Exhibit 2

# Delineation of Potential Jurisdictional "Waters of the United States" (Section 404 of the Clean Water Act) 

## LEONA QUARRY SITE <br> Oakland, California

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### 1.0 INTRODUCTION

In June 2001, Wetlands Research Associates, Inc. (WRA) conducted a study to determine the presence of any "waters of the United States" potentially subject to federal jurisdiction under Section 404 of the Clean Water Act at the Leona Quarry Site in Oakland, Alameda County, California. This report presents the results of that study.

The delineation study area (Study Area) consists of the area contained within the Quarry property boundary (Figure 1). The Study Area is predominantly bounded by residential development to the north, east, and west, and by Mountain Boulevard to the south.

As stated in the federal regulations for the Clean Water Act, wetlands are defined as:
"Those areas that are inundated or saturated by surface or ground waters at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."
(EPA, 40 CFR 230.3 and CE, 33 CFR 328.3)
The delineation study determined the presence or absence of wetland indicators used by the U.S. Army Corps of Engineers in making a jurisdictional determination. The three criteria used to delineate wetlands are the presence of: (1) hydrophytic vegetation, (2) wetland hydrology, and (3) hydric soils. According to the Corps of Engineers Wetland Delineation Manual (1987):
"....[E]vidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation."

Because the Study Area is an active quarry operation ${ }^{1}$, the only undisturbed areas were outside the surface mining footprint. Several settling basins have been constructed within the quarry. These settling basins are exempt from Corps jurisdiction under the preamble to the Corps Regulatory Program (33 CFR part 320).

### 2.0 METHODS

The methods used in this study to delineate jurisdictional wetlands and waters are based on the U.S. Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987).

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The routine method for wetland delineation described in the Corps Manual (1987) was used to identify areas potentially subject to Corps Section 404 jurisdiction within the Study Area.

### 2.1 Potential Section 404 Wetlands of the U.S.

Prior to conducting field surveys, the Soil Survey of Alameda County (USDA, Soil Conservation Service, 1981), an aerial photograph taken in 1999, and a topography map of the site were reviewed. Field studies were conducted to examine vegetation, hydrology, and soils. The Corps requires that data on vegetation, hydrology, and soil be recorded on standard forms. Once an area was determined to be a potential wetland, its boundaries were drawn on the aerial photograph and/or topography map. The sizes of potential wetland areas were measured in the field or outlined on the aerial photograph and measured digitally using AutoCAD 14. The vegetation, hydrology, and soil criteria used to make wetland determinations are summarized below.

## Vegetation

Plant species identified on the project site were assigned a wetland status according to the U.S. Fish and Wildlife Service list of plant species that occur in wetlands (Reed 1988). This wetland classification system is based on the expected frequency of occurrence in wetlands as follows:

| OBL | Always found in wetlands | $>99 \%$ frequency |
| :--- | :--- | :--- |
| FACW $( \pm)$ | Usually found in wetlands | $67-99 \%$ |
| FAC | Equal in wetland or non-wetlands | $34-66 \%$ |
| FACU | Usually found in non-wetlands | $1-33 \%$ |
| NL. | Not listed (upland) | $<1 \%$ |

Plants with OBL, FACW, and FAC classifications are classified as hydrophytic vegetation in the Corps Manual (1987) methodology. If more than 50 percent of the dominant plant species (in order for a plant to be considered dominant it must cover $\geq 20$ percent of the total vegetative cover in the sample plot) are hydrophytic, the area is considered to have met the wetland vegetation criterion.

## Hydrology

The jurisdictional wetland hydrology criterion is satisfied if the area is inundated or saturated for a period (minimum of five percent of the growing season or 18 days in the San Francisco Bay Area) sufficient to create anoxic soil conditions during the growing season. Evidence of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation, surface sediment deposits, and drift lines, or indirect indicators (secondary indicators), such as oxidized root channels and algal mats. If indirect or secondary indicators are used, at least two secondary indicators must be present to conclude that an area has wetland hydrology.

## Soils

Soils formed under wetland (anaerobic) conditions have a characteristic low chroma matrix color, designated 0,1 , or 2 , used to identify them as hydric soils. Chroma designations ate determined by comparing a soil sample with a standard Munsell soil color chart (Kollmorgen 1990). Soils with a chroma of 0 or 1 are considered hydric; soils with a chroma of 2 must also have mottles to be considered hydric.

### 2.2 Section 404 Waters

Areas that are inundated for sufficient duration and depth to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters". Areas delineated as nontidal waters are often characterized by an ordinary high water line (OHW). In non-tidal areas, the same types of indicators (i.e., hydric soils, wetland hydrology) described for wetlands above are used, except that these areas are not vegetated as a result of long term inundation.

### 3.0 STUDY AREA DESCRIPTION

The approximately 230 -acre Study Area is located on the Leona Quarry property, which lies immediately north of Highway 580 in southeastern Oakland, California. Elevations range from 300 to 1,075 feet NGVD. The majority of the Study Area has been used for quarry activities since the early 1900's; the remainder of the Study Area outside the quarry consists of non-native annual grassland and chaparral scrub habitats. The quarry continues to operate under a nonconforming use permit issued by the City of Oakland (Appendix C). It was operating at the time of the site visit.

Four settling basins have been constructed as part of quarry operations, which are regularly maintained by dredging out sediments. Three of these basins (Area 1, 4, and 5) did not contain water at the time of the study. One basin (Areas 3) was ponded at the time of the study (see map in Appendix B).

## Vegetation

The majority of the Study Area is unvegetated or contains patches of non-native french broom (Genista monspessulanus). Vegetation along the southeastern portion of the Study Area consists of french broom and blue gum eucalyptus (Eucalyptus globulus). Vegetation along the northern and northwestern portion of the Study Area consists of scrub species such as coyote brush (Baccharis pilularis), California sagebrush (Artemesia californica), poison oak (Toxicodendron diversilobum), and sticky monkey flower (Mimulus aurantiacus). The southwestern portion of the site consists of non-native grassland with scattered coast live oak trees (Quercus agrifolia) and blue gum eucalyptus.

Isolated depressions with wetland characteristics in the Study Area were dominated by species such as rabbits-foot grass (Polypogon monspeliensis, FACW+), weedy cudweed (Gnaphalium luteo-album, FACW-), toad rush (Juncus bufonius, FACW+), curly dock (Rumex crispus,

FACW-), and umbrella sedge (Cyperus eragrostis, FACW). One of these depressions was dominated by narrow-leaved cattail (Typha angustifolia, OBL).

A small riparian area surrounding the seasonal creek in the northwestern portion of the Study Area supports species such as California bay laurel (Umbellularia californica, FAC), California buckeye (Aesculus californica, NL), ocean spray (Holodiscus discolor, NL), elderberry (Sambucus sp., FAC) and gooseberry (Ribes sp.).

## Hydrology

The principal natural hydrological sources for the Study Area are precipitation and surface runoff. Several settling basins have been constructed to aid in sediment retention within the quarry and impoundment of water to prevent erosion and flooding of adjacent areas. These basins, at times, contain ponded water. The seasonal creek appears to receive its water source from surface run-off from other properties at higher elevations and then appears to flow underground.

Soils

The Alameda County Soil Survey (USDA 1981) indicates that the Study Area has two native soil types (Figure 2). The native soil types are:

126 - Maymen loam, 30 to 75 percent slopes
142 - Quarry
Maymen loam is a shallow, somewhat excessively drained soil on uplands. Quarry consists of large excavations on uplands from which rock is extracted. Neither of the mapped soil types are listed as hydric on the Field Office Official List of Hydric Soil Map Units for Alameda County, California (USDA NRCS 1992).

### 4.0 RESULTS

### 4.1 Potential Section 404 Wetlands

A routine level jurisdictional wetlands delineation was conducted within the Study Area in June 2001. The site was field reviewed for potential jurisdictional wetland areas, and sampling points were established to determine whether areas met the Corps' wetland criteria. Field data collected at sampling points described on the Corps data forms in Appendix A. Their locations and potential jurisdictional areas are described in the following sections and shown in Appendix B.


## Vegetation

Wetland plants were found in two isolated areas (Areas 3 and 5) within the Study Area (Appendix B). Areas 3 and 5 were located in settling basins. The sampling points in these areas (3a and 5a) contained vegetation that met the Corps criteria for wetland vegetation, which was dominated by FAC and FACW species. Dominant hydrophytic plant species included Italian ryegrass (Lolium multiflorum, FAC*), rabbits-foot grass, toad rush, umbrella sedge, poison hemlock (Conium maculatum, FACW), weedy cudweed, and bristly ox-tongue (Picris echioides, FAC*). Areas 1 and 4 were mostly unvegetated, with Area 3 containing some cattail (Typha angustifolia, OBL).

## Hydrology

Wetland hydrology indicators were present in Areas 1, 3, 4, and 5. Area 1, located in a settling basin, exhibited wetland hydrology indicators such as a drainage pattern (a primary indicator) and oxidized root zones (a secondary indicator). Area 3 was inundated by several inches of standing water; however, the settling basin was recently maintained and was mostly devoid of vegetation.

## Soils

The soils appear similar to the Quarry type mapped, as they were contained within an active quarry and exhibited the silty and/or gravel soils which would exist due to run-off from areas of rock extraction. The soils at Area 5 differs from the Maymen loam type mapped, which is most likely due to deposition of fill material or site disturbance in the past, as it is adjacent to a residential area and Highway 580.

Hydric soil criteria were met only at sampling point 5 a by the presence of a low chroma matrix ( 10 YR 3/1). However, the soils in the remaining areas did not meet any hydric soil criteria. The lack of hydric soils at the other areas is due to soil disturbance from quarry activities. The hydric soils observed at Area 5 may also be the result of similar types of disturbance activities.

### 4.2 Section 404 Waters

Approximately 435 feet of an intermittent creek (or 0.02 acre) is located in the northern central portion of the Study Area (Appendix B), which has an average width of four feet at higher elevations and widens downslope to a width of six feet. Native riparian trees and shrubs border this creek, such as California bay laurel, California buckeye, ocean spray, elderberry and gooseberry. The upper portion of the creek is very steep and contains large boulders, while the lower portion of the creek becomes relatively level with a gravelly bed and an almost indistinguishable bank. While it appears that a tall berm was built along the creek to create a detention basin for the water flow, the detention basin area does not appear to be inundated for long enough periods of time to be considered a potential wetland. This basin has a rocky substrate and contains, along with some of the above listed riparian species, Italian thistle (Carduus pycnocephalus, NL), coyote brush, California sagebrush, poison hemlock (Conium maculatum, FACW) and Douglas' wormwood (Artemesia douglasiana, FACW).

### 5.0 POTENTIAL CORPS OF ENGINEERS JURISDICTION

The preamble to the November 13, 1986 Federal Register publication 33 CFR part 320 in which present jurisdictional definitions were set forth (See 51 FR 41217) provides:'
"For clarification, it should be noted that we generally do not consider the following to be 'waters of the United States':

Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.

> Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction of excavation operation is abandoned and the resulting body of water meets the definition of the United States."


All of the man-made basins within the quarry are not subject Corps jurisdiction because they are settling basins created for and/or function as drainage and water quality control systems and are part of the ongoing quarry operations. The quarry operation is not abandoned and is currently actively used to extract natural resource material.

Furthermore, the U.S. Supreme Court determined that Corps jurisdiction does not extend to isolated, intrastate waters. In this instance, the circumstances are similar, if not the same, as the SWANCC case in that the subject areas are within a quarry operation and are not connected by any surface water tributary to a navigable water of the United States.

No areas considered to be jurisdictional wetlands were observed on the site. There is only one potential jurisdictional "waters" within the intermittent stream at Area 4 (Appendix B). The amount of potential Section 404 jurisdictional waters is approximately 435 linear feet (or 0.02 acre).

### 6.0 REFERENCES



Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi 39180-0631.

Kollmorgen Instruments Corporation. 1990. Munsell Soil Color Charts.
Pacific Aerial Surveys. 1999. Aerial photograph of Oakland area taken April 15, 1999.
Reed, P. B., Jr. 1988. National list of plant species that occur in wetlands: California (Region 0).
U.S. Fish and Wildlife Service Biological Report 88 (26.10).
U.S. Geological Survey. 1980. Oakland east quadrangle. 7.5 minute topographic map.
U.S. Department of Agriculture, Natural Resources Conservation Service, Alameda County Field Office. 1992. Official List of Hydric Soil Map Units for Alameda County, California.
U.S. Department of Agriculture, Soil Conservation Service. 1981. Soil Survey of Alameda County, California. In cooperation with the University of California Agricultural Experiment Station.

## Appendix A - Corps Delineation Data Forms

DATA FORM ROUTINE WETLAND DETERMINATION （1987 COE Wetlands Delineation Manual）

| ProjectSite：Leona Quarry |  | $\begin{aligned} & \text { Date: } \frac{6 / 2001}{\text { County: Alameda }} \\ & \text { State: CA } \end{aligned}$ |
| :---: | :---: | :---: |
| ApplicantOwner：The DeSilva Group |  |  |
| Investigator：Wetlands Research Associates，Inc． |  |  |
| Do Normal Circumstances exist on the site？ | 区 Yes $\square$ No | Community ID：settling basin 1 |
| Is the site significantly disturbed（Atypical Situation）？ | 区Yes $\square$ No | Transect ID： |
| is the area a potential Problem Area？ <br> （if needed explain on reverse．） | 凹Yes $\square$ No | Piotid：1a |

VEGETATION


HYDROLOGY


## DATA FORM <br> ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

| Project/Site: Leona Quarry |  | $\begin{aligned} & \text { Date: } 6 / 2001 \\ & \text { County: Alameda } \\ & \text { State: CA } \end{aligned}$ |
| :---: | :---: | :---: |
| ApplicantOwner: The DeSilva Group |  |  |
| Investigator. Wetlands Research Associates, inc. |  |  |
| Do Normal Circumstances exist on the site? | $\boldsymbol{\triangle}$ Yes $\square$ No | Community 1D: upland |
| Is the site significantly disturbed (Atypical Situation)?quarry | $\boldsymbol{\triangle}$ Yes $\square$ No | Transect ID: |
| Is the area a potential Problem Area? <br> (if needed explain on reverse.) | $\boldsymbol{\chi}$ Yes $\boldsymbol{\chi}$ No | Plot ID: 1 b |

VEGETATION


## HYDROLOGY

|  Recorded Data <br> $\square$ Stream, Lake or Tide Gauge  <br> $\square$ Aerial Photographs  <br> $\square$ Other  | Wetland Hydrology Indicators : <br> Primary Indicators : Inundated Saturated in Upper 12 Inches Water Marks Drift Lines |
| :---: | :---: |
| Field Observations: | $\square$ Drainage patterns In Wetlands |
| Depth of Surface Water: none (in.) | Secondary Indicators (2 or more required) : |
| Depth to Free Water in Pit : $>12$ <br> (in.) | $\square$ Oxidized Root Channels In Upper 12 Inches <br> $\square$ Water-Stained Leaves |
| Depth To Saturated Soil : $\geq 12$ (in.) | FAC-Neutral test Other (Explain In Remarks) |
| Hydrology Remarks: Wetland hydrology not present. |  |

DATA FORM
ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

| Projec/Site: Leona Quarry |  | Date: 6/2001 <br> County: Alameda <br> State: CA |
| :---: | :---: | :---: |
| Applicant/Owner: The DeSilva Group |  |  |
| Investigator: Wetlands Research Associates, Inc. |  |  |
| Do Normal Circumstances exist on the site? | $\triangle$ Yes $\square$ No | Community ID: |
| Is the site significantly disturbed (Atypical Situation)? | $\square$ Yes XNo | Transect ID: |
| Is the area a potential Problem Area? <br> (if needed explain on reverse.) | $\square$ Yes $\boldsymbol{\chi}$ No | Plot ID: 2 |

VEGETATION


HYDROLOGY


DATA FORM
ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)


VEGETATION


HYDROLOGY

|  Recorded Data <br> $\square$ Stream, Lake or Tide Gauge  <br> $\square$ Aerial Photographs  <br> $\square$ Other  <br> $\times \quad$ No Recorded Data Available  | Wetland Hydrology Indicators: <br> Primary Indicators : Inundated Saturated in Upper 12 Inches Water Marks Drift Lines |
| :---: | :---: |
| Field Observations : | $\square$ Drainage patterns In Wetlands |
| Depth of Surface Water: $3+$ | Secondary Indicators (2 or more required) : |
| Depth to Free Water in Pit: inundated (in.) | $\square$ Oxidized Root Channels In Upper 12 Inches <br> $\square$ Water-Stained Leaves |
| Depth To Saturated Soil: inundated (in.) | FAC-Neutral test <br> $\square$ Other (Explain In Remarks) |
| Hydrology Remarks: Wetland hydrology present. |  |

## DATA FORM

ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

| Project/Site: Leona Quarry |  |  |  | Date: $\frac{6 / 2001}{\text { County: Alameda }}$State: CA |
| :---: | :---: | :---: | :---: | :---: |
| Applicantowner: The DeSilva Group |  |  |  |  |
| Investigator: Wetlands Research Associates, Inc. |  |  |  |  |
| Do Normal Circumstances exist on the site? <br> Is the site significantly disturbed (Atypical Situation)?quarry Is the area a potential Problem Area? ecently <br> (if needed explain on reverse.) <br> disturbed/dredged |  |  | XYes $\square$ No | Community ID: upland |
|  |  |  | - Yes $\square$ No | Transect ID: |
|  |  |  | 区Yes $\square$ No | Plot ID: 30 |

VEGETATION


HYDROLOGY


## DATA FORM <br> ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)



## VEGETATION


hydrology

| Recorded Data $\square$ Stream, Lake or Tide Gauge $\square$ Aerial Photographs $\square$ Other $\times \quad$ No Recorded Data Available | Wetland Hydrology Indicators: <br> Primary Indicators : Inundated Saturated in Upper 12 Inches Water Marks Drift Lines |
| :---: | :---: |
| Field Observations: | $\square$ Sediment Deposits <br> Drainage patterns in Wetlands |
|  | Secondary indicators (2 or more required) : |
| Depth to Free Water in Pit: $>12$ (in.) | $\square$ Oxidized Root Channels In Upper 12 Inches <br> - Water-Stained Leaves |
| Depth To Saturated Soil: 0 inches (in.) | FAC-Neutral test Other (Explain In Remarks) |
| Hydrology Remarks: Wetland hydrology present. |  |


| Projec/Site: Leona Quarry |  | Date: $6 / 2001$County: AlamedaState: CA. |
| :---: | :---: | :---: |
| Applicanvowner: The DeSilva Group |  |  |
| investigator: Wetlands Research Associates, Inc. |  |  |
| Do Normal Circumstances exist on the site? | $\boldsymbol{\square}$ Yes $\square$ No | Community ID: upland. |
| Is the site significantly disturbed (Atypical Situation)? | $\square$ Yes 区No | Transect 1D: |
| Is the area a potential Problem Area? <br> (if needed explain on reverse.) | $\square$ Yes XNo | Plot ID: 5b |

VEGETATION


HYOROLOGY

| Recorded Data $\square$ Stream, Lake or Tide Gauge $\square$ Aerial Photographs $\square$ Other $\times \quad$ No Recorded Data Available | Wetland Hydrology indicators: <br> Primary Indicators: Inundated Saturated in Upper 12 inches Water Marks Drift Lines |
| :---: | :---: |
| Field Observations: | $\square$ Drainage patterns In Wetlands |
| Depth of Surface Water: none_(in.) | Secondary Indicators (2 or more required) : |
| Depth to Free Water in Pit : $\qquad$ $>12$ (in.) | Oxidized Root Channels In Upper 12 Inches Water-Stained Leaves |
| Depth To Saturated Soil : $\quad 12$ (in.) | FAC-Neutral test Other (Explain In Remarks) |
| Hydrology Remarks: Wetland hydrology not present. |  |

## Appendix B - Jurisdictional Delineation Map



Purpose: Delineation of potential jurisdictional wetlands and waters of the United States (Section 404 of the Clean Water Act)



## Appendix C - Non-conforming Use Permit Extension for Leona Quarry

F゙゙ミ彐ミコ，on Eeoーreニy 3，1933，the pianninc Conaission， スキこきニ numeスous testimary and erísence，voこeí to aporove witio condicicrs the



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FTRTHRR RESOIVED: That the CiEI Council eccopts as recommenced and hereby recertifies the Pinel givi=ormertel Inoact Recoft, as amenced bv the Dlanimg comission on fabruary 3 ,
Io88, for said projects; anc be it

FURTBER RESOLVED: That the City Councin hereby non-conforing use (CM 87-32) and the reclametion plan. as recommended by the planning Comission and as set forin in Erhibich which is attaciod hereto and incorporatec hemein by

FURTESR RESOLVED: That City Councsl zccepts the Apgellant's reguest, which was contingent upon the City Council






Planning Commission Recommended Modifications to Environmental Impact Report (ER86-1) 2 Major Conditional Use Permit CM 87-32 (Extension of nonconforming use) and CM 80-425 (Reclamation Plan) for Gallagher and Bunk's Lond Quarry as adopted May 251 1988.
A. With respect to ER 86-1, it is recommended that:

1. The Final Environmental Impact Report (FEIR) be amended to include the following statement: Notwithstanding statements to the contrary contained on pages 2-19 through 2-23 of the FEIR and elsewhere in the Draft EIR or FEIR, the No-Project Alternative is subject to a rec lamatron plan to the extent that the area has been subject to surface mining operations after December 31, 1975."
2. The FEIR, as amended above, be certified (prior to any action on $\mathrm{Cli}_{\mathrm{i}} 80-$ 425 and C.4 87-32).
B. With respect to CM 87-32, it is recommended that:
3. The use of the facilities and structures constructed pursuant to NCU 928 be extended for a period of twenty years, at which time the quarry operator may request a further extension. The continued use of these buildings would be, among other factors, dependent upon the satifactory compliance with all conditions or approval established with respect to CM 87-32 and satisfactory compliance with an approved reclamatron plan for this quarry.
4. If the average dally number of truck loads (on a monthly basis) leaving the quarry site may exceed 200 or the average dally tonnage (on a monthly basis) leaving the quarry site may exceed 5000 , the quarry operator must implement a notification and mitigation plan approved by the Director of City Planning and, with the ald of the City, make every reasonable effort to distribute the increased truck trips onto alternalive routines.

In this regard, the City shall make every reasonable effort to faciletate the use of alternative routes, including "special circumstance" use of segments of the Machrinur Freeway when the average daily number of trucks will exceed 350 for a period of two weeks or more. The quarry operator shall keep sufficient records to verify their level of operations, and the City shall, upon reasonable notice, have access to such records for the purpose of verification.

The quarry operator is not relieved of the responsibility for mitigating the impact of high truck volumes on streets with residential development, even if the City is unable to arrange for special circumstances use of the MacArthur freeway.
3. Within two months of this approval, the quarry operator submit an acceptable dust suppression plan to the Director of City Planning for approval. Such plan be designed to minimize the impact of dust on the surrounding residents.
4. Within six months of this approval, the quarry operator shall submit an acceptable noise suppression plan and implementation program to the Director of Public Works for approval. Implementation of the plan shall follow within one month of approval in accordance with the approved program. Such plan shall be prepared by an acoustical con-
sultant engaged by Gallagher \& Burk. Noise from the quarry aporation shall not, together with all other current ambient nolse levels, exceed 60 dba (Ldn) at the north property 1 ine of the quarry nearest to Ridgemont Drive and View Crest Court. The quarry operator shall not be responsible for compensating for any non quarry-ralated noise resulting from sources beyond the quarry operators control.
5. The quarry operator shall insure that all loaded trucks leaving the quarry are loaded in such a way as to reasonably fnsure that loose gravel or other materials do not spill on the roadway. This option may be satisfied through the submission and approval of a detalied written directive to personnel who engage in the loading of trucks. The written directive shall be submitied to the Director of city Planning for revilew and approval within two months of this approval.
6. Within one month of this approval, the quarry operator shall submit and implement, to the satisfaction of the Director of Public Works, a program for cleaning roadways to remove loose materfals tracked or
spilled by departing trucks.
7. Within one month of this approval, the quarry operator shall submit a site plan and schedule for installation of permanent fencing, indicating the location and types of fencing to be used, elther existing or proposed, to the Director of City Planning for approval. This plan may be modified in the future to accommodate a proposed EARPD trail traversing one of the proposed benches across the upper face of the quarry.
8. Within two months of plan approval, the quarry operator shall show evidence to the Director or Public Works that he meets whatever requirements that are rmposed by the Alameda County Heal th Department Toxic Substances Division related to managing and storing petroleum products and/or other chemical substances at the quarry site. In addition to meeting Health Department's requirements, the quarry" operator shall prepare a plan that ensures the offstte permanent disposal of all petroleum products and/or other toxic or hazardous materials. A map shall accompany the above material which indlcates the location, type, content and expected 1 ife of all tanks on the site. The quarry operator shall remove these tanks as an aspect of Reclamation Plan completion.
9. The quarry operator shall be responsible for obtaining any discharge permit required now or in the future from the California Regional Water Quality Control Board (CRHQCB), and for providing notice to the Olrector of Public Works of the Flood Control District's lays and regulations applicable to the quarry.
10. The quarry operator shall implement the reciamation plan approved by the City of Oakland and conduct its operations in a manner that insures that:
A. Interfm and final slopes which may adversely affect any existing and/or future residential development are stable and will remain
stable.

If, as the final slepes are approached in the superior materials of the loxer porifons oi the quarry, the quarry operator encounters
any materials of weaker serencth then antirtnatod huther
cal consultant, the quarry operator shall prepare contingency plans that may include concrete rotaining walls and rock bolt anchors to
insure final slope integrity. insure final slope integrity.
B. Surface and internal drains are installed in accordance with any reclamation plan approved by the City and reasonable practices of drainage and hydrological engineering as determined by the Director of Public Works.
C. An appropriate revegetation program is dillgentiy pursued in accordance with any reclamation plan approved by the cfty and to the satisfaction of the Director of Parks and Recreation. The Director of Parks and Recreation shall consult with the ofrector of Public Horks to insure that the revegetation program is consistent with geotechnical considerations, The Director of Parks and Recreation shall use, as criterla, the standards set forth in any reclamation plan approved by the City. The quarry operator shall submit a schedule for hydromseeding to the Director of City planning withinsixty days of this approval. Themix used to revegetate bare spots shall be based on the mix used successfully on areas of similar soil and exposure.

The quarry operator shall establish test plots on the steep, already completed, upper, northern slopes or equivalent slopes to pre-test the plant materials to be employed on the weathered solls of the upper quarry slopes. Jute netting or other such materials may have to be employed to hold the hydro-seeded material on the steep slopes.

Where brush is being introduced and in some lacetions where yegeta~ tion refuses to grow arter several hydro-seeding applications, the Director of Parks and Recreation may require temporary irrigation to establish and/or maintain growth.
11. All existing and future landslides, caused by the quarry or landslides inside the quarry resulting from natural forces, which may adversely affect any existing and/or future adjacent residential properties or parkland be stabllized or repalred in zccordance with a plan approved by the Director of Public Horks based on the recommendations contained in the reports prepared by Golder Associates or subsequent reports prepared by some equally qualified geotechnical experts. Final action shall be taken on all such existing slides within two years of this approval. Final action shall be taken on any such future slides within two years of their ocurrence.
12. Not later than three months after this approval, the quarry operator shall submit a report on survey control to the Director of Public Horks. The report shall include a oescription oi the survey control progrem already being employed to prevent excavation beyond the design limits, and shall indicate a commitment to continue such program for
the life of the quarry.
13. The screen planting along the front property ine, abutting Highway 580 shall be augmented in accordance with a plan submitted to the Director of City Planning for approyal within two month of this approval. Such plan shall result in the creation of a dense evergraen screen between the quarry and the freexay.
14. The quarry owner shall employ an "Engineer in Chargen. As employed herein, the term Engineer in Charge refers to that particular civil engineer, registered as such by the State of Callfornta, whose signature and seal or stamp appears on the report certifying compliance with respect to the implementation of the Reclamation Plan as approved by the City of Oakland. The Englneer in Charge shall prepare, on an annual basis, a brief report either certifying compliance with the approved Reclamation Plan or citing any deficiencies in quarry performance with respect to the fimplementation of the Reclamation Plan.

Based on a review of the above report and confirming field observations If needed, the Olrector of Public Works may provide a briefwritten report to the planning Commission describing the level of plan and permit compliance, and shall provide such report in the event of noncompliance including any observed violation. After any necessary remedial actions required to attainplan and permit conformance are taken, the Engineer in Charge shall submit a brief report certifying compliance with the plan and permit. The quarry owner shall bear the cost of such annual reviex and any remedial action required to attain
plan conformance.
15. To insure slope integrity, the "Engineer in Charge" shall periodically (at least once annually) examine the soil structure exposed since the last observation and verify that the assumptrons las to soil type, fracture Ifnes, etc. made by Golder kissociates) resulting from the solf borings, and upon which the reclamation plan was based, remain accurate. If it is determined that there are signlficant variations from the soil stabllity characteristics assumed, and those variations suggest an inferior slope stability tian anticipated, the city shall be immediately notified and Golder Associates or some equally quallfied geotechnical consultant shall becalled in to re-evaluate the soil to the Reclamation plan apheropriate remedial action, and an amendment
16. The City Planning Commission reserves the right to pursue, after providing a public hearing, revocation of this approval pursuant to the procedures set forth in the Zoning Regulations at Section 9208 if any of the above conditions oi approval are ignored or violated at any
time.
17. The conditions imposed by this approval (permit extension) be binding upon the current owners and operators of the quarry, as long as they have an interest in the quarry, and their assigns, heirs, and successors in interest.
18. The applicant within ten working days of inal approval of this permit record the permit and attached conditions with the County of Alamede and proyide the Director of city planning with a copy of the recorded
material.
19. During the 11 fe of this perimit, the city planning Commission, after giving reasonable notice to the perint holder, may hold perledic hearings to determine whether the foregoing conditions are adequately addressing the environmental impacts thet were cited in the FEIR and to determine whether the permit holder is in compliance with the permit requirements. If, based upon reasonable evidence, lt is determined that elther any oi the conditions are fradequate or the permit holder
existing conditions on the permit. This condition is not intended to limit any other legal authority vested in the Commission.
20. Whenever a plan is called for in these conditions and such plan is approved by the city, such plan shall be 1 mplemented by the permit holder pursuant to the schedule in such plan.
21. If any provision of these conditions or the application thereof to any person or circumstance is held invalid, the remainder of these provisions and the application of such provisions to other persons or circumstances shall not be affected thereby.
C. With respect to $C M 80-425$, it is recommended that the reclamation plan be approved as modified below:

1. Drainage and subdrain facilities shall be installed to protect all slopes for which final grading has been completed in accordance with an installation schedule approved by the Director of Public Works.
2. The quarry owner shall insure that the recommendations of the geotechnical report prepared by Colder Associates are followed without violating any other aspect of this plan. In the event that there is or appears to be some conflict between the recommendations contained in the geotechnical report prepared by Colder Associates and some other aspect of this plan, the quarry owner shall have a responsible representative from Golder Associates immediately review such conflict and deliver reports directly to the Director oi Public Works and the Director of City Planning. The Director or Public Works shall reyien these comments and if in his judgment the conflict is irreconcilable he shall request that the Director of City Planning submit the conflict for City Planning Commission consideration. Tine cost of such review
 and reconciliation shall be borne by the quarry owner.
3. Revegetation shall be initiated on all finished slopes in the fall of each year, and such efforts shall ensure that areas of unsuccessful or marginally successful hydro-seeding are revegetate on an annual basis using mix that has achieved the most successful survival rate on comparable areas.

In some locations, where vegetation refuses to grow after several hydro-seeding applications, limited irrigation may be required as determined by the Director of Parks and Recreation to establish and/or maintain growth. If it is determined that irrigation is required, the determination shall be reviewed by the Director of Public Works to insure consistency with geotechnical considerations.
4. If the quarry operator, in cooperation with the EBPpD, should establish a suitable alignment for a trail easement across the upper walls of the quarry, such an alignment should connect the wild land slopes to the east and west of the quarry. Any trail connection should not become available for use by the pubic until quarry operations have permanently ceased.
5. Within three months of the date of approval of this plan by the Planning Commission, the quarry owner shall deposit with the City, as security, a surety bond, or other form of security to a form acceptable
be held by the City to secure the quarry owner's Reclamation Plan obligations. The tarm of the bond or other security shall be for a period of twenty years.

Should the quarry owner cease mining operations for a period of tweive continuous months, without securing the Ouarry site, the City, through its Director of Public Korks, and after notice to the quarry owner, shall have the right, without any prior approval from the quarry owner, to use the security, or any portion thereof, held by tho city, to reasonably secure the Quarry site. If the quarry owner fails to perform its obligations pursuant to the Reclamation Plan, the City, through its Director of Public Horks, and after notice to the quarry owner, shall have the right, without any prior approval from the quarry owner to use the security, or any portion thereof, held by the city, to complete the Reclamation Plan. If the bond or other security is insufficient to complete the Reclamation Plan, the quarry owner shall be responsible for the cost of Reclamation Plan completion in excess of the bond or security amount.

Any security remaining after complete implementation of the Reclamation Plan shall be returned to the quarry owner, by the City, within fortyfive days of recelpt by the City of the final report from the Engineer-in-Charge.
6. When the 1 and abutting Campus Drive that is immediately adjacent to and currently owned by the quarry oxner is developed by the quarry operator or others, a setback of eighty ieet from finished quarry slope as fontified in the Reclamation Plan shall be provided unless it is shown to the setisfaction of the Director of Public Works that some other setback is at least as safe. The Director of Public Horks in reviewing such request shall base his decision on site conditions and geotechnical materials proyided by a sultably qualifled geotechnical experi retained by the quarry owner.
7. When the quarry owner or others develop the land abutting Campus Drive that is immedrately adjacent to the quarry and currently by owned the quarry owner, they shall devise a drainage plan and install the necessary facllities to ensure that over-watering of landscaped yard areas by future lothome owners does not lead to the fallure of the final quarry slopes.
8. Upon sale of the quarry property, the property owner is responsible for ensuring to the satisfaction of the Clty, through the use of deed restrictions or other effective means, that slope maintenance responsibilities are soecifically set forth in writing for future owners and that such future owners must provide for the perpetual maintenance of any operation, system, or iacility necessary to the continued success of the rectamation plan.
9. Upon sale of the quarry properity prior to the full implementation of the reclametion plan, the quarry oxner is responsible for ensuring to the satisfaction of the city, through some combination of plans, and deed restrictions that all future oxners will conplate the implementation of the Reclanction Plan.
10. To ensure that all elements of the approved Reclamation Plan have been compieted anc fully implemented, the Quarry owner or successors in
talled comprehensive report certifying full implementation and compliance with the approved Reclamation Plan.
11. In the avent it becomes necessary to enforce by litigation any of the terms of this plan the prevalling party shall be entitled to receive reasonable expenses and attorney's.fees.
12. The plan as herein approved shall be binding upon the current owners and operators of the quarry, as long as they haye an interest in the quarry, and their assigns, heirs, and successors in interest.
13. The applicant within ten working days of final approval of this plan shail record the reclamation plan as amended with the County of Alameda and shall proyide the Director of City Planning with a copy of the recorded materials.
24. Upon completion of the reclamation plan, the Quarry operator shall remove all equipment, structures, and bulldings related to quarrying
15. If any provision of this plan or the application thereof to any person or circumstance is held invalid, the remainder of these provisions and the application of such. provisions to other persons or circumstances shall not be affected thereby.


[^0]:    ${ }^{1}$ The Leona Quarry operates under an approved "Non-conforming Use Extension" permit with an approved Reclamation Plan from the City of Oakland (July 26, 1988)

