Solano County

675 Texas Street
Fairfield, California 94533
www.solanocounty.com

Agenda - Final

Thursday, November 15, 2018

7:00 PM

Board of Supervisors Chambers

Planning Commission

Any person wishing to address any item listed on the Agenda may do so by submitting a Speaker Card to the Clerk before the Commission considers the specific item. Cards are available at the entrance to the meeting chambers. Please limit your comments to five (5) minutes. For items not listed on the Agenda, please see “Items From the Public”.

All actions of the Solano County Planning Commission can be appealed to the Board of Supervisors in writing within 10 days of the decision to be appealed. The fee for appeal is $150.

Any person wishing to review the application(s) and accompanying information may do so at the Solano County Department of Resource Management, Planning Division, 675 Texas Street, Suite 5500, Fairfield, CA. Non-confidential materials related to an item on this Agenda submitted to the Commission after distribution of the agenda packet are available for public inspection during normal business hours and on our website at www.solanocounty.com under Departments, Resource Management, Boards and Commissions.

The County of Solano does not discriminate against persons with disabilities and is an accessible facility. If you wish to attend this meeting and you will require assistance in order to participate, please contact Kristine Sowards, Department of Resource Management at (707) 784-6765 at least 24 hours in advance of the event to make reasonable arrangements to ensure accessibility to this meeting.

AGENDA

CALL TO ORDER

SALUTE TO THE FLAG

ROLL CALL

APPROVAL OF AGENDA

APPROVAL OF THE MINUTES

PC 18-050 November 1, 2018 PC Minutes

Attachments: draft minutes

ITEMS FROM THE PUBLIC:

This is your opportunity to address the Commission on a matter not heard on the Agenda, but it must be within the subject matter jurisdiction of the Commission. Please submit a Speaker Card before the first speaker is called and limit your comments to five minutes. Items from the public will be taken under consideration without discussion by

the Commission and may be referred to staff.

REGULAR CALENDAR

1 **PC 18-047** Public Hearing to consider Extension No. 1 of Reclamation Plan No. RP-97-02 for the Nelson Hill Quarry located off Cordelia Road adjacent to the boundaries of Fairfield on Assessor's Parcel Numbers 0044-230-030 and 0044-240-050. (Project Planner: Karen Avery) Staff Recommendation: Approve the extension

Attachments: A - Draft PC resolution
B - IMP Request & Application
C - Approved IMP 2013

2 **PC 18-051** Continued public hearing to consider Rezoning Petition No. Z-17-04 and Minor Subdivision Application MS-17-06 of Hubert & Aurelia Goudie and William & Sylvia Marshalonis to rezone 15.69 acres from Rural Residential "RR-2.5" and Exclusive Agriculture "A-20" to Rural Residential "RR-5"; and subdivide two existing parcels into three lots. The property is located at 4420 Peaceful Glen Road, 2.5 miles north of the City of Vacaville, APN's: 0105-060-390 and 40. (Project Planner: Eric Wilberg) Staff Recommendation: Continue the item to the regular meeting of December 6, 2018

ANNOUNCEMENTS AND REPORTS

ADJOURN

To the Planning Commission meeting of December 6, 2018 at 7:00 P.M., Board Chambers, 675 Texas Street, Fairfield, CA

Solano County

675 Texas Street
Fairfield, California 94533
www.solanocounty.com

Agenda Submittal

Agenda #:		**Status:**	PC Minutes
Type:	PC-Document	**Department:**	Planning Commission
File #:	PC 18-050	**Contact:**	Kristine Sowards, 784.6765
Agenda date:	11/15/2018	**Final action:**	
Title:	November 1, 2018 PC Minutes		
Governing body:	Planning Commission		
District:			
Attachments:	draft minutes		

Date	Ver.	Action By	Action	Result

MINUTES OF THE SOLANO COUNTY PLANNING COMMISSION

Meeting of November 1, 2018

The regular meeting of the Solano County Planning Commission was held in the Solano County Administration Center, Board of Supervisors' Chambers (1st floor), 675 Texas Street, Fairfield, California.

PRESENT: Commissioners Rhoads-Poston, Walker, Hollingsworth, Bauer, and Chairperson Cayler

EXCUSED: None

STAFF PRESENT: Mike Yankovich, Planning Program Manager; Eric Wilberg, Planner Associate; Jim Laughlin, Deputy County Counsel; and Kristine Sowards, Planning Commission Clerk

Chairperson Cayler called the meeting to order at 7:00 p.m. with a salute to the flag. Roll call was taken and a quorum was present.

Approval of the Agenda
The Agenda was approved with no additions or deletions.

Approval of the Minutes
The minutes of the regular meeting of October 4, 2018 were approved as prepared.

Items from the Public
There was no one from the public wishing to speak.

Regular Calendar

Item No. 1.

CONTINUED PUBLIC HEARING to consider Rezoning Petition No. Z-17-04 and Minor Subdivision Application MS-17-06 of Hubert & Aurelia Goudie and William & Sylvia Marshalonis to rezone 15.69 acres from Rural Residential "RR-2.5" and Exclusive Agriculture "A-20" to Rural Residential "RR-5"; and subdivide two existing parcels into three lots. The property is located at 4420 Peaceful Glen Road, 2.5 miles north of the City of Vacaville, APN's: 0105-060-390 and 40. (Project Planner: Eric Wilberg) **Staff Recommendation:** Approve the minor subdivision application and recommend rezoning approval to the Board of Supervisors

Eric Wilberg noted that this item was continued from the October 4, 2018 Planning Commission hearing. At that hearing, the applicant's representative stated concerns during the public comment period regarding a condition of approval related to road improvements. The Condition No. 8 would require the construction of a private roadway to serve proposed

Parcel 2. As conditioned, the roadway would extend from Timm Road, across APN 0105-060-240, then to the eastern property line of proposed Parcel 2.

Mr. Wilberg further noted that the applicant's representative presented the case to the commission that the ongoing use of proposed Parcel 2 is intended for agricultural purposes and that no residential development is proposed as part of this project. It was also stated that the property has been historically utilized solely for dry farming and that upgrading the existing access to private road standards would prove excessive and too costly for current and future uses on-site. At the end of that meeting, the commission directed the department to explore alternative road improvements for access to proposed Parcel 2.

Mr. Wilberg stated that Conditions of Approval Nos. 9 and 10 in the resolution attached to staff's report reflect changes to the previous condition. The newly proposed conditions address the scope and sequencing of the road improvements required to serve proposed Parcel 2. In general, road improvements have been reduced to a commercial driveway apron at Timm Road and a 50-foot stretch of private driveway outside of the public right-of-way.

Mr. Wilberg pointed out that since the drafting of that resolution, staff received correspondence from a neighboring property owner who had additional concerns regarding access to the proposed project. Based in part on those concerns, staff requested that the commission continue this item to allow sufficient time to review the new information.

Since there were persons in the audience wishing to speak on this item, Chairperson Cayler opened the public hearing.

Charles Wood, Mattice Law Offices, Jefferson Street, Fairfield, appeared before the commission. He stated that he agreed with the request for a continuance. He noted that he had submitted a letter to staff dated October 31, 2018 on behalf of Robert and Diane Karn ("Karns") who are neighbors of the project. The letter voiced concern pertaining to road access. Mr. Wood stated that he believes the commission should examine exactly how the parcel he refers to in his letter as landlocked is going to be accessed. He said it was their understanding the Goudie family were not going to access the property through the old easement, however lately they have asserted that the easement is good. Mr. Wood commented that they would like time to work out this issue with the applicant. He suggested that the commission review this application by looking at all the Goudie properties concurrently as it pertains to access from the public road.

The property owner, Al Goudie, Peaceful Glen Road, Vacaville, stated that the purpose of this project is simply to sell grandma's house. Mr. Goudie noted that they have been trying to accomplish this task for almost two years and keep getting delayed by this disgruntled neighbor. Mr. Goudie stated that Mr. Karn seems to think that his antics will allow him cause to get an easement vacated. He stated that the easement has been standing for 118 years untouched, unmolested, and unbothered. He said Mr. Karn's contention that the additional parcel of land is landlocked is untrue. Mr. Goudie noted that he has a map depicting two separate easements, as well as deeds showing that the parcel is not landlocked. Mr. Goudie requested that the commission not delay this matter any further and decide on the application tonight. He stated that if the commission would like to add a condition of approval requiring verification that the parcel is not landlocked, they would be happy to accept that condition.

Brian Goudie, Peaceful Glen Road, Vacaville, introduced a map to the commission showing the easements serving the parcel being referred to as landlocked. He provided an overview of the map. He explained that the red outline is their parcel, and to the south is the 10-acre parcel that is supposedly landlocked. He described the lines depicted in blue, yellow and green as the different easements that are serving the parcel. Those were created in the early 1900's. Mr. Goudie reiterated that the parcel is not landlocked. In response to Commissioner Hollingsworth's question, Mr. Goudie stated that the easement the Karns have asked to be vacated is shown as the southern blue line that zig zags through the middle of the Karn parcel.

Commissioner Walker asked if staff also just received the documents that were handed out to the commission this evening. Mr. Wilberg stated that this is the first time that staff were seeing the documents.

Dan Figueroa, Master Planner from Community Planning Services, Dixon, spoke on behalf of the applicant. He handed out to the commission some documents relating to the property such as recorded easements, deeds, and map exhibits. He stated that he was late in handing out these materials because it took longer than expected to put this information together due to its complexity. Mr. Figueroa commented that this matter was continued from the last meeting to allow staff time to rewrite Condition No. 8 as well as modify a couple of related conditions. He stated that the issues raised at that meeting have been addressed and the applicant is accepting of all the conditions as written and they would like to move forward.

Mr. Figueroa spoke regarding the complaint. He explained that Mr. Karn's specific concerns were brought up a couple of months ago during a meeting with himself, county representatives, and the project engineer. Mr. Figueroa stated that the issues raised were not related to the parcel map at hand. He and the Goudie family continued with that understanding and felt comfortable that county staff had agreed as well. Mr. Figueroa made it known that there were also some allegations made in the letter by Mr. Wood that he would disagree with. Mr. Figueroa stated that this would be a civil matter and for that reason he did not want to go into too much detail.

Mr. Figueroa stated that Mr. Karn offered a solution which would be to eliminate the easement that runs through his property. Mr. Figueroa stated that this is a recorded easement that dated back to 1903 and was shown on the tentative map. He stated that he has never seen a map that abandons the Goudie's easement through the Karn property. He said the parcel the Karn family are complaining about is presently served by two recorded easements to Timm Road and are illustrated on the exhibits that he handed out. Mr. Figueroa commented that this would be a matter that should be discussed between the Goudie and Karn families and not before the planning commission.

Since there were no further speakers, Chairperson Cayler closed the public hearing.

Commissioner Bauer commented that the continuance appears to be a reasonable request and could possibly alleviate problems further down the road. She said that she would support a continuance.

Commissioner Hollingsworth agreed, he said in looking at these easements that run through the Karn property he could understand why they would have concern. He stated that he would

be hesitant to move forward with something that could end up in a lawsuit. He stated that he supported the request for a continuance.

Commissioner Rhoads-Poston asked about the possibility of approving this application contingent upon the proof that the easements are valid and real, so the property owner would not have to come back before the commission.

Jim Laughlin responded by stating that the 1903 map shows a right-of-way, but he does not know how the property was conveyed and whether anybody was led to believe that they had access rights to that road. That would depend upon searching the deeds. He stated that there is a 2002 parcel map that says the easement was being abandoned. Under the Map Act, once a map is approved with that condition, the public right of access in the 1903 map would have been extinguished. However, there may be underlying private easement rights to continue using that road. Mr. Laughlin stated that there would be no point in continuing this for a staff decision because it is up to a court to decide if there are any private rights to use that roadway. Mr. Laughlin stated that he would advise against approving this contingent upon on that factor.

Commissioner Walker asked what exactly it would be accomplishing to continue this matter if it will ultimately end up in court. He also wanted to know how a continuance would benefit the applicant or neighbor.

Mr. Laughlin stated that it would at least give staff a chance to look through the deeds to see whether there is even a colorable claim of easement. He said that currently there are a lot of unknowns. He stated that if nothing refers to the easement and there does not seem to be a legitimate claim, staff would feel more comfortable moving forward at that point one way or another.

Chairperson Cayler said that she would be inclined to agree. She believed there is too much information that was just put upon the commission and she would not feel comfortable voting on this especially when it affects so many people. Commissioner Cayler said she would support a continuance.

A motion was made by Commissioner Bauer and seconded by Commissioner Hollingsworth to continue this matter to the regular meeting of November 15, 2018. The motion passed unanimously.

ANNOUNCEMENTS and REPORTS
There were no announcements or reports.

Since there was no further business, the meeting was **adjourned**.

675 Texas Street
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Solano County

Agenda Submittal

Agenda #:	1	**Status:**	PC-Regular
Type:	PC-Document	**Department:**	Planning Commission
File #:	PC 18-047	**Contact:**	Karen Avery
Agenda date:	11/15/2018	**Final action:**	
Title:	Public Hearing to consider Extension No. 1 of Reclamation Plan No. RP-97-02 for the Nelson Hill Quarry located off Cordelia Road adjacent to the boundaries of Fairfield on Assessor's Parcel Numbers 0044-230-030 and 0044-240-050. (Project Planner: Karen Avery) Staff Recommendation: Approve the extension		
Governing body:	Planning Commission		
District:			
Attachments:	A - Draft PC resolution B - IMP Request & Application C - Approved IMP 2013		

Date	Ver.	Action By	Action	Result

RECOMMENDATION:

The Department of Resource Management recommends that the Planning Commission:

1. Adopt the attached Daft Resolution and Approve Extension No. 1 of the Interim Management Plan for Reclamation Plan RP-97-02; subject to the findings and recommended conditions of approval.

EXECUTIVE SUMMARY:

The quarry is located on property owned by the Nelson Family Living Trust located off Cordelia Road along the boundaries of Fairfield. The operator, Oliver de Silva Inc. has been operating a surface mine on the site for a number of years but due to economics in 2013 requested an Interim Management Plan pursuant to Section 2770 of the State Surface Mining and Reclamation Act (SMARA). This Interim Management Plan (IMP) was approved by the Planning Commission on October 3, 2013. The applicant is requesting a five-year extension of the IMP which will remain in effect from 2018-2023 or until such time the mine reactivates prior to October 3, 2023.

ENVIRONMENTAL ANALYSIS:

Review and approval of an Interim Management Plan is not considered a project for the purposes of the California Environmental Quality Act.

PROPERTY INFORMATION:

A. Applicant:
Oliver de Silva, Inc.
Attn: Alan French

11555 Dublin Boulevard
Dublin, CA 94568

Owner:
W & D Nelson Family Living Trust
F & P Nelson Family Living Trust
2435 Cordelia Road
Suisun City, CA 94585

B. General Plan Land Use Designation/Zoning:
General Plan: Urban Project Area Agricultural (UPA)
Zoning: Agricultural Suisun Valley (A-SV-20)

C. Existing Use: Idle mine

D. Adjacent Zoning and Uses:
North: City of Fairfield - Interstate 80
South: City of Fairfield - Recreation
East: Agricultural (A-40) - Row crops
West: City of Fairfield - Commercial and Residential

ANALYSIS:

A. Environmental Setting

The project site is situated on Nelson Hill which is adjacent to the boundaries with the City of Fairfield and accessed by Cordelia Road. Nelson Hill rises in elevation from approximately 20 feet average mean sea level (AMSL) at the base to approximately 320 AMSL at the crest. The Nelson Hill Quarry consists of approximately 70 acres. Vegetation and habitat within the operation area have largely been removed as a result of historic land use activities. Remnants of chaparral vegetation occur on the surrounding hill slopes along with mature scattered natural revegetation in the older disturbed areas of the quarry.

B. Project Description

History
The project site consists of two parcels (APNs 0044-240-050 and 044-230-030) which together are 232 ± acres and is known as the Nelson Hill Quarry. The current disturbed area of the site is 70+ aces. Per County records, the quarry at Nelson Hill site began operations in the late 1800's. The Nelson Family acquired the quarry in 1934. In 1973, Oliver de Silva obtained control of the existing quarry operation with the Nelson Brothers. The Quarry has been in use by the current operator since the enactment of the Surface Mining and Reclamation Act (SMARA) on January 1, 1976. Mining has continued intermittently and seasonally as construction materials are needed by the operator. It should be noted that the mining operation component of the project was previously recognized as a vested right, with the operator limited to an annual amount historically mined at the site. As such the maximum annual limit established at the site is 242,239 tons with an average annual limit of 97,397 tons. A Reclamation Plan was filed in 2001 and approved by the Solano County Planning Commission on January 12, 2002.

Interim Management Plan
The Interim Management Plan is considered an amendment to the surface mining operation's approved reclamation plan. The purpose of the IMP is to state how the property owner or mine operation will maintain the site in compliance with the reclamation plan during the period the mine is idle. The plan encompasses conditions of approval of the reclamation plan and other updates to the reclamation plan over the life span of the quarry. A copy of the 2013 IMP is attached, financial information for that time period is not included in the

attachment as the 2013 financial information has been updated annually since approval of the IMP.

County staff, including the county geologist, conducted the annual inspection of the mine site on September 10, 2018. The result of the annual inspection found that the owner was maintaining the site as per the IMP and Reclamation Plan.

As per the Solano County Code Chapter 29 Surface Mining and Reclamation, financial assurances are to remain current during the five-year period that the surface mining operation is idle. The purpose of having financial assurances in place is to ensure that the cost of reclaiming the site is covered should the operator abandon the site leaving Solano County to reclaim the site. SMARA requires Financial Assurance Cost Estimates (FACE) be submitted annually by the applicant. The applicant has submitted a new Financial Assurance Cost Estimate (FACE) which been reviewed by County staff and is pending resubmittal by the applicant.

The operator has a Financial Assurance Mechanism (FAM) on file with the County for the mine site in the form of a surety bond in the amount of $70,046.23. This amount is in compliance with the most recently approved Financial Assurance Cost Estimate.

The IMP extension will be in effect for a period not to exceed five years, October 3, 2023, at which time the applicant any apply for a renewal of the IMP, begin reclamation of the mine site, or reactivate the mine.

C. General Plan and Zoning Consistency

The Solano County General Plan designates this area as Urban Project Area which reflects the city-designated master plan, specific plan or other future plans anticipated by the City of Fairfield. The parcel is zoned Agricultural Suisun Valley “A-SV-20”. Surface mining operations are permitted with an approved use permit per Chapter 28.23 Table 28-23a of the Solano County Zoning Regulations. However, the site has a vested right to mine and a use permit is not required. The applicant has an approved Reclamation Plan and the request for an extension of the Interim Management Plan is consistent with the General Plan and Zoning Regulations.

D. Development Review Committee

As part of the project review process, the application is reviewed by various divisions within the Department of Resource Management:

Environmental Health Division
No comment on the IMP extension were received.

Public Works Engineering
No comment on the IMP extension were received.

Building Division
No comments on the IMP extension were received.

E. Outside Agency Review

Department of Conservation
The IMP extension request was forwarded to the Department of Conservation’s Division of Mine Reclamation. No comments have been received.

City of Fairfield

The IMP extension request was forwarded to the City of Fairfield's Planning Department. No comments on the project were received.

F. Recommendation

Staff recommends approval of Extension No. 1 of the Interim Management Plan for Reclamation Plan 97-02 for the Nelson Hill Quarry project based on the Findings below.

FINDINGS:

1. The review, approval, and extension of an Interim Management Plan is not considered a project for the purposes of the California Environmental Quality Act (CEQA).

2. The approved IMP is considered an amendment to the surface mining operation's approved reclamation plan.

3. The operator shall implement measures in the IMP to maintain the site in compliance with all permit conditions.

4. With this extension, the IMP shall remain in effect for a period not to exceed five years; October 3, 2023.

5. The required financial assurances for the mine operation shall remain in effect during the period that the mining operation is idle.

6. The surface mining operation shall commence reclamation in accordance with its approved reclamation plan if the surface mining operation is still idle after the expiration of its IMP.

Attachments:

A - Draft Resolution

B - IMP Request and Application

C - Approved IMP (2013)

SOLANO COUNTY PLANNING COMMISSION
RESOLUTION NO. XX

WHEREAS, the Solano County Planning Commission has considered Extension No. 1 of Interim Management Plan for Reclamation Plan No. RP-97-02 of **Nelson Hill Quarry (Oliver de Silva, Inc.)** located on Cordelia Road east of the City of Fairfield in an "A-SV-20" Suisun Valley Agricultural Zoning District, APN's: 0044-230-030 & 0044-240-050, and;

WHEREAS, the Commission has reviewed the report of the Department of Resource Management and heard testimony relative to the subject application at a noticed public hearing held on November 15, 2018, and;

WHEREAS, after due consideration, the Planning Commission has made the following findings in regard to said proposal:

1. The review and approval of an IMP extension is not considered a project for the purposes of the California Environmental Quality Act (CEQA).

2. The approved IMP is considered an amendment to the surface mining operation's approved reclamation plan.

3. The operator shall implement measures as outlined in the IMP to maintain the site in compliance with all permit conditions.

4. With this extension, the IMP shall remain in effect for a period not to exceed five years; October 3, 2023.

5. The required financial assurance shall remain in effect during the period that the surface mining operation is idle.

6. The surface mining operation shall commence reclamation in accordance with its approved reclamation plan if the surface mining operation is still idle after the expiration of its IMP.

BE IT, THEREFORE, RESOLVED, that the Planning Commission of the County of Solano does hereby approve a Five-Year Interim Management Plan for Nelson Hill Quarry.

****

I hereby certify that the foregoing resolution was adopted at the regular meeting of the Solano County Planning Commission on November 15, 2018 by the following vote:

AYES: Commissioners _____

_____

NOES: Commissioners _____

EXCUSED: Commissioners _____

By: _____
Bill Emlen, Secretary

Oliver de Silva, INC.
GENERAL ENGINEERING CONTRACTORS - MATERIALS DIVISION
STATE CONTRACTOR'S LICENSE NO. 141140
P.O. BOX 2922 • DUBLIN, CA 94568

September 3, 2018

Karen Avery
Solano County
Senior Planner – Planning Division
Department of Resource Management

RE: NESLON HILL QUARRY (CA MINE ID NO. 91-48-0001) IMP EXTENSION

Dear Ms. Avery,

As you know, Nelson Hill Quarry is currently idle pursuant to the interim management plan (IMP) approved by Solano County in October 2013. The demand for construction aggregate materials this quarry provides has been low for several years due to the local and regional economy. Nelson Hill Quarry is a fully permitted mining operation with significant reserves. Production from this site is fully intended to resume when the economics are favorable.

DeSilva Gates Aggregates, lessee and operator of Nelson Hill Quarry, has complied with all conditions of the IMP.

This letter formally requests that Solano County extend the term of the IMP for an additional 5 years as provided in Public Resources Code § 2770 (H)(2)(a) and on page 6 of the IMP.

DeSilva Gates Aggregates has been in full compliance with the current IMP. The site is stable and is graded to retain storm runoff onsite. Inspection have been made prior to and after Major Storm Events, with no issues to report. Fencing and gates are kept in good order and locked when no one is on site.

Please find attached the 2013 IMP.

Sincerely,

Matt Eala
Compliance Manager

RECEIVED
SEP 10 2018
COUNTY OF SOLANO
RESOURCE MANAGEMENT

Solano County Department of
Resource Management
675 Texas St., Suite 5500 • Fairfield, California 94533 • (707) 784-6765

RECLAMATION PLAN

APPLICATION NUMBER: RP-97-02 IMP Ext 1 FILING DATE: 9/10/18

OWNER, OPERATOR, AND AGENT: *

1. Applicant

Name	Oliver de Silva, Inc.	Attn: Alan French
Address	11555 Dublin Boulevard	
City	Dublin, CA 94568	
Telephone	(925) 361-1380	
Email address	AFrench@desilvagates.com	

2. Name (if any) of mineral property
Nelson Hill - Cordelia Quarry

3. Property owners or owners of surface rights (list all owners)

Name	W and D Nelson Family Living Trust F and P Nelson Family Living Trust	
Address	2435 Cordelia Road	
City	Suisun City, CA 94585	
Telephone		

4. Owners of mineral rights

Name	W and D Nelson Family Living Trust F and P Nelson Family Living Trust	
Address	2435 Cordelia Road	
City	Suisun City, CA 94585	
Telephone		

5. Lessee

Name	Oliver de Silva, Inc.	Attn: Alan French
Address	11555 Dublin Boulevard	
City	Dublin, CA 94568	
Telephone	(925) 361-1380	

USE ADDITIONAL PAGES WHEN NECESSARY

6. Operator

Name	Oliver de Silva, Inc.	Attn: Alan French
Address	11555 Dublin Boulevard	
City	Dublin, CA 94568	
Telephone	(925)361-1380	

7. Agent of process (Persons designated by operator as his agent.)

Name		
Address		
City		
Telephone		

LOCATION: *

8. Brief description, including legal, of the extent of the mined lands (to be) involved by this operation, including total acreage.
Section(s) 5 and 6 (extended) Township 4N
Range 2W Meridian Mt. Diablo

9. Describe the access route to the operation site.
Access is provided by Cordelia Road, which lies adjacent to the southern site boundary. A private paved driveway, located approximately one mile east of Pittman Road accesses the mining are from Cordelia Road.

10. Location and vicinity (attach map).
See applicatyion continuation pages.

DESCRIPTION: *

11. Mineral commodity (to be) mined.
See applicatyion continuation pages.

12. Geologic description, including brief general geologic setting, more detailed geologic description of the mineral deposit (to be) mined, and principal minerals or rock types present.
See applicatyion continuation pages.

* USE ADDITIONAL PAGES WHEN NECESSARY

13. Brief description of environmental setting of the site and the surrounding areas. Describe existing area land use, soil, vegetation, ground water elevation and surface water characteristics, average annual rainfall and/or other factors pertaining to environmental impacts and their mitigation and reclamation.
See application continuation pages.

PROPOSED (EXISTING) SURFACE MINING OPERATION: *

14. Proposed starting date of operation: Ongoing
Duration of first phase: 15 to 25 years
Estimated life of operation: Undetermined. planned through 2025

15. Operation will be (is):

- ☐ Continuous
- ☒ Seasonal
- ☒ Intermittent
- ☐ Developed, not yet in operation
- ☐ Temporarily deactivated
- ☐ Stockpile in mine

16. Operation will be (is):

- ☒ Under 5,000 tons cu. yds/yr
- ☒ 5,000-50,000 tons cu. yds/yr
- ☒ 50,000-250,000 tons cu. yds/yr
- ☐ 250,000-1,000,000 tons cu. yds/yr
- ☐ Over 1,000,000 tons cu. yds/yr

17. Total anticipated production

Mineral commodities to be remove	7.5 Million	tons (cu. yds.)
Waste retained on the site	0	tons (cu. yds.)
Waste disposed off the site	0	tons (cu. yds.)
Maximum anticipated depth	35 to 40	feet

18. Mining Method (Check all applicable)

- ☒ Open Pit
- ☐ Single Bench
- Quarry:
- ☒ Hill Top
- ☐ Gravel/Sand Pit
- ☐ Drill and Blast
- ☐ Clay Pit

* USE ADDITIONAL PAGES WHEN NECESSARY

☐	Multi-bench	☒	Borrow Pit

18. Mining Method Cont. (Check all applicable)

☐	Side Hill	☐	Tailings Pond
☐	Dragline	☐	Slurry Pump
☐	Low Level	☐	Waste Dump
☐	Shovel	☐	Rail
☐	Underground	☐	Truck to plant
☐	Gravel Bar	☐	Truck to RR
☐	Skimming	☐	Other _____

19. If processing of the ores or minerals mined is planned to be conducted at or adjacent to the site, briefly describe the nature of the processing and explain disposal method of the tailing or waste from processing.
See application continuation pages.

20. Estimate quantity (gallons per day) and quality of water required by the proposed operation, specifying proposed sources of this water, of method of its conveyance to this property and the quantity and quality and method of disposal of used and/or surplus water.
See application continuation pages.

21. If the nature of the deposit and the mining method used will permit, describe and show the steps or phases of the mining operation that allow concurrent reclamation, and include a proposed time schedule for such concurrent activities.
Phasing is not generally applicable. See application continuation pages.

22. Attach a map of the mined lands and/or suitable aerial photograph showing:

(a) Boundaries and topographic details of the site.

(b) Location of all streams, roads, railroads, water wells, and utility facilities within 500 feet of the site.

(c) Location of all currently proposed access roads to be constructed in conducting the surface mining operation(s).

(d) Location of areas (to be) mined, and of waste dumps and tailings ponds.

* USE ADDITIONAL PAGES WHEN NECESSARY

(e) By use of overlay symbol or color, depiction of separate mining phases if applicable (see item #21).

(f) The source of map base, orientation (north arrow), and scale (e.g. 1" = 500', etc.) of map.

RECLAMATION PLAN: *

23. Indicate on an overlay map of item #22, or by color or symbol on map those areas to be covered by reclamation plan.
Acreage Approximately 70 acres

24. Describe the ultimate physical condition of the site and specify proposed uses(s), or potential uses, of the mined lands as reclaimed.
See application continuation pages.

25. Describe relationship of the interim uses other than mining and the ultimate physical condition to:

(a) Zoning regulations.
See application continuation pages.

(b) General plan and plan elements.
See application continuation pages.

26. Provide evidence that all owners of a possessory interest in the land have been notified of the proposed uses(s) or potential uses identified in item #23. (Attach copy of notarized statement of acknowledgement, etc.
See Attachment B

* USE ADDITIONAL PAGES WHEN NECESSARY

27. Describe soil conditions and proposed soil salvage plan.
See application continuation pages.

28. Describe the methods, their sequence and timing, to be used in bringing the reclamation of the land to its end state. Indicate on map (item 22-23) or on diagrams as necessary. Include discussion of the pertinent items listed below.

(a) Backfilling and grading.

(b) Stabilization of slopes.

(c) Stabilization of permanent waste dumps, tailings, etc.

(d) Rehabilitation of pre-mining drainage.

(e) Removal, disposal, or utilization of residual equipment, structures, refuse, etc.

(f) Control of contaminants, especially with regard to surface runoff and ground water.

(g) Treatment of streambeds and streambanks to control erosion and sedimentation.

(h) Removal of minimization of residual hazards.

(i) Resoiling, revegetation with evidence that selected plants can survive given the site's topography, soil and climate.

29. If applicant has selected a short term phasing of his reclamation, describe in detail the specific reclamation to be accomplished during first phase.
See application continuation pages.

30. Describe how reclamation of this site in this manner may affect future mining at this site and in the surrounding area.
See application continuation pages.

STATEMENT OF RESPONSIBILITY:

I Jim Summers, the undersigned, hereby submit this plan to the Planning Services Division of the Department of Resource Management of Solano County and accept the responsibility for reclaiming the mined lands in the manner described herein, and attached, forming the reclamation plan for the Nelson Hill Quarry mine (mill, project, etc.).

Signature James B. Summers / Vice President / Olivo deSilva, Inc.

Dated 9/6/2018

The foregoing Reclamation Plan was approved by the Solano County Planning Commission on _____ subject to the attached Conditions of Approval.

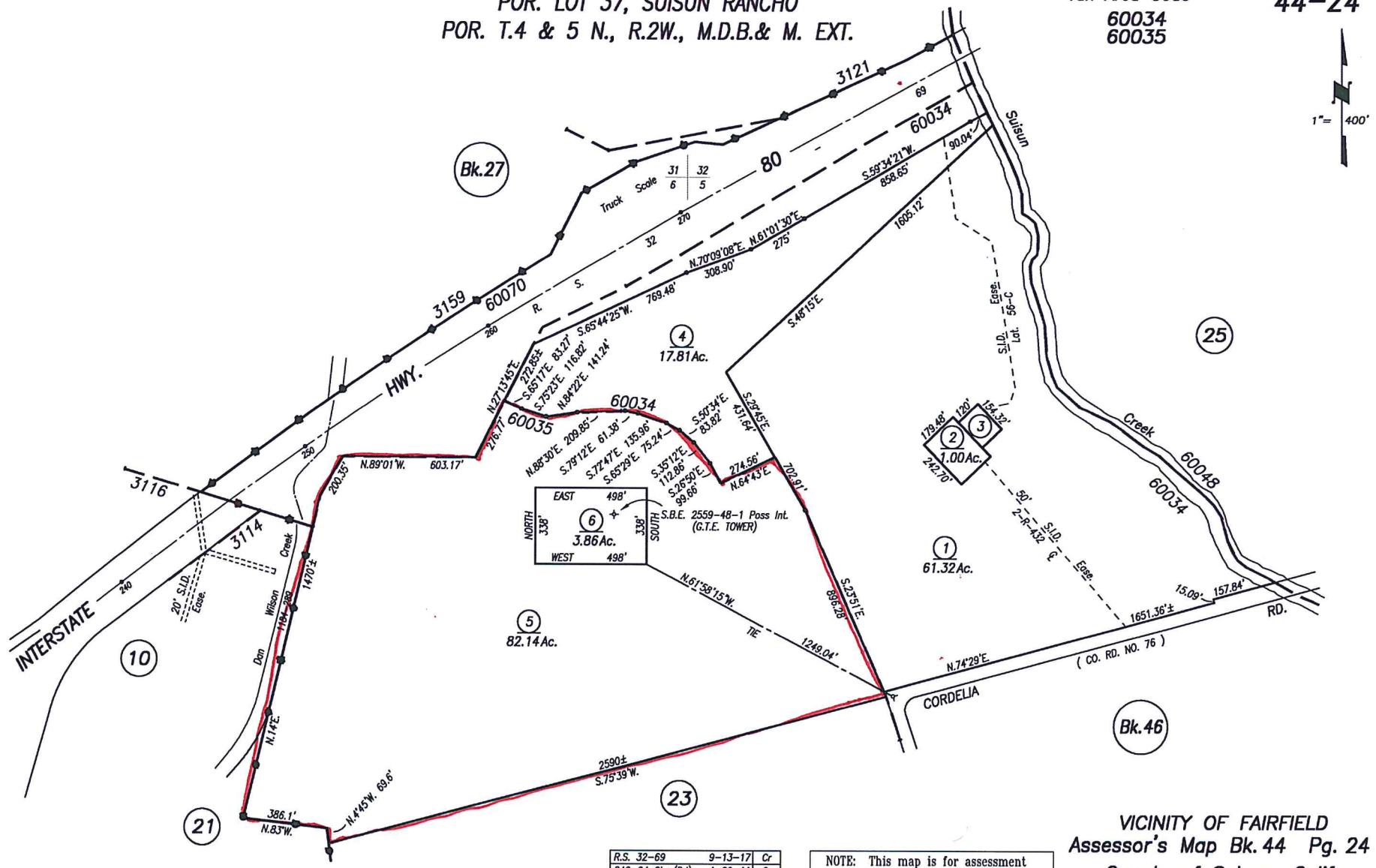
Signature _____
Bill Emlen, Director

* USE ADDITIONAL PAGES WHEN NECESSARY

POR. LOT 37, SUISUN RANCHO
POR. T.4 & 5 N., R.2W., M.D.B.& M. EXT.

Tax Area Code
60034
60035

44–24



Assessor's Block Numbers Shown in Ellipses, Assessor's Parcel Numbers Shown in Circles

REVISION	DATE	BY
R.S. 32-69	9-13-17	Cr
240-04 Chg.(Dd)	4-29-11	Cr
Remap From		
Bk.27 & 46	12-31-10	Cr

NOTE: This map is for assessment purposes only. It is not intended to define legal boundary rights or imply compliance with land division laws.

VICINITY OF FAIRFIELD
Assessor's Map Bk. 44 Pg. 24
County of Solano, Calif.

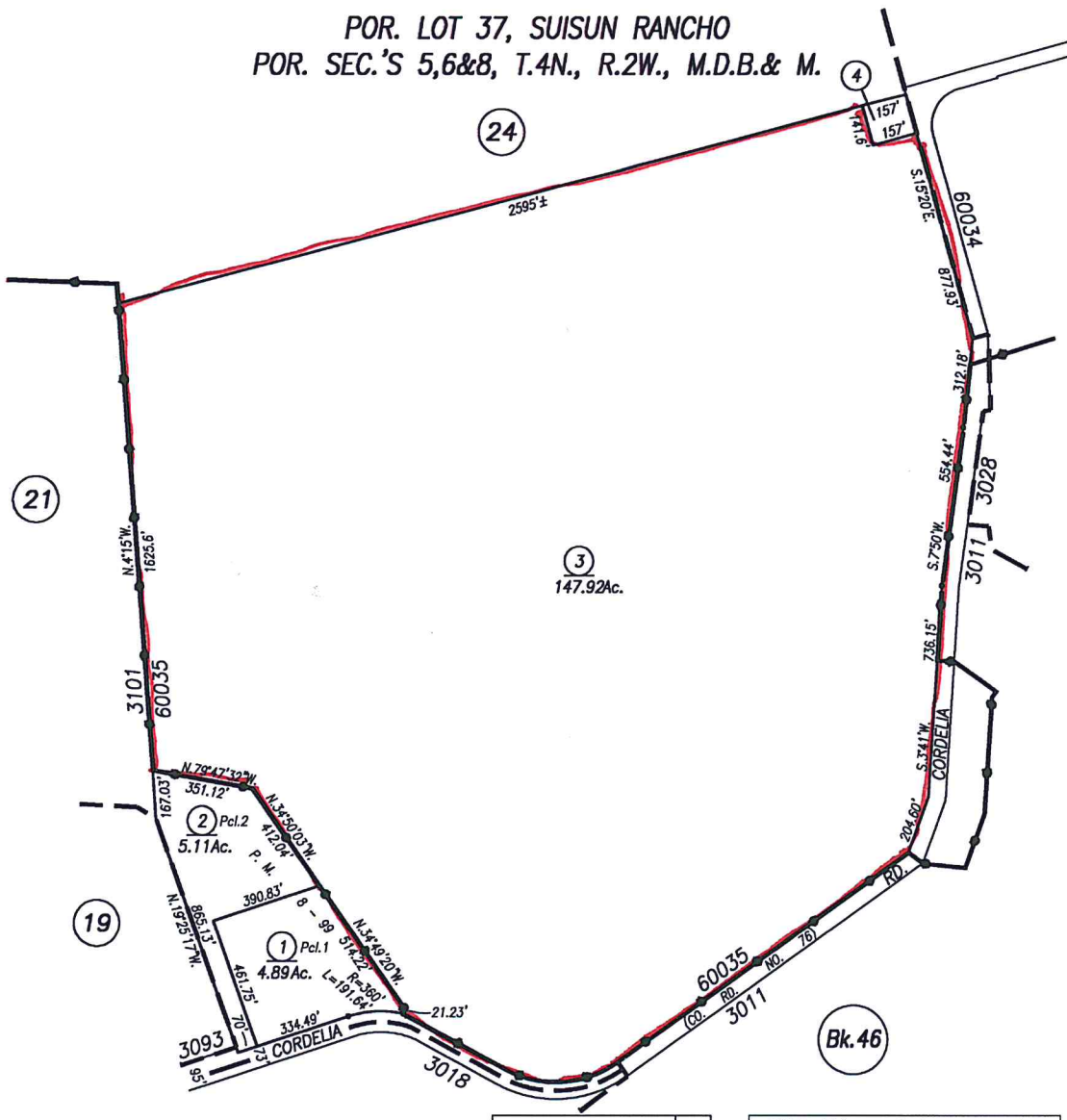
18–19

POR. LOT 37, SUISUN RANCHO
POR. SEC.'S 5,6&8, T.4N., R.2W., M.D.B.& M.

Tax Area Code
3101
60035

44–23

1"= 400'



Assessor's Block Numbers Shown in Ellipses, Assessor's Parcel Numbers Shown in Circles

REVISION	DATE	BY
Remap From Bk.46 12–31–10		Cr

NOTE: This map is for assessment purposes only. It is not intended to define legal boundary rights or imply compliance with land division laws.

CITY OF FAIRFIELD & VICINITY
Assessor's Map Bk. 44 Pg. 23
County of Solano, Calif.

11–12

NELSON HILL QUARRY

CALIFORNIA MINE ID No: 91-48-0001

INTERIM MANAGEMENT PLAN

JUNE | 2013

Lead Agency
Solano County, Department of Resource Management
675 Texas Street, Suite 5500, Fairfield, CA 94533

Owner/Operator
Oliver de Silva, Inc.
11555 Dublin Boulevard, Dublin, CA 94568

Preparer
Benchmark Resources
2515 East Bidwell Street, Folsom, CA 95630

BENCHMARK RESOURCES

Name and Address of Owner/Operator
(PRC §2772(c)(1)):

Oliver de Silva, Inc.
11555 Dublin Boulevard
Dublin, CA 94568

Name and Address of Agent
(PRC §2772(c)(1)):

Oliver de Silva, Inc.
11555 Dublin Boulevard
Dublin, CA 94568
Contact: Alan French
Telephone: (925) 361-1640
Facsimile: (925) 803-4326

STATEMENT OF RECLAMATION RESPONSIBILITY *(PRC §2772(c)(10))*

I certify that the information in this interim management plan is correct, to the best of my knowledge. I also certify that I am authorized on behalf of Oliver de Silva, Inc. to accept responsibility for reclaiming the mined lands described and submitted herein.

Signed this 25 day of June, 2013.

Alan French
for Oliver de Silva, Inc.

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APPENDICES

OPERATOR DATA

Operation Name:	Nelson Hill Quarry
California Mine Identification Number:	91-48-0001
Approved Reclamation Plan:	Reclamation Plan for Nelson Hill-Cordelia Quarry (Appendix A)
Reclamation Plan Approval Date:	2001
Mine Operator: **Street Address or P.O. Box:** **City, State, Zip Code:**	Oliver de Silva, Inc. 11555 Dublin Boulevard Dublin, CA 94568
Designated Agent: **Company:** **Street Address or P.O. Box:** **City, State, Zip Code:** **Telephone Number:**	Alan French Oliver de Silva, Inc. 11555 Dublin Boulevard Dublin, CA 94568 (925) 361-1640
Owner of Property Name: **Street Address or P.O. Box:** **City, State, Zip Code:**	W. and D. Nelson Family Living Trust/F. and P. Nelson Family Living Trust 2435 Cordelia Road Suisun City, CA 94585
Assessor's Parcel Numbers:	044-023-003 and 044-024-005
Location:	Nelson Hill is located approximately 5 miles west of central Fairfield, immediately south of Interstate 80.
Latitude and Longitude (at Center of Project):	Latitude: N 38°13'519" Longitude: W 122°6'57"
Directions to the Site:	From Interstate 80, take Suisun Road Exit, south 1-mile to Cordelia Road, east 1-mile to site entrance.
Total Area to be Mined:	Approximately 70± acres
Total Area to be Reclaimed:	Approximately 70± acres
IMP Initiation and Termination Dates:	*Initiation*: Upon County approval, expected June 2013. *Termination*: June 2018 (5-year term, per PRC §2770(h)(2)), or June 2023 if second 5-year term is applied.
Potential Land Use after Reclamation:	Open space consistent with Solano County A-20 agricultural zone
Financial Assurance:	The financial assurance cost estimate was updated in May 2013 (Appendix B)

1.0 SMARA OVERVIEW AND APPLICABILITY

1.1 SMARA OBJECTIVES

The California Legislature enacted the State Surface Mining and Reclamation Act (SMARA) in 1975, with subsequent amendments and revisions occurring after enactment. The legislature declared two central policies in the enactment of SMARA (California Public Resource Code (PRC) §2711(a)):

- Mineral extraction is essential to the State's continued economic well-being and
- Reclamation is necessary to protect the environment and public health and safety.

Given this intention, SMARA provides that no person shall conduct a surface mining operation without a lead agency–approved reclamation plan and financial assurance cost estimate (FAE) (PRC §2770 (a)). PRC §2773 requires reclamation plans to generally address wildlife habitat, the stability of slopes and grading of mined areas, revegetation, drainage and erosion control, removal of equipment and buildings, and disposal of tailings and other wastes. That same section provides that the details of each plan shall be determined by conditions specific to the mine site. In addition, reclamation plans, as required by PRC § 2772, shall include information on:

- The mine operator,
- The parcels to be mined,
- The type of minerals extracted,
- The proposed volume of minerals extracted,
- The time period during which mining is to be conducted,
- The methods employed to extract the minerals,
- The intended use of the land after mining, and
- How reclamation will be accomplished.

SMARA also requires a description of the "proposed use or potential uses" of a mined site after reclamation. That description is a product of the landowner's purposes for his property, the operators intended reclamation treatment, and the lead agency's approval of such plans consistent with general plan and zoning designations for the property.

A reclamation plan that, given a project's site-specific details, substantially meets those requirements and provides for financial assurance of reclamation, shall be approved by

the lead agency (PRC §2770 (d)). (See Appendix A, "Approved Reclamation Plan.") In combination with a vested right or lead agency-approved use permit to mine, the operator may begin or continue mining operations.

1.2 INTERIM MANAGEMENT PLAN REQUIREMENTS

During the life of a mining operation, situations may arise that require the operator to reduce the amount of material produced or stop production altogether. These situations (e.g., mechanical, economics) do not necessarily mean that the operator plans to abandon or cease operations forever, but remain "idle" until circumstances (typically market demand for the materials) change. In these events, when intent exists to restart or increase production at a later date, SMARA requires the operator to file an interim management plan (IMP).

A surface mining operation is considered idle when three conditions are met (PRC §2727.1):

- Production is reduced more than 90 percent of the previous maximum annual production;
- For one year or more; and
- The operator has intent to resume operations.

When all three conditions are met, an operator shall file an IMP with their lead agency. An IMP is a temporary reclamation plan amendment to address site-specific public health, safety, and environmental issues while the site is idle. An IMP is intended to provide measures to maintain compliance with SMARA during the period of nonoperation. An IMP is exempt from environmental review under the California Environmental Quality Act (PRC §2770(h)(1)), and no regulations have been promulgated by the State Mining and Geology Board (SMGB) detailing information necessary for a complete and adequate IMP. The SMGB, in June 1996, adopted guidelines clarifying what information should be included in an IMP, and in November 2006, adopted an IMP form to assist operators in meeting the existing statutory language.

The adopted IMP guidelines and form outlines what site-specific information should be included with the IMP, including:

- Operation name, address, and owner;
- Use permit, reclamation plan, and financial assurance information;

- Date site became idle and anticipated resumption of operations;
- Maximum and idle annual production;
- Description of surface mining activities;
- Erosion control plan;
- Revegetation plan;
- Public health and safety protection measures;
- Monitoring and maintenance plan; and
- Photos and maps.

The operator submits its IMP to the lead agency. Upon receipt, the lead agency has 60 days to review and approve the IMP (PRC §2770(h)(1)). The IMP is subject to review by the California Department of Conservation, which has 30 days to provide written comments (PRC §2774(c)). When approved, the IMP may remain in effect for five years. Upon expiration of the five-year term, the operator can renew the IMP for additional five-year period (PRC §2770(h)(2)).

1.3 APPLICABILITY

This IMP for the Nelson Hill Quarry has been prepared in accordance with requirements of SMARA and the SMGB's IMP guidelines and form. This IMP is submitted for purposes of statutory and regulatory compliance during a time of unprecedented reduction in demand for aggregate materials affecting operators statewide, including Nelson Hill Quarry. The FAE for the site was recently reviewed and updated per current California Department of Transportation equipment and State Department of Industrial Relations prevailing wage rates. The updated FAE is included as Appendix B, "Financial Assurance Cost Estimate." The financial assurance mechanism is included as Appendix C, "Financial Assurance Mechanism."

This IMP is expected to be valid until such time as the operator notifies the County that it has resumed operations at a level that exceeds the criteria for idle.

2.0 DESCRIPTION OF SURFACE MINING ACTIVITIES

2.1 SITE HISTORY

Historical data indicates the quarry at Nelson Hill began operations in the late 1800s. (See Appendix D, "Mining Permit and Resolution.") The quarry has been in use by the current operator since the enactment of SMARA on January 1, 1976. Mining continues intermittently and seasonally as construction material is needed by the operator. The quarry location is shown on Figure 1, "Regional Location."

2.2 MINING AND RECLAMATION OVERVIEW

The Nelson Hill Quarry is an open pit mining operation that is developed by progressively deeper excavation within a central pit area. Mining is completed with conventional earth-moving equipment (dozer, scraper, and loader). The material being mined is basaltic aggregate material used as a high quality fill. Phasing is generally not appropriate for this method of mining. There are no progressive mine waste disposal sites, multiple pits, tailings, or other such mine facilities to be reclaimed as mining progresses. The current site conditions and reclamation plan boundary are shown on Figure 2, "Existing Conditions Aerial Photograph."

The primary opportunity for phasing is related to the area needed for active mining. The operator plans to mine and grade the site in two general phases that will provide relatively uniform excavation elevations that will facilitate a second use:

- Phase I will be the lower quarry elevations (approximately 220 to 245 feet AMSL), and will surround a central depression design to accept sheet flow surface runoff from the mining area, controlling siltation. The central area will have two basins with the capacity to accept the surface run-off over the mining area from at least a 20-year, one-hour intensity storm event.
- Phase II will be a larger bench/graded area surrounding Phase I (approximately 245 to 255 feet AMSL).

Although the timing of phase development is speculative due to the cyclical nature of the mining, for planning purposes Phase I is expected to require 15 to 25 years; Phase II would occur thereafter. Phasing could be accelerated if local building requiring fill increases, or could be extended, depending on economic and market trends. As the mining areas are already disturbed by historic land use activities, overlap of phasing is expected.

The approved reclaimed second land use at this site is open space. The physical condition of the mining area will be graded and leveled area surrounding a central drainage depression. Interbench slopes will be graded at approximately 2:1. The mined areas will be revegetated with annual grasses to control erosion. This reclaimed configuration is designed to accommodate second land uses currently allowed by the Solano County General Plan and Zoning, or future development if changes in the General Plan and Zoning occur.

The basins designed to collect surface water drainage from the mining area will remain; maintenance (periodic vegetation removal) will be the responsibility of the owner following the completion of reclamation.

Facilities that occur independent of the mining operation, including the access road and water well, will remain for potential second land uses. The cellular communication site (unrelated to mining) will also remain. Permanent and temporary buildings related to mining operations will be removed. All scrap, waste, and equipment remaining from past and current activities will be removed.

2.3 CURRENT OPERATIONS

Phase I is expected to occur over a period of 15 to 25 years. The frequency of mining and duration of phases will continue to be in response to market demand.

Reasonably foreseeable mining operations are expected to continue for at least 25 years, though available geologic information indicated mining reserves may be available to continue operations for many decades. For planning purposes, a Phase I area has been delineated for current operations through December 2025; Phase II, if necessary, would occur thereafter and is expected to terminate December 2040.

3.0 IMP IDLE STATUS CRITERIA

As described in Section 1.2, a surface mining operation would be considered idle (i.e., requiring approval of an IMP) when three statutory conditions have been satisfied. The following sections identify those criteria and how they are currently satisfied by the Nelson Hill Quarry, thereby requiring this IMP. Existing conditions photographs are shown on Figures 3, 4, and Figure 5, "IMP Conditions Photographs."

3.1 REDUCED PRODUCTION

The primary requirement before designating an operation idle is a reduction in on-site production "by more than 90 percent of the previous maximum annual mineral production" (PRC §2727.1).

Due to a downturn in the economy, and associated lack of demand for construction materials Nelson Hill Quarry has not been used as a source of construction fill over the last five years.

3.2 TIME PERIOD

Designated idle status does not occur until a site meets production requirements, discussed above, for a period of one year or more (PRC §2727.1).

As of 2012, the Nelson Hill Quarry has not experienced an increase in production sufficient to exceed 10 percent of the previous maximum annual production; therefore idle status is appropriate.

3.3 INTENT TO RESUME OPERATIONS

An operation will only be considered idle when there is intent to resume operations at a future date (PRC §2727.1).

The date for resuming full operation of Nelson Hill Quarry site has not been determined; this IMP includes plans for the maximum initial period provided under the statute. Resumption of operations is planned at the earliest possible date, as dictated by market conditions and materials demand.

Oliver de Silva, Inc. requests IMP approval through June 2018 based on anticipated County approval of the IMP in June 2013. A second five-year period may be requested, if necessary, at that time extending IMP statues through June 2023.

4.0 INTERIM MANAGEMENT MEASURES

4.1 PURPOSE AND GOALS

The following sections outlined interim reclamation actions in conformance with the approved reclamation plan for the postmining land uses. These interim reclamation actions would be implemented, as necessary, until designating Nelson Hill Quarry as idle is no longer necessary.

The existing conditions of approval for the Nelson Hill Quarry Reclamation Plan do not include any conditions that apply to site maintenance during idle periods. Therefore, interim management actions provided below are targeted at the purposes and requirements of an IMP as outlined in PRC §2770(h).

4.2 ACTIONS

4.2.1 Erosion Control Plan

Soil erosion has the potential to occur along the unpaved quarry roads and on the quarry floor. Nelson Hill Quarry, however experiences little or no runoff due to soil conditions. Further, disturbed surfaces drain internally within the quarry. (See Appendix E, "Screening-Level Hydrology Analysis.")

Actions

IMP-1: Disturbed Surfaces—Should soil stabilizing practices be needed, straw mulch will be used as necessary to control soil erosion.

IMP-2: Topsoil and Overburden Stockpiles—Topsoil and overburden stockpiles shall be planted with a suitable cover crop mix. The cover crop mix selected shall include plants that grow sufficiently in summer and winter to control erosion.

IMP-3: Grading—Disturbed surfaces shall be graded in a manner that directs runoff away from the top of site perimeter slopes and to depressions (e.g., sediment ponds) within the site that captures potential sediment.

IMP-4: Drainage Features—Drainage features shall be constructed to facilitate collection and treatment of drainage.

4.2.2 Revegetation Plan

If erosion occurs on-site and other erosion control measures do not obtain desired result, seeding for erosion control may be used. Any such seeding will incorporate the following measures:

Actions

IMP-5: Revegetation—Stabilizing revegetation, if necessary, will use drought tolerant plant species common to the site and surrounding area that have evidenced success on disturbed soils and consistent with the approved reclamation plan.

IMP-6: Minimized Disturbance—Disturbed areas shall be minimized and natural ground cover maintained when practical.

4.2.3 Public Safety

Nelson Hill Quarry is private property; it is not envisioned that idle conditions would increase the level of public exposure to risks at the site. However, trespass or inadvertent entry may be a concern. Potential hazards may include falling or injury.

Actions

IMP-7: Fencing—Entrance fencing and signage at the site entrance will be maintained. Appropriate contact information will be displayed.

IMP-8: Gates—The entrance gate will remain locked when no personnel are on-site.

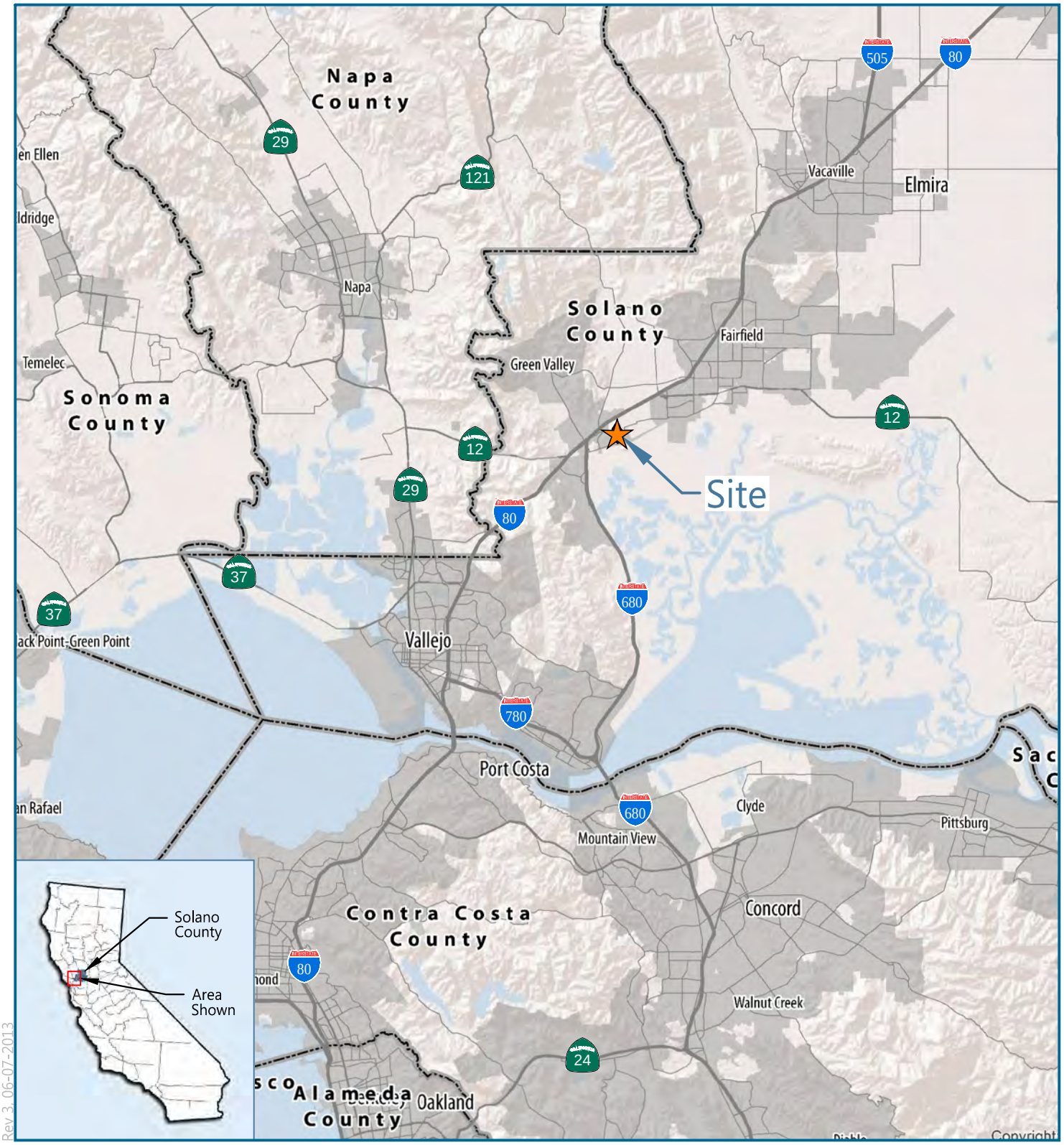
4.3 MONITORING AND MAINTENANCE

The site will be maintained and monitored throughout the applicability of this IMP to ensure compliance with the actions described in Section 4.2. Table 4.0-1, "Monitoring and Maintenance Schedule," provides an approximate schedule of maintenance and monitoring to be performed throughout the life of the IMP on a yearly basis. The site will be visited by the operator to inspect conditions no less than quarterly; site visits are typically conducted monthly.

TABLE 4.0-1
MONITORING AND MAINTENANCE SCHEDULE

Event	Tasks
Before Winter Rains (October/November)	• Erosion control measures are in place, located in proper locations, and in working function. As drainage is primarily inherent to the quarry area, observations are intended to simply confirm runoff is directed to the site interior.
Major Storm Events (October–March) (Events defined as exceeding 2 inches precipitation in a 24-hour period)	• Established erosion control measures (primarily grading for internal drainage) are working properly; and • Additional and/or replacement nonfunctioning erosion control measures are implemented (e.g., hay bales or straw wattles to control sedimentation from off-site).
Illegal Dumping or Break-in/Theft	• Report such activity to law enforcement.

FIGURES



Rev 3, 06-07-2013

SOURCE: ESRI Shaded Relief 2009

500' 0 5 Miles

NORTH

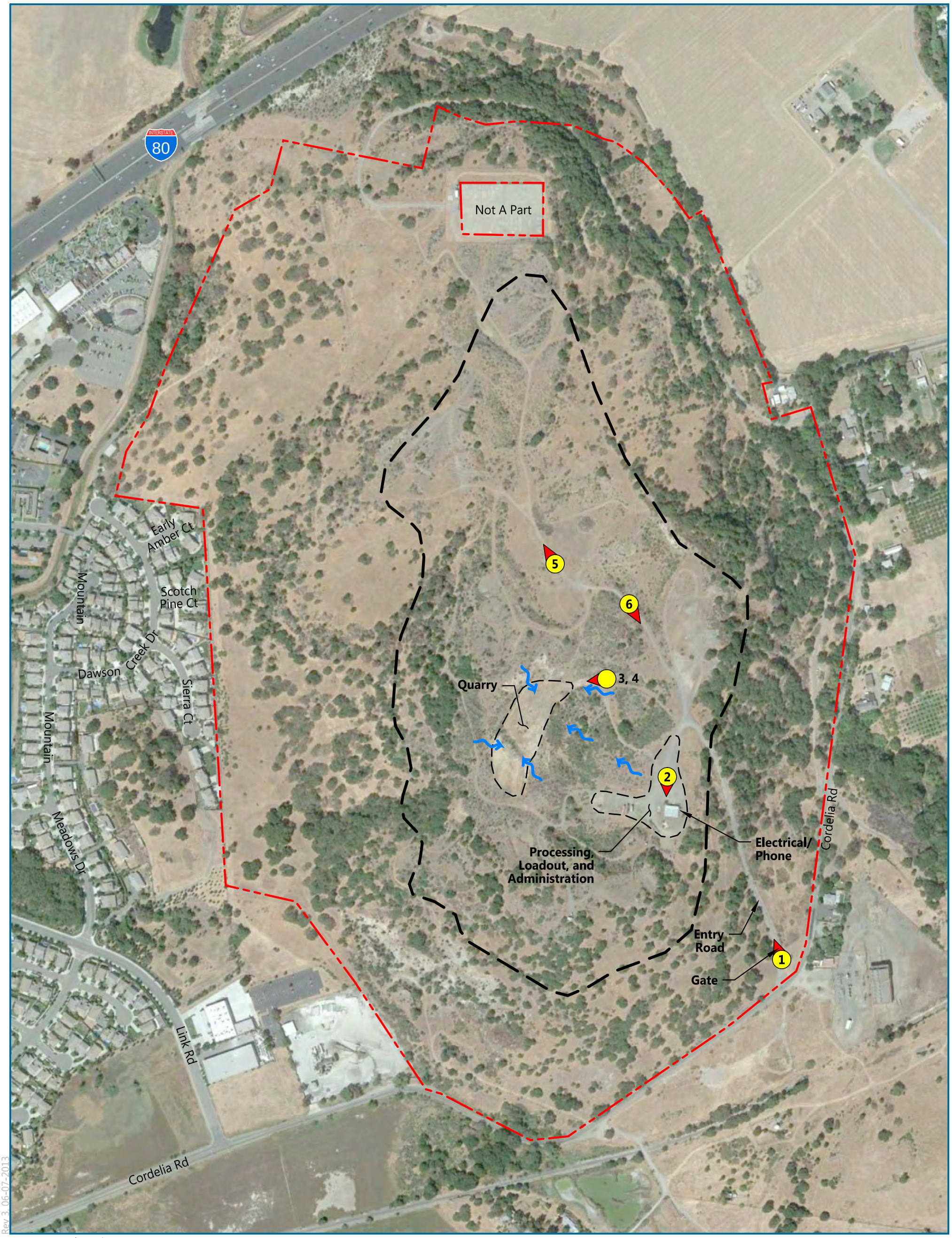
Scale: 1" = 5 Miles

BENCHMARK RESOURCES

Regional Location

NELSON HILL QUARRY IMP

Figure 1



Rev 3, 06-07-2013

SOURCE: Google Earth Pro (09-01-2012)

LEGEND

Property Boundary	±236 acres
Reclamation Plan Boundary	±70 acres
Active Areas	±4 acres
Photograph Location and Direction (See Figures 3, 4, & 5)	
Drainage	

200' 0 400'

NORTH

Scale: 1" = 400 Feet

BENCHMARK RESOURCES

Existing Conditions Aerial Photograph

NELSON HILL QUARRY IMP

Figure 2

Photograph 1 - Locked entry gate.


Photograph 2 - Locked and secured Administration office with video surveillance.

Rev 3, 06-07-2013

IMP Conditions Photographs

NELSON HILL QUARRY IMP

Figure 3

BENCHMARK RESOURCES

Photograph 3 - Active quarry drains internally.

Photograph 4 - Active quarry.

Rev 3, 06-07-2013

Photograph 5 - Formerly disturbed surfaces within the reclamation plan boundary. Revegetation cover and grading prevent erosion.

Photograph 6 - Site roadways.

Rev 3, 06-07-2013

Rev 3, 06-07-2013

SOURCE: MacKay and Somps, October 1996

200' 0 400'
NORTH
Scale: 1" = 400 Feet

BENCHMARK RESOURCES

NOTES:

- This figure depicts topography as it existed in October 1996. Topography today is virtually identical as very limited excavation and grading has occurred (minor excavation limited to "Active Quarry" area shown on Figure 2).

Site Topography
NELSON HILL QUARRY IMP
Figure 6

APPENDICES

APPENDIX A
APPROVED RECLAMATION PLAN

Solano County Department of
Environmental Management
601 TEXAS STREET • FAIRFIELD, CALIFORNIA • 94533 • (707) 421-6765

RECLAMATION PLAN

APPLICATION NUMBER: _____ FILING DATE: _____

OWNER, OPERATOR, AND AGENT: *

1. Applicant

Name	Oliver DeSilva, Inc.	Attn: Robert McCarrick, P.E.
Address	11555 Dublin Boulevard, P.O. Box 2922	
City	Dublin, CA 94568	
Telephone	(925) 828-7999	

2. Name (if any) of mineral property
Nelson Hill - Cordelia Quarry

3. Property owners or owners of surface rights (list all owners)

Name	W and D Nelson Family Living Trust F and P Nelson Family Living Trust	
Address	2435 Cordelia Road	
City	Suisun City, CA 94585	
Telephone		

4. Owners of mineral rights

Name	W and D Nelson Family Living Trust F and P Nelson Family Living Trust	
Address	2435 Cordelia Road	
City	Suisun City, CA 94585	
Telephone		

5. Lessee

Name	Oliver DeSilva, Inc.	Attn: Robert McCarrick, P.E.
Address	11555 Dublin Boulevard, P.O. Box 2922	
City	Dublin, CA 94568	
Telephone	(925) 828-7999	

6. Operator

Name	Oliver DeSilva, Inc.	Attn: Robert McCarrick, P.E.
Address	11555 Dublin Boulevard, P.O. Box 2922	
City	Dublin, CA 94568	
Telephone	(925) 828-7999	

7. Agent of process (Persons designated by operator as his agent.)

Name	Resource Design Technology, Inc.	Attn: David E. Brown
Address	302-A South Lexington Drive	
City	Folsom, CA 95630	
Telephone	(916) 983-9193	

* USE ADDITIONAL PAGES WHEN NECESSARY

R

LOCATION: *

8. **Brief description, including legal, of the extent of the mined lands (to be) involved by this operation, including total acreage.**

Section(s) 5 and 6 (extended) **Township** 4N
Range 2W **Meridian** Mt. Diablo

The Nelson Hill Quarry mine plan encompasses approximately 70 acres.

9. **Describe the access route to the operation site.**

Access is provided by Cordelia Road, which lies adjacent to the southern site boundary. A private paved driveway, located approximately one mile east of Pittman Road accesses the mining area from Cordelia Road.

10. **Location and vicinity (attach map).**

See Application Continuation Pages

DESCRIPTION: *

11. **Mineral commodity (to be) mined.**

See Application Continuation Pages

12. **Geologic description, including brief general geologic setting, more detailed geologic description of the mineral deposit (to be) mined, and principal minerals or rock types present.**

See Application Continuation Pages

13. **Brief description of environmental setting of the site and the surrounding areas. Describe existing area land use, soil, vegetation, ground water elevation and surface water characteristics, average annual rainfall and/or other factors pertaining to environmental impacts and their mitigation and reclamation.**

See Application Continuation Pages

PROPOSED (EXISTING) SURFACE MINING OPERATION: *

14. **Proposed starting date of operation:** Ongoing
Duration of first phase: ~~15 to~~ 25 years
Estimated life of operation: Undetermined. Planned through 202

See Application Continuation Pages

* USE ADDITIONAL PAGES WHEN NECESSARY

15. Operation will be (is):

____	Continuous
X	Seasonal
X	Intermittent
____	Developed, not yet in operation
____	Temporarily deactivated
____	Stockpile in mine

16. Operation will be (is):

Under 5,000 tons cu. yds/yr	X
5,000-50,000 tons cu. yds/yr	X
50,000-250,000 tons cu. yds/yr	X
250,000-1,000,000 tons cu. yds/yr	
Over 1,000,000 tons cu. yds/yr	

17. Total anticipated production

Mineral commodities to be remove	7.5 million	tons (cu. yds.)
Waste retained on the site	0	tons (cu. yds.)
Waste disposed off the site	0	tons (cu. yds.)
Maximum anticipated depth	35 to 40	feet (under Phase I and II plans)

18. Mining Method (Check all applicable)

Open Pit	X	Gravel/Sand Pit	
Single Bench		Drill and Blast	
Quarry:			
Hill Top	X	Clay Pit	
Multi-bench		Borrow Pit	X
Side Hill		Tailings Pond	
Dragline		Slurry Pump	
Low Level		Waste Dump	
Shovel		Rail	
Underground		Truck to plant	
Gravel Bar		Truck to RR	
Skimming		Other	

19. If processing of the ores or minerals mined is planned to be conducted at or adjacent to the site, briefly describe the nature of the processing and explain disposal method of the tailing or waste from processing.

See Application Continuation Pages

20. Estimate quantity (gallons per day) and quality of water required by the proposed operation, specifying proposed sources of this water, of method of its conveyance to this property and the quantity and quality and method of disposal of used and/or surplus water.

See Application Continuation Pages

* USE ADDITIONAL PAGES WHEN NECESSARY

21. If the nature of the deposit and the mining method used will permit, describe and show the steps or phases of the mining operation that allow concurrent reclamation, and include a proposed time schedule for such concurrent activities.

Phasing is not generally applicable. See Application Continuation Pages.

22. Attach a map of the mined lands and/or suitable aerial photograph showing:

(a) Boundaries and topographic details of the site.

(b) Location of all streams, roads, railroads, water wells, and utility facilities within 500 feet of the site.

(c) Location of all currently proposed access roads to be constructed in conducting the surface mining operation(s).

(d) Location of areas (to be) mined, and of waste dumps and tailings ponds.

(e) By use of overlay symbol or color, depiction of separate mining phases if applicable (see item #21).

(f) The source of map base, orientation (north arrow), and scale (e.g. 1" = 500', etc.) of map.

RECLAMATION PLAN: *

23. Indicate on an overlay map of item #22, or by color or symbol on map those areas to be covered by reclamation plan. See Figure 9

Acreage Approximately 70 acres

24. Describe the ultimate physical condition of the site and specify proposed uses(s), or potential uses, of the mined lands as reclaimed.

See Application Continuation Pages

25. Describe relationship of the interim uses other than mining and the ultimate physical condition to:

(a) Zoning regulations.

See Application Continuation Pages

(b) General plan and plan elements.

See Application Continuation Pages

* USE ADDITIONAL PAGES WHEN NECESSARY

26. Provide evidence that all owners of a possessory interest in the land have been notified of the proposed uses(s) or potential uses identified in item #23. (Attach copy of notarized statement of acknowledgement, etc.

See Attachment B

27. Describe soil conditions and proposed soil salvage plan.

See Application Continuation Pages

28. Describe the methods, their sequence and timing, to be used in bringing the reclamation of the land to its end state. Indicate on map (item 22-23) or on diagrams as necessary. Include discussion of the pertinent items listed below. See Application Continuation Pages

(a) Backfilling and grading.

(b) Stabilization of slopes.

(c) Stabilization of permanent waste dumps, tailings, etc.

(d) Rehabilitation of pre-mining drainage.

(e) Removal, disposal, or utilization of residual equipment, structures, refuse, etc.

(f) Control of contaminants, especially with regard to surface runoff and ground water.

(g) Treatment of streambeds and streambanks to control erosion and sedimentation.

(h) Removal of minimization of residual hazards.

(i) Resoiling, revegetation with evidence that selected plants can survive given the site's topography, soil and climate.

29. If applicant has selected a short term phasing of his reclamation, describe in detail the specific reclamation to be accomplished during first phase.

See Application Continuation Pages

* USE ADDITIONAL PAGES WHEN NECESSARY

30. Describe how reclamation of this site in this manner may affect future mining at this site and in the surrounding area.

See Application Continuation Pages

STATEMENT OF RESPONSIBILITY:

I, ~~Jim Summers.~~ ROBERT J. SILVA, the undersigned, hereby submit this plan to the Planning Department of Solano County and accept the responsibility for reclaiming the mined lands in the manner described herein, and attached, forming the reclamation plan for the Nelson Hill Quarry mine (mill, project, etc.).

(s) _____ VP
OLIVER DE SILVA, INC.

Dated June 18, 2001

The foregoing Reclamation Plan was approved by the Solano County Planning Commission on the _____ day of _____, 19 ___ subject to the attached conditions (Exhibit "A") and Exhibit "B" made part of this plan.

(s) _____
John E. Taylor, Director

APPLIC07
10/92

NELSON HILL QUARRY
APPLICATION CONTINUATION PAGES

The following information provides detail to questions on the Solano County Department of Environmental Management Reclamation Plan Application Form.

OWNER, OPERATOR, AND AGENT:

1. through 7. (Name of Applicant, Property Owners, etc.): See application form.

8. **(Brief Description):** This plan addresses reclamation of surface disturbance related to mining at the Nelson Hill Quarry by the operator since the enactment of the California Surface Mining and Reclamation Act and future planned mining. The property has been the site of mining operations for many decades, resulting in some level graded areas, some variable topography, and an active mine quarry. Unused buildings and some scrap and inoperable equipment remain.

   The mining plan is consistent with the current operator's activities, that create relatively broad, open, graded areas. This mining and reclamation approach will readily facilitate a second land use, as compared to the topography altered by historic land use activities.

   Revegetation with species common to the site and surrounding area is planned for erosion control purposes.

9. **(Describe the Access Route):** See application form.

10. **(Location and Vicinity):** Nelson Hill Quarry is located approximately 1.5 miles Northeast of Cordelia, in Sections 5 and 6, Township 4 North, Range 2 West Mt. Diablo Base and Meridian in Solano County. The site is bounded on the west by Dan Wilson Creek; Interstate Highway 80 forms the northern boundary and Cordelia Road forms the southeastern boundary (for site location and vicinity refer to Figures 1-3 located in Attachment A, as well as Figure 4-12 depicting the existing and reclamation plan project).

DESCRIPTION:

11. **(Mineral Commodity):** The primary commodity mined is aggregate materials and fill.

12. **(Geologic Description)**

   Setting: The site is situated on an isolated hill of Sonoma volcanic rock and lies at the northern edge of Suisun Marsh. The geology of the Quarry area consists of basalt flows and pyroclastic blocks interbedded with rhyolitic pumice. The volcanic stratigraphy of the Quarry is complex. In general, mineable materials are located on the uppermost portion of Nelson Hill.

   Description of Mineral Deposit and Principal Minerals/Rock Types: The rocks of the Cordelia quarry can be divided into two categories, the basaltic (minable) materials and

underlying rhyolitic pumice. This sequence of rocks consist of basaltic (or andesitic) flows, rhyolite lapilli tuff beds, rhyolite breccia, and subaerially deposited rhyolite tuff beds. The entire volcanic sequence is considered part of the Sonoma Volcanics. This thick sequence of rhyolitic pumice beds underlie the basaltic rocks. The approximate elevation of the contact between these sequences of volcanic rocks is 200 feet above mean sea level (AMSL) (approximately 120 feet below the crest of Nelson Hill). The volcanic units of the Cordelia area and the basalt-pumice contact are disrupted by post-Miocene faults.

13. (Environmental Setting)

Topography: The site is situated on Nelson Hill, near the City of Fairfield. Nelson Hill rises in elevation from approximately 20 feet AMSL at the base, to approximately 320 feet AMSL at the crest. Large areas in the eastern and southern portions of the quarry are graded and leveled. The current active quarry is approximately 60 feet deep. Existing topography is shown in Figure 4 (Attachment A).

The Nelson Hill Quarry consists of approximately 70 acres. Current surface disturbance by the operator encompasses approximately 15 acres, as shown in Figure 5 and 6 (Attachment A). However, historic land use activities occurring since the 1800's has disturbed the entire mining area.

Climate: The site receives frequent winds from the San Pablo Bay area (southwest), funneling inland through the Carquinez Straits to the Cordelia area. Summers are historically hot and dry, averaging approximately 85°, with winter temperatures averaging about 55°. Annual rainfall is approximately 16 inches.

Existing Area Land Use: Other land uses surrounding the property include industrial, commercial, and scattered residential uses, as shown in Figure 7 (Attachment A).

Soils: The Natural Resources Conservation Service reports that the site's soil type is Hambright loam. This soil type occurs on mountains upland and is well-drained having a surface runoff that is medium to rapid; permeability is moderate to very slow. Hambright loam does not support agriculture, and is used for range, or as undeveloped acreage of wildlife habitat, and watershed. Soil depth is shallow, with basic igneous rock immediately below the horizon.

The thin soil has been largely removed within the mining area from historic land use activities.

Vegetation/Common Species: Remnant chamise chaparral dominates Nelson Hill Quarry site. Common species include chamise (*Adenostoma fasciculatum*), manzanita (*Arctostaphylos* spp.), ceanothus (*Ceanothus* spp.), California buckwheat (*Eriogonum fasciculatum*), sugar bush (*Rhus ovata*) and scrub oak (*Quercus* dumosa). Disturbed areas are largely vegetated by annual non-native grassland; common species include mustard (*Brassica* spp.), wild oat (*Avena fatua*), red brome (*Bromus madritensis rubens*), ripgut brome (*B. diandrus*), Italian ryegrass (*Lolium multiflorum*), burclover

(*Medicago polymorpha*), Shepherd's purse (*Capsella bursa-pastoris*) and filaree (*Erodium botrys*).

Wildlife/Common Species: Common bird species in this area include brown towhee (*Pipilo fuscus*), western kingbird (*Tyrannus verticalis*), bushtit (*Psaltriparus minimus*), American kestrel (*Falco sparverius*), Red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), and barn owl (*Tyto alba*). Raccoon (*Procyon lotor*), opossum (*Didelphis virginianus*), striped skunk (*Mephitis mephitis*), pocket gopher (*Thomomys bottae*), and coyote (*Canis latrans*) are common mammals. Reptiles may include ringneck snake (*Diadophis punctatus*), western fence lizard (*Sceloporus occidentalis*), side-bloched lizard (*Uta stansburiana*), and Gilbert's skink (*Eumeces gilberti*).

Vegetation and habitat within the mining area has largely been removed as a result of historic land use activities. Remnants of chaparral vegetation occur on the surrounding hill slopes and as mature scattered natural revegetation in older disturbed areas. Emergent revegetation occurs throughout disturbed areas of the site, with shrubs dominant on slopes and uncompacted surfaces, and grasses dominant on the flatter, compacted substrate (see Figure 6, Attachment A).

Groundwater Elevation and Surface Water Characteristics: The site is at the top of Nelson Hill, at an altitude of approximately 320 feet. Groundwater elevation is below an elevation of 220 feet AMSL (the proposed maximum excavation), therefore the project would not effect the quantity of groundwater in the aquifer. There are no perennial streams within the mining area. Surface runoff is sheet flow.

Environmental Impacts and Mitigation Measures: Mining of the site is planned to leave the topography in a reclaimed configuration that requires little or no additional earthwork. As a result, the environmental impacts of reclamation are generally limited to the activities of: (1) removing remaining equipment, facilities and scrap, (2) ripping compacted surfaces in preparation for revegetation, (3) hydroseeding, and (4) monitoring and maintenance. These activities would be short term, occurring over a period of two to four weeks, and would be expected to generate no more than an average of 10 daily vehicle trips to the site. Mitigation measures would include (1) standard dust control measures (watering) to minimize air quality impacts, (2) monitoring and maintenance of revegetation for up to two years to verify success in controlling erosion, and (3) periodic monitoring of site access control to discourage unauthorized entry.

PROPOSED (EXISTING) SURFACE MINING OPERATION:

14. **(Starting Date of Operation):** The quarry at Nelson Hill reportedly began operations in the late 1800's. The quarry has been in use by the current operator since the enactment of SMARA on January 1, 1976. Mining continues intermittently and seasonally as construction material is needed by the operator.

Duration of First Phase: Phase I is expected to occur over a period of 15 to 25 years. The frequency of mining and duration of phases will continue to be in response to market demand.

Estimated Life of Operation: Reasonably foreseeable mining operations are expected to continue for at least 25 years, though available geologic information indicates mining reserves may be available to continue operations for many decades. For planning purposes, a Phase I area has been delineated for current operations through December 2025; Phase II, if necessary, would occur thereafter and is expected to terminate December 2040.

15. through 18. (Operation and Production): See application form.

19. (Materials Processing): Materials are typically ripped, excavated, and exported as "run-of mine". Excavated fill materials may be screened to remove oversize material. Oversized material (12" and larger) is sorted during mining for use as rip-rap, or ripped to meet fill material size specifications. Material will be excavated from a borrow pit with bulldozers and transferred to trucks by loaders.

Waste Disposal: As all the material mined is suitable for construction fill, there is generally no disposal of mine-related waste.

20. (Water Required for Operations): Water use is limited to dust control. Dust control measures include spraying haul roads and loading areas with water supplemented by organic dust palliatives as necessary. In addition, trucks exiting the site are treated by an overhead spray bar as necessary. At a maximum quarry production level of 1,000 cubic yards per day, approximately 15,000 gallons of water will be used. Water is obtained from an existing well located on the property. Occasionally, water is also available from a 20-foot deep retention basin that captures precipitation. No water conveyance systems exist. No disposal or other discharge occurs, as no processing is employed generating waste water.

21. (Phases of Operation): The Nelson Hill Quarry is an open pit mining operation that is developed by progressively deeper excavation within a central pit area. Phasing is generally not appropriate for this method of mining. There are no progressive mine waste disposal sites, multiple pits, tailings, or other such mine facilities to be reclaimed as mining progresses.

The primary opportunity for phasing is related to the area needed for active mining. The operator plans to mine and grade the site in two general phases see Figure 8 (Attachment A) that will provide relatively uniform excavation elevations that will facilitate a second use:

- Phase I will be the lower quarry elevations (approximately 220 to 245 feet AMSL), and will surround a central depression design to accept sheet flow surface runoff from the mining area, controlling siltation. The central area will have two basins

with the capacity to accept the surface run-off over the mining area from at least a 20-year, one-hour intensity storm event, See Figures 9 and 10 (Attachment A).

- Phase II will be a larger bench/graded area surrounding Phase I (approximately 245 to 255 feet AMSL).

Although the timing of phase development is speculative due to the cyclical nature of the mining, for planning purposes Phase I is expected to require 15 to 25 years; Phase II would occur thereafter. Phasing could be accelerated if local building requiring fill increases, or could be extended, depending on economic and market trends. As the mining areas are already disturbed by historic land use activities, overlap of phasing is expected.

Phasing is shown in Figure 8 (Attachment A).

22. **(Site Map):**

(a) Site Boundaries and Topography: Approximate existing topography is shown in Figure 4 (Attachment A).

(b) Location of Streams, Roads, etc.: There are no streams, railroads, or water wells located within 500 feet of the mining area. Surrounding roadways are shown on Figures 2 and 5 (Attachment A). A cellular communication site is located adjacent to the southern limits of the quarry see Figure 5, (Attachment A).

(c) Access Roads: Mine areas and roads exist throughout the existing quarry, as evident in Figure 5 (Attachment A). No additional roads are planned outside of this area.

(d) Area to be Mined: The area to be mined is shown on Figure 5 and 8 (Attachment A). Cross-sections of the mine plan are shown in Figure 9 and 10 (Attachment A). No waste rock areas or tailings ponds are proposed.

(e) Mining Phases: Approximate phasing is shown in Figure 6 (Attachment A).

(f) Map Source, Orientation and Scale: Shown on all figures.

Photographs of access and operations areas are shown in Figure 11 (Attachment A).

RECLAMATION PLAN:

23. **(Areas Covered by Reclamation Plan):** Approximately 70 acres, encompassing planned mining are addressed in this plan, as shown in Figure 12 (Attachment A).

24. **(Ultimate Physical Condition of the Site):** The potential second land use at this site is open space. The physical condition of the mining area will be graded and leveled areas surrounding a central drainage depression, see Figure 12 (Attachment A). Interbench slopes will be graded at approximately 2:1. The mined areas will be revegetated with

annual grasses to control erosion. This reclaimed configuration is designed to accommodate second land uses currently allowed by the Solano County General Plan and Zoning, or future development if changes in the General Plan and Zoning occur.

The basins designed to collect surface water drainage from the mining area will remain; maintenance (periodic vegetation removal) will be the responsibility of the owner following the completion of reclamation.

Facilities that occur independent of the mining operation, including the access road and water well, will remain for potential second land uses. The cellular communication site (unrelated to mining) will also remain. Permanent and temporary buildings related to mining operations will be removed. All scrap, waste and equipment remaining from past and current activities will be removed.

25. (Relationship of Interim Uses Other Than Mining to Zoning and General Plan)

(a) Zoning regulations: The proposed project is located on Assessor's Parcel Numbers 27-260-17 and 46-030-036, which are zoned A-20. This zone provides exclusively for agricultural uses, although the county zoning ordinance [Chapter 28, Article III, CCR§ 28-50(a)(3)] provides for the "removal of minerals or natural materials."

No interim uses, other than open space, are planned.

(b) General Plan: The Nelson Hill Quarry area is designated in the County General Plan and under the Fairfield Cordelia Area Specific Plan for recreational land use. Chapter IV of the Fairfield Cordelia Area Specific Plan has designated the site of the historic Nelson Hill Quarry as the "possible future site of a system of trails and overlooks to retain its scenic quality and offer broad views of the Suisun Marsh and surrounding landscape."

No interim uses other than agriculture are allowed under current zoning and county policies in the A-20 zone. No interim uses other than mining are planned.

26. (Statement of Responsibility): See Attachment B.

27. (Soil Conditions): The *Soil Survey of Solano County* by the U.S. Department of Agriculture Soil Conservation Service (1977) identifies soils dominating the site as Hambright loam. The Hambright series consists of well-drained soils on mountainous uplands. This soil type is described as having surface runoff that is medium to rapid, and erosion as a moderate to high hazard. Permeability is moderate to very slow. Hambright soils are used for range, wildlife habitat, recreation and watershed. This soil type is not considered prime farmland.

Soil depth is shallow (6 to 20 inches), with basic igneous rock immediately below the A horizon. The entire mining area is disturbed from historic land use activities occurring since the 1800s.

Soil Salvage: The majority, if not all of the mining area has been previously disturbed since the mid-1800's. No topsoil was recovered during this surface disturbance. As mining will continue in this same disturbance area, little if any topsoil is expected to be encountered. Available topsoil, where encountered, will be stockpiled and managed in accordance with California Code of Regulations (CCR)§ 3711 for later use in reclamation. The stockpiles will be mulched and seeded to prevent water and wind erosion and provide for maximum visibility of seedlings at the time to soil is reapplied. Where no topsoil is available, uncompacted substrate is expected to serve as a suitable medium for plant growth for purposes of erosion control. Disturbed areas have successfully revegetated with species common to the site without the requirement of additional topsoil, active reseeding, or soil amendments.

28. (Reclamation Methods)

(a) Backfilling and Grading: After excavation, the site will be ripped as necessary to reduce compaction. Leveled area will be graded to a slope of <3%. Interbench slopes will be graded to 2:1. No backfilling is proposed.

(b) Stabilization of Slopes: Slope angles will be reduced to 2:1 or less. Revegetation of slopes for erosion control will occur during the appropriate growing season and will include the following as appropriate at the time of implementation:

Techniques: During the first year preceding planting of native species, weed seeds in the soil will be allowed to germinate (via passive watering regimes) to both reduce the seed bank of weed species and add organic matter to the soil. A slow-release, high nitrogen fertilizer (38-0-0) may be used (rate of approximately 80-160 lbs/acre) as necessary. Slow release fertilizers have been shown to benefit soil microbes, which in turn favors growth of native vegetation because of the slow release of nitrogen. Following fertilizer application, seeds will be applied by hydroseeding, hand-seeding and raking, or drilling. To facilitate revegetation, the slopes will be roughened. Seed will be placed at a ratio of approximately 100 lbs/acre.

Mining will extend to the crest of the top of the hill so that screening vegetation will remain and lessen potential visual impacts of mining operations. Construction fencing will be installed at the outer drip line of oaks to protect oak trees from mining impacts.

Timing of Planting: Seeding will take place when there is sufficient moisture and soil development to optimize survival and growth. As such, seeding will take place in October or later at the initiation of the winter growing season.

Weed Abatement: Weed abatement will limit exotics, such as fennel and yellow star thistle, to no more than 5-8% of the total vegetative cover. Exotic plant species are typically competitively superior to natives and are commonly associated with newly disturbed sites. The exotic community can, however, contribute to soil development. In order to limit competition with native species, a program of exotic

weed abatement will be implemented. Exotic plant species in inter-shrub areas will be controlled as necessary by mechanical means, largely well timed mowing or herbicides. Native grasses may benefit from periodic mowing, which promotes root growth, and mowing prior to seed set for exotics would minimize competition from exotic vegetation while enhancing the soil.

Species to be Planted: Successful revegetation generally adheres to the principle of first ameliorating the site, by producing organic matter, in order to facilitate the growth of planted individuals and opportunistic invasion. Furthermore, active revegetation results in a more rapid accumulation of biomass than does passive regeneration (Doherty 1998, paper presented at the 1998 *Society for Ecological Restoration Conference*, Austin, Texas). To this end, species that grow rapidly and produce relatively large quantities of litter are initially desired. Generally this primarily includes annuals, and it is the herbaceous layer, and in particular the legume content, that is a critical component for site stabilization and the development of nutrient-rich soil. However, rapid accumulation of organic matter may also be accomplished by planting exotic perennials that have delayed reproduction and either low survival prior to maturity (e.g., mechanically brittle or susceptible to certain diseases) or easy removal. The applicable performance standard for revegetation will be a minimum plant cover of 80 percent for erosion control. Bare areas without vegetation will be no larger than existing baseline conditions.

The following species will be included in the seed mixture. They comprise a group of native grasses and forbs, both annuals and perennials that are adapted to xeric conditions and establish relatively quickly on disturbed sites:

Elymus glaucus (Blue Wildrye);

Festuca megalura ("Zorro" Annual Fescue);

Hordeum brachyantherum (Meadow Barley);

Leymus triticoides (Creeping Wildrye);

Muhlenbergia rigens (Deergrass);

Nassella pulchra (Purple Needlegrass);

Poa secunda secunda (One-sided Bluegrass);

Astragalus spp. (Vetch).

The objective of revegetation at this site is to reclaim land for the planned second land use, which is open space. In addition, revegetation will provide for greater stability of the final slopes that will help reduce erosion.

(c) Stabilization of Permanent Waste Dumps, Tailings, etc.: No mine waste disposal areas are planned.

(d) Rehabilitation of Pre-Mining Drainage: Existing drainage is derived from historic mining conducted without the benefit of a drainage plan. Drainage of the reclaimed site at the conclusion of mining will be largely retained in two central ponds to control sedimentation (See Figure 9, Attachment A).

(e) Removal, Disposal or Utilization of Residual Equipment, Structures, Refuse etc.: Reclamation will be accomplished with mobile equipment. Mining related structures, equipment, and scrap and waste materials will be removed.

Facilities that occur independent of the mining operation, including the access road and water well, will remain for potential second land uses. The cellular communication site (unrelated to mining) will also remain. Permanent and temporary buildings will be removed. In addition, scrap, waste and equipment remaining from past and current activities will be removed.

(f) Control of Contaminants: Fueling and service of mobile equipment shall be performed in a manner consistent with appropriate methods recommended by the manufacturer of the equipment. Fuel is dispensed from above ground storage tanks, which are equipped with an automatic fuel shut-off device. In the event of a spill or leak, the operator will clean up any contamination following the company's standard spill response procedures and in compliance with all applicable regulations.

(g) Treatment of Streambeds and Streambanks: There are no streams that exist within the mining area.

(h) Residual Hazards: Access to the site is controlled by a locked access gate to the property's private driveway, which will be maintained to deter unauthorized access. The reclaimed site will be a graded and leveled area absent of equipment and should present no residual hazards.

(i) Evidence for Revegetation Success: Revegetation will use drought tolerant plant species common to the site and surrounding area that have evidenced success on disturbed soils. Existing conditions of natural revegetation without assistance demonstrates that site revegetation will be successful, see Figure 6 (Attachment A).

29. **(Short Term Phasing):** No short term phasing is proposed.

30. **(Affects Upon Future Mining):** Reclamation activities will focus on the development of graded areas and stable slopes. This type of reclamation will not affect future mining.

    This site is expected to be capable of supporting mining for construction fill for many decades.

Attachment A
Figures

Mine Name: Nelson Hill Quarry
Mine I.D.#: 91-48-0001

RECLAMATION TASKS / RATES	Dozer ($112/hr)	Scraper ($58/hr)	Other	MATERIALS SUBTOTAL	DIRECT COSTS SUBTOTAL	CONTINGENCY COSTS (10%)[4]	TOTAL DIRECT PLUS INDIRECT
I. EQUIPMENT/FACILITIES REMOVAL							
1. Remove Equipment/Recoverable Materials					11,656	1,166	12,822
2. Remove Electrical Substations							
3. Remove Surplus Stockpile Materials							
4. Clean up of Trash/Scrap		1,			6,954	695	7,649
5. Remove Underground Utilities and Septic							
6. Demolition of Structures		1,			2,002	200	2,202
7. Bury or Remove Concrete Footings, Aprons, Curb and Gutter					712	71	783
8. General Clean-up/Miscellaneous							
9. Other					1,096	110	1,206
EQUIPMENT/FACILITIES REMOVAL SUBTOTAL	0	3,	0	0	22,420	2,242	24,662
II. GRADING							
1. Backfill Sumps, Quarry Areas					2,232	223	2,455
2. Grading (General)					310	31	341
3. Finish Slopes							
4. Soil Replacement							
5. Soil Enhancement							
6. Other							
GRADING SUBTOTAL	0		0	0	2,542	254	2,796
III. CONSTRUCT SECOND USE FACILITIES							
1. Dikes, Levees, Berms							
2. Ditches and Culverts							
3. Fencing							
4. Other							
SECOND USE FACILITIES SUBTOTAL	0		0	0	0	0	0
IV. REVEGETATION							
1. Planting							
2. Irrigation System							
3. Fencing				800	800	80	880
4. Seeding							
5. Other							
REVEGETATION SUBTOTAL	0		0	800	800	80	880
V. MONITORING/MAINTENANCE							
1. Initial Site Inspection					100	10	110
2. Planting and Seeding Inspection					1,536	154	1,690
3. Maintenance and Weeding					100	10	110
4. Data Collection and Reporting							
MONITORING/MAINTENANCE SUBTOTAL	0		0	0	1,736	174	1,910
TOTAL	0		0	800	27,498	2,750	30,248
						GRAND TOTAL	$30,248

Notes:

(1) Equipment and labor rates based on average survey o

(2) Container Plants: 1 gal. Use $3.50 each.

(3) Seed: $160/acre

(4) Calculated as 10% of direct costs.

Changed

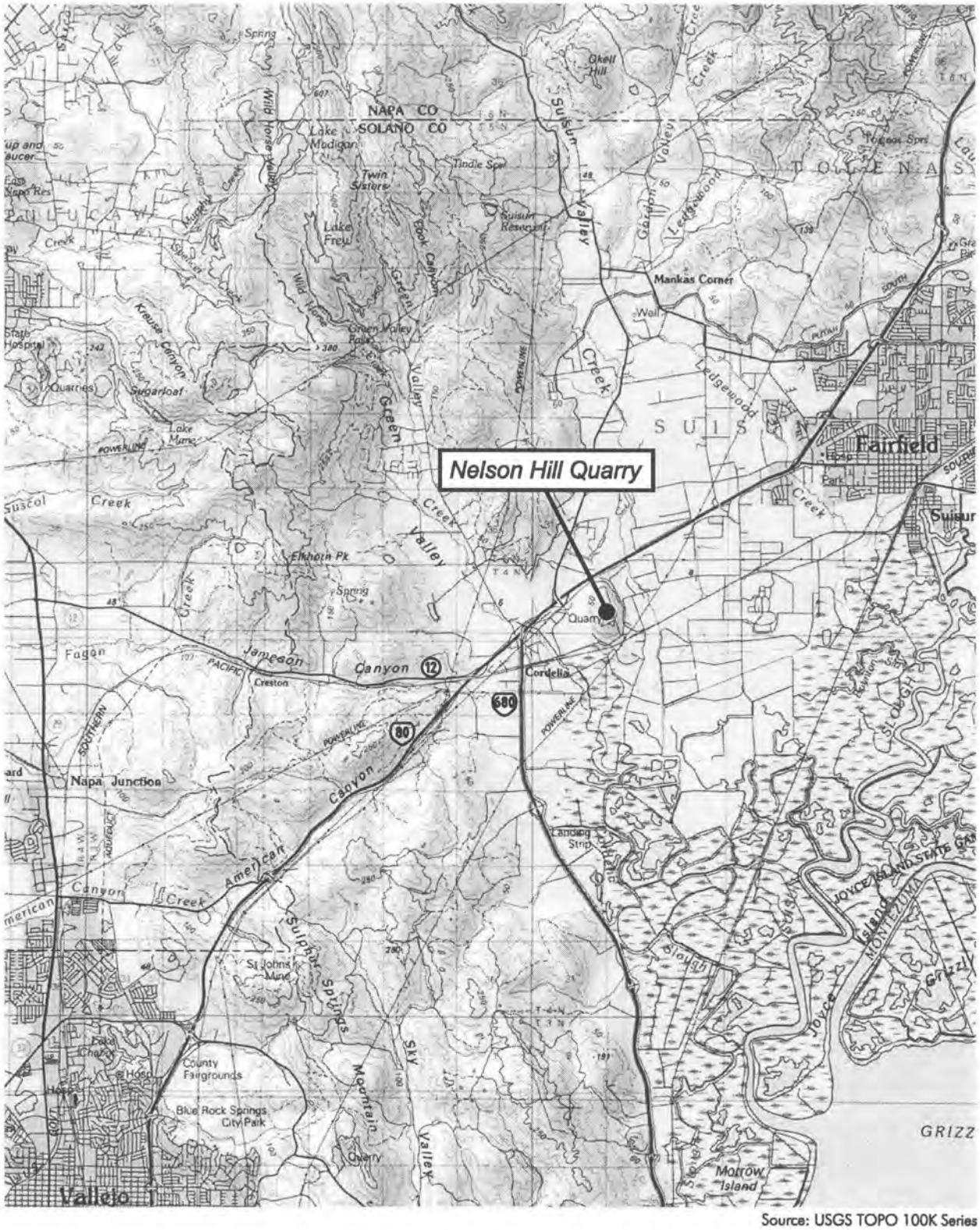


Figure 1
Regional Location
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN
TECHNOLOGY, INC.

PROPERTY BOUNDARY —·—·— (APPROXIMATE)

MINING BOUNDARY – – – – – (APPROXIMATE)

Source: USGS TOPO 7.5' Series

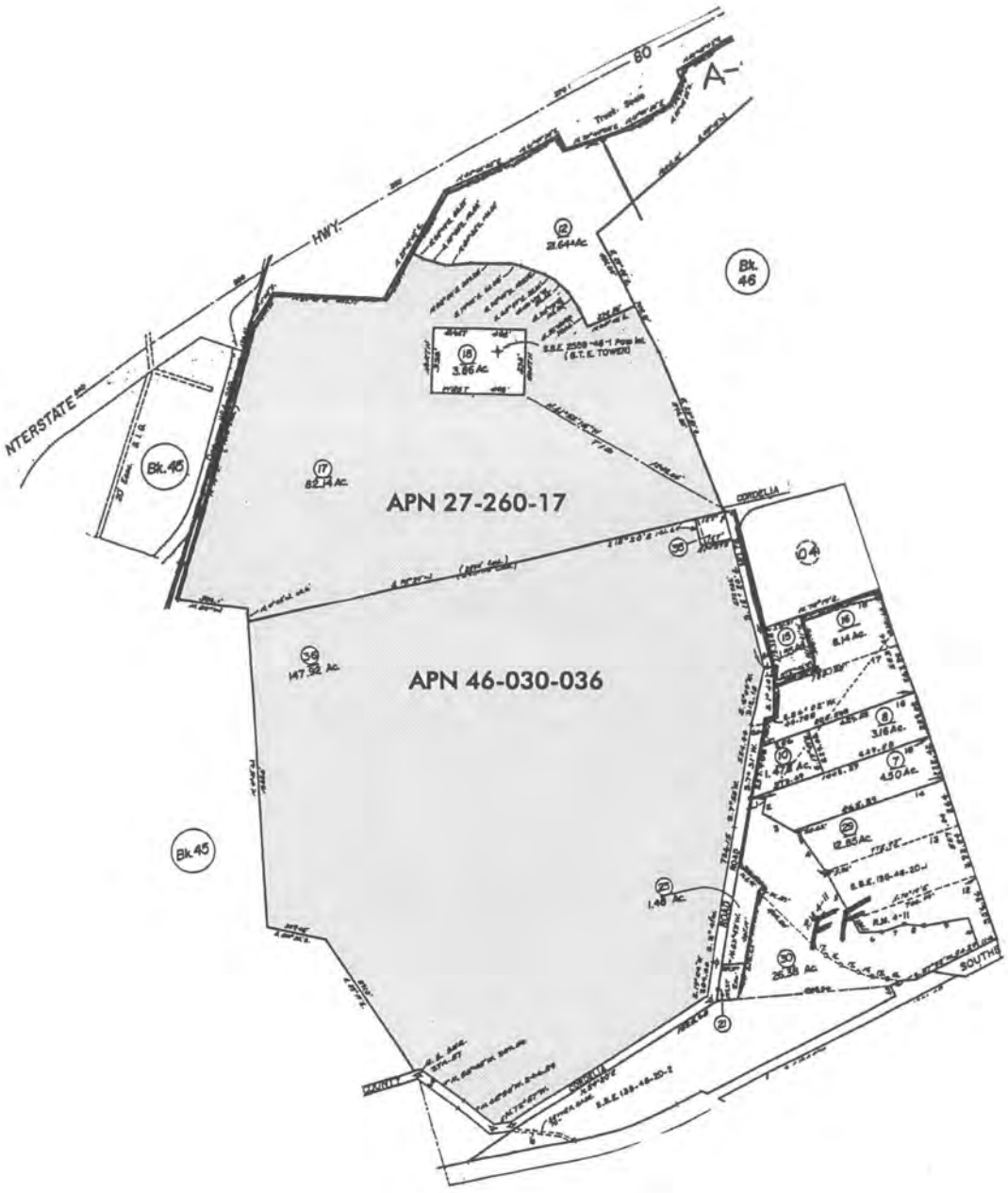
N

0 3000'

SCALE 1" = 2500'

Figure 2
Site Location
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.



PROPERTY BOUNDARY

Source: Asessors Maps Bk 27 - Pg.26, Bk 46 - Pg.03

N

0 1000'

SCALE 1" = 1000'

Figure 3
Assessor Parcels
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

PROPERTY BOUNDARY (APPROXIMATE)

MINING BOUNDARY (APPROXIMATE)

Source: Mac Kag & Stomps, October 1996

N

0 1000'

SCALE 1" = 650'

Figure 4
Existing Topography
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

Figure 5
Existing Conditions Photo
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

Shrub colonization on previously disturbed surfaces.

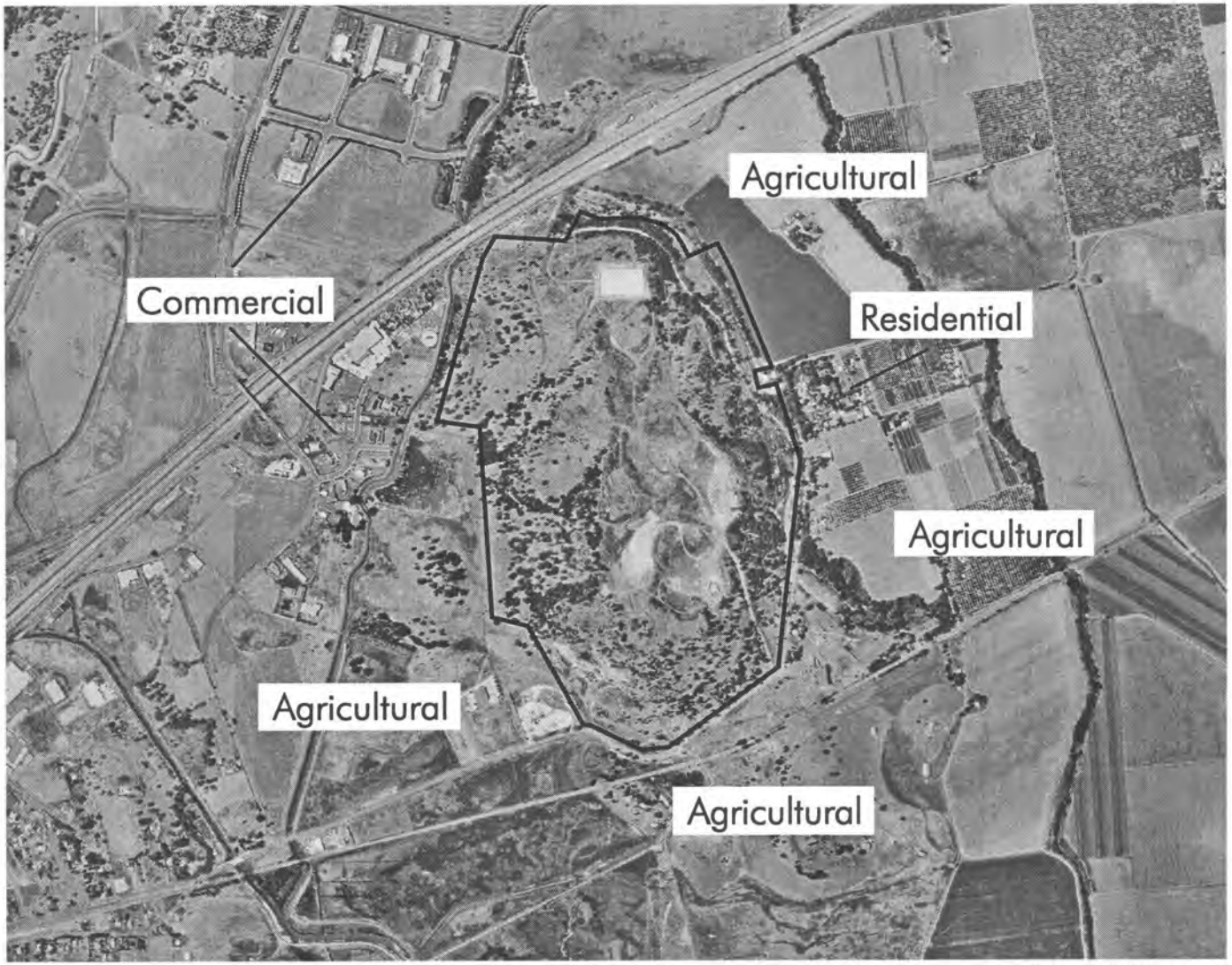
Photograph Date: 5-12-1999

Natural revegetation by grasses and shrubs over previously disturbed areas.

Photograph Date: 5-12-1999
Source: Resource Design Technology

Figure 6
Existing Environment:
Topography and Revegetation
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN
TECHNOLOGY, INC.



Source: USGS Photograph

N

0 1500'

SCALE 1" = 1500'

Figure 7
Surrounding Land Uses (within 1/4 Mile)
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

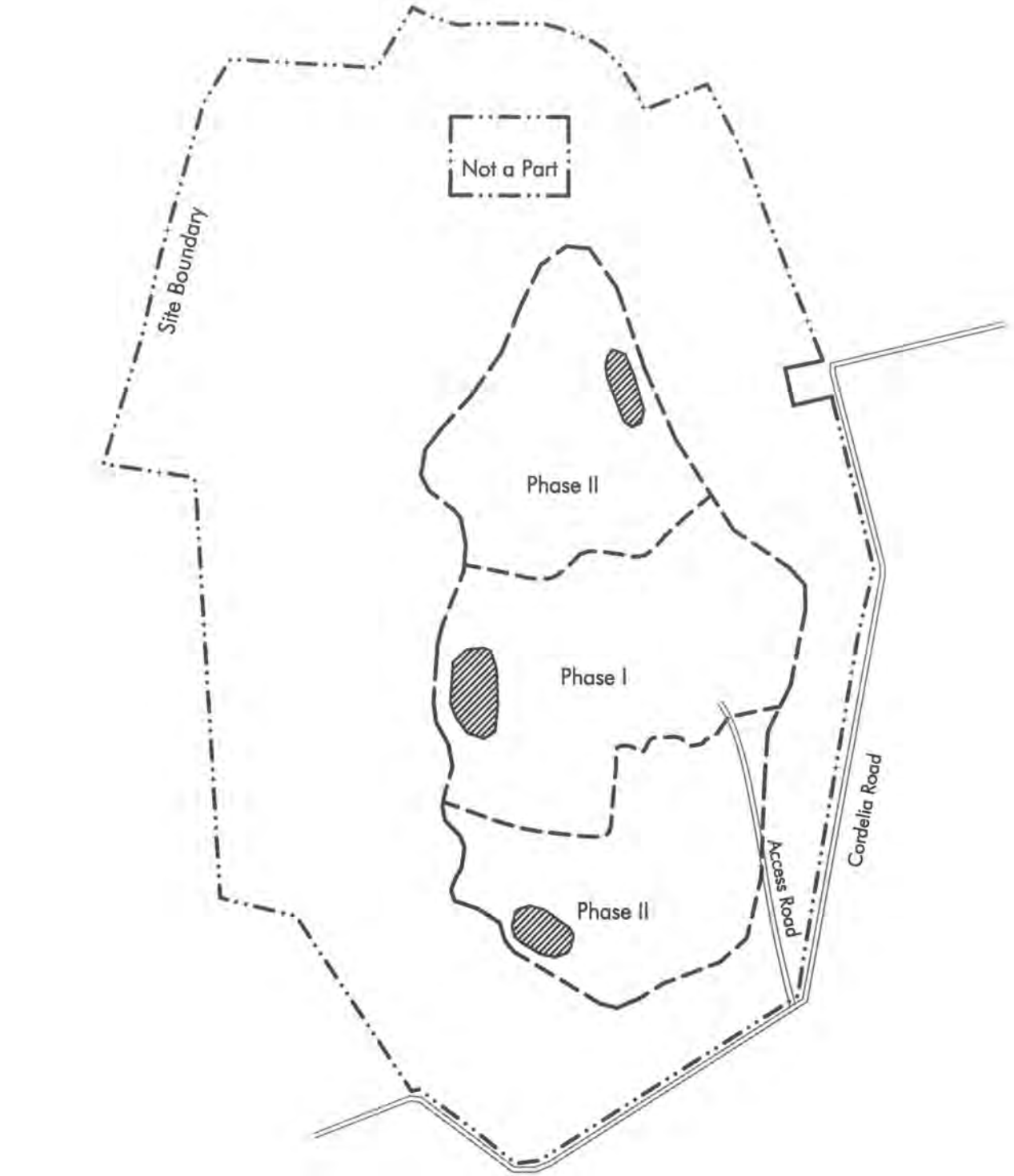
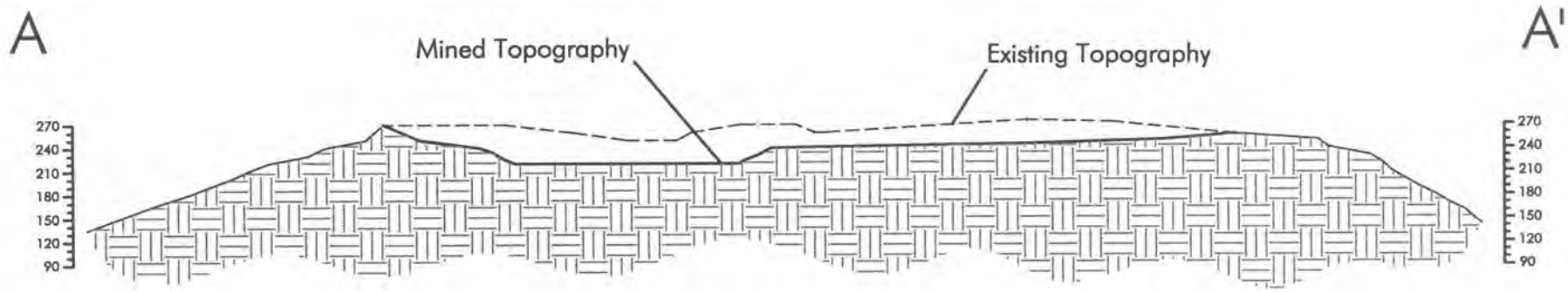
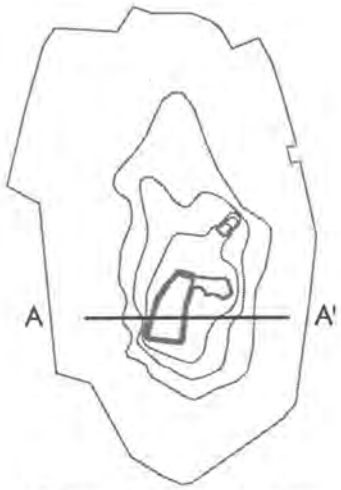


Figure 8
Mining Area and Phasing
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.





Cross Section Location
(not to scale)

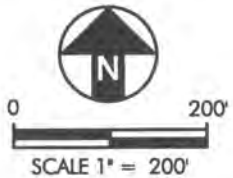
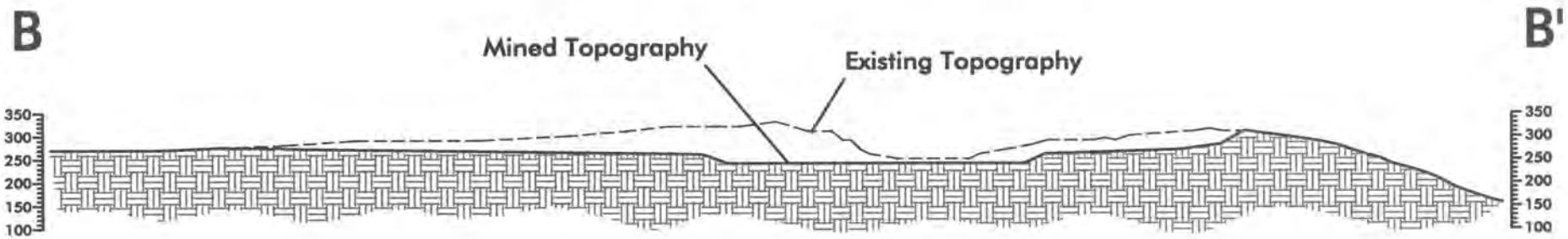
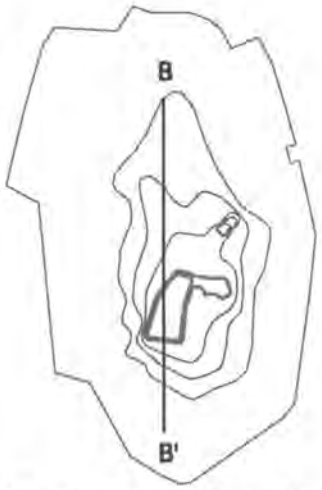


Figure 9
Mine Plan Cross Section A
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN
TECHNOLOGY, INC.





Cross Section Location
(not to scale)

Figure 10
Mine Plan Cross Section B
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

Access and Staging Area

Photograph Date: 5-12-1999

Active quarry

Photograph Date: 5-12-1999
Source: Resource Design Technology

Figure 11
Existing Environmental Conditions
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

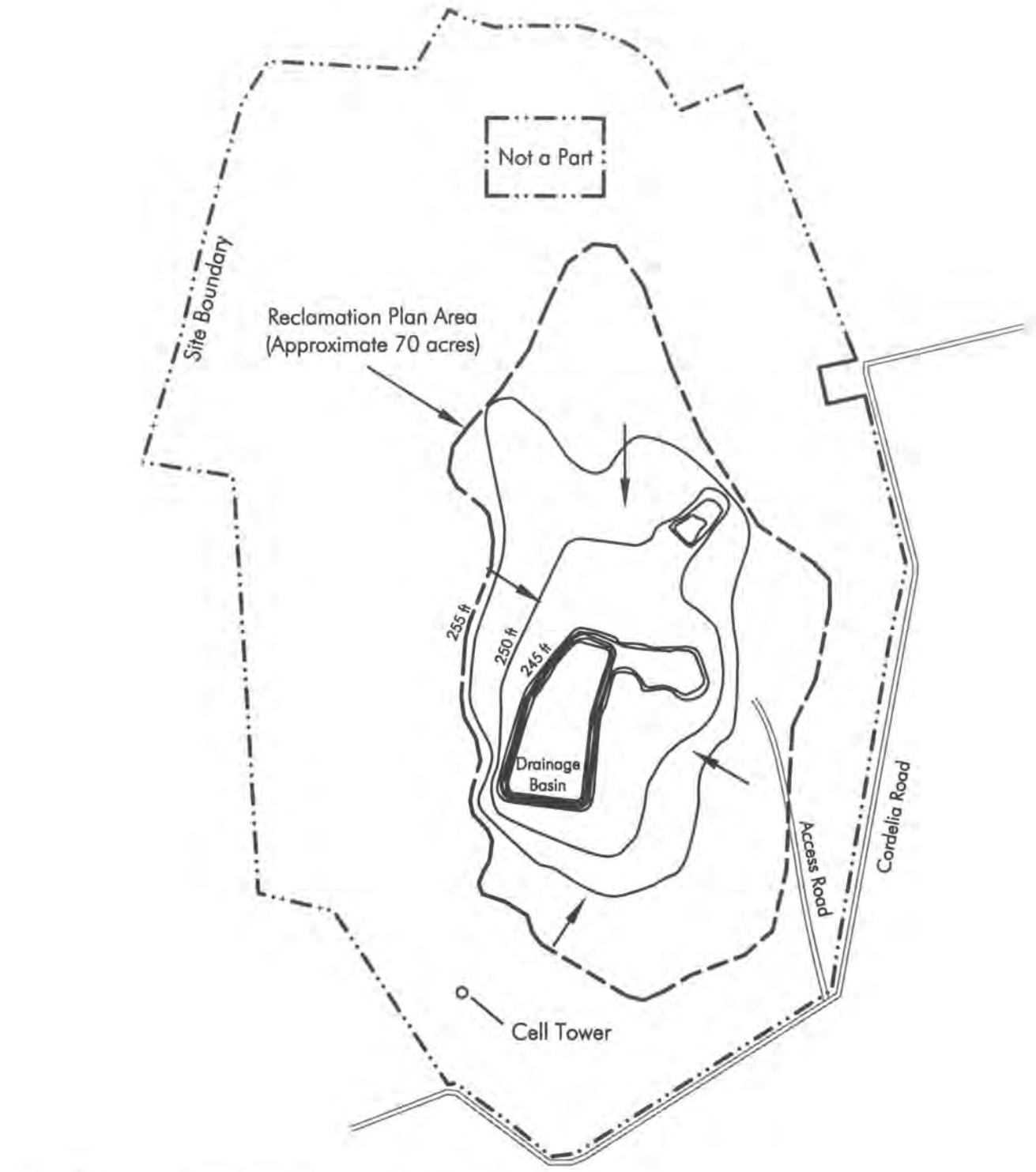


Figure 12
Reclamation Plan with Surface Flow Direction
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

Attachment B
Statement of Responsibility

NELSON HILL QUARRY
RECLAMATION PLAN

Operator:
(Applicant)

Oliver DeSilva, Inc.
11555 Dublin Boulevard
P.O. Box 2922
Dublin, California 94568

STATEMENT OF RECLAMATION RESPONSIBILITY

I certify that the information in this Reclamation Plan application is correct, to the best of my knowledge, and that all the owners of possessory interest in the property in question have been notified of the proposed uses and potential uses of the land after reclamation. I also certify that I am authorized on behalf of the Oliver DeSilva, Inc. to accept responsibility for reclaiming the mined lands in accordance with the reclamation plan and within the limits of said plan.

Robert J. Silva V.P. — June 18, 2001

Signature of Applicant — Date

OLIVER DE SILVA, INC.

ROBERT J. SILVA

~~Jim Summers~~

Print Name

Solano County Department of
Environmental Management
601 Texas Street • Fairfield, California 94533 • (707) 421-6765

INFORMATION Required of Applicant as Part I of Initial Study Environmental Impacts	For Office Use Application Number or Title

The following information is required of the applicant for all projects that require a permit and which the Department of Environmental Management determines are subject to review pursuant to the California Environmental Quality Act (CEQA). Complete disclosure of environmental data is required and is in the best interest of the applicant to avoid uncertainty as to compliance with CEQA. **Please consult with Department personnel for assistance in understanding or completing the following questionnaire. Answers may be continued under Section V or attach additional sheets if necessary.**

I. **PROJECT DESCRIPTION AND PURPOSE:** Fully describe the nature of the proposed project, all existing and proposed uses on/of the property, and existing and proposed structures/development on the property. Submit complete and accurate drawing/plot plan(s). If the project will be phased, the anticipated phasing schedule should be described. **Attach additional sheets if necessary.**

A. Project description:
Reclamation planning for Nelson Hill Quarry, in accordance with the California Surface Mining and Reclamation Act (SMARA).
See Application Continuation Pages

B. Is this part of a larger project? Yes ____ No X If yes, explain:
Reclamation at the Nelson Hill Quarry is an independent activity.
See Application Continuation Pages

II. **NECESSARY PERMITS FOR THIS PROJECT:**

(List below all other permits you will need during the development of this project. Indicate if application for necessary permits has been made.)

A. Federal agencies (for example: Corps. of Engineers):
No other permits are anticipated to be needed for reclamation activities.

B. State and Regional agencies (for example: BCDC, Air Quality Management District):
No other permits are anticipated to be needed for reclamation activities.

C. Other local agencies (including County agencies, special district, cities, etc.):
No other permits are anticipated to be needed for reclamation activities.

III. PROJECT DETAILS:

A. EXISTING CONDITIONS

Describe in general the project site and surrounding properties as they presently exist; including but not limited to, information on existing land uses, unique physical and topographic features, soil stability, plants and animals, cultural, historical, or scenic aspects, and any other information which would assist the Department in understanding the project's environmental setting. Clear, representative color photographs may be submitted to show the project area. Draw in property boundaries on the photographs.

1. Project site:
   See Application Continuation Pages

2. Surrounding Properties:
   See Application Continuation Pages

3. Existing use of land:
   See Application Continuation Pages

4. Describe number and type of existing structures:

		TYPE	NUMBER
a.	Residential	N/A	
b.	Agricultural	N/A	
c.	Commercial	N/A	
d.	Industrial	N/A	
e.	Other	N/A	

5. Describe existing vegetation on site, including number and type of existing trees.
   See Application Continuation Pages

6. If in agricultural use, describe type of use or crop (cattle, sheep, hay, vegetables, fruit, etc).
   N/A

7. Slope of property:

Flat or sloping	(0 - 6% slope)	92	acres
Rolling	(7 - 15% slope)	69	acres
Hilly	(16 - 24% slope)	46	acres
Steep	(> 24% slope)	23	acres

8. Describe existing drainage conditions on site. Indicate direction of surface flows, adjacent parcels affected.
   See Application Continuation Pages

9. Describe land uses on adjacent parcels (specify types of crops if agricultural):

   North: See Application Continuation Pages South: _____
   East: _____ West: _____

10. Distance to nearest residence(s) or other adjacent use(s): 600 feet (ft/mi):

11. Describe and indicate location of any power lines, water mains, pipelines or other transmission lines which are located on or adjacent to the property:
See Application Continuation Pages.

12. Describe number and location of natural creeks or water courses through or adjacent to the property. Specify names (if any). Indicate whether ephemeral (brief flows following rains), intermittent (seasonal flows during wet season), or perennial (year-round flows):
See Application Continuation Pages

13. Describe number and location of man-made drainage channels through or adjacent to the property. Specify names, if any:
See Application Continuation Pages

14. Identify and describe any on-site or adjacent marshes, wetlands, vernal pools, wet meadows, riparian (i.e. dependant on water bodies) vegetation, etc.:
See Application Continuation Pages

15. Are there any unique, sensitive, rare, threatened, or endangered animals, plants, or habitats on the project site or located in close proximity which may be affected by the project?

Yes _____ No __X__ Don't Know _____ If yes, please list:

16. Describe existing vehicle access(s) to property:
See Application Continuation Pages

17. List and describe the nature and location of all existing easements serving or affecting the property, including access, utility, and other public or private easements (see deed or recent preliminary title report).
See Application Continuation Pages.

B. PROPOSED CHANGES TO PROJECT SITE

1. Topography and grading (attach copy of grading plan showing existing and proposed topography and drainage patterns.)

a. Percent of site previously graded: 30 %.

b. Project area (area to be graded or otherwise disturbed): 70 sq. ft./(acres.)

c. Estimate amount of soil to be moved (cut and/or fill):

_____ Less than 150 yds^3 _____ More than 150 yds^3 _____ More than 1000 yds^3

d. Estimate amount of soil to be:

Imported 0 yd^3 Exported 7.5 million tons yd^3 Used on site _____ yd^3.

2. Number, size and type of trees, and type and quantity of vegetation to be removed. (size of trees = diameter at 4½ ft. above grade)
See Application Continuation Pages

3. Number, type, and use of existing structures to be removed, and removal schedule:
See Application Continuation Pages

4. Describe proposed fencing and/or visual screening (landscaping):
See Application Continuation Pages

5. Proposed access to project site (road name, driveway location, etc.):
See Application Continuation Pages

6. Proposed source and method of water supply:
See Application Continuation Pages

7. Proposed method of sewage disposal (specify agency if public sewer):
See Application Continuation Pages

8. Provisions for solid/hazardous waste disposal (specify company or agency if applicable):
See Application Continuation Pages

9. List hazardous materials or wastes handled on-site:
See Application Continuation Pages

10. Duration of construction and/or anticipated phasing:
See Application Continuation Pages

11. Will the proposed use be affected by or sensitive to existing noise in the vicinity? If so, describe source (eg. freeway, industrial) of and distance to noise source.
The site will not be adversely affected by or sensitive to existing noise in the vicinity.

C. PROPOSED SITE UTILIZATION

1. RESIDENTIAL PROJECTS

Number of structures: Single Family N/A Multi-family N/A Accessory N/A

If multi-family, number of units N/A Maximum height N/A

2. NON-RESIDENTIAL PROJECTS (Commercial, Industrial, Agricultural, Other)

a. Lot coverage: building coverage N/A % surfaced area N/A % landscaped or open N/A %

b. Total floor area: N/A (sq.ft.)

c. Number of stories N/A Maximum height _____

d. Proposed hours of operation: from 6:00 (a.m./p.m.) to 6:00 a.m./(p.m.)

Months of operation: from _____ through _____, or year-round X (check).

Days of operation Monday - Saturday

e. Proposed construction schedule: Reclamation will be a short-term activity completed during the same operating times as mining.

Daily construction schedule: from 6:00 (a.m./p.m.) to 6:00 a.m./(p.m.)

Days of construction Monday though Saturday

Will this project be constructed in phases? Describe: Reclamation may be phased concurrent with mining, as mineral extraction is concluded in each area.

f. Maximum number of people using facilities: At any one time 5 Throughout day 5

g. Total number of employees: 5 to 10

Expected maximum number of employees on site: During a shift: 5 During day: 5

h. Number of parking spaces proposed: adequate parking available

i. Number of average daily one-way vehicle trips expected: 10

j. Radius of service area: _____

k. Type of loading/unloading facilities: N/A, Reclamation activities are limited to short-term grading and revegetation.

l. Type of exterior lighting proposed: N/A, See C.2.k. above.

m. Describe all anticipated noise-generating operations, vehicles or equipment on-site: N/A, See C.2.k. above.

n. Describe all proposed uses which may emit odors detectable on or off-site: See Application Continuation Pages

IV. ENVIRONMENTAL CHECKLIST:

Indicate the following items applicable to the project or its effects. Discuss in Section V below all items checked "Yes" or "Maybe". Attach additional sheets as necessary.

Will the proposed project result in:

	YES	MAYBE	NO
A. Change in existing natural features including any bays, tidelands, lakes, streams, beaches, natural landforms or vegetation.	X	—	—
B. Change in scenic views or vistas from existing residential areas, public lands or roads.	—	—	X
C. Change in scale, pattern or character of general area of project.	—	—	X
D. Increased amounts of solid waste or litter.	—	—	X
E. Dust, ash, smoke, fumes or odors on site or in vicinity.	—	—	X
F. Change in ground water quality or quantity.	—	—	X
G. Alteration of existing drainage patterns, or change in surface water quantity or quality.	—	—	X
H. Change in existing noise or vibration levels.	—	—	X
I. Construction on filled land or construction or grading on slopes of 25% or more.	—	—	X
J. Storage, use or disposal of materials potentially hazardous to man or wildlife, including gasoline and diesel fuel. (See Environmental Health Division for assistance or information).	X	—	—

	YES	MAYBE	NO
K. Increase in demand for public services (police, fire, water, sewer, etc.)	—	—	X
L. Increase in fossil fuel consumption (electricity, natural gas, oil, etc.).	—	—	X
M. Change in use of or access to an existing recreational area or navigable stream.	—	—	X
N. Change in traffic or vehicular noise on road system in immediate vicinity.	—	—	X
O. Increased hazards for vehicles, bicycles or pedestrians.	—	—	X
P. Removal of agricultural or grazing lands from production.	—	—	X
Q. Relocation of people.	—	—	X

V. **ADDITIONAL INFORMATION OR COMMENTS REGARDING POSSIBLE ADVERSE ENVIRONMENTAL EFFECTS OF THIS PROJECT. IN ORDER TO MAKE THIS APPLICATION COMPLETE, PLEASE SUBMIT ANY ADDITIONAL DATA, INFORMATION OR SPECIAL STUDY REPORTS THAT MAY BE NECESSARY TO DETERMINE WHETHER THE PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT, TO EVALUATE ANY ADVERSE IMPACTS, AND TO DETERMINE HOW THEY MAY BE MITIGATED. ADD PAGES AS NECESSARY.**

See Department of Environmental Management Part II of Initial Study of Environmental Impacts

VI. VERIFICATION OF INFORMATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signature: _____ Date filed: _____

Printed Name: David E. Brown, Resource Design Technology, Inc. Phone: 916-983-9193

Mailing Address: 302A S. Lexington Drive, Folsom CA 95630

- For Office Use -

VII. STAFF REVIEW

By: _____ Date: _____

Comments: _____

NELSON HILL QUARRY
ENVIRONMENTAL QUESTIONNAIRE
CONTINUATION PAGES

The following information provides detail to questions on the Solano County Department of Environmental Management Environmental Questionnaire for Part I of the Initial Study.

I. PROJECT DESCRIPTION AND PURPOSE:

A. **(Project Description):** This project consists of reclamation for a surface mining operation at the Nelson Hill Quarry (see Figure 1-12 depicting site location, existing conditions and the reclamation project). The primary commodity mined is basaltic material used as a high quality fill. The fill material is predominantly used as mined with little or no processing.

The property has been the site of mining operations for many decades, resulting in some level graded areas, some variable topography, and an active mine quarry (see Figures 4 and 5). The quarry at Nelson Hill reportedly began operations in the late 1800's. Mining continues intermittently and seasonally as construction material is needed by the operator.

Existing and Proposed Uses: The mining plan is consistent with the current operator's activities, that create relatively broad, open, graded areas (see Figures 8-12). This mining and reclamation approach will readily facilitate a second land use, as compared to the topography altered by historic land use activities.

Revegetation with species common to the site and surrounding area is planned for erosion control purposes. Although soil is generally unavailable for this purpose, revegetation is expected to be successful based on the widespread natural revegetation over the site's disturbed surfaces.

The potential second land use at this site is open space. The physical condition of the mining area will be graded and leveled areas surrounding a central drainage depression. Interbench slopes will be graded at approximately 2:1. The mined areas will be revegetated with annual grasses to control erosion. This reclaimed configuration is designed to accommodate second land uses currently allowed by the Solano County General Plan and Zoning, or future development if changes in the General Plan and Zoning occur.

Existing and Proposed Structures/Development: The basins designed to collect surface water drainage from the mining area will remain;

maintenance (periodic vegetation removal) will be the responsibility of the owner following the completion of reclamation (see Figure 12).

Facilities that occur independent of the mining operation, including the access road and water well, will remain for potential second land uses. The cellular communication site (unrelated to mining) will also remain. Permanent and temporary buildings related to mining operations will be removed (see Figure 12).

Phases of Operation: The Nelson Hill Quarry is an open pit mining operation that is developed by progressively deeper excavation within a central pit area (see Figure 8). Phasing is generally not appropriate for this method of mining. There are no progressive mine waste disposal sites, multiple pits, tailings, or other such mine facilities to be reclaimed as mining progresses.

The primary opportunity for phasing is related to the area needed for active mining. The operator plans to mine and grade the site in two general phases that will provide relatively uniform excavation elevations that will facilitate a second use (see Figure 8).

Phase I is expected to occur over a period of 15 to 25 years. The frequency of mining and duration of phases will continue to be in response to market demand. Reasonably foreseeable mining operations are expected to continue for at least 25 years, though available geologic information indicates mining reserves may be available to continue operations for many decades. For planning purposes, a Phase I area has been delineated for current operations through 2025; Phase II would occur thereafter:

- Phase I will be the lower quarry elevations (approximately 220 to 245 feet AMSL), and will surround a central depression design to accept sheet flow surface runoff from the mining area, controlling siltation. The central area will have two basins with the capacity to accept the surface run-off over the mining area from at least a 20-year, one-hour intensity storm event.

- Phase II will be a larger bench/graded area surrounding Phase I (approximately 245 to 255 feet AMSL).

Phasing could be accelerated if local building requiring fill increases, or could be extended, depending on economic and market trends. As the mining areas are already disturbed by historic land use activities, overlap of phasing is expected.

B. **(Is This Part of a Larger Project?):** The Reclamation Plan is a project by itself and is a separate project from the underlying mining activities.

However, Nelson Hill Quarry is a historic open pit mining operation that reportedly began operations in the late 1800's. It is developed by progressively deeper excavation within a central pit area.

II. NECESSARY PERMITS FOR THIS PROJECT:

A. (Federal): No other permits are anticipated to be needed for reclamation activities.

B. (State and Regional): No other permits are anticipated to be needed for reclamation activities.

C. (Other Local Agencies): No other permits are anticipated to be needed for reclamation activities.

III. PROJECT DETAILS:

A. EXISTING CONDITIONS

1. (Project site):

Topography: The site is situated on Nelson Hill, near the City of Fairfield. Nelson Hill rises in elevation from approximately 20 feet AMSL at the base, to approximately 320 feet AMSL at the crest. Large areas in the eastern and southern portions of the quarry are graded and leveled. The current active quarry is approximately 60 feet deep. Existing topography is shown in Figure 4.

The Nelson Hill property consists of approximately 230 acres. The Quarry site encompasses approximately 70 acres, while the current surface disturbance by the operator encompasses approximately 15 acres. However, the entire mining area is disturbed from historic land use activities occurring since the 1800's (see Figure 5).

Geologic Setting: The site is situated on an isolated hill of Sonoma volcanic rock and lies at the northern edge of Suisun Marsh. The geology of the Quarry area consists of basalt flows and pyroclastic blocks interbedded with rhyolitic pumice. The volcanic stratigraphy of the Quarry is complex. In general, mineable materials are located on the uppermost portion of Nelson Hill. The primary commodity mined is aggregate materials and fill. The material is predominantly used as mined with little or no processing.

Climate: The site receives frequent winds from the San Pablo Bay area (southwest), funneling inland through the Carquinez Straits to the Cordelia area. Summers are historically hot and dry, averaging

approximately 85°, with winter temperatures averaging about 55°. Annual rainfall is approximately 16 inches.

Soils: The Natural Resources Conservation Service reports that the site's soil type is Hambright loam. This soil type occurs on mountains upland and is well-drained having a surface runoff that is medium to rapid; permeability is moderate to very slow. Hambright loam does not support agriculture, and is used for range, or as undeveloped acreage of wildlife habitat, and watershed. Soil depth is shallow, with basic igneous rock immediately below the horizon. Hambright soils are used for range, wildlife habitat, recreation and watershed. This soil type is not considered prime farm land.

The thin soil has been largely removed within the mining area from historic land use activities.

Groundwater Elevation and Surface Water Characteristics: The site is at the top of Nelson Hill, at an altitude of approximately 320 feet. Groundwater elevation is below an elevation of 220 feet AMSL (the proposed maximum excavation), therefore the project would not effect the quantity of groundwater in the aquifer. There are no perennial streams within the mining area. Surface runoff is sheet flow.

Mining of the site is planned to leave the topography in a reclaimed configuration that requires little or no additional earthwork.

2. (Surrounding Properties):

Other land uses surrounding the property include industrial, commercial, and scattered residential uses (see Figure 7).

3. (Existing Use of Land):

The existing use of the land consists of surface mining. This historic operation has resulted in some level graded areas, some variable topography, and an active mine quarry which continues intermittently and seasonally as construction material is needed by the operator.

4. **(Number and Type of Existing Structures):** See Application form.

5. **(Existing Vegetation on Site):**

Vegetation and habitat within the mining area has largely been removed as a result of historic land use activities. Remnants of chaparral vegetation occur on the surrounding hill slopes and as mature scattered natural revegetation in older disturbed areas. Emergent revegetation occurs throughout disturbed areas of the site, with shrubs dominant on slopes and uncompacted surfaces, and grasses dominant on the flatter, compacted substrate (see Figure 6).

Existing vegetation on the site: Remnant chemise chaparral dominates Nelson Hill Quarry site. Common species include chamise (*Adenostoma fasciculatum*), manzanita (*Arctostaphylos* spp.), ceanothus (*Ceanothus* spp.), California buckwheat (*Eriogonum fasciculatum*), sugar bush (*Rhus ovata*) and scrub oak (*Quercus* dumosa). Disturbed areas are largely vegetated by annual non-native grassland; common species include mustard (*Brassica* spp.), wild oat (*Avena fatua*), red brome (*Bromus madritensis rubens*), ripgut brome (*B. diandrus*), Italian ryegrass (*Lolium multiflorum*), burclover (*Medicago polymorpha*), Shepherd's purse (*Capsella bursa-pastoris*) and filaree (*Erodium botrys*).

6. **(If an Agricultural Use, Describe):** See Application form.

7. **(Slope of Property):** See Application form.

8. **(Existing Drainage Conditions On-Site):**

Existing drainage is derived from historic mining conducted without the benefit of a drainage plan. Drainage of the reclaimed site at the conclusion of mining will be largely retained in two central ponds designed to collect surface water drainage from the mining area to control sedimentation. No adjacent parcels will be affected (see Figure 12).

9. **(Land Uses on Adjacent Parcels)** (see Figure 7):

North: Interstate Highway 80, Agricultural (Field Crops), City of Fairfield;

South: Cordelia Road, Southern Pacific Railroad;

East: Scattered Rural Residentials;

West: Scandia Miniature Golf, industrial, and undeveloped

10. **(Distance to Nearest Residence(s) or Other Adjacent Use(s)):**

See Application form

11. **(Indicate Location of Any Power Lines, Water Mains, Pipelines or Other Transmission Lines Which are Located on or Adjacent to the Property):**

A cellular communication site is located adjacent to the southern limits of the quarry (see Figure 5).

12. **(Number and Location of Natural Creeks or Water Courses Through or Adjacent to Property):**

There are no natural creeks or water courses located within 500 feet of the mining area. Suisun Creek is approximately 1/4 mile east of the property (see Figure 2 and 5).

13. **(Number and Location of Man-made Drainage Channels Through or Adjacent to Property):**

An unnamed (on USGS Quadrangle) canalized surface drainage occurs along the westerly boundary of the property (see Figure 2 and 5).

14. **(Identify and Describe any On-site or Adjacent Marshes, Wetlands, Vernal Pools, Wet Meadows, Riparian Vegetation):**

There is no water body-dependent vegetation on-site.

15. **(Unique, Sensitive, Rare, Threatened, or Endangered Animals, Plants, or Habitats on the Project Site or in Close Proximity Affected by the Project):** See Application form.

16. **(Existing Vehicle Access(s) to Property):**

Access is provided by Cordelia Road, which lies adjacent to the southern site boundary. A private paved driveway, located approximately one mile east of Pittman Road accesses the mining area from Cordelia Road.

Mine areas and roads exist throughout the existing quarry, as evident in Figure 5. No additional roads are planned outside of this area.

17. **(List and Describe the Nature and Location of All Existing Easements Serving or Affecting the Property):**

The northern portion of the Nelson Hill property site has a PacBell, roadway (Neitzel Road), Tower line, and water pipeline (City of Fairfield) easement.

There are sewer, gas line, electric line, and pole line easement at the southern portion of the Nelson Hill property. However, these easements do not lie within the mining and reclamation boundary.

B. PROPOSED CHANGES TO THE PROJECT SITE

1. **(Topography and Grading):**

Areas that have been excavated will be ripped as necessary to reduce soil compaction. Leveled area will be graded to a slope of <3%. Interbench slopes will be graded to 2:1. Earthwork activities occurring during reclamation will occur in accordance with and be authorized by the reclamation plan. See Figure 4 depicting existing topography and Figure 12 for final reclamation plan configuration and drainage plan.

2. **(Number, Size and Type of Trees, and Type of Vegetation to be Removed):**

As the further development of this open-pit operation generally consists of deepening the excavation within an existing central pit, extant vegetation will be generally unaffected.

3. **(Number, Type, and Use of Existing Structures to be Removed, and Removal Schedule):**

All permanent and temporary buildings related to the mining operations will be removed at the conclusion of reclamation activities.

4. **(Proposed Fencing and/or Visual Screening (Landscaping)):**

The entire property boundary is fenced with agricultural-type fencing. The site is situated on the crest of Nelson Hill at an approximate elevation of 320 feet. The current active quarry is approximately 6- feet deep. Views of operational areas at this elevation are largely obscured (see Figures 9 and 10).

5. (Proposed Access to Project Site):

Access will continue to be provided by Cordelia Road, which lies adjacent to the southern site boundary. Access to the site is controlled by a locked access gate to the property's private driveway, which will be maintained to deter unauthorized access (see Figure 5).

6. (Proposed Source and Method of Water Supply):

Water is obtained from an existing well located on the property. Occasionally, water is also available from a 20-foot deep, retention basin that captures precipitation. No water conveyance systems exist.

7. (Proposed Method of Sewage Disposal):

No public sewer systems are utilized as part of this operation. Portable toilets are used for the limited domestic sewage needs.

8. (Provisions for Solid/Hazardous Waste Disposal):

There is no project associated hazardous waste. The project generates insignificant amounts of solid waste. Domestic-type solid waste generated on-site is disposed of by the operator.

9. (Hazardous Materials or Wastes Handled On-site):

Fueling and service of mobile equipment shall be performed in a manner consistent with appropriate methods recommended by the manufacturer of the equipment. Fuel is dispensed from above ground storage tanks, which are equipped with an automatic fuel shut-off device. In the event of a spill or leak, the operator will clean up any contamination following the company's standard spill response procedures and in compliance with all applicable regulations.

10. (Duration of Construction and/or Anticipated Phasing):

Mining operations are expected to continue for at least 25 years, though available geologic information indicates mining reserves may not be exhausted for many decades. For planning purposes, Phase I has been defined for current operations through 2025; Phase II would occur thereafter. As the mining areas are already disturbed by historic land use activities, overlap of phasing is expected.

11. **(Will the Proposed Use be Affected by or Sensitive to Existing Noise in the Vicinity? If so Describe Source):** See Application form.

C. PROPOSED SITE UTILIZATION

1. RESIDENTIAL PROJECTS: See Application form.

2. NON-RESIDENTIAL PROJECTS

a through j. See Application form.

k. (Type of loading/unloading facilities): Materials are excavated from a borrow pit with bulldozers and transferred to trucks by loaders. There are no constructed loading/unloading facilities on-site.

l. **(Type of Exterior Lighting Proposed):** Reclamation activities would not be expected to require lighting, and generally would be conducted from 6:00 a.m. to 6:00 p.m.

m. (Anticipated Noise-generating Operations, Vehicles or Equipment on-site):

Anticipated noise-generation will emanate from heavy equipment. Noise-generating equipment and vehicles used on-site will consist of: bulldozers, haul trucks and private employee vehicles.

n. (Proposed Uses Which May Emit Odors Detectable On or Off-site):

Only the odors of diesel equipment will be emitted and detectable, and would be limited to the immediate areas of operation.

IV. ENVIRONMENTAL CHECKLIST

A. (Change in Existing Natural Features):

Yes. The physical condition of the mining area will be both graded and leveled areas, surrounding a central drainage depression. Slope angles will be reduced to 2:1 or less. The mined areas will be revegetated with native grasses and forbes, both annuals and perennials common to the area.

B. (Change in Scenic Views or Vistas from Existing Residential Areas, Public Lands or Roads):

No. The site is situated on Nelson Hill, with an approximate elevation of 320 feet. Historic mining activities have been on-going at this site since the late 1800's. The current active quarry is approximately 60 feet deep. Views of operational areas at this elevation are largely obscured.

The potential second land use of the site is open space, and is compatible with the Fairfield Cordelia Area Specific Plan, which has designated the site of the historic Nelson Hill Quarry as the "possible future site of a system of trails and overlooks to retain its scenic quality and offer broad views of the Suisun Marsh and surrounding landscape."

C. (Change in Scale, Pattern or Character of General Area of Project):

No. Surface mining has been on-going at the Nelson Hill Quarry since the late 1800's. Further development of excavation operations consists solely of deepening the present excavation.

D. (Increased Amounts of Solid Waste or Litter):

No. No mine waste, increase in solid waste, or litter is associated with this project.

E. (Dust, Ash, Smoke, Fumes or Odors On Site or in Vicinity):

No. Dust control measures include spraying haul roads and loading areas with water supplemented by organic dust palliatives as required. In addition, trucks exiting the site are treated by an overhead spray bar as necessary. Fugitive dust incorporating these mitigation measures will be minimal. There will be no project associated ash, smoke, fumes or odors other than those common to the operation of diesel engines, either on or off-site.

F. (Change in Ground Water Quality or Quantity):

No. The site is at the top of Nelson Hill, at an altitude of approximately 320 feet. Groundwater elevation is below an elevation of 220 feet AMSL (the proposed maximum excavation), therefore the project would not effect the quantity of groundwater in the aquifer.

G. (Alteration of Existing Drainage Patterns or Change in Surface Water Quantity or Quality):

No. There are no perennial streams within the mining area. Surface runoff is sheet flow and would generally be unaltered. No disposal of or

discharge of waste water occurs, as no processing is employed generating waste water.

H. (Change in Existing Noise or Vibration Levels):

No.

I. (Construction on Filled Land or Construction or Grading on Slopes of 25% or More):

No.

J. (Storage, Use or Disposal of Materials Potentially Hazardous to Man or Wildlife, Including Gasoline and Diesel Fuel):

Yes. Fuel is dispensed from above ground storage tanks, which are equipped with an automatic fuel shut-off device. In the event of a spill or leak, the operator will clean up any contamination following the company's standard spill response procedures and in compliance with all applicable regulations. There are no other chemicals or substances hazardous to humans or wildlife involved with this type of operation.

K. through Q. See Application form.

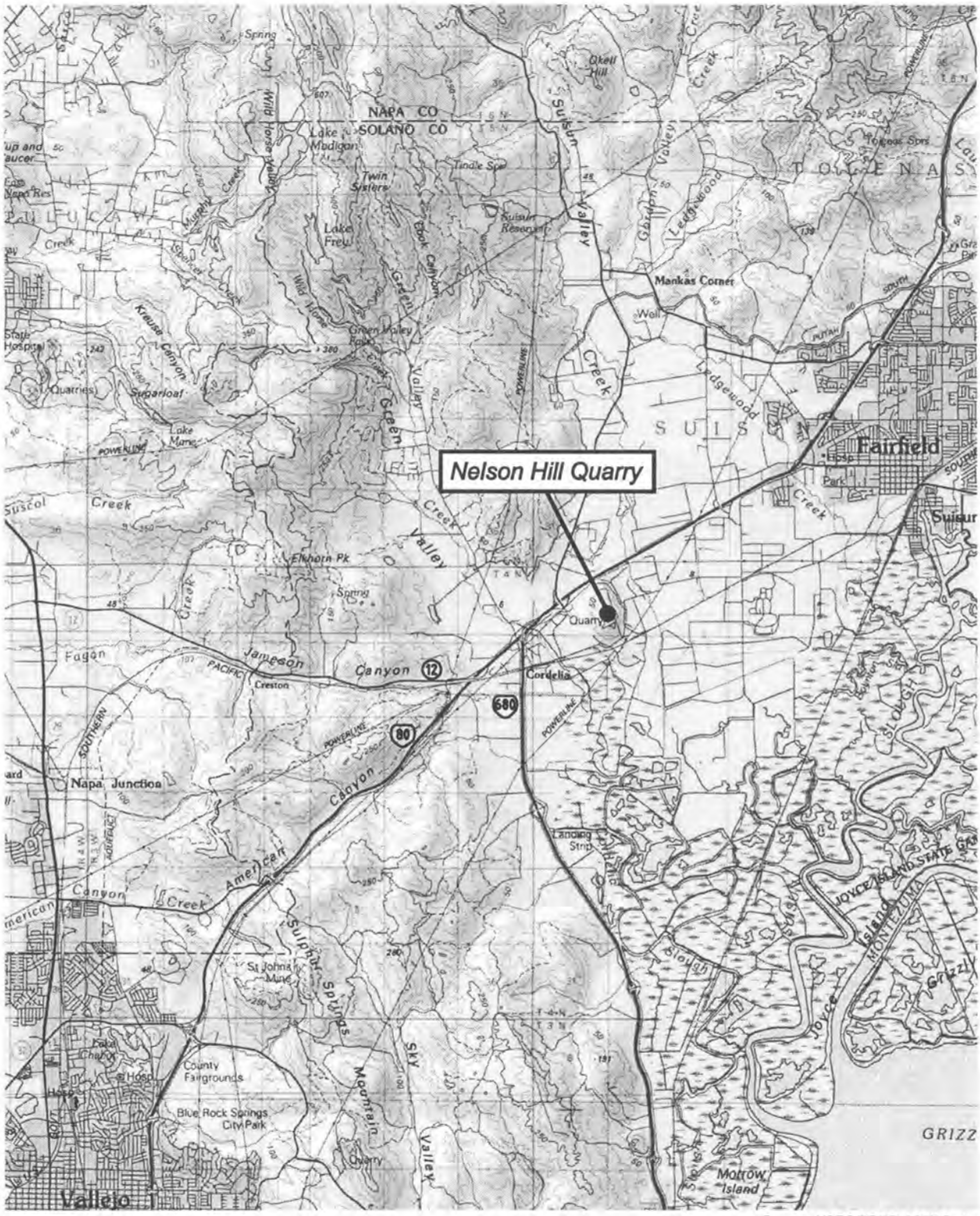


Figure 1
Regional Location
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

PROPERTY BOUNDARY —·—·—·— (APPROXIMATE)

MINING BOUNDARY – – – – – (APPROXIMATE)

Source: USGS TOPO 7.5' Series

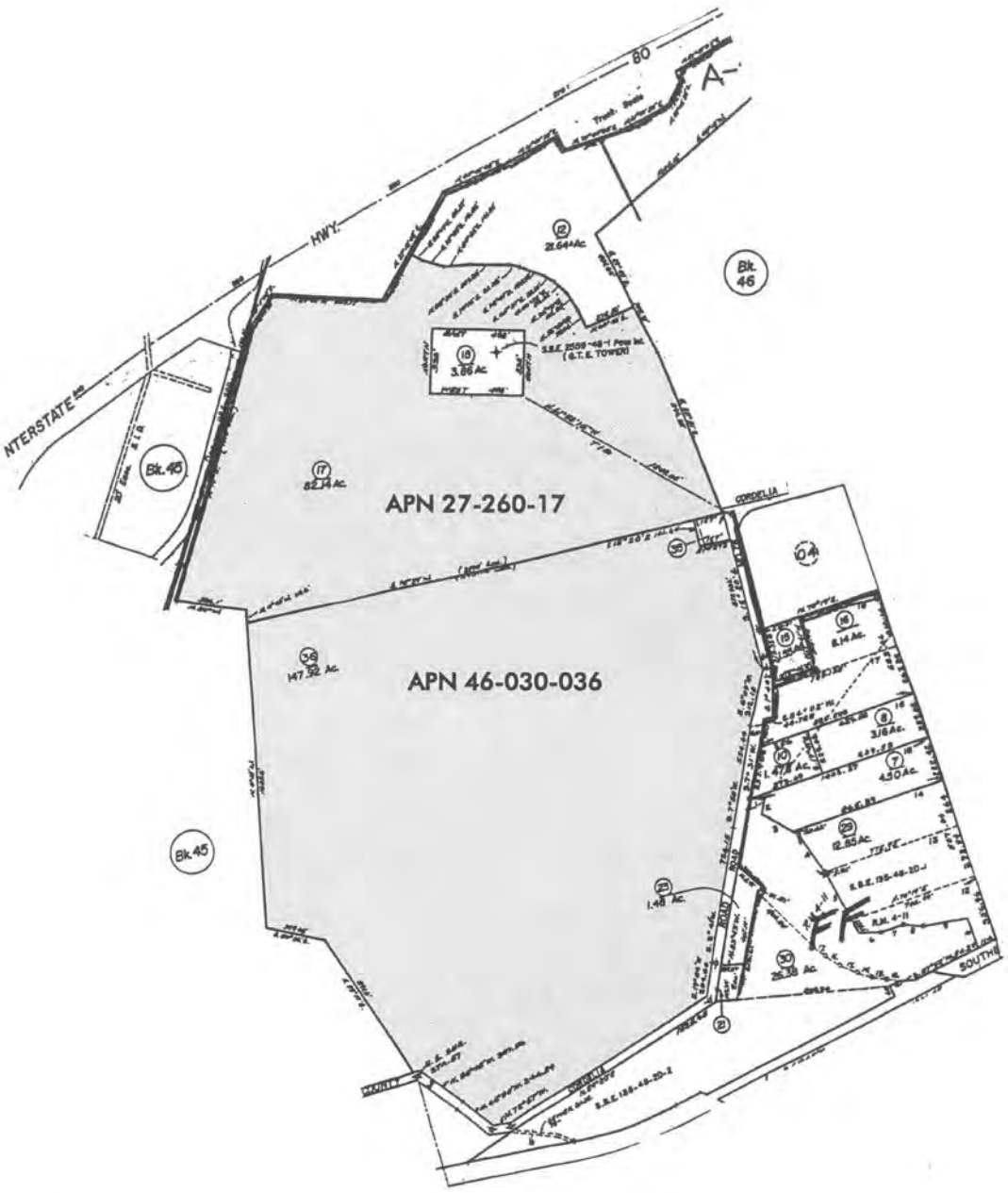
N

0 3000'

SCALE 1" = 2500'

Figure 2
Site Location
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.



Source: Asessors Maps Bk 27 - Pg.26, Bk 46 - Pg.03

N

0 1000'

SCALE 1" = 1000'

Figure 3
Assessor Parcels
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

PROPERTY BOUNDARY (APPROXIMATE)

MINING BOUNDARY (APPROXIMATE)

Source: Mac Kag & Stomps, October 1996

N

0 1000'

SCALE 1" = 650'

Figure 4
Existing Topography
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

Figure 5
Existing Conditions Photo
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

Shrub colonization on previously disturbed surfaces.

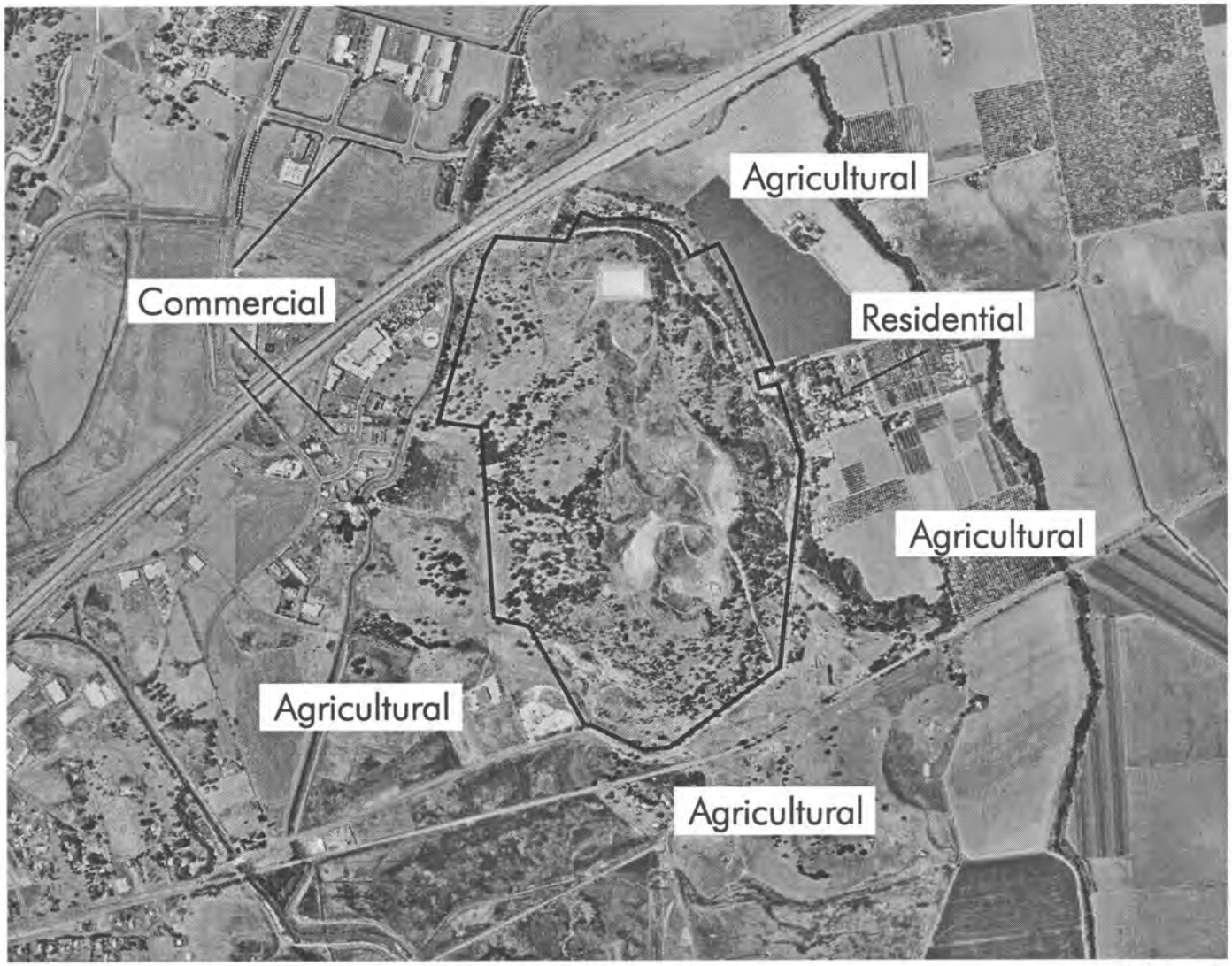
Photograph Date: 5-12-1999

Natural revegetation by grasses and shrubs over previously disturbed areas.

Photograph Date: 5-12-1999
Source: Resource Design Technology

Figure 6
Existing Environment:
Topography and Revegetation
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN
TECHNOLOGY, INC.



Source: USGS Photograph

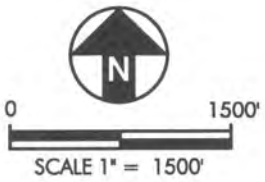


Figure 7
Surrounding Land Uses (within 1/4 Mile)
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

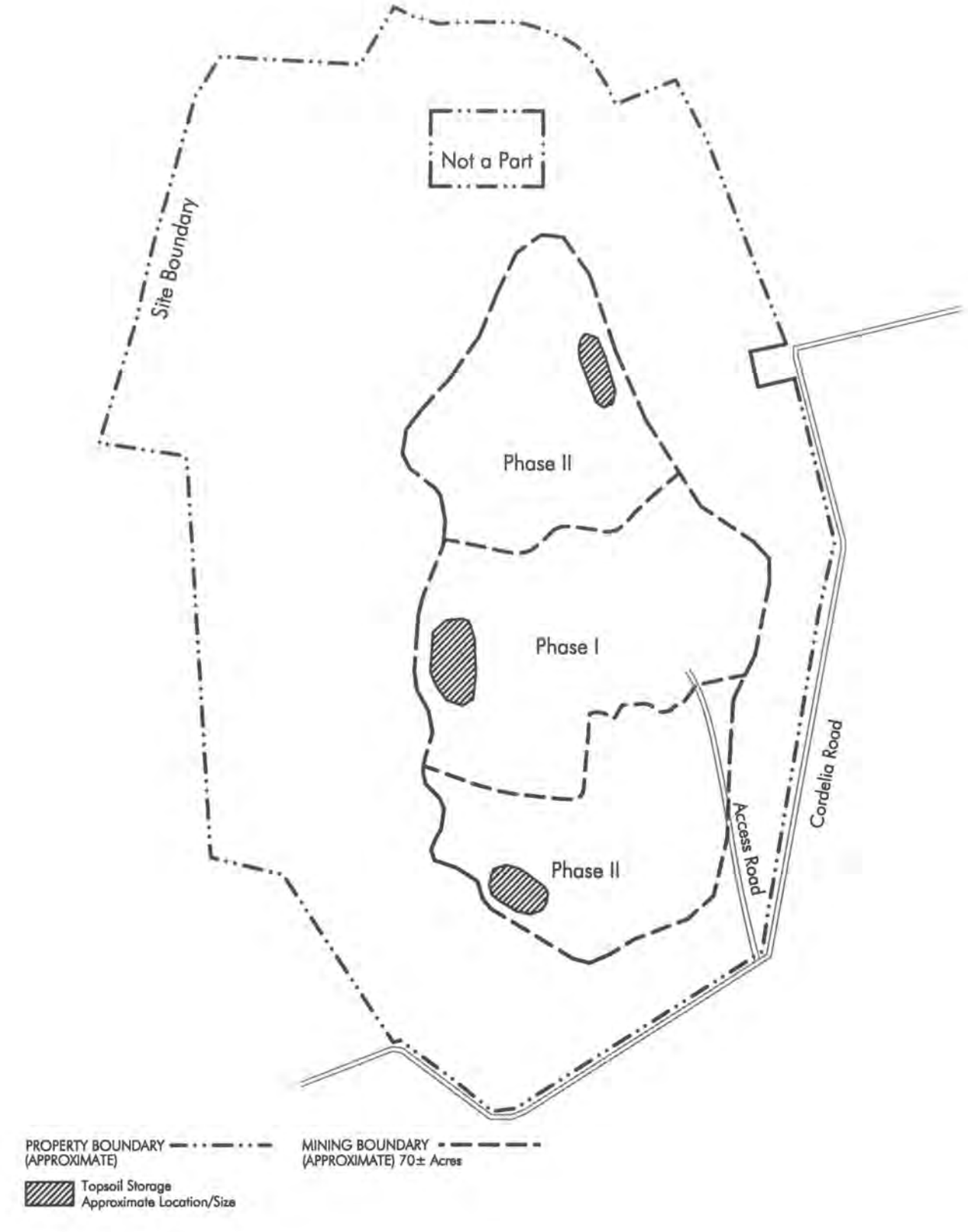
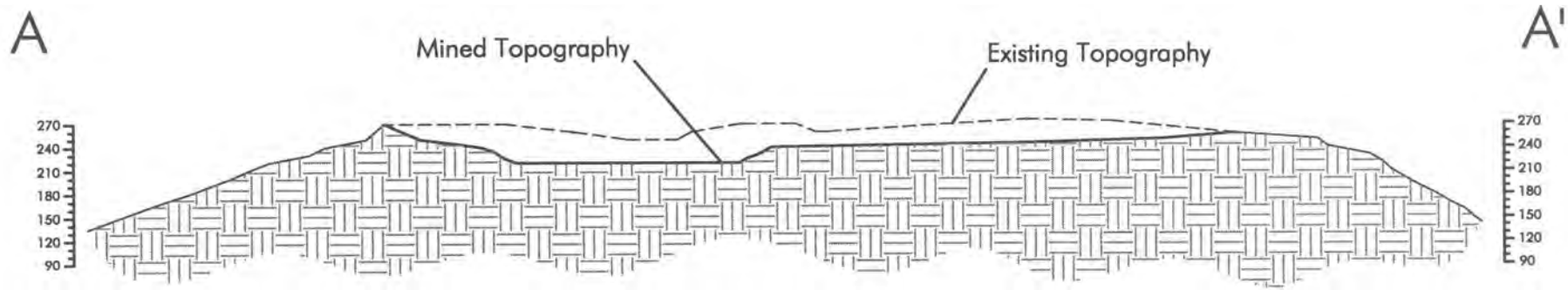
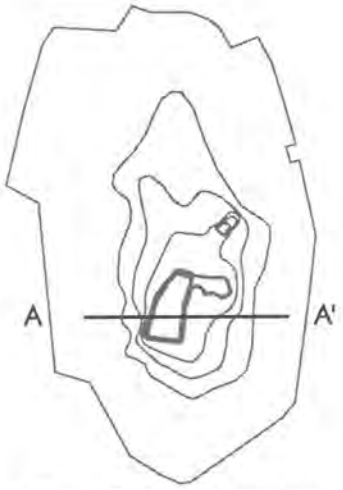


Figure 8
Mining Area and Phasing
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

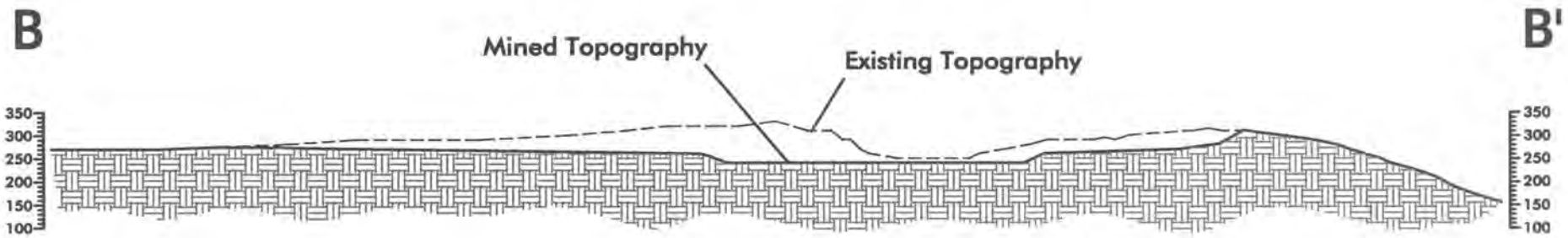


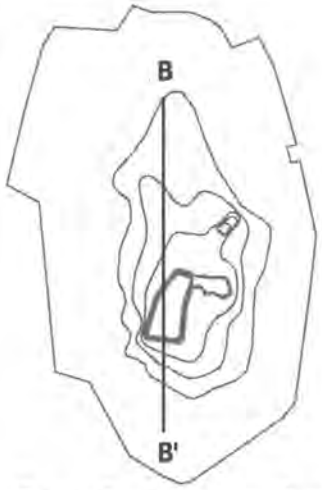


Cross Section Location
(not to scale)

Figure 9
Mine Plan Cross Section A
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN
TECHNOLOGY, INC.





Cross Section Location
(not to scale)

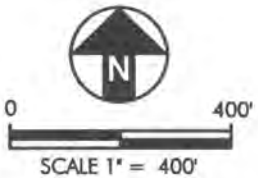


Figure 10
Mine Plan Cross Section B
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN TECHNOLOGY, INC.

Access and Staging Area

Photograph Date: 5-12-1999

Active quarry

Photograph Date: 5-12-1999
Source: Resource Design Technology

Figure 11
Existing Environmental Conditions
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN
TECHNOLOGY, INC.

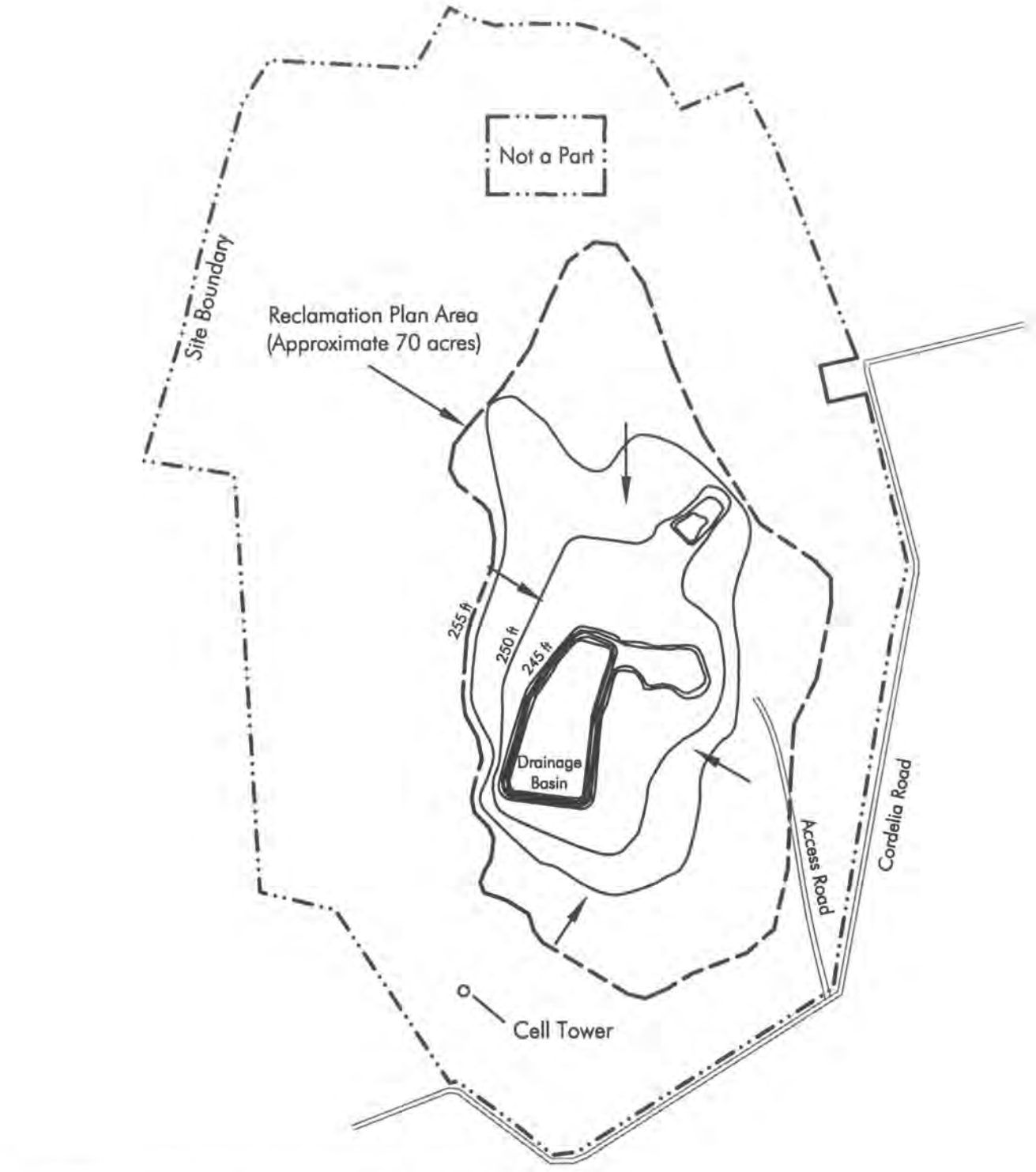


Figure 12
Reclamation Plan with Surface Flow Direction
NELSON HILL QUARRY
SOLANO COUNTY, CALIFORNIA

RESOURCE DESIGN
TECHNOLOGY, INC.

SOLANO COUNTY PLANNING COMMISSION

Reclamation Plan Application No. RP-97-02
Environmental Management Staff Report **Meeting of January 17, 2002**
Project Planner: Ignacio Gonzalez, Contract Planner **Agenda Item No. 1**

Applicant:
Name: Oliver De Silva, Inc.
Address: 11555 Dublin Boulevard, P. O. Box 2922
Dublin, CA 94568

Proposal:
Action requested: Approval of Reclamation Plan for an existing hard rock quarry pursuant to the requirements of the California Surface Mining and Reclamation Act (SMARA) for surface disturbance related to the historical mining at the Nelson Hill Quarry to provide for grading, stabilization of slopes, weed abatement, rehabilitation of pre-mining drainage and the removal and disposal of residual equipment and structures from a quarry previously recognized to operate under a vested right.

Site Information:
Size: 230.06 acres ownership (Mining activities 70 acres)
Location: Approximately 1.5 miles northeast of the City of Fairfield, situated on the west side of Cordelia Road.
Zoning: "A-20", Exclusive Agriculture
Land Use: Rangeland/Rock Quarry/Aggregate Processing
General Plan: Park and Recreation
Soils: Hambright loam
Ag. Pres. Status: Not under contract
Utilities: Not applicable
Access: Cordelia Road

Adjacent Zoning:
North and East: "A-20 and A-40", Exclusive Agriculture
South and West: Residential and Industrial in the City of Fairfield

Adjacent Land Use:
North: Interstate 80, Agricultural, City of Fairfield
East: Scattered Rural Residential and Agricultural
South: Cordelia Road, Southern Pacific Railroad, Agricultural, Rural Residential
West: Commercial, Industrial and Undeveloped

Environmental Status: A Mitigated Negative Declaration was prepared for this project with public review period beginning on November 10, 2001 and ending on December 10, 2001.

Motion to APPROVE: The Planning Commission does hereby **ADOPT** the Mitigated Negative Declaration, the findings and **APPROVE** Reclamation Plan No. RP-97-02 subject to the recommended conditions of approval.

BACKGROUND

In 1934 the Nelson Family acquired the existing quarry. In 1973, Oliver De Silva obtained control over the existing quarry operation pursuant to an agreement with the Nelson Brothers. In 1979, in response to the adoption of the Surface Mining and Reclamation Act (SMARA), De Silva submitted a request for a reclamation plan to the County of Solano. Subsequently, the applicant's request was denied, based on the fact that the operation requires that a conditional use permit be obtained prior to approval of a reclamation plan. Shortly thereafter, the applicant submitted applications for both a use permit and reclamation plan. In April of 1986, the applicant's use permit needed to reactivate the quarry was denied, however, the applicant resumed the operation without authorization and the County filed an injunction to stop the operation.

In May of 1986, the County's Preliminary Injunction was denied, with the court finding that De Silva operated under a "Vested Right." The court ordered both the County and the operator to agree on a permissible level of extraction. It was also found by the court, that the operation was not a nuisance. It was subsequently determined on October 10, 2000 by a stipulated judgment that the operator/quarry owner had a vested right to mine a specified quantity of material. Specifically, a maximum annual limit of 242,239 tons and an average annual limit of 97,397 tons, with the maximum annual production limit (in tons) determined by averaging the actual annual production levels for the proceeding consecutive seven (7) year period. In addition, the quarry owner was to comply with specified operating conditions pursuant to the May 30, 1986 Superior Court's order on both parties.

Chapter 29, Section 29-11 of the Solano County Code provides that a person shall be deemed to have vested rights prior to January 1, 1976, if the person has in good faith and in reliance upon a permit or other authorization if such permit or other authorization was required and was in compliance with County regulations, diligently commended surface mining operations and incurred substantial liabilities for work. Based on the May 30, 1986 Superior Court's finding, the operator has a vested right to mine from the subject property and is therefore not required to secure a use permit form the County. However, pursuant to Article 5, Section 2770 (a) of SMARA, no person shall conduct surface mining operations unless a permit is obtained from, a reclamation plan has been submitted to and approved by, and financial assurances for reclamation have been approved by the lead agency (Solano County) for the operation. Therefore, based on the previous determinations, a reclamation plan shall only be required for the operation and site in question.

Reclamation is defined as the process of land treatment that minimizes water degradation, air pollution, damage to aquatic or wildlife habitat, flooding, erosion, and other adverse affects from surface mining operations including adverse surface effects incidental to underground mines, so that mined lands are reclaimed to a usable condition which is readily adaptable for alternate land uses and created no damage to public health or safety. The process may extend to affected lands surrounding mined lands, and may require backfilling, grading, resoiling, revegetation, soil compaction, stabilization or other measures.

PROJECT DESCRIPTION

Oliver De Silva, Inc. is requesting approval of a reclamation plan for the surface disturbance related to mining at the Nelson Hill Quarry. The reclamation activities required for the surface disturbance related to mining at the Nelson Hill Quarry under SMARA would return the site to an

undeveloped status. The controlled drainage and stable slope surfaces will facilitate secondary land uses of the site, which is currently planned as open space. The activities necessary to complete this objective are expected to occur over a two-to-four week period and will only occur on surfaces that have been disturbed by authorized mining activities, therefore, the reclamation activities in and of themselves have limited potential to create significant environmental impacts.

Upon completion of mining, the project site (quarry area) is to be reclaimed to open space uses that would (with the exception of the quarry side slopes) be suitable as rangeland. When the overburden filling operations are completed, the overburden fill area is to be reclaimed as rangeland.

Reclamation activities for the Nelson Hill Quarry site will include, but are not limited to backfilling and grading, stabilization of slopes, weed abatement, rehabilitation of pre-mining drainage, removal and disposal of residual equipment and structures, the control of contaminants and addressing residual hazards.

ANALYSIS

Project Location

The project site is situated on Nelson Hill, near the City of Fairfield, located approximately 1.5 miles northeast of Cordelia, in Sections 5 and 6, Township 4 North, Range 2 West, Mount Diablo Base and Meridian. Nelson Hill rises in elevation from approximately 20 feet average mean sea level (AMSL) at the base, to approximately 320 feet AMSL at the crest. The site is bounded on the west by Dan Wilson Creek; Interstate 80 forms the northern boundary; and Cordelia Road forms the southeastern boundary. The quarry's access is from Cordelia Road. The Nelson Hill Quarry consists of approximately 70 acres. Vegetation and habitat within the operation area have largely been removed as a result of historic land use activities. Remnants of chaparral vegetation occur on the surrounding hill slopes along with mature scattered natural revegetation in the older disturbed areas of the quarry.

Operational Details/Mining and Reclamation

Relative to mining, the primary resource material being mined is basaltic aggregate material used as a high quality fill. The fill material is predominately used as mined with little or no processing. The mining plan is consistent with the current operator's activities that create relatively broad, open, graded areas. This mining and reclamation approach is to readily facilitate a second land use, as compared to the topography altered by historic land use activities. According to the applicant, a potential second land use for the site is open space.

The site is situated on an isolated hill of Sonoma Volcanic rock and lies at the northern edge of the Suisun Marsh. The geology of the quarry area consists of basalt flows and pyroclastic blocks interbedded with rhyolitic pumice. The volcanic stratigraphy of the quarry is complex. In general, according to the applicant's reclamation plan, mineable materials are located on the uppermost portions of Nelson Hill.

As mentioned above, the quarry at the Nelson Hill site began operations in the late 1800's. The quarry has been in use by the current operator since the enactment of the Surface Mining and Reclamation Act (SMARA) on January 1, 1976. Mining continues intermittently and seasonally as construction materials are needed by the operator. It should be noted that the mining operation component of the project was previously recognized as a vested right, with the operator limited to an annual amount historically mined at the site. As such, the maximum annual limit established at the site is 242,239 tons with an average annual limit of 97,397 tons. According to the applicant, mining operations are expected to continue for at least 25 years, though available geologic information indicates mining reserves may not be exhausted for many decades.

Mined materials are typically ripped, excavated, and exported as "run-of-mine." Excavated fill materials maybe screened to remove oversized material (12" or larger) for use as rip-rap, or ripped to meet fill material size specifications. Materials are to be excavated from the site (borrow pit) with bulldozers and transferred to trucks by rubber tire loaders. The physical condition of the mining area is to be graded with level areas surrounding a central drainage depression. Interbench slopes are to be graded at approximately a 2:1 slope. The mined areas are also to be revegetated with annual grasses to control erosion. According to the applicant's reclamation plan, the proposed reclaimed configuration is designed to accommodate second land uses currently allowed by the Solano County General Plan and zoning, or future development if changes in the General Plan and zoning occur.

The existing drainage basins have been designed to collect water drainage from the mining area and are proposed to remain. It is further proposed that the maintenance of the basins, including periodic vegetation removal will be the responsibility of the property owner following completion of the reclamation activities. Facilities that occur independent of the mining operations, including the access roads and water well, are to remain for any potential secondary uses of the property. The cellular communications site located on the southern end of the property, which is unrelated to the mining operation will also remain. Existing permanent and temporary buildings related to mining operations are to be removed as part of the reclamation of the site.

The Nelson Hill Quarry is an open pit mining operation that is developed by progressively deepening excavation within a central pit area. Phasing is generally not appropriate for this method of mining. There are no progressive mine waste disposal sites, multiple pits, tailings, or other such mine facilities to be reclaimed as mining progresses. The primary opportunity for phasing is related to the area needed for active mining. The operator plans to mine and grade the site in two (2) general phases that will provide relatively uniform excavation elevations that will facilitate secondary uses of the area. According to the applicant's proposal, the first phase (Phase I) is expected to occur over a period of 15 to 25 years. The frequency of mining and duration of phases will continue to be in response to market demand. Yet according to the applicant, foreseeable mining operations are expected to continue for at least 25 years, however geologic information indicates that mining reserves at the quarry would allow for continued mining operations for many decades. However, for planning purposes, a Phase I area has been delineated for current operations through 2025 and the implementation of Phase II would occur thereafter.

Generally speaking, Phase I will involve the lower quarry elevations (approximately 220 to 245 feet AMSL), and will surround a central depression design to accept sheet flow surface runoff from the mining area, thus controlling siltation. The central area will have two basins with

sufficient capacity to accept the surface runoff over the mining area from at least a 20-year, 1-hour intensity storm event.

Phase II will include a larger bench graded area surrounding the area reclaimed under Phase I (approximately 245 to 255 feet AMSL). According to the applicant, phasing could be accelerated if local building requiring fill increases, or could be extended, depending on economic and market trends. As the mining areas are already disturbed by historic land use activities, overlap of phasing is expected.

Relative to soil salvage, the majority, if not all of the mining area has been previously disturbed since the mid-1800's. No topsoil was recovered during this surface disturbance. As mining will continue in the same disturbance area, little if any topsoil is expected to be encountered. Available topsoil, where encountered will be stockpiled and managed in accordance with California Code of Regulations (CCR) Section 3711 for later use in reclamation. The stockpiles are to be mulched and seeded to prevent water and wind erosion and provide maximum visibility of seedlings at the time the soil is reapplied. Where no topsoil is available, uncompacted substrate is expected to serve as a suitable medium for plant growth for purposes of erosion control. Disturbed areas have successfully revegetated with species common to the site without the requirement of additional topsoil, active reseeding, or soil amendments.

In addressing the control of contaminants, fueling and service of mobile equipment is to be performed in a manner consistent with appropriate methods recommended by the manufacturer of the equipment. Fuel is dispensed from above ground fuel tanks, which are equipped with an automatic fuel shut-off device. In the event of a spill or leak, the operator would clean up any contamination following the company's standard spill procedures and in compliance with all applicable regulations.

Relative to the treatment of streambeds or streambanks, there are no streams that exist within the mining area.

A locked gate to the property's private driveway, which will be maintained to deter unauthorized access, controls access to the site. The reclaimed site is to be graded and leveled, and left absent of equipment.

Final reclamation of the site will consist of two components, (1) backfilling and grading and the (2) stabilization of the slopes including revegetation.

1. Backfilling and Grading
   After excavation, the site will be ripped as necessary to reduce compaction. Leveled areas will be graded to a slope of <3%. Inter-bench slopes will be graded to 2:1. No backfilling is proposed.

2. Stabilization of Slopes
   Slope angles will be reduced to 2:1 or less. Revegetation of slopes for erosion control will occur during the appropriate growing season and will include the following as appropriate at the time of implementation:

During the first year preceding planting of native species, weed seeds in the soil will be allowed to germinate (via passive watering regimes) to both reduce the seed bank of weed species and add organic matter to the soil. A slow release, high nitrogen fertilizer (38-0-0) may be used (rate of approximately 80-160 lbs/acre) as necessary. Following fertilizer applications, seeds will be applied by hydroseeding, hand-seeding and raking, or drilling. To facilitate revegetation, the slopes will be roughened. Seeds will be placed at a ratio of approximately 100 lbs/acre.

Mining will extend to the crest of the top of the hill so that screening vegetation will remain and lessen potential visual impacts of mining operations. Construction fencing will be installed at the outer drip line of oaks to protect oak trees from mining impacts.

Seeding will take place when there is sufficient moisture and soil development to optimize survival and growth. As such, seeding will take place in October or later at the initiation of the winter growing season.

Weed abatement will limit exotics, such as fennel and yellow star thistle, to no more than 5-8% of the total vegetative cover. Exotic plant species are typically competitively superior to natives and are commonly associated with newly disturbed sites. According to the reclamation plan, the exotic community can, however, contribute to soil development. In order to limit competition with native species, a program of exotic seed abatement will be implemented. Exotic plant species in inter-shrub areas will be controlled as necessary by mechanical means, largely well timed mowing or herbicides. Native grasses may benefit from periodic mowing, which promotes root growth, and mowing prior to seed set for exotics would minimize competition while enhancing the soil.

Successful revegetation generally adheres to the principle of first ameliorating the site, by producing organic matter, in order to facilitate the growth of planted individuals and opportunistic invasion. A variety of drought tolerant species are to be included in the seed mixture. They comprise a group of native grasses and forbs, both annuals and perennials that are adapted to xeric conditions and establish relatively quickly on disturbed sites. These species include Blue Wildrye, Zorro Annual Fescue, Meadow Barley, Creeping Wildrye, Deergrass, Purple Needlegrass, One-sided Bluegrass and Vetch. The objective of the revegetation at the site is to reclaim land for any secondary land uses of the site, including open space. In addition, revegetation of the site will provide greater stability of the final slopes and will help reduce erosion.

Aesthetics

Some of the activities associated with reclamation could be viewed from the surrounding areas, such as equipment performing grading or revegetation tasks. However, these activities would be no different from the underlying use of the site as a mining operation. Since the site is situated on the crest of Nelson Hill, and is at an approximate elevation of 320 feet, views of the reclaimed area will be largely obscured by topography from the surrounding properties. In addition, reclamation activities are expected to occur over a two- to four-week period, therefore any impacts created by reclamation will be short-term.

Nelson Hill Quarry is located approximately 1.5 miles Northeast of Cordelia in Solano County. The site is bounded on the west by Dan Wilson Creek; Interstate Highway 80 forms the northern boundary; and Cordelia Road forms the southeastern boundary.

Although reclamation activities have the potential to temporarily degrade the existing visual character or quality of the site and its surroundings, reclamation activities will be beneficial because they are prescribed treatments curative to the impacts caused by mining activities. Furthermore, impacts to the visual character or quality created from reclamation activities will be less that one-month in time.

Reclamation activities will be limited to daytime and it is not expected that sources of light and/or glare will exist that could effect day or nighttime views in the area.

Air Quality

According to the Initial Study prepared for the Reclamation Plan, reclamation is not expected to conflict with or obstruct implementation of the Bay Area Air Quality Control Board's Air Quality Plan due to the nature and the short-term length of reclamation activities.

It is not anticipated that reclamation activities will violate any (federal, state or local) air quality standard or contribute substantially to an existing or projected air quality violation or result in a cumulative net increase of any criteria pollutant. Reclamation activities at this site are limited in scope and duration, however during periods with sustained or gusting winds over 25 miles per hour velocity some reclamation activities have potential to increase fugitive dust emissions. Further, the operation is conducted according to the following established condition (condition of approval number 2) that minimize the potential for particulate emissions during such conditions:

1) Haul roads shall be watered and treated with soil stabilizers as needed to reduce dust;

2) Trucks and other mobile equipment shall limit speed to 25 miles per hour on interior roads;

3) Reclamation activities shall cease dust-generating activities when wind speeds create excessive off-site amounts of fugitive dust and/or during periods with sustained or gusting winds over 25 miles per hour velocity and determined by the Solano County Director of Environmental Management as creating the potential for generation of unacceptable fugitive dust emissions.

Sensitive receptors are facilities that house or attract children, the elder, people with illness, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are all examples. The Nelson Hill Quarry site is located in a rural area surrounded by agricultural, industrial, commercial, and scattered residential uses. There are no sensitive receptors within a quarter mile of the reclamation site. Furthermore, reclamation activities do not anticipate creating substantial pollutant concentration. Some reclamation activities have potential to increase fugitive dust emissions, however the above operating conditions will limit fugitive dust emissions.

Biological Resources

According to the Initial Study prepared for the reclamation plan, no species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulation, or by California Department of Fish and Game or U.S. Fish and Wildlife Service were found on site.

The reclamation site does not contain riparian habitat or another sensitive natural community

identified to be of concern or wetlands as defined by Section 404 of the Clean Water Act. In addition, reclamation activities are expected to only occur in areas that have previously disturbed by mining activities.

It is not anticipated that reclamation activities will interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery. The proposed reclamation activities are curative to disturbances caused by mining activities therefore these activities have potential to improve wildlife habitat.

No mitigation measures are recommended or verification of such is necessary, as the final reclamation of the site, in staff's opinion will result in more a desirable site for wildlife habitat as vegetation will be introduced where none previously existed, thus providing for potential wildlife habitat in the future.

Water Quality

Final reclamation activities are expected to occur over a two- to four-week period therefore, impacts created by reclamation will be short-term. Furthermore, reclamation activities anticipate minimal water usage (e.g. the largest anticipated water use would be for fugitive dust emission control). Therefore, it is not expected that reclamation activities would violate any water quality standards or waste discharge requirements or interfere with the ground water supply.

Existing drainage is derived from historic mining conducted without the benefit of a drainage plan. Drainage of the reclaimed site at the conclusion of mining will be largely retained in two central ponds to control sedimentation. This basin is designed to collect surface water drainage from the mining area and will be maintained (periodic vegetation removal) by the owner following the completion of reclamation activities. There are no streams or water wells located within 500 feet of the reclamation site.

Reclamation activities are not expected to create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff or otherwise degrade water quality.

Reclamation activities do not involve developments of permanent structure (e.g. housing development, levee or dam) at the site. Furthermore, the site is on elevated topography, which is not within a 100-year flood plain. Based on the findings contained in the Initial Study, no significant adverse impacts are anticipated relative to water quality.

Noise

The project site is bound to the north/northwest by industrial and to the south/southeast by Cordelia Road. Adjacent receptors are thus already subject to noise levels that exceed those expected during limited reclamation activities.

Reclamation activities would not expect to expose persons to or permanently increased excessive of noise or vibration. The site is rural in nature (nearest receptor is over 650 feet from the reclamation site) and during reclamation activities limited equipment will be used. In addition, reclamation activities are expected to occur over a two- to four-week period, therefore, any increase in noise created by reclamation will be short-term.

Pursuant to the settlement agreement dated October 10, 2000 between the County and the

applicant/operator, the hours of operation for routine mining activities (excavation, processing and stockpiling) are to be limited to between the hours of 6:00 am and 6:00 pm, Monday through Friday. Truck loading and hauling off-site are to be limited to between the hours of 6:00 am to 3:30 pm, Monday through Friday to avoid pm peak hour traffic on Cordelia Road, and 9:00 am to 6:00 pm on Saturdays, with no operations allowed on Sundays.

Provided the conditions of the settlement agreement are adhered to, no significant impacts relative to noise are anticipated. As mentioned above, reclamation (revegetation) will not result in any noise impacts as it is merely the treatment of land for the end use. And in addition, overall activities for reclamation would be limited to the hours of operation in the settlement agreement.

Traffic/Circulation

Reclamation activities could increase peak hour traffic on Cordelia Road. However, this increase will only occur over a two to four week period, and would be expected to generate no more than 10 one-way daily vehicle trips to the site. In addition, the operation is conducted according to established conditions that minimize the potential for increasing traffic (e.g. Truck traffic is limited to between the hours of 6:00 a.m. to and 3:30 p.m., Monday through Friday (five days per week) to avoid p.m. peak hour traffic on Cordelia Road, and 9:00 a.m. to 6:00 p.m. Saturdays.

The Nelson Hill Quarry access road intersects with Cordelia Road at a point where sight distance is limited due to topography. This is an existing condition with a potential traffic safety concern when trucks enter/exit the public roadway. However, the operation is conducted according to the following established conditions that minimize the potential for hazard at this intersection:

i. Prior to any off-site hauling, the Operator shall submit for approval a traffic control plan based on the Caltrans Traffic Control Manual. The plan shall be approved by the Solano County Transportation Department prior to mining operations being resumed at the site. Prior to approval of any traffic control plan, the Solano County Transportation Department shall consult with the City of Fairfield Public Works Department to seek their input.

ii. Traffic leaving the site shall be directed to travel westbound on Cordelia Road. On a temporary basis as necessary to efficiently reach easterly destinations, traffic may travel eastbound on Cordelia Road, subject to prior approval by the Solano County Transportation Department.

iii. During off-site hauling operations, temporary traffic safety controls that meet the requirements of the traffic control plan shall be implemented.

iv. When off-site hauling activity from the site totals more than 60 days in any one calendar year, the Operator shall apply for, obtain, and comply with the requirements of an encroachment permit from the Solano County Transportation Department. The encroachment permit shall be for the construction of intersection improvements to improve the sight distance of the access road to the minimum required by the Caltrans Highway Design Manual. The limitations on hours of operation specified in Condition No. 3 may be modified subject to these improvements. In addition to the recordkeeping required under Condition No. 1, the operator shall maintain a written log documenting the dates of mining operations and truck hauling operations from the site. The log shall be maintained on site

and be made available for review upon request by Solano County Department of Environmental Management.

v. Students use Cordelia Road to access Angelo Rodriquez High School. Problems have been noted where students exceed speed limits or otherwise violate traffic laws, especially in the morning before the start of classes when attempting to reach school grounds on time. Eastbound truck ingress to the quarry must cross westbound traffic on Cordelia Road, with a potential for accidents involving student drivers. Westbound traffic on Cordelia Road will therefore be given priority during the 20 minute period prior to the start of the first period classes at the high school each day with traffic being stopped for truck crossings not more than once every two minutes during this period.

The conditions noted above are those contained in the settlement agreement between the County and the operator, which are in place to address potential impacts relative to traffic. Parking and staging for vehicles will occur on-site. There is adequate area for parking on-site, with no need to utilize Cordelia Road for staging of vehicles.

Other Agency Comments

The California Department of Conservation-Office of Mine Reclamation submitted comments on the proposed reclamation of the site, specifically related to mine closure and revegetation. The revised Mining and Reclamation Plan appears to have addressed the previous concerns of the Department of Conservation.

ENVIRONMENTAL ASSESSMENT

The Solano County Department of Environmental Management has evaluated the Initial Study prepared for the project. The County found the project as mitigated will not result in any significant environmental impacts. Staff recommends that the Planning Commission adopt a Mitigated Negative Declaration for the project.

FINDINGS

1. **That the application process complies with the California Environmental Quality Act of 1970 as amended.**

   The environmental issues pertaining to the reclamation plan have been addressed in the recommended Mitigated Negative Declaration in accordance with the California Environmental Quality Act. The project has been designed and conditioned to resolve concerns such as drainage, visual impacts, noise, erosion, revegetation and wildlife habitat resources.

   The Department has submitted a proposed Negative Declaration to the State Clearinghouse and posted it for public review. Comments received have been incorporated into the mitigation measures and as mitigated, the project will have no significant effects on the environment and a Mitigated Negative Declaration is the appropriate document under CEQA.

2. **That the reclamation plan and elements thereof are of sufficient level, character, and detail to meet the requirements of the Surface Mining and Reclamation Act of 1975 and the County's surface mining and reclamation regulations.**

   A copy of the application, reclamation plan and other documents submitted by the applicant were submitted to the Department of Conservation's Office of Mine Reclamation and the comments submitted by the Office of Mine Reclamation have been considered by the County in the review of this project.

   A surety bond in the amount of $32,002 is necessary to comply with the financial assurance requirements of SMARA and to guarantee completion of the Reclamation Plan.

3. **That the reclamation plan is in conformity with the County General Plan with regard to use, traffic circulation, population densities and distribution and other pertinent aspects.**

   The maintenance and continued operation of the proposed project is consistent with all pertinent General Plan goals, policies and programs of the Solano County General Plan. The recommended Mitigated Negative Declaration addresses all environmental issues pertaining to the reclamation plan with no significant adverse impacts identified. The proposed project is in conformance with the Solano County General Plan and provides for returning the disturbed areas to agricultural and open space use.

   The project site is currently served by Cordelia Road, which provides adequate transportation facilities for the project. The access to the site is adequate and use of the access route for reclamation activities will not create significant traffic impacts. The operator will comply with operating conditions that control traffic impacts as agreed upon in the Settlement Agreement. Drainage will be accommodated by the proposed grading and drainage facilities such as the retention basins and ponds.

4. **That the reclamation plan will conform to such performance standards as may be imposed and established pursuant to the Surface Mining Ordinance and the Zoning Regulations.**

   A reclamation plan is required pursuant to the Surface Mining and Reclamation Act (SMARA) and Chapter 29 of the Solano County Code to reclaim disturbed lands, prevent adverse effects, and protect public health and safety. The proposed reclamation plan as amended by the applicant and proposed conditions of approval complies with SMARA and all County Code requirements. In addition, the proposed project will not result in increased mining activities or increased hours of operation, but merely the completion and closure of the existing quarry and the revegetation of the mining area, with minimal impact to the surrounding area.

   The County has reviewed the reclamation plan and the financial assurances and found them to substantially meet the applicable requirements and has approved the reclamation plan and financial assurances pursuant to PRC §2770 (d).

RECOMMENDATION

If after the public hearing the Planning Commission concludes that the findings and recommended conditions (as may be amended) are appropriate, the Planning Commission should **Adopt** the Mitigated Negative Declaration and the findings, and **Approve** Reclamation Plan Application No. RP-97-02, subject to the following recommended conditions of approval:

CONDITIONS OF APPROVAL

1. A licensed Geotechnical Engineer/Certified Engineering Geologist shall inspect the final reclaimed slopes to ensure that the slopes have been constructed as designed and are in their final configuration. The slope stability professionals shall consider the potential presence of unstable conditions not previously recognized or suspected.

2. It is recognized that the final configuration of the mining area at the end of the mining term may not precisely resemble current projections, and therefore a final grading plan for reclamation activities shall not be required until mining is complete. All mined land shall be reclaimed as described in the Reclamation Plan. A final grading plan shall be submitted for approval by the Director of the County Environmental Management Department. The grading plan shall be approved by the Director prior to the commencement of final reclamation activities. An updated grading plan may also be submitted to include any permanent overburden stockpile areas, if any. Drainage features at the site shall be designed to accommodate the 20-year/1 hour intensity storm event in compliance with Surface Mining and Reclamation Act (SMARA). An erosion and sediment control plan shall include delineation of all storm water conveyance features, a selection of best management practices (BMP's) designed to minimize soil erosion during and after reclamation activities, and monitoring schedule designed to ensure that the BMP's are effective.

3. The operator/property owner shall file with the Department of Environmental Management the name, address and phone number of the facility manager. The facility manager shall be available to County officials at all times (24 hours) during reclamation activities and shall be responsible for the control of operations and for keeping specific records of operations to be made available upon request of, and in conformance with the requirements of the Department of Environmental Management.

4. Prior to issuance of this reclamation plan, the operator or authorized agent shall post a surety bond or other financial assurance mechanism acceptable to the County made payable to Solano County and the California Department of Conservation in the amount of $32,002 to guarantee completion of the Reclamation Plan including revegetation, erosion control measures and removal of abandoned equipment. The bond shall remain in effect and be in the possession of the Department of Environmental Management until all phases of reclamation, revegetation and erosion control are completed. The operator or authorized agent shall secure the bond through a company that is "A" rated by the A. M. Best Company Guide. The bond shall not be released , except as authorized by the Director of Environmental Management, until the receipt of a written request and submission of satisfactory evidence that the Reclamation Plan has been completed; and shall forfeited to the County of Solano if the reclamation is not adequate or completed within the period covered by the reclamation plan. Except as provided for above, the original bond or instrument shall not be released from the control of Solano County other

than through direct exchange in a Solano County office for a new acceptable bond or instrument which does not place an unwarranted expense, workload or risk on the County of Solano. The amount of the financial assurance will be reviewed and adjusted, if needed, on an annual basis.

5. Final reclamation at the termination of mining operations shall return the lands to a usable ending condition compatible with the present uses of agriculture or open space.

6. A Compliance Report shall be submitted to the Department of Environmental Management annually to document compliance with Conditions of Approval contained in this Reclamation Plan, and with annual reporting and inspection requirements of the Surface Mining and Reclamation Act (SMARA).

7. The operator shall submit an annual Compliance Report by October 1st of each year indicating the status of project compliance, noncompliance, or partial compliance with the following:

    a) Status of compliance with each individual Condition of Approval;

    b) Status of implementation of the Reclamation Plan;

    c) The adequacy of the Financial Assurances posted for the facility as required by SMARA, California Public Resources Code Section 2773.1(a)(3);

    d) Annual production at the facility in cubic yards and tons of product, during the previous production year;

    e) Copies of all permits issued for the facility obtained during the previous year, including permit amendments, issued by other regulatory agencies;

    f) A current inventory of equipment used at the site and for the mining operation;

    g) A summary of the results of the County's annual inspection; and

    h) Any other factual requirements for the annual report that must be submitted to the State Department of Conservation, Office of Mine Reclamation.

8. The operator shall reimburse the Department of Environmental Management pursuant to Solano County Section 11-111 for the Department's reasonable cost of monitoring, enforcing and verifying compliance with the terms of the Reclamation Plan. This provision includes but is not limited to any third party peer review reasonably required by the Solano County Department of Environmental Management in conjunction with any technical reports, analysis, and studies submitted to the Department.

9. Any expansion or change in the use may require a new or modified reclamation plan/permit and environmental review if required by the Director of Environmental Management.

10. All requirements of the Solano County Environmental Health Services Division shall be met including the provision of portable chemical toilets and potable water.

11. The operator shall be responsible for taking measures necessary or as may be required by the County to prevent light, glare, traffic congestion, visual distraction or other impacts which constitute a nuisance to motorists, persons or property in the surrounding area.

12. The owner(s)/operator(s) and its successors in interest agree that the County of Solano, its officers and employees shall not be responsible for injuries to property or person arising from exercise of this Reclamation Plan. The operator(s)/owner(s) shall defend, indemnify and hold harmless the County of Solano, its officers and employees from all claims, liabilities, losses, or legal actions arising from any such injuries. The applicant/operator/owner shall reimburse the County for all legal costs and attorney's fees related to litigation based on the issuance of and/or interpretation of this Reclamation Plan.

13. The applicant shall defend, indemnify, and hold harmless the County of Solano, its officers, employees, agents and servants, of any and all liability caused by the negligence or wrongful act of the applicant, its agents, employees, or assignees arising out of the issuance or exercise of this Reclamation Plan. The applicant/operator/owner shall reimburse the County for any court costs incurred in the interpretations of the provisions of this Reclamation Plan, and shall pay all County legal costs, attorney fees and any other fees related thereto.

14. The applicant/operator/owner shall defend, indemnify and hold harmless the County or its agents, officers and employees from any claim, action, or proceeding against the county or its agents, officers, or employees, to attack, set aside, void, or annul, in whole or in part, the County's approval of the Reclamation Plan. In the event that the County fails to promptly notify the operator/owner of any such claim, action or proceeding, or that the County fails to cooperate fully in the defense of said claim, this condition shall therefore be of no further force or effect.

15. In the event the applicant challenges the approval by the Planning Commission and/or Board of Supervisors of any condition of approval in an action filed in a court of law, which action is brought within the time period for by law, the approval of this project by the Planning Commission and/or Board of Supervisors shall be suspended pending dismissal or final resolution of such action. If any condition of approval of this project is invalidated by a court of law, the entire project shall be reviewed by the Planning Commission/ and/or Board of Supervisors and substitute conditions may be imposed at the Planning Commission and/or Board of Supervisors and substitute conditions may be imposed at the Planning Commission's and/or Board of Supervisor's discretion.

16. Emergency Repairs: In the event of an emergency resulting in an imminent hazard to public health and safety (such as slope failure, plant equipment failure), the operator shall take whatever immediate measures are deemed prudent and necessary to avoid or eliminate said hazard. Said measures shall be carried out in consultation with the Solano County Department of Environmental Management and/or other applicable regulatory agency, when possible. Should emergency action be required when consultation with said agencies cannot take place (i.e. weekends, holidays), the operator shall notify the Solano County Department of Environmental Management and all other applicable agencies on the next business day following the emergency action and shall obtain any necessary emergency permits for said actions required. Said emergency permits may approve, modify or rescind any emergency

action taken by the operator if determined necessary by the Solano County Department of Environmental Management to protect public health and safety and maintain consistency with project conditions.

17. The Department of Environmental Management shall verify ongoing compliance with the terms and conditions of this Reclamation Plan through a program of regular compliance reviews occurring at one (1) year intervals from the date of approval of this Reclamation Plan.

18. The Reclamation Plan shall meet the requirements of all federal, State, regional, and local regulatory agencies with jurisdiction over the project. Changes or amendments to the design and/or reclamation tasks required by the agencies which regulate the site, if in substantial conformance with the provisions of the Reclamation Plan, shall be reported to the Department of Environmental Management, Division of Environmental Health, by the operator(s) at least sixty (60) working days prior to the proposed enactment.

19. Any significant change(s) in reclamation activities, as determined by the Director of Environmental Management, shall require an application for an amended Reclamation Plan.

20. The operator(s)/owner(s) shall comply with all applicable Federal, State, regional and local enactments, laws and regulations, as they now exist and as they may be amended. A copy of correspondence concerning any enforcement action shall be provided to the Department of Environmental Management. Compliance with any enforcement action shall be summarized in the annual compliance report.

21. The operator(s)/owner(s) shall allow the enforcement personnel of any regulatory agency, including any consultants of the regulatory agencies with enforcement jurisdiction over the site to have access to the permitted site.

ATTACHMENTS

SOLANO COUNTY PLANNING COMMISSION
RESOLUTION NO. 4317

WHEREAS, the Solano County Planning Commission has considered Reclamation Plan No. RP-97-02 of **Oliver De Silva, Inc.** for an existing hard rock quarry pursuant to the requirements of the California Surface Mining and Reclamation Act (SMARA) for the surface disturbance related to the historical mining at the Nelson Hill Quarry so as to provide for grading, stabilization of slopes, weed abatement, rehabilitation of pre-mining drainage and the removal and disposal of residual equipment and structures from a quarry previously recognized to operate under a vested right. The project consists of 230.06 acres (mining activities 70 acres) in southwestern Solano County, approximately 1.5 miles northeast of the City of Fairfield, situated on the west side of Cordelia Road, in an "A-20" Exclusive Agricultural Zoning District, APN's: 27-260-17 & 46-030-36, and

WHEREAS, said Commission has reviewed the report of the Department of Environmental Management and heard testimony relative to the subject application at the duly noticed public hearing held on December 6, 2001 which was continued to January 17, 2002, and

WHEREAS, after due consideration, the said Planning Commission has made the following findings in regard to said proposal:

1. **That the application process complies with the California Environmental Quality Act of 1970 as amended.**

   The environmental issues pertaining to the reclamation plan have been addressed in the recommended Mitigated Negative Declaration in accordance with the California Environmental Quality Act. The project has been designed and conditioned to resolve concerns such as drainage, visual impacts, noise, erosion, revegetation and wildlife habitat resources.

   The Department has submitted a proposed Negative Declaration to the State Clearinghouse and posted it for public review. Comments received have been incorporated into the mitigation measures and as mitigated, the project will have no significant effects on the environment and a Mitigated Negative Declaration is the appropriate document under CEQA.

2. **That the reclamation plan and elements thereof are of sufficient level, character, and detail to meet the requirements of the Surface Mining and Reclamation Act of 1975, the state policy for surface mining and reclamation practice, and the acceptance of the state geologist.**

   A copy of the application, reclamation plan and other documents submitted by the applicant were submitted to the State Geologist and the comments submitted by the State Geologist have been considered by the County in the review of this project.

   A surety bond in the amount of $30,002 is necessary to comply with the financial assurance requirements of SMARA and to guarantee completion of the Reclamation Plan.

3. **That the reclamation plan is in conformity with the County General Plan with regard to use, traffic circulation, population densities and distribution and other pertinent aspects.**

   The maintenance and continued operation of the proposed project is consistent with all pertinent General Plan goals, policies and programs of the Solano County General Plan. The recommended Mitigated Negative Declaration addresses all environmental issues pertaining to the reclamation plan with no significant adverse impacts. The proposed project is in conformance with the Solano County General Plan and provides for returning the disturbed areas to agricultural and open space use.

   The project site is currently served by Cordelia Road, which provides adequate transportation facilities for the project. The access to the site is adequate and the access route for the removal of the materials will not create traffic impacts provided the recommended Conditions of Approval are adhered to. Drainage will be accommodated by the proposed grading and drainage facilities such as the retention basins and ponds.

4. **That the reclamation plan will conform to such performance standards as may be imposed and established pursuant to the Surface Mining Ordinance and the Zoning Regulations.**

   A reclamation plan is required pursuant to the Surface Mining and Reclamation Act (SMARA) and Chapter 29 of the Solano County Code in order to reclaim disturbed lands, prevent adverse effects, and protect public health and safety. The proposed reclamation plan as amended by the applicant and proposed conditions of approval complies with SMARA and all County Code requirements. In addition, the proposed project will not result in increased mining activities or increased hours of operation, but merely the completion and closure of the existing quarry and the revegetation of the mining area, with minimal impact to the surrounding area.

BE IT, THEREFORE, RESOLVED, that the Planning Commission of the County of Solano does hereby adopt the Mitigated Negative Declaration and the mandatory findings, and approve Reclamation Plan Application No. RP-01-01, subject to the following recommended conditions of approval:

Reclamation

1. A licensed Geotechnical Engineer/Certified Engineering Geologist shall inspect the final reclaimed slopes to ensure that the slopes have been constructed as designed and are in their final configuration. The slope stability professionals shall consider the potential presence of unstable conditions not previously recognized or suspected.

2. The permittee shall prepare a grading plan and an erosion and sediment control plan prior to initiation of reclamation activities. It is recognized that the final configuration of the mining area at the end of the mining term may not precisely resemble current projections, and therefore a detailed grading plan for reclamation activities shall not be required until mining is complete. The grading plan shall include a topographic map of

the proposed site configuration. Drainage features at the site shall be designed to accommodate the 20-year/1 hour intensity storm event in compliance with Surface Mining and Reclamation Act (SMARA). An erosion and sediment control plan shall include delineation of all storm water conveyance features, a selection of best management practices (BMP's) designed to minimize soil erosion during and after reclamation activities, and monitoring schedule designed to ensure that the BMP's are effective. The grading plan shall specify that surface drainage from areas reclaimed to open space use shall not drain into the former mining area. Drainage shall be diverted from entering the former mining area by use of berms or broad surfaces sloped away from the pit.

3. The operator/property owner shall file with the Department of Environmental Management the name, address and phone number of the facility manager. The facility manager shall be available to County officials at all times (24 hours) during reclamation activities and shall be responsible for the control of operations and for keeping specific records of operations to be made available upon request of, and in conformance with the requirements of the Department of Environmental Management.

4. Prior to issuance of this reclamation plan, the operator or authorized agent shall post a surety bond or other financial assurance mechanism acceptable to the County made payable to Solano County and the California Department of Conservation in the amount of $30,002 to guarantee completion of the Reclamation Plan including revegetation, erosion control measures and removal of abandoned equipment. The bond shall remain in effect and be in the possession of the Department of Environmental Management until all phases of reclamation, revegetation and erosion control are completed. The operator or authorized agent shall secure the bond through a company that is "A" rated by the A. M. Best Company Guide. The bond shall not be released , except as authorized by the Director of Environmental Management, until the receipt of a written request and submission of satisfactory evidence that the Reclamation Plan has been completed; and shall forfeited to the County of Solano if the reclamation is not adequate or completed within the period covered by the reclamation plan. Except as provided for above, the original bond or instrument shall not be released from the control of Solano County other than through direct exchange in a Solano County office for a new acceptable bond or instrument which does not place an unwarranted expense, workload or risk on the County of Solano. The amount of the financial assurance will be reviewed and adjusted, if needed, on an annual basis.

5. All mined land shall be reclaimed as described in the Reclamation Plan. A detailed grading plan shall be submitted for approval to the County Environmental Management Agency that indicates all reclaimed features for mining operations on Nelson Hill property (APN#'s 27-260-170 and 46-030-360). The grading plan shall be approved by the County prior to the commencement of any reclamation activities. An updated grading plan may also be submitted to include any overburden stockpile areas.

6. Final reclamation at the termination of mining operations shall return the lands to a usable ending condition compatible with the present uses of agriculture or open space.

7. A Compliance Report shall be submitted to the Department of Environmental Management annually to document compliance with Conditions of Approval contained

in this Reclamation Plan, and with annual reporting and inspection requirements of the Surface Mining and Reclamation Act (SMARA).

8. The operator shall submit an annual Compliance Report by October 1st of each year indicating the status of project compliance, noncompliance, or partial compliance with the following:

   a) Status of compliance with each individual Condition of Approval;

   b) Status of implementation of the Reclamation Plan;

   c) The adequacy of the Financial Assurances posted for the facility as required by SMARA, California Public Resources Code Section 2773.1(a)(3);

   d) Annual production at the facility in cubic yards and tons of product, during the previous production year;

   e) Copies of all permits issued for the facility obtained during the previous year, including permit amendments, issued by other regulatory agencies;

   f) A current inventory of equipment used at the site and for the mining operation;

   g) A summary of the results of the County's annual inspection; and

   h) Any other factual requirements for the annual report that must be submitted to the State Department of Conservation, Office of Mine Reclamation.

9. The operator shall reimburse the Department of Environmental Management pursuant to Solano County Section 11-111 for the Department's reasonable cost of monitoring, enforcing and verifying compliance with the terms of the Reclamation Plan. This provision includes but is not limited to any third party peer review reasonably required by the Solano County Department of Environmental Management in conjunction with any technical reports, analysis, and studies submitted to the Department.

General Conditions

10. Any expansion or change in the use may require a new or modified reclamation plan/permit and environmental review if required by the Director of Environmental Management.

11. All requirements of the Solano County Environmental Health Services Division shall be met including the provision of portable chemical toilets and potable water.

12. The operator shall be responsible for taking measures necessary or as may be required by the County to prevent light, glare, traffic congestion, visual distraction or other impacts which constitute a nuisance to motorists, persons or property in the surrounding area.

13. The owner(s)/operator(s) and its successors in interest agree that the County of Solano, its officers and employees shall not be responsible for injuries to property or person

arising from exercise of this Reclamation Plan. The operator(s)/owner(s) shall defend, indemnify and hold harmless the County of Solano, its officers and employees from all claims, liabilities, losses, or legal actions arising from any such injuries. The applicant/operator/owner shall reimburse the County for all legal costs and attorney's fees related to litigation based on the issuance of and/or interpretation of this Reclamation Plan.

14. The permittee shall defend, indemnify, and hold harmless the County of Solano, its officers, employees, agents and servants, of any and all liability caused by the negligence or wrongful act of the permittee, its agents, employees, or assignees arising out of the issuance or exercise of this Reclamation Plan. The permittee/operator/owner shall reimburse the County for any court costs incurred in the interpretations of the provisions of this Reclamation Plan, and shall pay all County legal costs, attorney fees and any other fees related thereto.

15. The permittee/operator/owner shall defend, indemnify and hold harmless the County or its agents, officers and employees from any claim, action, or proceeding against the county or its agents, officers, or employees, to attack, set aside, void, or annul, in whole or in part, the County's approval of the Reclamation Plan. In the event that the County fails to promptly notify the operator/owner of any such claim, action or proceeding, or that the County fails to cooperate fully in the defense of said claim, this condition shall therefore be of no further force or effect.

16. In the event the permittee challenges the approval by the Planning Commission and/or Board of Supervisors of any condition of approval in an action filed in a court of law, which action is brought within the time period for by law, the approval of this project by the Planning Commission and/or Board of Supervisors shall be suspended pending dismissal or final resolution of such action. If any condition of approval of this project is invalidated by a court of law, the entire project shall be reviewed by the Planning Commission/ and/or Board of Supervisors and substitute conditions may be imposed at the Planning Commission and/or Board of Supervisors and substitute conditions may be imposed at the Planning Commission's and/or Board of Supervisor's discretion.

17. Emergency Repairs: In the event of an emergency resulting in an imminent hazard to public health and safety (such as slope failure, plant equipment failure), the operator shall take whatever immediate measures are deemed prudent and necessary to avoid or eliminate said hazard. Said measures shall be carried out in consultation with the Solano County Department of Environmental Management and/or other applicable regulatory agency, when possible. Should emergency action be required when consultation with said agencies cannot take place (i.e. weekends, holidays), the operator shall notify the Solano County Department of Environmental Management and all other applicable agencies on the next business day following the emergency action and shall obtain any necessary emergency permits for said actions required. Said emergency permits may approve, modify or rescind any emergency action taken by the operator if determined necessary by the Solano County Department of Environmental Management to protect public health and safety and maintain consistency with project conditions.

18. The Department of Environmental Management shall verify ongoing compliance with the terms and conditions of this Reclamation Plan through a program of regular compliance

reviews occurring at one (1) year intervals from the date of approval of this Reclamation Plan.

19. The Reclamation Plan shall meet the requirements of all federal, State, regional, and local regulatory agencies with jurisdiction over the project. Changes or amendments to the design and/or reclamation tasks required by the agencies which regulate the site, if in substantial conformance with the provisions of the Reclamation Plan, shall be reported to the Department of Environmental Management, Division of Environmental Health, by the operator(s) at least sixty (60) working days prior to the proposed enactment.

20. Any significant change(s) in reclamation activities, as determined by the Director of Environmental Management, shall require an application for an amended Reclamation Plan.

21. The operator(s)/owner(s) shall comply with all applicable Federal, State, regional and local enactments, laws and regulations, as they now exist and as they may be amended. A copy of correspondence concerning any enforcement action shall be provided to the Department of Environmental Management. Compliance with any enforcement action shall be summarized in the annual compliance report.

22. The operator(s)/owner(s) shall allow the enforcement personnel of any regulatory agency, including any consultants of the regulatory agencies with enforcement jurisdiction over the site to have access to the permitted site.

****

I hereby certify that the foregoing resolution was adopted at the regular meeting of the Solano County Planning Commission January 17, 2002 by the following vote:

AYES:	Commissioners	Campbell, Stahl, Plutchok, Moore and Chairwoman Hawkes
NOES:	Commissioners	None
ABSTAIN:	Commissioners	None
ABSENT:	Commissioners	None

By: Birgitta E. Corsello
Birgitta Corsello, Secretary

APPENDIX E

SCREENING-LEVEL HYDROLOGY ANALYSIS

NELSON HILL QUARRY IMP

SCREENING-LEVEL HYDROLOGY ANALYSIS

Prepared for:

Oliver de Silva, Inc.
11555 Dublin Boulevard
Dublin, CA 94568

Prepared by:

EMKO Environmental, Inc.
551 Lakecrest Drive
El Dorado Hills, CA 95762

JULY 2013

Dr. Andrew A. Kopania
California Professional Geologist #4711
California Certified Hydrogeologist HG31

CONTENTS

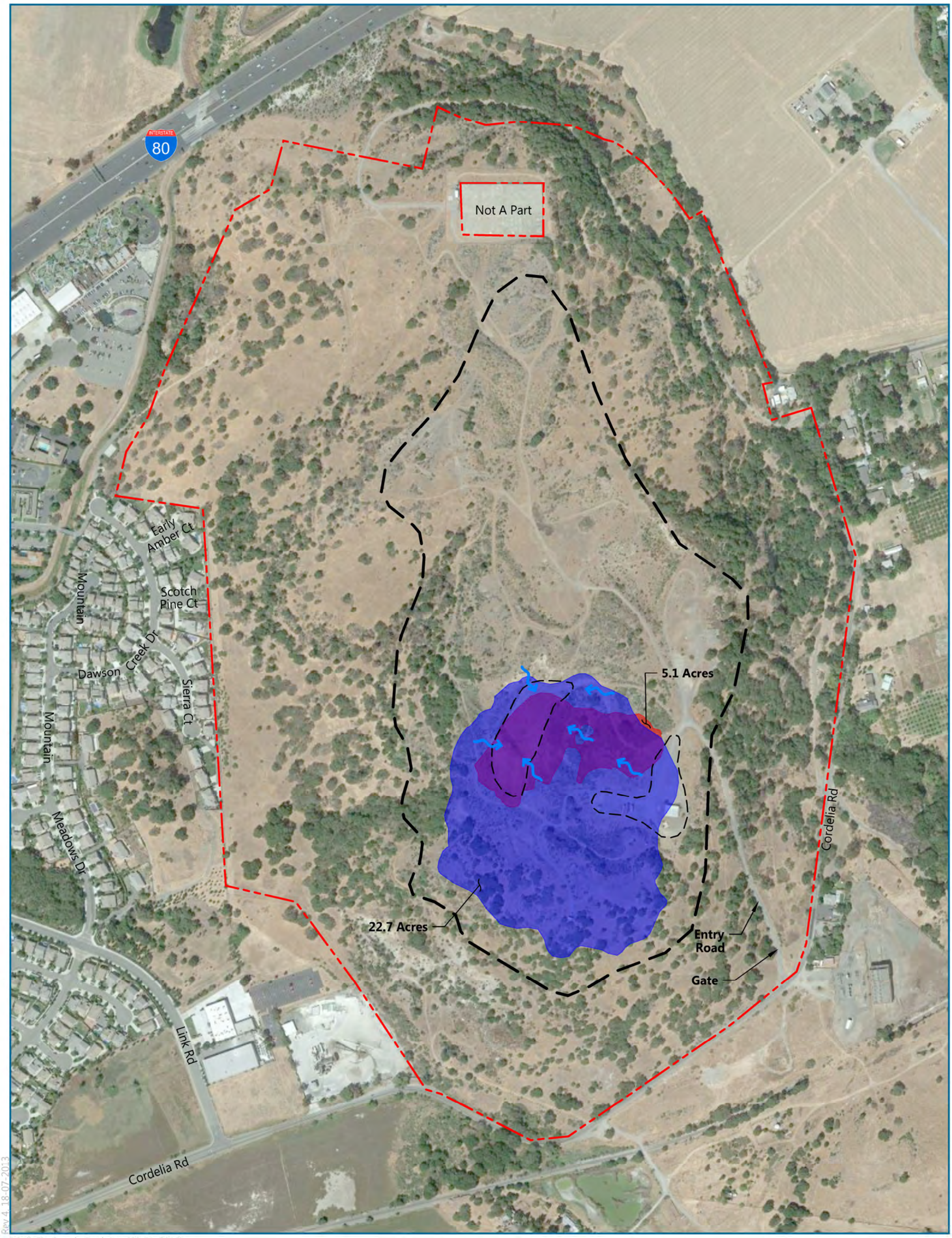
NELSON HILL QUARRY IMP
SCREENING-LEVEL HYDROLOGY ANALYSIS

The Nelson Hill Quarry is located on top of a large hill south of Interstate 80 at the southwest edge of Fairfield, California. The base of the hill is at an elevation of approximately 25 feet above mean sea level (ft. msl) and the highest point on the hill is approximately 325 ft. msl. Due to previous mining activity, the top of the hill has been partially excavated and there is a small depression in the center of the former area of disturbance. The perimeter of the former area of disturbance encompasses approximately 22.7 acres, which forms a closed watershed that drains internally to a small basin (see Figure H-1, "Hydrologic Features"). The spill elevation for the small basin occurs at the top of the access road for the facility at an elevation of 258 ft. msl. Within the 250 ft. msl topographic contour (i.e., 8 feet below the spillpoint elevation), the basin has an area of approximately 5.1 acres, as shown on Figure H-1. The lowest elevation in the basin is about 220 ft. msl, so the maximum depth of the basin is 38 feet. Between the 220 and 250 ft. msl topographic contours, the average depth of the basin is approximately 15 feet. Based on these measurements, the storage volume of the basin is about 76.5 acre-feet (AF) below the 250 ft. msl topographic contour, which also provides at least 8 feet of freeboard.

All drainage and surface runoff at the site occurs by normal sheetflow, as described in the approved Reclamation Plan. There are no stormwater conveyance features, such as ditches or culverts, at the site. Any stormwater runoff from the former area of disturbance follows the existing topography and enters the 5.1-acre basin. Based on information provided in the California Department of Water Resources' (DWR's) Bulletin 195 (page 588) for Fairfield, California, the 20-year, 1-hour storm has a magnitude of 0.93 inches; the 25-year, 24-hour storm has a magnitude of 4.19 inches; and the 100-year, 24-hour storm has a magnitude of 5.19 inches. The mean annual rainfall is 21.0 inches. The 100-year annual rainfall amount is 39.82 inches.

A screening-level evaluation of the potential runoff from the 22.7-acre former area of disturbance into the 5.1-acre basin was conducted using the TR55 methodology (U.S. Department of Agriculture, Natural Resources Conservation Service, *Urban Hydrology for Small Watersheds*, Technical Release [TR] 55). Calculations were conducted for each of the three storm events described in the paragraph above. The calculation spreadsheet is provided below as Table H-1, "Screening-Level Calculation of Runoff Volumes." Supporting TR55 charts and tables are attached (see Attachment A, "Hydrology Analysis for Small Watersheds").

Conservative assumptions were made for the analysis regarding vegetative cover, soil type, and resulting curve number, in a manner that maximizes the calculated potential runoff. For example, the land use constant "K," shown in Table H-1, was assumed to be 0.5, which is equivalent to suburban land use cover. Suburban conditions, with roofs, driveways, roads, and other impermeable surfaces, result in greater runoff than areas with little or no structures or paved surfaces.



Rev 4: 18-07-2013

SOURCE: Google Earth Pro (09-01-2012)

LEGEND

- Property Boundary
- Reclamation Plan Boundary
- Active Areas
- Drainage
- Basin Area Below the 250 ft. msl Topographic Contour
- Watershed for the Former Area of Disturbance

200' 0 400'

NORTH

Scale: 1" = 400 Feet

BENCHMARK RESOURCES

Hydrologic Features

NELSON HILL QUARRY IMP

Figure H-1

Site soils were assumed to belong to Hydrologic Soil Group "D," which results in the least amount of percolation and the greatest amount of runoff, even though site conditions might justify the use of Hydrologic Soil Group "B" or "C." Use of Soil Group "D" results in the highest curve number, and thus the greatest runoff for a given land use condition. As a result of these multiple conservative assumptions, the estimates of runoff for each storm event are most likely greater than the actual runoff amounts, which is appropriate for a screening-level analysis.

Based on the site conditions and the assumptions described above, the runoff depth for a 20-year, 1-hour storm is 0.1 inches and the total runoff from the 22.7-acre area is 0.19 AF, as shown on Table H-1, below. For the 25-year, 24-hour storm event, the runoff depth is 2.2 inches and the total runoff from the 22.7-acre area is 4.2 AF. For the 100-year, 24-hour storm event, the runoff depth is 3.1 inches and the total runoff from the 18-acre area is 5.9 AF. The runoff from these storm events is substantially less than the available storage of 76.5 AF within the basin. Therefore, it can be readily concluded that the existing conditions at the site are more than adequate to address stormwater runoff.

It should also be noted that the above screening-level evaluation was prepared primarily to document that various storm events identified in applicable regulations or guidance documents were considered. Given the available storage capacity in the basin area, however, the individual storm-event calculations are somewhat academic. For example, as discussed above, the 100-year annual rainfall (i.e., the amount of rainfall over an entire year with a recurrence interval of 100 years) is 39.82 inches, or 3.32 feet. Even if all of the rainfall from an entire 100-year recurrence-interval year were to run off of the 22.7-acre watershed and accumulate in the 5.1-acre basin, the total volume of runoff entering the basin over the entire year would be 75.4 AF, which is less than the 76.5 AF of storage that are available below the 8 feet of freeboard. This example is a worst-case scenario because it assumes that there is no interception storage, percolation, or evaporative loss over the entire year, which is not a realistic representation of the actual hydrology at this, or any, site. Thus, under any realistic set of hydrologic assumptions, the basin has sufficient storage volume to retain the sheetflow runoff from the watershed area for any potential combination of individual storm events or total annual rainfall up to and beyond a 100-year recurrence-interval year.

Based on the runoff volumes identified for the various size storms described above, it is recommended that inspections occur after any storms that exceed 2.0 inches of rainfall within a 24-hour period. According to DWR Bulletin 195, this is slightly less than a 2-year, 24-hour storm event. Storms with a smaller magnitude will not produce runoff of sufficient depth to be observable on the site for inspection purposes.

Table H-1
Screening-Level Calculation of Runoff Volumes

WATERSHED DIMENSIONS			
A	Drainage Area	22.7 acres	
L	Length of Watershed	700 feet	
H	Height of Watershed	70 feet	
DESIGN FREQUENCY (from DWR Bulletin 195, page 588) (values in inches)			
	20-yr 1-hr (OMR)	***25-yr 24-hr (RWQCB)***	***100-yr 24-hr (conservative)***
Rainfall	0.93	4.19	5.19
P6	NA	2.35	2.93
P24	0.93	4.19	5.19
TIME OF CONCENTRATION			
Tc = (K/60)*(L^3 in ft/H in ft)^0.20			
K	Land Use Constant	0.5	Suburban cover (from Attachment No. 1)
Tc = (0.5/60)*(700^3/70)^0.20			
Tc =	0.18 hours		
	11 minutes		
CURVE NUMBER			
Soil Group D, Attachment No. 2 (footnote)			
CN	Annual grass, open brush	81	Attachment No. 3
RUNOFF VOLUME (values in inches)			
	20-yr 1-hr (OMR)	***25-yr 24-hr (RWQCB)***	***100-yr 24-hr (conservative)***
Rainfall	0.93	4.19	5.19
P6	NA	2.35	2.93
P24	0.93	4.19	5.19
P6/P24	NA	0.560859	0.564547
Runoff R (Attachment No. 10)	0.1	2.2	3.1
Volume = (R/12)*A in Acres (Units = AF)			
Volume V (AF)	0.19	4.2	5.9

Basis: U.S. Department of Agriculture, Natural Resources Conservation Service, *Urban Hydrology for Small Watersheds*, Technical Release (TR) 55

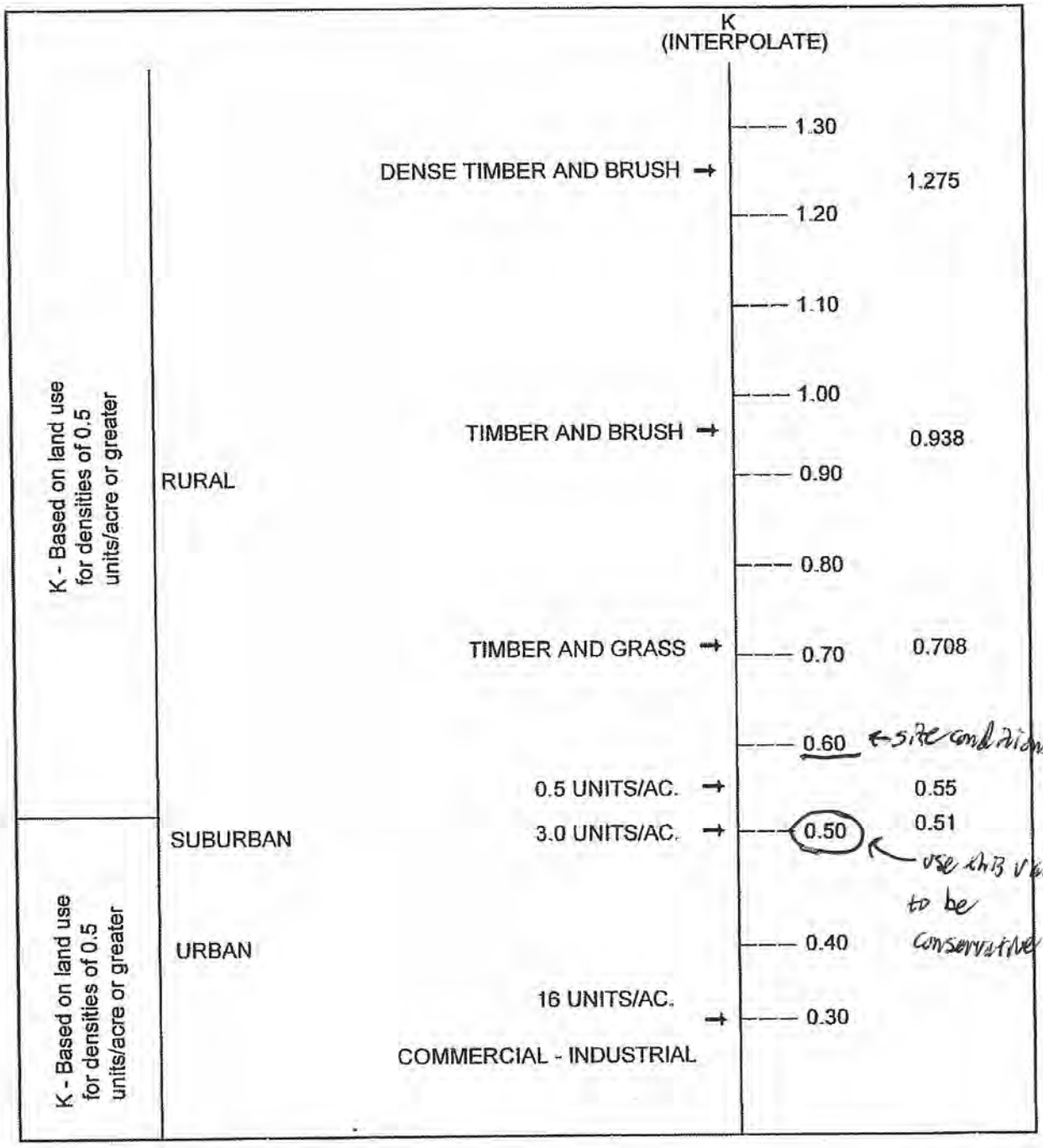
Notes: AF = acre-feet; DWR = California Department of Water Resources; NA = not applicable; OMR = California Office of Mine Reclamation; RWQCB =Rregional Water Quality Control Board.

ATTACHMENT A

HYDROLOGY ANALYSIS FOR SMALL WATERSHEDS

ATTACHMENT NO. 1

HYDROLOGY ANALYSIS
FOR
SMALL WATERSHEADS
INTERPOLATION CHART



NOTE: Use current General Plan designations to determine ultimate development pattern of area.

For drainage areas with subareas of different development types, Tc should be calculated by summing the Tc of each subarea.

ATTACHMENT NO. 3

HYDROLOGY ANALYSIS
FOR
SMALL WATERSHEDS

Assume Group D (worst case)

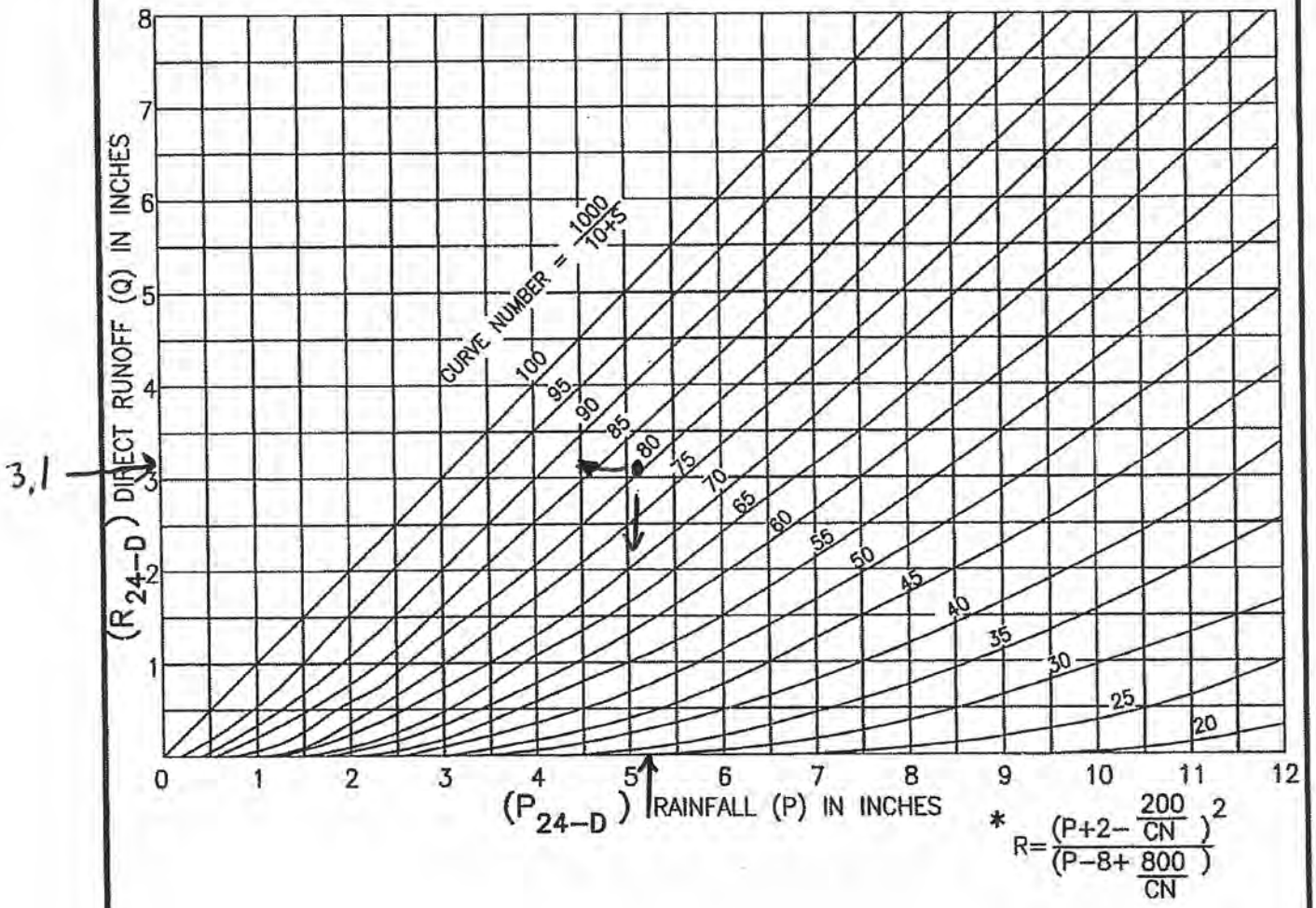
"CN" RUNOFF CURVE NUMBERS FOR HYDROLOGIC SOIL-COVER COMPLEXES

LAND USE [3]		HYDROLOGIC SOIL GROUP [2]			
		A	B	C	D
Irrigated pasture		32	58	72	79
Annual grass		38	61	75	81
Broadleaf chaparral		31	57	71	78
Meadow		30	58	72	78
Open brush		41	63	75	81
Woodland-grass		32	58	72	79
Woods (Woodland)		27	55	70	77
Barren		77	86	91	93
Urban Land [1]					
Average Lot size	Average % Impervious				
1/8 acre	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre [1]	20	51	68	79	84
Commercial and business area (85% impervious)		89	92	94	95
Open spaces, lawns, parks, golf courses, cemeteries		39	61	74	80
Industrial districts (72% impervious)		81	88	91	93
Paved parking lots, roofs, driveways		98	98	98	98
Streets and roads					
Paved with curbs and storm sewers		98	98	98	98
Gravel and hard surface		76	85	89	91
Dirt		72	82	87	89

[1] For urban lands with lots greater than 1 acre, use native cover.

[2] Where hydrologic soil group is not known, use group D.

[3] All facilities shall be designed based on ultimate land use using current general plan densities for the entire drainage area.



SCALE: NTS	DATE: 1996	
	APPROVED BY: William E. Lyman	**HYDROLOGY ANALYSIS** FOR **SMALL WATERSHEDS** ATTACHMENT No. 10
MARK / DATE / REVISION	WILLIAM E. LYMAN	

BENCHMARK
RESOURCES

2515 East Bidwell Street
Folsom, California 95630
P: 916.983.9193 | F: 916.983.9194
www.benchmarkresources.net

Solano County

675 Texas Street
Fairfield, California 94533
www.solanocounty.com

Agenda Submittal

Agenda #:	2	**Status:**	PC-Regular
Type:	PC-Document	**Department:**	Planning Commission
File #:	PC 18-051	**Contact:**	Eric Wilberg, 784.6765
Agenda date:	11/15/2018	**Final action:**	
Title:	Continued public hearing to consider Rezoning Petition No. Z-17-04 and Minor Subdivision Application MS-17-06 of Hubert & Aurelia Goudie and William & Sylvia Marshalonis to rezone 15.69 acres from Rural Residential “RR-2.5” and Exclusive Agriculture “A-20” to Rural Residential “RR-5”; and subdivide two existing parcels into three lots. The property is located at 4420 Peaceful Glen Road, 2.5 miles north of the City of Vacaville, APN’s: 0105-060-390 and 40. (Project Planner: Eric Wilberg) Staff Recommendation: Continue the item to the regular meeting of December 6, 2018		
Governing body:	Planning Commission		
District:			
Attachments:			

Date	Ver.	Action By	Action	Result

RECOMMENDATION:

Department of Resource Management staff recommends that the Commission defer this matter to the December 6, 2018 Planning Commission meeting. Staff is requesting additional time to coordinate the review of the easement and deed information provided by the applicant at the November 1st PC meeting with the acting County Surveyor. The outcome of that review will likely dictate final conditions of approval for the project, therefore a resolution recommending action by the Planning Commission is not finalized at this time.