 1 acre minimum parcel size, and designated Agricultural Lands and adjacent to an area zoned Agriculture Exclusive (AE) - 20 acre minimum parcel size, Agriculture Exclusive (AE -B6) - no further subdivision. The quarry project site is zoned MH-Q and the site is not suitable for agricultural production due to steep slopes and rocky substrate with no organic topsoil development. Adjacent agricultural uses on these and neighboring parcels will not be adversely affected.

3709. Building, Structure and Equipment Removal

Objective: All buildings, structures and equipment shall be dismantled and removed prior to final mine closure in accordance with CCR Section 3709 and when consistent with the proposed end use (agricultural and/or rural residential).

1. Storage of all related equipment shall be in the defined staging, storage and extraction areas, as indicated on Figure 5 – Operations Plan. This will most likely consist of an excavator, bulldozer, front-end loader, dump trucks, and scales. All will be portable and easily movable. Any wastes on site shall be properly disposed of in accordance with state and local health and safety ordinances.
2. Dismantling and removal of buildings, structures, and equipment not required for end use purposes (agricultural and/or rural residential uses) will occur prior to final mine closure.

3711. Topsoil Salvage, Maintenance and Distribution

Objective: Where the approved reclamation plan calls for revegetation or cultivation of disturbed lands, the following performance standards shall apply to topsoil salvage, maintenance and redistribution activities.

1. Soil salvage operations and phases of reclamation shall be carried out in accordance with a schedule that: (1) is set forth in the approved reclamation plan; (2) minimizes the area disturbed; and (3) is designed to achieve maximum revegetation success allowable under the mining plan.
2. Topsoil and suitable growth media shall be set aside to be used for reclamation. Reclamation will occur following the mining of the area and removal of stockpiles. Topsoil and suitable growth media for reclamation shall be stockpiled until needed for reclamation. Topsoil and suitable growth media stockpiles shall be planted with a vegetative cover or shall be protected by other equally effective measures to prevent water and wind erosion and to discourage invasive weeds.
3. Topsoil and suitable growth media shall be redistributed in a manner that results in a stable, uniform thickness consistent with the approved end use (agricultural and/or rural residential uses), site configuration and drainage patterns.

3712. Tailing and Mine Waste Management – Not Applicable

3713. Closure of Surface Opening – Not Applicable

V. FINANCIAL ASSURANCES

An amount of \$ 9504 shall be secured as required by State law for the initiation or continuation of the permit. This amount may be revised annually based on findings in the above described monitoring report. This amount was derived from the following calculations:

| | | |
|----|--|-----------------------|
| 1 | Grading – 1 day to regrade / uncompact staging area, repair berms and correct drainage at \$135/hr for equipment and labor | \$ 1080 |
| 2. | Grading – 1 day to spread stockpiled material in designated areas at \$135/hr for equipment and labor | \$ 1080 |
| 3. | Seeding (32 lbs/acre) – 3 acres at \$60/acre for erosion control purposes | \$ 180 |
| 4. | Straw mulch (26 bales/acre) – 3 acres at \$200/acre for erosion control purposes | \$ 600 |
| 5. | Labor and Equipment for spreading seed/mulch 3 acres at \$100/acre for erosion control purposes | \$ 300 |
| 6. | Portable Weigh Scale Removal – 1 day to load and remove at \$1500 | \$ 1500 |
| 7. | NOA Mitigation | \$ 3500 |
| 8. | Monitoring (4 hrs. @\$50/hr) | \$ 200 |
| 7. | Mobilization (4 hrs. @\$50/hr) | \$ 200 |
| 8. | 10% contingency amount | \$ 864 |
| | Total | \$ <u>9504</u> |

VI. APPLICANT'S STATEMENT

Ken Wallan, operator, hereby accepts responsibility for reclaiming the mined lands in accordance with this Reclamation Plan.

(To be signed after County approval and with any necessary final revisions)

Ken Wallan

Date