DAVID BEEBE
APN: 214-116-006 AND 214-116-008
MINING AND RECLAMATION PLANS
(MINE ID # 91-12-0064)
HUMBOLDT COUNTY, CA

RP-09-01/CUP-09-11/SMP-09-01

Lead Agency:

Humboldt County Planning Department
3015 H Street
Eureka, CA 95501

Prepared By: Streamline Planning and Consulting – November 2012
Revised By: Streamline Planning and Consulting – January 2013
Revised By: NorthPoint Consulting Group, Inc. – February 2025

NorthPoint Consulting Group, Inc.
1117 Samoa Blvd.
Arcata, CA 95521
(707) 798-6438

In Consultation with:

David Beebe
P.O. Box 3
Phillipsville, CA 955459

Summary of Revisions by NorthPoint Consulting Group Inc. (NorthPoint)

Note: All revisions have been completed in red.

1. The title block has been amended on each page to include the NorthPoint amendment date.
2. The cover page has been replaced with the previous page.
3. Document page 3, Section 2 has been updated to reflect the current operator.
4. Document page 5, Section 4 has been updated to include the case no.
5. Document page 14, Schedule/Intensity of Activity, has been updated to reflect the current operator.
6. Document page 40, Applicant's Statement, has been updated reflect the current operator.

Streamline Planning Consultants

• PLANNING • PERMITTING • ENVIRONMENTAL CONSULTING

Hagan Quarry

MINING AND RECLAMATION PLANS

(Mine ID # 91-12-0064)

Phillipsville, CA

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

Revised January 2013

Applicant:
Jim Wheeler
P.O. Box 613, Miranda, CA 95553, Tel. (707) 223-0294

STREAMLINE PLANNING CONSULTANTS
www.streamlineplanning.net 1062 G St. Suite I, Arcata, CA 95521 Ph (707) 822-5785 Fax (707) 822-5786

NOTES

TABLE OF CONTENTS

I. GENERAL INFORMATION

1. California Mine ID:

91-12-0064 (County of Humboldt)

2. General Ownership/Operator Information

Name of Mine/Activity Summary

Hagan Quarry, Humboldt County (Figure 1).
This application is made to allow continuance of quarry activity involving extraction and processing of rock for the production of rip rap, aggregate base and screened rock.

Property Owner

David Beebe

P.O. Box 3, Phillipsville, CA, 95559

Applicant/Lessee/Operator

David Beebe, P.O. Box 3, Phillipsville, CA, 95559

Agent

NorthPoint Consulting Group Inc.

(707)798-6438

Site Description

APN 214-116-06, -08, Humboldt County (Figure 2 – Project Location). NW 1/4 of Section 18, T3S, R4E, H.B. & M. Miranda 7.5 min USGS quad sheet. Lat. N. 40.208353, Long. W. 123.773056. Elevations range from 520' to 800 NGVD. Located 0.66 miles due east of Phillipsville, CA. The existing access drive to the project site is off an existing private access road (Rock Pit Lane) which accesses onto State Route 254 (Avenue of the Giants). State route 254 at this location is located approximately 3 miles south and 2 miles north of access ramps onto U.S. Highway 101. Material has and will continue to be transported along this route (See Figure 2 – Project Location).

The project area is approximately 22.5 acres in size, with approximately 12.3 acres in Phase 1 and approximately 10.2 acres in Phase 2. The Phase 1 area currently contains a 7-acre quarry area and approximately 5.3-acres of staging and storage areas, sediment and erosion control improvements, and access roads (See Figure 4 – Operations Plan). As a result of the proposed mining activities the Phase 1 quarry area will be expanded to approximately 9 acres,

leaving approximately 3.3 acres of staging and storage areas, sediment and erosion control improvements, and access roads.

Distribution of material will occur locally in Humboldt County and northern Mendocino County. Material will generally be transported year-round, primarily for contract needs. Anderson Creek is located approximately 50 feet south and east of the project area boundary. Anderson Creek is a tributary to the South Fork Eel River (approximately 0.8 miles to the west). This watercourse will not be affected by the proposed project. Project operations are subject to the requirements of the North Coast Regional Water Quality Control Board (NCRWQCB).

3. Operations Summary

Mining Operations Summary

As proposed herein, the proposed quarry contains approximately 500,000 cubic yards of metagraywacke sandstone. The Phase 1 area contains approximately 150,000 cubic yards and the Phase 2 area contains approximately 350,000 cubic yards. Quarry production rates are proposed to be limited to an annual average of 75,000± cubic yards with a maximum production rate of 100,000 cubic yards in any given year while maintaining the annual average. Extraction has/will occur in a manner that minimizes future reclamation requirements, such as grading cut slopes close to final elevations as quarrying proceeds. Quarry material will be used for highway construction projects, rip rap, erosion control, rockslope protection, landscaping, and decorative rock. Processed rock will also be utilized for other aggregate needs.

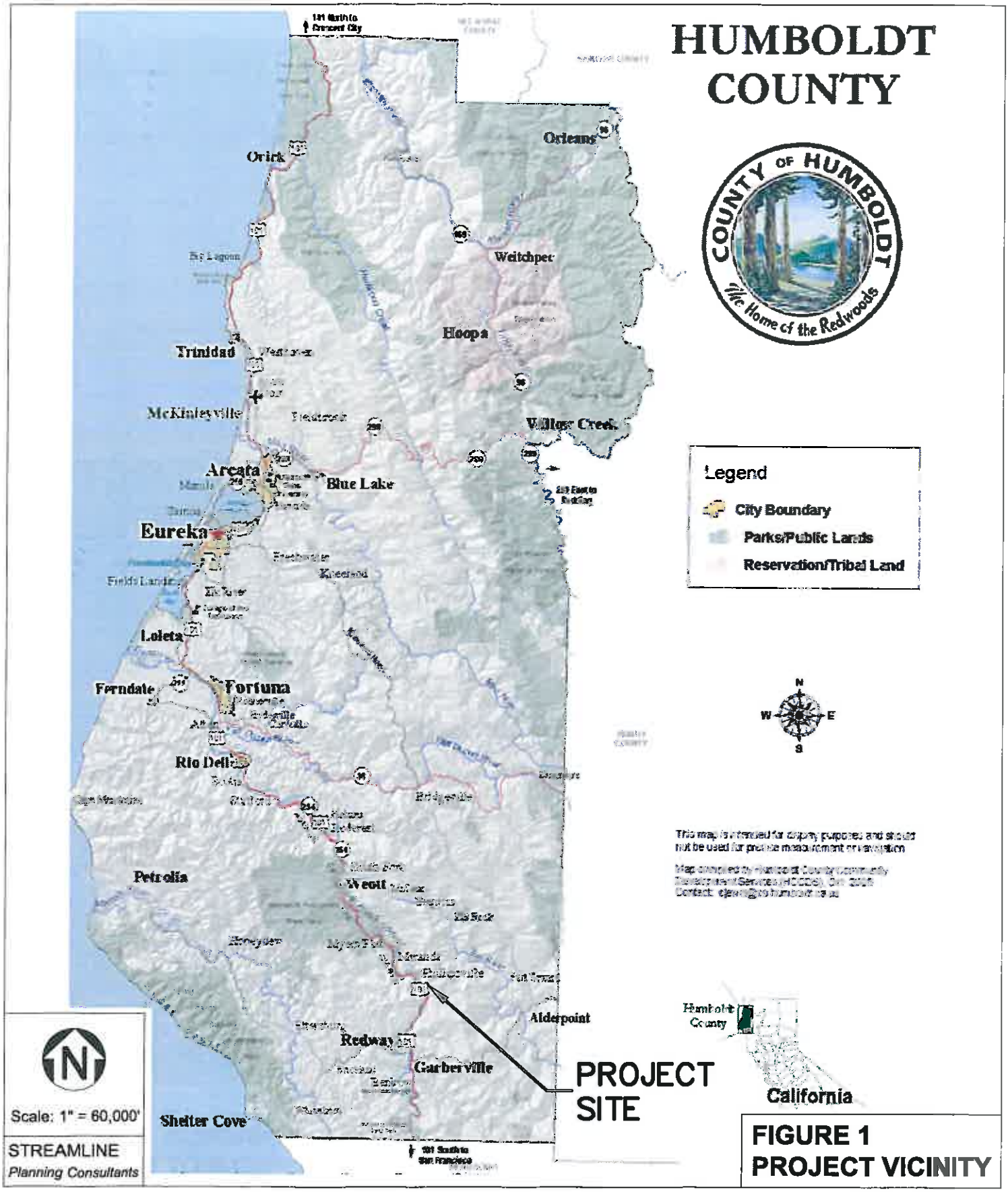
The Phase 1 area currently contains one rock face varying between 250 feet by 800 feet wide on the horizontal plane, with an approximate height of 150 feet. At the completion of quarrying the Phase 1 area there will be five (5) approximate 50-foot tall faces separated by 20-foot wide benches (See Figure 7 – Final Reclamation). Phase 1 area quarrying activities will extend the bottom staging area south approximately 100 feet from its current location and down 100 to 150 feet to 470' elevation. The maximum final slope of the rock slopes will be approximately 1H:1V unless a preliminary assessment of the factor of safety indicates that steeper slopes are possible. If extraction occurs in the Phase II area during the term of the permit, intermittent and final reclamation will occur consistent with existing regulatory requirements and the previous permit approval as detailed in Figures 6B (Existing & Final Profiles – Phase 2) & Figure 8 (Reclamation – Final) of the Project Application document dated June 1994 (See Attachment 2).

Plan of Operations – See Chapter II

4. Lead Agency Information

Lead Agency Humboldt County Planning & Building Department

Attn: Michael Wheeler, Senior Planner
3015 H Street, Eureka, CA 95501
(707) 268-3730, Fax (707) 445-7446
File No. _____
Case No. RP-09-01/CUP-09-11/SMP-09-01
Date Permit Approved _____
Date Permit Expires _____
Proposed Financial Assurances – See Section VI


HUMBOLDT COUNTY
COUNTY OF HUMBOLDT
The Home of the Redwoods
Orick
Orleans
Weitchpec
Hoopa
Trinidad
McKinleyville
Willow Creek
Arcata
Blue Lake
Eureka
Loleta
Ferndale
Fortuna
Rio Dell
Petrolia
Weott
Alderpoint
Redway
Garberville
Shelter Cove
Legend
City Boundary
Parks/Public Lands
Reservation/Tribal Land
N
W
E
S
Scale: 1" = 60,000'
PROJECT SITE
Humboldt County
California
STREAMLINE
Planning Consultants
FIGURE 1
PROJECT VICINITY

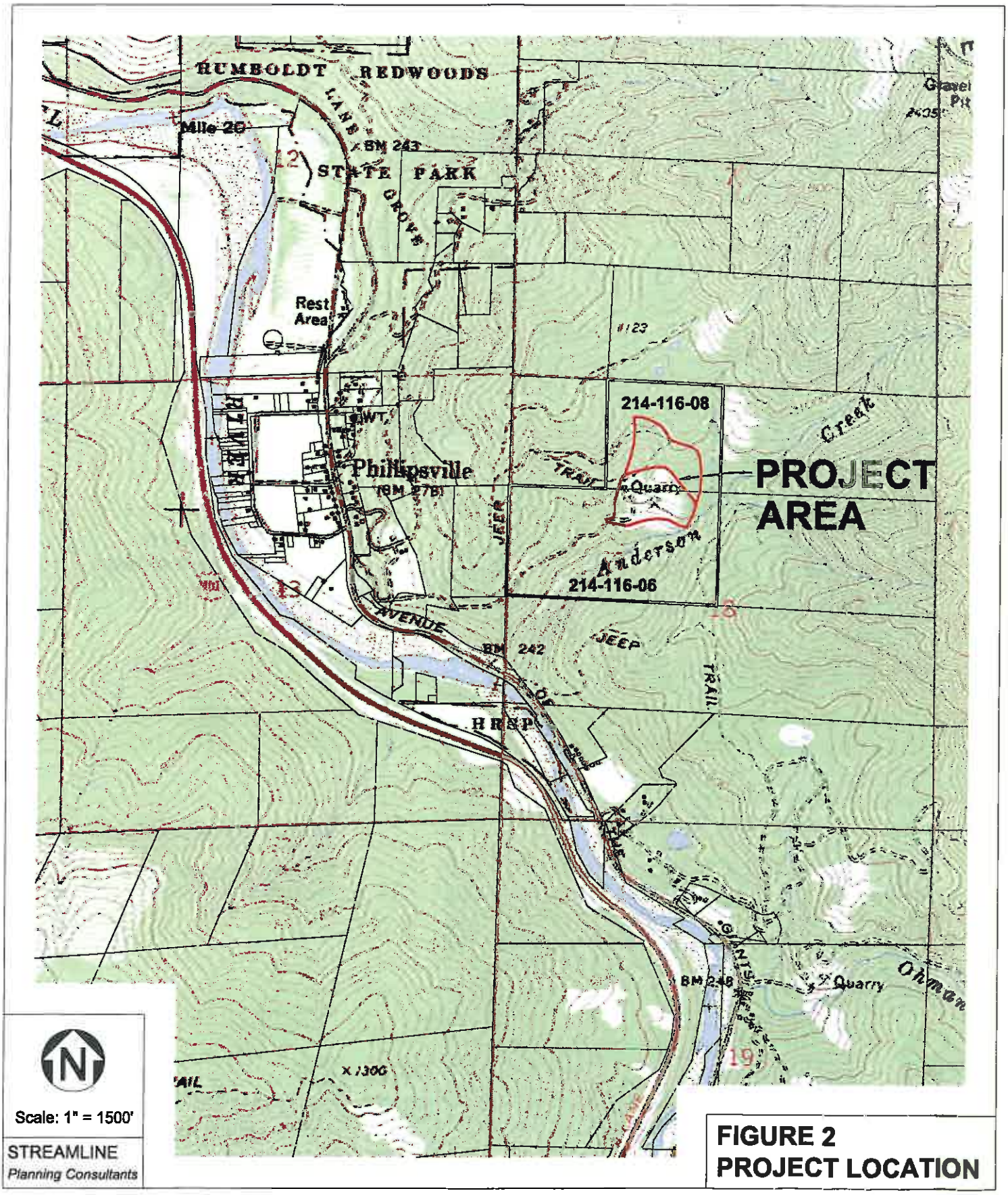


FIGURE 2
PROJECT LOCATION

II. MINING PLAN/ PLAN OF OPERATIONS

1. Map of Operations - Refer to Figure 3-Figure 5 below.

2. Production Schedule

Estimated Life of Operation is unknown at this time, but would be reflective of specific needs of the area. An estimated 500,000 cubic yards are available with approximately 150,000 in the Phase 1 area and approximately 350,000 in the Phase 2 area. An average annual production rate of 75,000 cubic yards from the quarry is proposed, with a maximum production rate of 100,000 cubic yards for any given year as long as the average annual rate is not exceeded. The maximum extraction for the quarry over a 15-year permit period will not exceed 500,000 cubic yards. 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 approval, a minimum 15-year approval term, ending December 31, 2027 or fifteen years after Reclamation Plan approval, whichever occurs later, is proposed.

Operations will proceed reflecting construction needs. Seasonal, intermittent peak activity is anticipated during the construction season, but may occur anytime of the year, depending on need (e.g. flood damage repair). As occurs for other similar quarry operations, little or no activity may occur some years during the term of this permit. During times when quarry activity is curtailed by more than 90% of the operation's maximum annual production within the last five years of production, the operator will consider this time as "idle" and will file an Interim Management Plan (IMP) as required by SMARA (as amended) to ensure that BMP's are continued to be employed on site.

3. Plan of Operations

Background/Existing Activities

The project site has been intermittently mined since the commencement of quarry activities prior to the 1960's, to supply rip rap and aggregate products to local government and commercial entities. On February 2, 1995, the Humboldt County Planning Commission approved a Conditional Use Permit (CUP-02-94), Surface Mining Permit (SMP-01-94), and Reclamation Plan (RP-01-94) for the Hagan Quarry operation. The approval allowed a total of 2,000,000 cubic yards of material to be extracted over the term of the permit, with a maximum of 150,000 cubic yards to be extracted in any given year. The proposal included two (2) phases as delineated on Figure 5 – Mining Plan of the Project Application document dated June 1994. However, during the permit term project operations primarily occurred in the Phase 1 area. In

addition, it was determined during project operations that less material exists at the site than previously anticipated. This mining plan revision reflects a more accurate estimate of current volumes present at the project site.

Operations conducted at the site involved excavation (including drilling and blasting), processing (sorting and crushing), on-site road and staging area improvements, on-site storage of materials extracted, and hauling extracted materials off-site. The duration and intensity of operations have fluctuated based on buyer demand. Material mined was primarily used as rip rap on highway and streambed projects. Approximately 85,000 cubic yards were mined during the term of the permit. Operations, as described herein, will involve the excavation of the remaining material in the Phase 1 area and final reclamation as shown in Figure 7 - Final Reclamation. If extraction occurs in the Phase II area during the term of the permit, intermittent and final reclamation will occur consistent with existing regulatory requirements and the previous permit approval as detailed in Figures 6B (Existing & Final Profiles – Phase 2) & Figure 8 (Reclamation – Final) of the Project Application document dated June 1994 (See Attachment 2).

The two parcels containing the proposed 22.5 acre project area (APN 214-116-06 = 80 acres & 214-116-08 = 47 acres) are approximately 127 acres in size. Quarrying activities are currently the primary use of the project parcel, with some timber harvesting taking place on adjacent lands. Excavated materials are present at the staging area portions of the site (Figure 4 – Operations Plan) from previous quarrying activities.

Proposed Activity

The project area is approximately 22.5 acres in size, with approximately 12.3 acres in Phase 1 and approximately 10.2 acres in Phase 2. The Phase 1 area currently contains a 7-acre quarry area and approximately 3.5-acres of staging and storage areas, sediment and erosion control improvements, and access roads (See Figure 4 – Operations Plan). A minimum of overburden is present on-site.

The operation will involve excavation (including drilling and blasting), processing (sorting and crushing), on-site road and staging area improvements, on-site storage of materials extracted, hauling extracted materials off-site, and revegetation and final reclamation. The typical equipment that will be used for these operations includes: front-end loaders, caterpillar tractors, dump trucks, excavators, rock crusher, portable screen plant and weigh scales. Equipment used for aggregate crushing and screening or to generate electricity will have a permit from the NCUAQMD and will be registered with the California portable equipment registration program, as applicable.

This permit will allow for the continued extraction of heavy construction type rock and assorted aggregate products. Phase 1 area operations will ultimately entail bringing the lowest bench area (staging area) south approximately 100 feet and down 100 to 150 feet to 470' elevation (See Figure 5 – Existing & Final Profiles). As noted on Figure 7 – Reclamation Final, the main access road will be relocated to the southern extent of the Phase 1 area as mining occurs down to the proposed 470' base elevation. This will require relcation of the office and weigh scales and reconstruction of the berm on the southern boundary of the project area. The proposed Phase 1 mining plan will result in five (5) benches between the top and bottom of the quarry (Figure 7 – Reclamation Final). Work (extraction) occurs concurrently at the top (northern), at the intermediate benches/landings, and at the bottom (southern), perpendicular to the slope of the hillside (Figure 4 – Operations Plan). Benches and rock faces will be extracted and maintained concurrently and be at or less than the maximum grade proposed herein. Extracted materials will be stockpiled on the staging/stockpile areas and benched areas. If extraction occurs in the Phase II area during the term of the permit, intermittent and final reclamation will occur consistent with existing regulatory requirements and the previous permit approval as detailed in Figures 6B (Existing & Final Profiles – Phase 2) & Figure 8 (Reclamation – Final) of the Project Application document dated June 1994 (See Attachment 2). This is the proposed maximum extent of the mining plan. Should the operation be idle for a year or two, the intermittent mining plan consists of the proposed annual reclamation depicted on Figure 6 – Ongoing Reclamation and described in the Mining and Reclamation Plan.

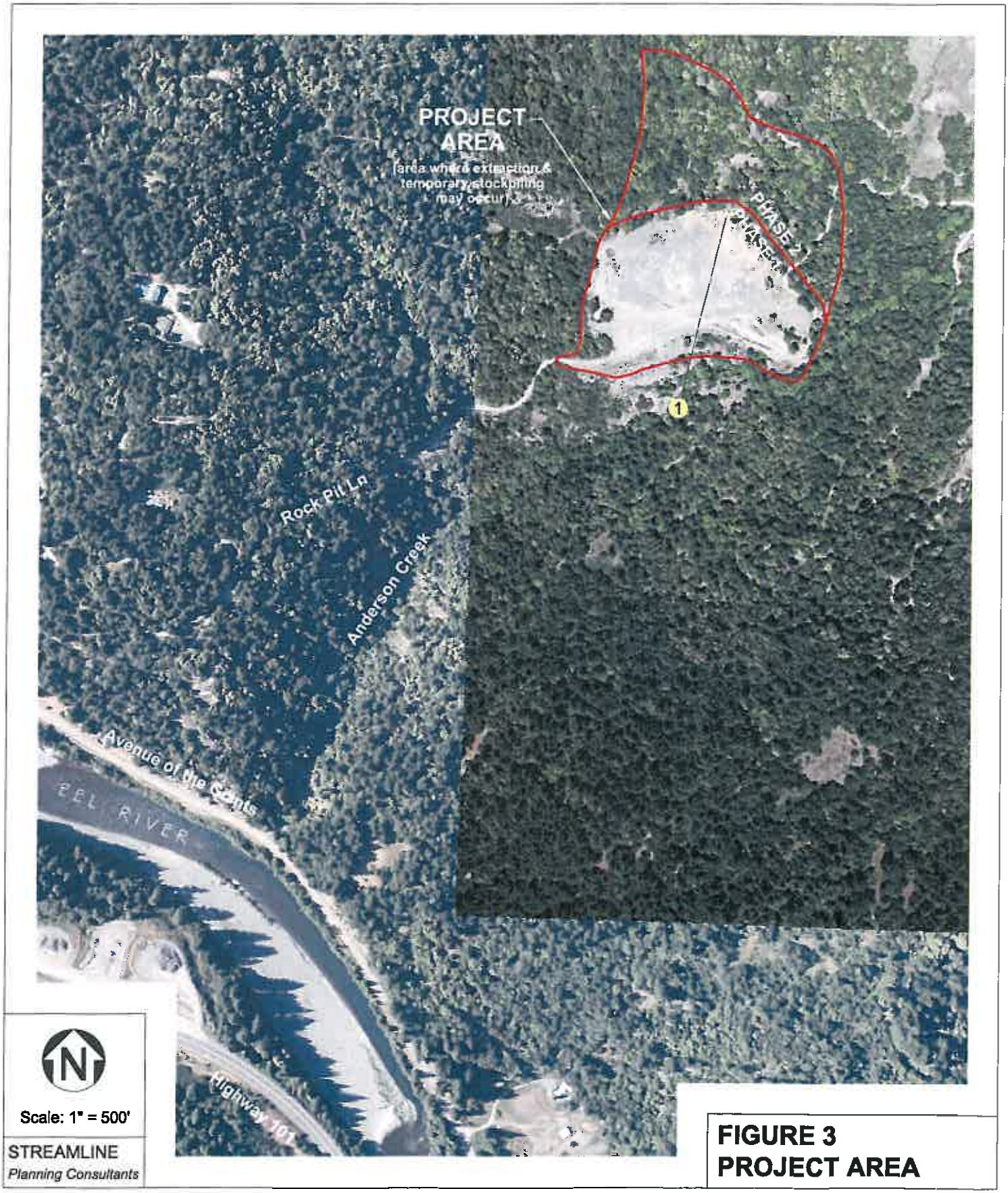


FIGURE 3
PROJECT AREA

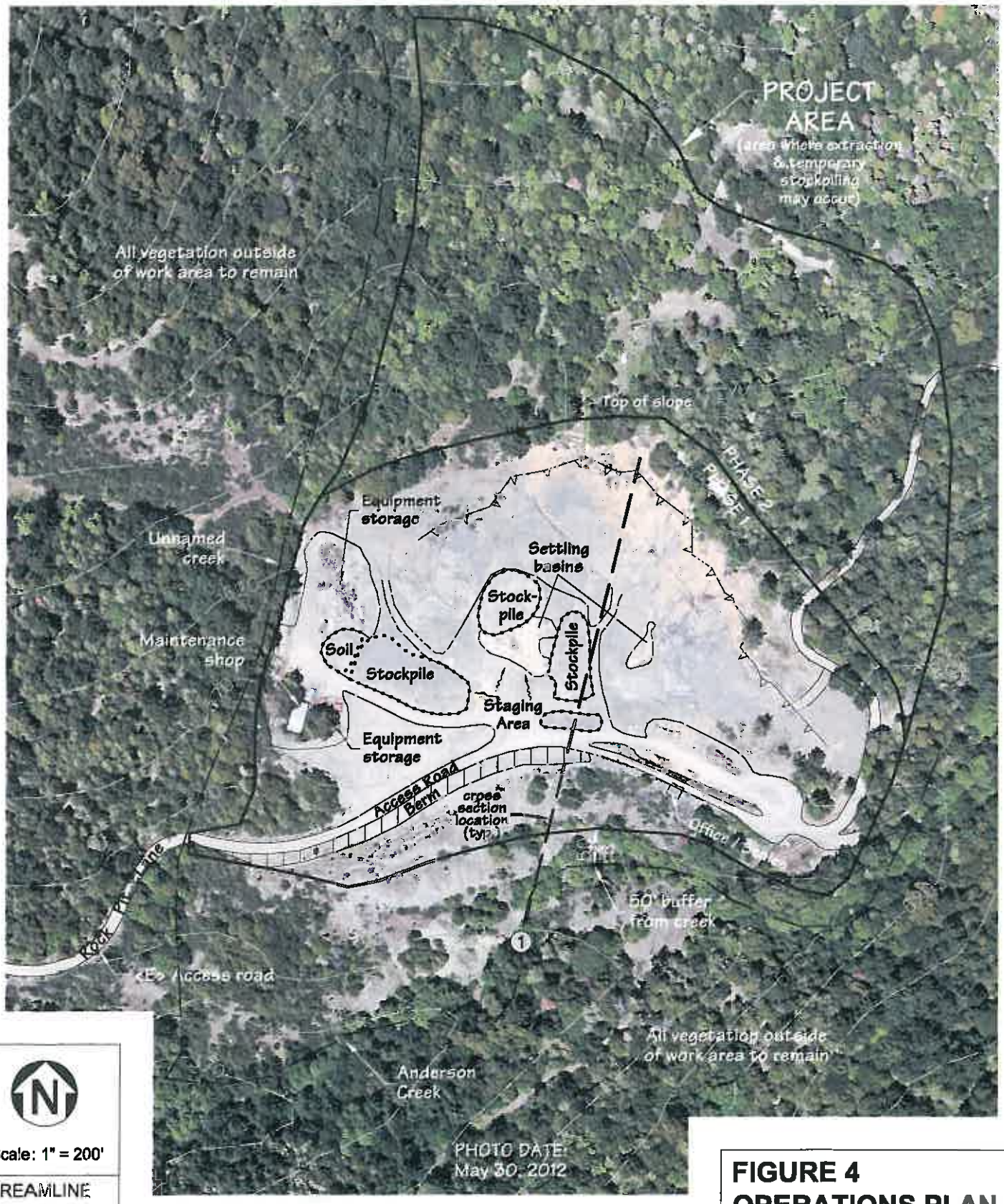
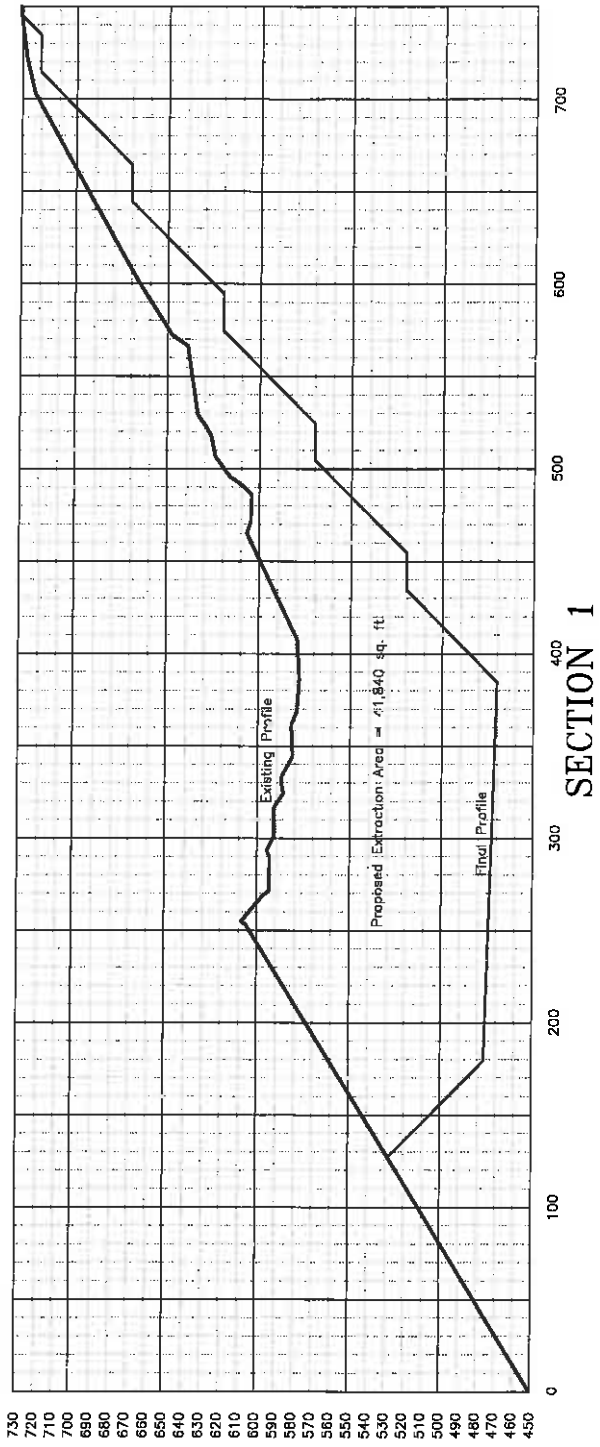


FIGURE 4
OPERATIONS PLAN



N

Scale: 1" = 100'

STREAMLINE
Planning Consultants

FIGURE 5 - PHASE 1
EXISTING & FINAL PROFILES

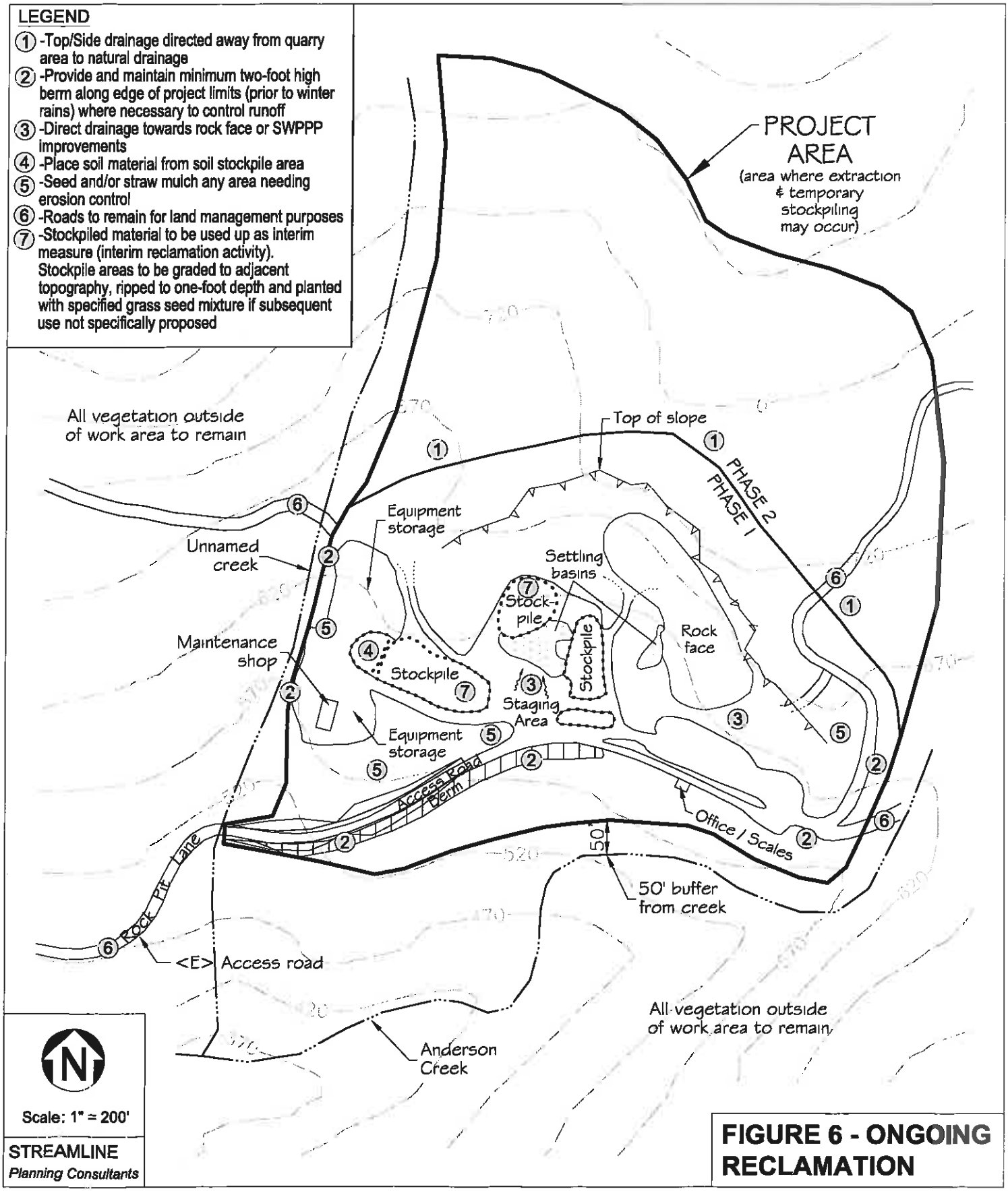


FIGURE 6 - ONGOING RECLAMATION

Schedule/Intensity of Activity

Activity will occur according to the mining and reclamation plans immediately after permit approval. Seasonal, intermittent peak extraction activity is anticipated during the construction season, but may occur anytime of the year, depending on need. Materials will be stored on-site for later use. The property owner will generally lease the quarry operations; transport of materials will also occur by local haulers. All operations will be overseen by the lessee David Beebe. There will typically be two personnel present during times of quarrying operation. The hours of operation have been/will be during normal daylight working hours (7:00 a.m. – 6:00 p.m.), Monday through Saturday, but may be extended to meet emergency needs (e.g. urgent County road repair) or contract requirements of Humboldt County or Caltrans departments.

During a typical year, 75,000 cubic yards of material will be excavated and stockpiled on-site. It is proposed also that a maximum production rate of 100,000 cubic yards be used for any given year as long as the average annual rate is not exceeded. The Hagan Quarry rock will be used for highway construction projects, rip rap, erosion control, rockslope protection, landscaping, and decorative rock. Processed rock will also be utilized for other aggregate needs.

The amount of activity at this site is limited by the relatively small market area and the existence of other rock quarry operations located in the market area. The market area is generally 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. 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 operations will be dependent on demand, but can be expected to be active on an incidental basis year-round for more than 15 years. An extension may be requested prior to expiration of this permit approval in 2027.

Noise/Dust

Noise

Ambient noise levels (45-50 dBA) are low within the project area, owing to the isolated location of the project. This project, by its intermittent nature, contributes to ambient

noise levels only during periods of operation. The closest residence is 1,500 feet directly west of the quarry project limits. There are four improved properties between 1,500 and 2,500 feet away from the quarry project limits. The community of Phillipsville occurs approximately 3,500 feet west of the project site. As described below all extraction and processing noise levels, excluding blasting, would be at or below 60 dBA; as predicted in Tables 1 and 2 below. The noise levels in these tables have been shown to be conservative in that they do not consider further reduction due to topographic differences or vegetative cover, which would be attenuating factors from this operation.

Drilling and blasting will occur infrequently for the life of the project. Blasting will add short and very infrequent noises at a level of 96 dBA, 1200 feet away. Instantaneous noise levels from blasting will decrease to approximately 84 dBA at one mile away. Frequency of drilling and blasting will be dependent on project scheduling. Production of 75,000 cy of rock could require a total of five detonations annually.

Equipment-related noise will occur for longer periods of time but at a lower noise level, and will reach approximately 82 dBA at 50 feet away. This noise will decrease to below 50 dBA one-half mile away and 44 dBA one mile away. Noise will also be generated by truck traffic along Rock Pit Lane. The noise level will be about 80 dBA at 50 feet from the road. There are approximately three residences along Rock Pit Lane that may be affected by noise from intermittent truck traffic. Noise levels will not be any higher than they have been for at least the past 50 years of mining operations at the site and historic timber-related traffic. The increase in noise level has and will occur only during the active periods of the quarry and will be the maximum anticipated. Project-related sounds will generally be limited to daytime operations, Monday through Saturday from 7:00 a.m. to 6:00 p.m. During the previous permitting term, there have been long periods of inactivity when no sounds are generated; this is anticipated to continue the term of this permit as well.

County standards for noise-generating activities utilize 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. Ten decibels are 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[1] allows for a maximum of 60 dBA Ldn for 'normally acceptable' exterior levels.

---

*Nearest residence is 1,500 feet away. Four other residences are between 1,500 and 2,500 feet away

Table 1 - Distance/dB to Nearest Residences to Project Site

	50'	500'	1200'	2,000'	½ Mile*	1 Mile*
Extraction	72 – 82	52 - 62	46-56	40-50	38-48	32-42
Processing	85	65	59	53	51	45
Hauling	86	66	60	54	52	46
Blasting			96		90	84

Table 2 - Reduction of A-Scale Sound Level at Various Distances from a Vehicular "Point Source"

Dist. (ft)	Dist. (m)	Reduction (dB)	Dist. (ft)	Dist. (m)	Reduction (dB)	Dist. (ft)	Dist. (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: Relative to 15m distance using the drop-off rate of 6dB per double distance. (dBA Reduction = 20 log Distance/15). 1meter (m)=approximately 3.28 feet. Measurements for direct line of sight. Topography and vegetation may further reduce noise levels

Dust

There are two potential types of air-borne 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 according to the CA Health and Safety Code (Section 41701)

which limits visible emissions that exceed 40% density to a maximum of 3 minutes for any one-hour period. NCUAQMD regulations for controlling emissions from this project include: District Rule 102 requiring an Authority to Construct Permit, District Rule 104(1.1) Public Nuisance, Rule 104 (4.0) Fugitive Dust Emissions, Federal New Source Performance Standards – Title 40 CFR Part 60 regulating opacity, and California Airborne Toxic Control Measure CCR 93115 pertaining to diesel powered combustion engines (Davis, 2008). Fugitive Dust must also be controlled with best management practices (BMPs). Emissions from the limited truck traffic proposed by this project fall well below the levels of concern.

Dust would only be created at times when 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 dust generated on site is insignificant, as there is a minimal amount of soil extracted with the gravel and rock. There are no sensitive receptors (e.g. residences) near enough to the project site to be adversely affected (Note: the nearest residence to the quarry is more than 1,500 feet away). Dust generated by traffic on Rock Pit Lane will be minimal, since dust control will occur routinely at times of activity from water trucks filled on and off-site (at permitted water sources – See Chapter II, Section 6 & 9 for more information). Truck traffic is similar to the historic mining and timber-related traffic that has utilized Rock Pit Lane in the past.

Application submittals included an investigation of whether asbestos-bearing materials exist at the site. 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. Based on the results of the field investigation prepared by a registered geologist it was determined that no 'asbestos-containing material' was found to occur at the existing rock quarry. The results & conclusions section of the Geologic Assessment for Naturally-Occurring Asbestos completed by Freshwater Environmental Services (October 1, 2010) states, "*Published geologic maps of the quarry vicinity show the area as underlain by rock types that are unlikely to contain asbestos minerals. No asbestos, fibrous minerals, serpentine, or ultramafic rocks were observed during the field investigation. There were no detections of asbestos in any of the ten samples submitted for laboratory analysis. Based on field observations at the time of the investigation there is no naturally occurring asbestos exposed in the area observed including the existing stockpiles*" (See attached). The North Coast Unified Air Quality Management District has been provided the results. No further action at this time is required.

The following mining plan guidelines can be incorporated into operations if needed to meet any new dust regulations, but are not needed currently.

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 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 magnesium chloride or; 4) paved.

g) Daily removal of any visible trackout onto Rock Pit Lane 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) 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.

j) Fugitive dust shall not be visible from quarry materials being transported in trucks on public roadways.

Public Facilities/Utilities/Services

Roads

Materials will generally be transported off-site via a private access road named Rock Pit Lane (approx. 16'-20' wide) for approximately 0.8 miles to the intersection with State

Route 254. State Route 254 at this location is located approximately 3 miles south and 2 miles north of access ramps onto U.S. Highway 101. Material has and will continue to be transported along this route (See Figure 2 – Project Location). Rock Pit Lane is in good condition with a graded and compacted rock surface and has been used intermittently for quarrying operations and timber harvesting activities over the last 50 years. A locked gate approximately .44 miles up Rock Pit Lane restricts access to the project site. The narrower sections have nearby turnouts, the vegetation along the roadway has been trimmed up to provide views of oncoming traffic, and the road is posted to utilize CB channel 10.

Because of the on-going intermittent operation of this project, permit approval will not cause a significant increase in existing traffic volumes. Other than the quarry and timber harvesting activities, traffic on Rock Pit Lane is low due to its isolated location and lack of improved properties. The road is regularly inspected and repaired/maintained. The section of the access road between the beginning of parcel 214-116-06 and the Quarry is maintained by the Quarry operator. The section of the access road between State Route 254 and the beginning of parcel 214-116-06 is cooperatively maintained by the Quarry operator and the neighbors which live along Rock Pit Lane. This road maintenance arrangement has occurred successfully over the last 50 years with no issues or complaints raised by the neighbors participating in the arrangement. Considering that Rock Pit Lane is in relatively good condition and subject to regular maintenance, the minimal additional traffic generated by this project is not expected to have a significant impact.

To comply with the Humboldt County Department of Public Works requests, all on-site and off-site roads (both public and private) shall be suitable for truck traffic. Roads will meet Category 4 road standards in being at least 18 feet in width when 2-way traffic is expected and Category 2 road (single lane) standards when the road is used solely for the mining operation and not for adjacent parcel access. A 4' wide shoulder will not be necessary as common use by pedestrians has never occurred and is not expected. Roads will be improved to current standards unless otherwise approved by the Department. There is currently no need to create a neighborhood traffic management plan. Entrances from private roads or driveways onto paved County maintained roads will be paved for the first 50 feet for roads and 25 feet for driveways. Encroachment permits will be obtained if necessary for road improvements.

Truck traffic generated by the project will vary with seasonal and market conditions. Assuming 75,000 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 17 (round trip). Considering that supply periods are seasonal, a more realistic figure, consistent with past use, will be from one to twenty truck loads daily (round trip). During periods of peak use, maximum truck traffic could be 5 truck loads per hour. There will be intermittent 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 neither impact existing nor require additional utility services. Currently, there are no utilities connected to the project site, and none are required for this project. Private water source/storage has been developed and are available at the site (See Chapter II, Section 6 & 9 for more information). Portable chemical toilets are maintained at the quarry site during active periods and serviced by a licensed pumper. The use and maintenance of the portable sanitary facility will comply with all state and county regulations pertaining to this type of facility.

4. Plan of Operations - Details

Topsoil

Most of the project site has already been disturbed by past quarrying activities and has little "topsoil" development except around the edges of the proposed quarry area. Sporadic vegetation is found primarily around the edges of the quarry face. The soils that do occur on-site are of the Hugo Series. The Hugo series consists of deep, well drained soils that formed in material weathered from sandstone, shale, schist, and conglomerate. It is grayish brown, light brownish to yellow brown, sandy loam, loam, sandy clay loam or clay loam. This soil is moderately to strongly acidic, and has strong or moderate, fine or medium granular or subangular blocky structure. Hugo soils are well drained; with medium to very rapid runoff; and moderately rapid permeability. These soils are primarily used for timber production. The land capability classification associated with the project area is Class III and Class IV.

The "rocky" topsoil and other fine material (overburden) has been stockpiled to the south and southwest of the face. At the completion of quarrying, any suitable stockpiled soil materials will be spread across the site as necessary with future reclamation and revegetation purposes. See Chapter III – Reclamation Plan Activity for further details.

Overburden

Minimal overburden currently exists in the quarry area. Grading that has occurred during mining operations at the site has placed much of the overburden on the southwestern side. This area is seeded/mulched as needed on an annual basis depending on whether additional materials have been added. See Chapter III – Reclamation Plan Activity for additional information.

Mine Waste

No waste will occur from this project. Leftover rock will be sorted and stockpiled on-site for future needs. Fragments, if not commercially sold, will be used for future construction as road base or fill materials related to off-site construction projects. Any "fine" material generated during quarrying and not otherwise utilized will be set aside to be used for reclamation activities and distributed to provide a rooting medium for vegetation.

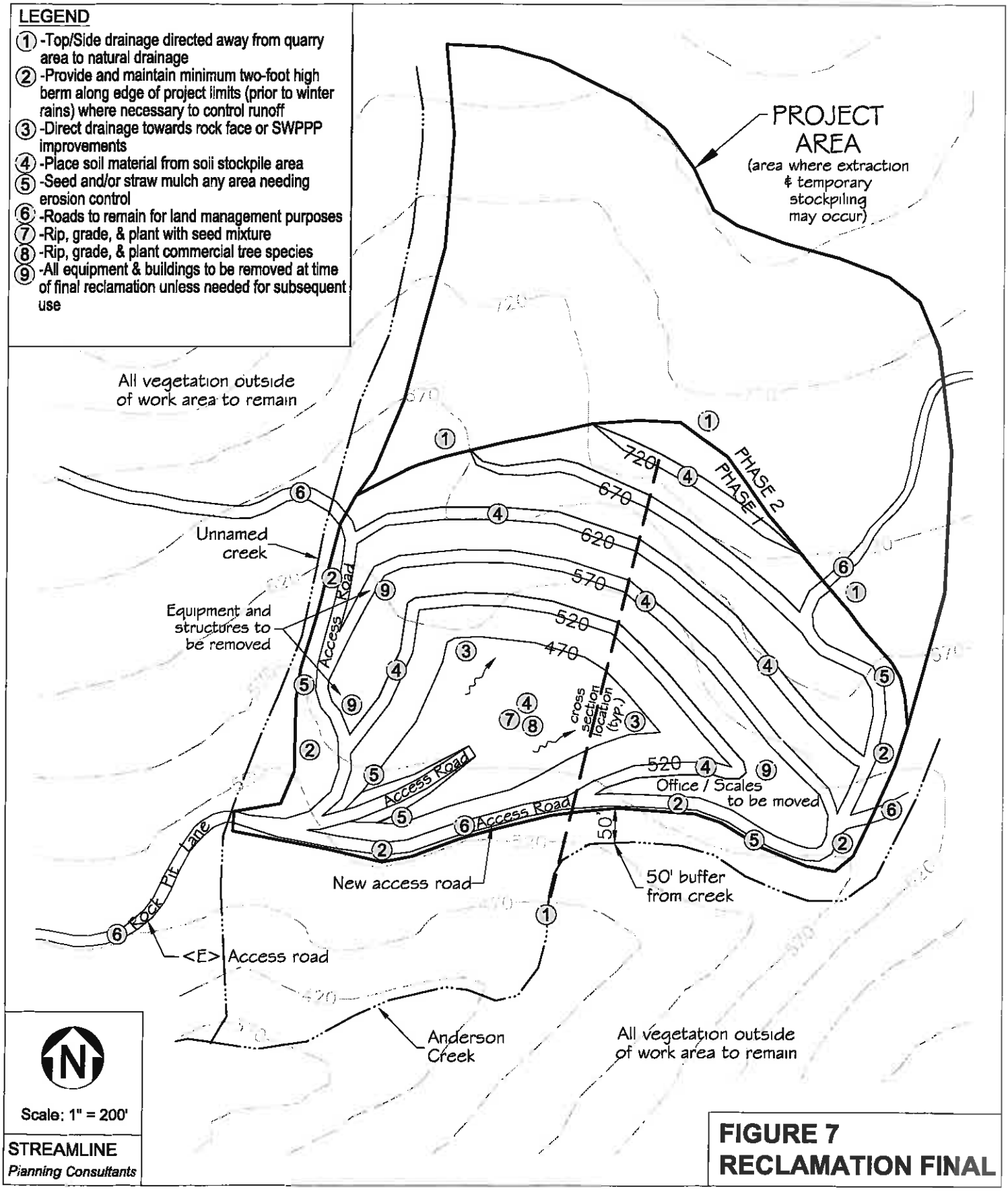
Extraction Method

The primary method of mining used at this site is removal using excavators, front-end loaders and/or caterpillar tractors (bulldozers) after periodic blasting to (1) loosen and remove rock from the hillside/rock faces 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. Starting near the top of the quarry, holes will be typically drilled down 50-100 feet. Blasting occurs in a manner that creates a bench/staging area. Within the Phase 1 area, a total of five (5) benches will be created between the head and toe of the slope (Figure 7 – Final Reclamation). The project will ultimately extend the lowest bench south approximately 100 feet and down 100 to 150 feet in elevation. The toe of the lowest rock face will be at approximately the 470-foot elevation (NAVD), tied to onsite benchmarks. Benches and rock faces will be extracted and maintained concurrently. Extracted materials will be stockpiled on the staging and stockpiling areas and benched areas. Excavation and removal of rock will occur depending on contract requirements.

Existing roads access the top, bottom and intermediate benches of the quarry. Intermittent rock cut faces will generally have an average 1H:1V slope, with average 50-foot elevation difference between top and toe of each of the rock faces, and minimum 20

foot wide benches. The method for removal of materials will require intermittent terracing as work proceeds. The dimension of these terraces will meet the minimum Bureau of Mines Standards; this standard is designed to minimize potential rock fall, though this has not been a problem at this site. The intermittent terraces in the Phase 1 area are being mined at or close to the final benches proposed in the Reclamation Plan (Figure 7 – Final Reclamation). Towards the end of the quarry activity, steeper slopes may be proposed but will not occur until a preliminary assessment of the factor of safety for the proposed final design slopes indicates that steeper slopes are possible and the change is approved by the County. If extraction occurs in the Phase II area during the term of the permit, intermittent and final reclamation will occur consistent with existing regulatory requirements and the previous permit approval as detailed in Figures 6B (Existing & Final Profiles – Phase 2) & Figure 8 (Reclamation – Final) of the Project Application document dated June 1994 (See Attachment 2).

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


LEGEND
1 -Top/Side drainage directed away from quarry area to natural drainage
2 -Provide and maintain minimum two-foot high berm along edge of project limits (prior to winter rains) where necessary to control runoff
3 -Direct drainage towards rock face or SWPPP improvements
4 -Place soil material from soil stockpile area
5 -Seed and/or straw mulch any area needing erosion control
6 -Roads to remain for land management purposes
7 -Rip, grade, & plant with seed mixture
8 -Rip, grade, & plant commercial tree species
9 -All equipment & buildings to be removed at time of final reclamation unless needed for subsequent use
PROJECT AREA
(area where extraction & temporary stockpiling may occur)
All vegetation outside of work area to remain
PHASE 1
PHASE 2
720
670
620
570
520
470
Unnamed creek
Access Road
Equipment and structures to be removed
cross section location (typ.)
Access Road
Access Road
520
Office / Scales to be moved
50'
50' buffer from creek
New access road
Rock Pit Lane
<E> Access road
Anderson Creek
All vegetation outside of work area to remain
N
Scale: 1" = 200'
STREAMLINE
Planning Consultants
FIGURE 7
RECLAMATION FINAL

5. Size

The project parcels containing the project area are approximately 127 acres in size (214-116-06 = 80 acres & 214-116-08 = 47 acres). The project area is approximately 22.5 acres in size, with approximately 12.3 acres in Phase 1 and approximately 10.2 acres in Phase 2. The Phase 1 area currently contains a 7-acre quarry area and approximately 5.3-acres of staging and storage areas, sediment and erosion control improvements, and access roads (See Figure 4 – Operations Plan). As a result of the proposed mining activities, the Phase 1 quarry area will be expanded to approximately 9 acres, leaving approximately 3.3 acres of staging and storage areas, sediment and erosion control improvements, and access roads.

6. Water Requirements

No washing is required for the current quarrying/processing method. If air quality requirements require spray nozzles in the future water is available on site. Dust control routinely occurs at times of activity from water trucks filled on-site (at developed water sources). Water is also utilized for annual erosion control seeding activities and for fire protection purposes.

Water utilized at the Hagan Quarry site will be obtained from Anderson Creek which runs approximately 50 feet south and east of the project area. To comply with the California Department of Fish & Game requests, a Lake and Streambed Alteration Agreement (Notification No. 1600-2010-0367-R1) has been obtained by the applicant (Jim Wheeler) which was signed by the DFG on May 5th, 2011. The project description in the LSAA states, "*The project is limited to water drafting (for dust suppression and fire protection only) from Anderson Creek, and the placement of rip rap along an eroding streambank below a rock armored ford crossing adjacent to an Unnamed Tributary to Anderson Creek*". All water drafting activities at the project site will occur consistent with the work plan submitted with Notification No. 1600-2010-0367-R1 and the requirements of the LSAA.

7. Contaminants

By the nature of material mined, the potential for contamination would be limited to operation-related incidents such as equipment leaks or spills. Potential contaminants from equipment shall continue to be minimized through proper equipment maintenance and operation.

8. Wastewater

By the nature of the described excavation, no wastewater is produced. Portable chemical toilets are maintained at the quarry site during active periods and serviced by a licensed pumper. The

use and maintenance of the portable sanitary facility will comply with all state and county regulations pertaining to this type of facility.

9. Water Impoundments and Diversions

Settling basins and other stormwater control improvements have been constructed on site (See Figure 4 – Operations Plan). As discussed in Section 6 (Water Requirements) above, water utilized at the Hagan Quarry site will be obtained from Anderson Creek which occurs adjacent to the project site. The project description submitted to CA DFG with the Notification of Lake or Streambed Alteration states, "*This project is a simple water diversion using a pipe, reaching upstream to build enough head, to fill a 3,000 gallon water tank, in the back of a dump truck…When water is needed more quickly, a gas powered pump will be used to fill the tank, such as might be required mid-day during hot weather. For this purpose, a temporary, water-filled rubber dam will be placed where a previous sediment dam existed, from May 1 through October 31st, to impound water for withdrawal using the pump. The draft area will be the pool located approximately 300 feet southeast of the office/scale area…*" All water drafting activities at the project site will occur consistent with the work plan submitted with Notification No. 1600-2010-0367-R1 and the requirements of the LSAA.

III. RECLAMATION PLAN ACTIVITY

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

1. Proposed Use of Site: Timber Production

The planned end use of the disturbed area (22.5 acres) after the quarry project would be complementary to surrounding land uses (timber production). The remainder of the parcel outside of the quarry area (104.5 acres), will remain undisturbed by surface mining operations other than the pre-existing access roads, which are proposed to remain. The reclaimed site will primarily consist of rock faces and benches dominated by local grasses and forbs with scattered shrubs. The lower staging area and cleared storage areas (noted on Figure 7 – Final Reclamation) will be revegetated as described in Section III (4) – Resoiling and Revegetation if subsequent use allowed by zoning doesn't occur first. It is likely that the staging and storage areas will be utilized as timber storage areas associated with future timber harvesting activities on surrounding lands.

The portion of the parcels (APN 214-116-06, 08) containing the mining area (Project Area) is zoned Agriculture Exclusive (AE) – 20 acre minimum parcel size and Timber Production (TPZ) – 160 acre minimum parcel size. The properties are regulated under Section 314-7.1 (AE) & 314-7.4 (TPZ) of the Humboldt County Code and will continue under those allowable uses. Surrounding parcels are zoned similarly and include some rural residential use to the west adjacent to Phillipsville.

This proposed end use is consistent with the County's SMARA ordinance and zoning. The use of the quarry and its proposed reclamation does not preclude existing or future activities on the surrounding timber lands.

Activities to close the site will include final grading, long-term drainage improvements (for runoff, erosion and sediment control), and distribution of salvaged surface soils and any remaining materials onto the staging area. The access roads noted on Figures 4 – Operations Plan & 7 – Reclamation Final will remain for agricultural/timber use and other land management purposes.

See also Chapter IV – Reclamation Plan Standards.

2. Time Schedule of Reclamation Activities

Final reclamation will occur after the rock is removed as described in Chapter II – Mining

Plan/Plan of Operations and remaining slopes blend into surrounding ground elevations (See Figure 7 (Reclamation Final) for Phase I and Figure 6B (Existing & Final Profiles – Phase II) and Figure 8 (Reclamation - Final) for Phase II). 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. Completion of mining, as described herein, may require extensions to permit approval prior to final reclamation.

As described below and depicted in Figure 6 – Ongoing Reclamation, annual reclamation/site maintenance has occurred and will continue to occur for erosion and sediment control purposes. The primary objective of annual maintenance/reclamation is for ongoing sediment and erosion control. On an annual basis short-term stabilization occurs in those areas which are not in production. Ongoing (annual) site maintenance and reclamation activities, as quarry areas become completed, will include: 1) grading to direct surface runoff at the staging area towards the rock face or settling basins; 2) directing runoff near the back and sides of the rock face to natural drainage channels and away from the mine areas; 3) seeding and/or mulching areas in need of sediment and erosion control; 4) allowing natural revegetation to colonize non-active areas and 5) removal of invasive species when feasible and necessary. The primary purposes of annual reclamation will be runoff, erosion and sediment control.

3. Rehabilitation to Pre-mining Drainage

Existing grading has directed surface runoff towards the rock face or settling basins. Surface runoff from the mining area has been designed to disperse across the site and/or percolate into the surrounding fractured bedrock. A series of water bars and localized stormwater collection/diversion channels and basins exist on the site to intercept and redirect rainwater to minimize erosion potential. Berms currently exist, and will be maintained, along the southern, western, and eastern boundaries of the project site, where needed to provide secondary runoff control. The staging/stockpile areas are graded so runoff will flow toward the rock face or sediment traps rather than sheeting down the slope. No direct flows will enter Anderson Creek or its tributary.

Final drainage will be designed to generally simulate and utilize pre-project drainage patterns. However, no direct runoff will be allowed directly into any water courses either during extraction/processing activities or after final closure. Runoff will continue to be dispersed, generally towards the rock face or settling basins, and drainage will be designed to minimize erosion potential. Runoff, for the most part, currently percolates

into the ground. Berms will surround the lower ends of the work area, where necessary to control runoff. Stormwater will also be filtered through the surrounding pervious rock and the naturally occurring vegetation that will be retained as part of this project. Drainage near the top and sides of the quarry will continue to be directed away from the rock face towards natural drainage features.

The ultimate physical condition of the quarry site after reclamation will tie into the adjacent slopes and vegetation of the surrounding area (See Figure 7 (Reclamation Final) for Phase I and Figure 6B (Existing & Final Profiles) and Figure 8 (Reclamation Final) for Phase II). The quarry area will consist mainly of rock faces and benches. Completion of reclamation will provide a rocky grassland habitat at the staging/stockpile areas. Those areas outside of the designated 'Project Area' as shown on Figures 4 – Operations Plan, will be protected from mining activity and will not need to undergo reclamation.

4. Resoiling and Revegetation

Soils are shallow to non-existent throughout the quarry area, as discussed previously. At the quarry, where the substrate will be solid rock or large fragmented rock (e.g. rock faces), active revegetation is infeasible. Rocky areas, will remain exposed after the operation and will likely be naturally colonized by species adapted for rocky soils and rock faces, which occupied the rock face prior to mining operations. The Reclamation Plan promotes or encourages natural revegetation on the rock faces and benches, as is currently occurring. The rock benches cannot be successfully ripped and provide the safety factor for which they are proposed. However revegetation will be attempted in at least some of these locations given the advantage of resoiling as proposed. Soil, seed and straw mulch will be provided to these bench areas as part of the final reclamation plan but revegetation monitoring/success will not be required in these bench locations.

At the staging/stockpile areas, where the substrate will be a compacted combination of fragmented rock and fill material, areas will be resoiled from designated soil/overburden stockpiles and revegetated with a site specific seed mixture. The final list of species is to be determined at the time of revegetation activity, but will include native species appropriate for the site and those species effective in erosion control. Revegetation will occur primarily by broadcast methods. An example of native grass species currently used for reclamation and other restoration projects in similar areas is provided in Table 3 below. In addition to these species, quick germinating sterile seeds (such as Quickguard®) will be utilized to generate a quick cover crop to reduce effects of winter

storms. Where found necessary, compacted areas will be ripped or tilled to facilitate revegetation.

Table 3 - Proposed Agricultural Erosion Control Seed Mixture

Common name	Latin name	Pounds/acre
Blue wildrye	*Elymus glaucus*	3.5
Quickguard®	*Sterile Triticale Hybrid*	18.5
California brome	*Bromus carinatus*	5
Small fescue	*Vulpia microstachys*	1.5
Junegrass	*Koeleria macrantha*	0.25
Tufted hairgrass	*Deschampsia cespitosa*	0.25
Idaho fescue	*Festuca idahoensis*	1
		30 lbs/ac

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

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

The staging areas are currently utilized as landings and are permitted for processing and stockpiling as well. No significant additional areas are proposed for expansion other than the increase that will result from extending the current rock face to the north & south (Figure 5 (Existing and Final Profiles) and Figure 7 (Reclamation Final) for Phase 1 and Figure 6B (Existing and Final Profiles) and Figure 8 (Reclamation Final) for Phase 2) and grading that will be needed to tie into adjacent topography. The lower staging area and cleared storage areas (noted on Figure 7 – Final Reclamation) will be revegetated as described below if subsequent use allowed by zoning doesn't occur first. Although these areas are expected to be only marginally productive for forestry purposes, the proposed end use will be timberland per request of CALFIRE. If this occurs, approximately 2 acres of commercial conifer seedlings from the appropriate seed zone and elevation will be

planted in these areas during the reclamation process. Success of replanting will be measured using CALFIRE stocking standards. Native shrub species will gradually occupy portions of the area. The area will also become naturally reforested by adjacent hardwood species including tanoak, madrone and canyon live oak. The proposed end use and zoning (AE and TPZ) are consistent with the proposed reclamation treatment for this area.

The Reclamation Plan describes the annual maintenance and treatment of disturbed areas. As such the entire quarry area will not need to be seeded and mulched at the end. The amounts listed under financial assurances will provide sufficient materials to cover disturbed areas defined in the Reclamation Plan (see Figure 6 – Ongoing Reclamation, etc.) whether this site becomes "abandoned," for example, in the 3rd, 8th or 14th year or when final reclamation is implemented.

Invasive species and noxious weed species have been and will continue to be monitored intermittently throughout the project term. Invasive species, such as star thistle (which is currently not a problem), will be appropriately controlled where found to threaten revegetation efforts. General weed prevention measures will be utilized including threat assessment, threshold density determination and species specific control methods.

5. 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 Figure 6 – Ongoing Reclamation) and be idle for several years.

6. Public Safety

Public safety concerns include both on-site and off-site impacts. This project will not pose a significant increase in risk to people on-site due to the following factors: the quarry 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.

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. Most truck drivers will avoid a

hazardous situation by communicating via CB radio (Channel 10) to let each other know when they or other vehicular traffic are approaching a narrow section. This project is located in a high wildfire hazard area. Though operations require fuel for equipment and explosives, standards of operation will minimize any potential impacts from this project. Most activities will be occurring more than 50 feet from retained mature vegetation. Minimal fuel will be stored on-site; fuel will generally be transported and dispensed from pick-up trucks equipped for such a purpose. Material will be adequately wetted during active periods. Other measures listed in the Mining Plan will be implemented. New developments are not proposed, however any developments will meet minimum fire safe standards by being constructed in conformance with the County Fire Safe Ordinance of 1952 which the California Board of Forestry has accepted as functionally equivalent to PRC 4290. New roofing is not proposed, however any new roofing will be fire resistant and conform to Section 13108.5 of the Health and Safety Code. Applicant and operators understand seasonal fire protection coverage within State Responsibility Area (SRA) lands. This project does not include subdivision of the property and current zoning does not permit high density development, however any future subdivision will incorporate appropriate fire safety mitigation. This project does not include activity that will adversely impact existing fire services and will not increase development in areas where there is no local agency fire service for structure fires and emergency medical response.

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 and dry conditions, when operations will be shut down. Dust abatement occurs as a routine maintenance procedure, which includes spraying from water trucks (see mining plan guidelines included to address the requirements of CCR 93105). This will continue through the life of the project.

Drilling and blasting will occur. 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 citizens" 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 the access road to control traffic. The potential for rock materials to become dislodged and pose a traffic hazard will be minimized through site grading, retained downslope stockpiles, vegetative cover, or 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.

7. 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 or sediment basins and detained on-site for percolation.

IV.) RECLAMATION STANDARDS

(CCR, Title 14, Division 2, Chapter 8, Subchapter 1, Article 9, §3700-§3713)

§3701. Definitions – Incorporated by Reference

§3702. Financial Assurances – As noted in Section VI

§3703. Wildlife Protection

Objective: Wildlife and wildlife habitat shall be protected in accordance with prescribed standards in the following manner:

a) Rare, threatened or endangered species or species of special concern (as defined by the California Department of Fish and Game or the U.S. Fish and Wildlife Service) have not been identified on the project site. Review of the California Natural Diversity Database (CNDDB) shows the occurrence of one plant species and two bird species that occur within the vicinity of the project area. The plant species is commonly known as Howell's montia (*Montia nowellii*) and the bird species are commonly known as Osprey (*Pandion haliaetus*) and American peregrine falcon (*Falco peregrinus anatum*). The plant species is mapped as a nonspecific 1 mile radius circle that includes a portion of the Quarry project area on the eastern half of the circle. The bird species are both mapped as a specific 80 meter radius circle and the closest occurs within approximately 3,500 feet of the project area adjacent to the community of Phillipsville. Due to the unknown location status of the plant species and the distance of the bird species from the project site, no conservation or mitigation measures are proposed to prevent impacts to these species from project activities.

b) If species of special concern are identified during mining or reclamation activities, actions are proposed in accordance with the provisions of the California Endangered Species Act and the federal Endangered Species Act of 1973. Wildlife habitat will be established on disturbed land in a condition consistent with surrounding habitat. The proposed reclamation plan will establish a habitat type that is appropriate for the area such as commercial timberlands and open grasslands consisting of predominantly native species, which will compliment the adjacent forest matrix and provide foraging habitat for numerous wildlife species in the area.

c) Quarrying activities are not proposed within 50 feet of Anderson Creek which borders the project to the south and east or its unnamed tributary which occurs to the west. Erosion control methods will be implemented to reduce or eliminate sediment or storm water discharge from the project site to the creeks. With the proposed operating

restrictions impacts to the creeks are not anticipated. No wetland habitat exists within the quarry area and therefore will not be impacted by quarry activities.

§3704. Backfilling, Regrading, Slope Stability and Recontouring

Objective: Standards necessary for the future resource conservation proposed.

a) Final reclaimed fill slopes will not exceed 2:1 (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 to the surrounding topography and/or approved end use.

b) 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. Based on existing stable rock faces, slopes of an average 1:1 slope are proposed, except when site-specific geologic and/or engineering analysis demonstrates that a steeper final slope will have an adequate slope stability factor of safety that is suitable for the proposed end use.

c) Slope angles of rock faces have been maintained flatter than the critical gradient. When determined necessary by the applicant or the County during annual reviews that final slopes approach the critical gradient, a slope analysis will be conducted by a registered licensed geologist or engineer indicating any steps needed to demonstrate that a suitable static factor of safety (such as a factor of safety not less than 1.3 and pseudo static factor of not less than 1.1) has been achieved.

§3705. Revegetation

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

a) 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 the effects of long-term erosion and shall be compatible with surrounding uses.

i. The surrounding land is managed for timber harvesting and agricultural activities, The vegetative density, cover and species richness has been determined by standard erosion control techniques and recommendation of the local Natural Resource Conservation District (NRCD).

ii. Test plots are proposed to be conducted simultaneously with mining to determine a suitable seed mixture and application rate.

iii. The proposed erosion control mixture was selected because it is utilized successfully by other mining operations within the County and utilizes a combination of native vegetation and erosion control seeds that are out-competed in a short time by native vegetation. The proposed seed mixture was developed with assistance from the NRCD for this area and contains species that are successfully utilized in this area.

iv. Planting shall be conducted during the most favorable period of the year for plant establishment (Nov. – April).

v. Soil stabilization practices shall be used when necessary to control erosion and for successful plant establishment.

b) Where surface mining activities result in compaction of the soil, activity such as 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.

c) Protection measures, such as fencing of revegetated areas and/or placement of cages over individual plants may be necessary when reforestation activities will occur but will not be necessary for seeding activities.

d) Success of revegetation shall be judged based upon meeting the approved end use (forest production and agriculture) and stocking standards set by CALFIRE and the NRCD shall be used to monitor revegetation success.

§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.

a) 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.

b) 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.

c) 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 that causes this to occur. If erosion features meeting such thresholds do not occur, then no erosion control work would be required. Annual reclamation activities will ensure that this threshold is not reached.

d) 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 in an area zoned Agriculture Exclusive (AE) – 20 acre minimum and Timber Production (TPZ) – 160 acre minimum, and designated Timberland. The quarry project site is partially zoned AE but the site is marginally suitable for agricultural production and timber production due to steep slopes and rocky substrate with little organic topsoil development. Agricultural uses on neighboring parcels will not be adversely affected by quarrying operations. This project does not include the conversion of timberland to non-timber use and will not affect the timberland base of California.

§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 (agriculture and/or timber production).

a) Storage of all related equipment shall be in the defined staging, storage and extraction areas, as indicated on Figure 4 – Operations Plan. This will most likely consist of excavators, bulldozers, front-end loaders, dump trucks, rock crusher, screen plant, 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.

b) Dismantling and removal of buildings, structures, and equipment not required for end use purposes (timber/agriculture) 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.

a) 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.

b) Topsoil and suitable growth media shall be set aside to be used for reclamation (See Figure 4 – Operations Plan & Figure 6 – Ongoing 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, not utilized for sorting purposes, 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.

c) Topsoil and suitable growth media shall be redistributed in a manner that results in a stable, uniform thickness consistent with the approved end use, 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 **$ 7,386.50** shall be secured as required by State law for the initiation or continuation of the permit. This amount is for the reclamation of the Phase 1 area. This amount may be revised annually based on findings in the above described monitoring report. Prior to operations occurring in the Phase II area, the applicant shall submit a separate cost estimate to the County for approval. This amount was derived from the following calculations:

Table 4 - Financial Assurances

Description	Quantity	Units	Rate (2012)	Cost
Grading – regrade/repair berms/correct drainage	8	Hours	$135	$1,080
Grading – spread stockpiled material in designated areas/uncompact staging areas	8	Hours	$135	$1,080
Seed (30 lbs/acre) – for erosion control purposes	4	Acres	$200	$800
Straw mulch (26 bales/acre) – for erosion control purposes	4	Acres	$200	$800
Labor/Equipment - spreading seed/mulch	8	Acres	$100	$800
Labor/Plants - planting conifer seedlings@ 50 plugs/acre	100	Trees	$0.75	$75
Office/Weigh Scale Relocation	1	Day	$1,080	$1,080
Monitoring	5	Hours	$50	$250
Mobilization	5	Hours	$50	$250
County Administration	1		$500	$500
Subtotal				$6,715.00
10% contingency amount				$671.50
			Total	**$7,386.50**

Docusign Envelope ID: 2528A55B-CF16-4A32-B1F8-02B9E9567A75

VI. APPLICANT'S STATEMENT

Jim Wheeler, operator, hereby accept responsibility for reclaiming the mined lands in accordance with this Reclamation Plan.

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

Signed by:
9440581D3D81418...
David Beebe

2/19/2025
Date