



RECLAMATION PLAN APPLICATION

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING
976 OSOS STREET • ROOM 200 • SAN LUIS OBISPO • CALIFORNIA 93408 • (805) 781-5600

Promoting the Wise Use of Land • Helping to Build Great Communities

NOTE: Instructions for completing this form are contained in the county Department of Planning and Building publication, Reclamation Plan Guidelines. The numbers in parentheses are used in the Guidelines to show which portion of this form is being explained. If additional space is necessary to complete this application, attach additional sheets.

GENERAL INFORMATION

- (1) Mine Name: Pankey Sand and Gravel (2) CA Mine ID# _____
 (3) Existing Land Use Permit Number: DRC2005-00193
 (4) Estimated Life of Operation: 20 years (5) Date of Mine Opening: T B D
 (6) If public ownership (BLM or USFS), has Plan of Operations been prepared?
 Yes No If YES, attach evidence.

MINE INFORMATION

- (7) Raw Materials Mined: Sand and Gravel (8) Yield (in tons or cu. yds./year): 105,500 cu. yds.
 (9) Type of Mine: Borrow Pit Stream Bed Skimming Quarry Underground
 Clay Pit Other (Specify) _____
 (10) Geologic Group, Formation and Member: Quaternary Alluvium
 (11) On site processing? Yes No
 (12) Total acreage affected by mining :
 Mining: 33.59 acres Waste disposal: n/a
 Processing: < 0.1 acres Settling ponds: 0
 Roads: 1.54 acres Support Facilities: < 0.1 acres
 Stockpiles: 7.50 acres Total acreage in plan: n/a
 (13) The operation is (or will be): Continuously active Intermittently active Idle
 Abandoned Undeveloped Other (specify) _____
 (14) Total acreage affected by mining prior to January 1, 1976 and not mined after that date: n/a
 (15) Drainage: Salinas River and Vineyard Creek (16) Tributary to: Pacific Ocean
 (17) Will mining progress in separate phases? Yes No
 (18) Will groundwater be encountered during mining (including any perched, regional or artesian flow)?
 Yes No

- (19) Is soil salvage and replacement proposed? Yes No
- (20) Will water be used for mining or processing? Yes¹ No
- (21) Will settling basins be used? Yes No
- (22) Will water be discharged from the affected area? Yes No

If YES, has a Storm Water Pollution Prevention Plan been prepared for the Regional Water Quality Control Board approval? Yes No

- (23) Will the operation involve relocation, blockage or alteration of any water course or stream?
 Yes No

If YES, has the Department of Fish and Game been notified? Yes No

- (24) Use of site prior to mining and will the use continue during mining: River/creekbed, ag production; yes
- (25) Proposed use following reclamation: Same as prior use.
- (26) Total acreage included in proposed reclamation plan: 42.73 acres
- (27) Estimated costs of reclamation for the first year of operation (attach financial assurance cost estimate worksheet). Express costs in today's dollars: T B D

COSTS AND GUARANTEES OF RECLAMATION

- (28) Proposed type(s) of guarantee of reclamation:
 Performance bond Letter of Credit
 Certificate of Deposit Other (Specify) _____
- (29) Acres of affected area previously covered by guarantee of reclamation: 0 acres

REQUIRED SUPPORTING DOCUMENTS

- (30) Please make sure you have attached the following items to this application:

<input checked="" type="checkbox"/> Notarized statements/possessory interest in lands	<input checked="" type="checkbox"/> Reclamation plan map/cross sections
<input checked="" type="checkbox"/> 7 1/2 min. USGS Quadrangle	<input checked="" type="checkbox"/> Typical soil profile
<input checked="" type="checkbox"/> Site Geologic map/cross sections	<input checked="" type="checkbox"/> Diagram of Mineral Processing
<input checked="" type="checkbox"/> Development and Mining Plan/Cross Sections	<input checked="" type="checkbox"/> Reclamation narrative
<input checked="" type="checkbox"/> For pit and hill side mines, drawings showing before and after contours.	<input checked="" type="checkbox"/> Reclamation Plan Application Supplements (A through J)
<input checked="" type="checkbox"/> Revegetation Plan or alternate proposal	<input type="checkbox"/> Financial Assurance Cost Estimate
	<input type="checkbox"/> Other documents-list

1. For PM₁₀ control.

THE NATIONAL ARCHIVES
COLLECTIONS AND REFERENCE
SERVICES DIVISION
8601 COLLEGE PARK DRIVE
BETHESDA, MARYLAND 20814
TEL: 301-837-2000
WWW.NATIONALARCHIVES.GOV

RECLAMATION PLAN APPLICATION SUPPLEMENTS

SUPPLEMENT A: OWNERS, OPERATOR & AGENT

(A-1)

Operator Name Chad Pankoy Daytime Phone: (805) 550-9923
Mailing Address P.O. Box 819 City Paso Robles Zip: 93446
Agent of Process Name Oasis Associates, Inc. Daytime Phone: (805) 541-4509
(person designated by operator as his agent for the service of process)
Mailing Address 3427 Miguelito Ct. City San Luis Obispo Zip: 93401

(A-2) List names, titles and addresses of all partners in the case of a partnership or all officers in the case of a corporation

Name Chad Pankoy Title: Operator
Mailing Address P.O. Box 819 City Paso Robles Zip: 93446
Name _____ Title: _____
Mailing Address _____ City _____ Zip: _____

(A-3) List all names under which the applicant has previously operated mines in the County of San Luis Obispo NA

(A-4) Names and addresses of all owners of surface rights

Name Janice A. Pankoy Trust Title: Property Owner
Mailing Address P.O. Box 819 City Paso Robles Zip: 93446
Name _____ Title: _____
Mailing Address _____ City _____ Zip: _____

(A-5) Names and addresses of all owners of mineral rights

Name Janice A. Pankoy Trust Title: _____
Mailing Address P.O. Box 819 City Paso Robles Zip: 93446
Name _____ Title: _____
Mailing Address _____ City _____ Zip: _____

(A-6) Names and addresses of lessee

Name Chad Pankoy Title: _____
Mailing Address P.O. Box 819 City Paso Robles Zip: 93446

(A-7) Provide evidence that all owners of a possessory interest in the land have been notified of the proposed mining use(s) or potential use(s). (Attach copy(ies) of notarized statement(s) of acknowledgement.)

SUPPLEMENT B: CONSENT OF LANDOWNER FOR INSPECTIONS & RECLAMATION

We the undersigned, the owners of land located at 4444 Indian Valley Road; San Miguel, CA

Assessor Parcel Number(s) 027-420-001, 002, 003, 005, 009, 010, 016, upon which Chad Pankey is to conduct a mining operation, and for which application Chad Pankey (Name of Operator) for approval of a Reclamation Plan is being made, and of which application this consent is a part, do hereby irrevocably grant to the operator, the State of California, County of San Luis Obispo or any of its authorized agents, the right to enter upon the land affected by the operator for annual Surface Mining and Reclamation Act (SMARA) inspections and for the purpose of backfilling, planting and reclamation, or for inspection and evaluation as to the satisfactory completion of such measures in accordance with the provisions of the Surface Mining and Reclamation Act of 1975 and San Luis Obispo County Code, Section 22.08.180 or Section 23.08.180, as amended.

[Signature] (Signature of Landowner) 1/4 (Date), 2010

Title: Owner Signed in the County of: SLO

STATE OF <u>California</u>)) SS COUNTY OF <u>San Luis Obispo</u>	On this <u>5</u> day of <u>January</u> , in the year <u>2010</u> , before me, <u>Jeffrey McCauley</u> , Notary Public, personally appeared <u>Chadborn Pankey</u> , who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. Witness my hand and official seal. <u>[Signature]</u> Notary Public
	
(SEAL)	

INSTRUCTIONS: 1. If the land is owned by one or more persons, all owners must sign. 2. File one (1) copy for each landowner. 3. If owned by an estate, authority for signing must be established. 4. A Notary Public must witness the signature.

NOTARY PUBLIC
San Francisco County
Notary Public - California
Commission Expires 12/31/18
12/31/18

SUPPLEMENT C: MINE LOCATION AND ACCESS

(C-1) The mining site is located on the San Miguel United States Geographic Survey (USGS) 7 1/2 minute quadrangle. Attach copy of appropriate quadrangle with the mining site and the parcel(s) on which the site is located accurately plotted.

(C-2) Longitude and Latitude: N35 46' 34.8" W120 42' 3.7"

(C-3) Describe the access route to the mining site and indicate the number of truck trips per day, week, month or year.

Access Route: Hwy 101 to Mission St., East on River Road, North on Indian Valley Road

Truck trips per day: M-F: 35.50 trips ; Sat.: 25.40 trips Truck trips per week: 101.44 trips

Trucks trips per month: 439.58 trips Truck trips per year: 5,275 trips

SUPPLEMENT D: GEOLOGY, SOILS, HYDROLOGY & ENVIRONMENT

(D-1) Mineral or product (to be) mined Sand and Gravel

(D-2) Brief description of the regional geologic setting The subject property lies within the Salinas River domain in northern San Luis Obispo County. Seismically the region has been concentrated to the east and west on the San Andreas and Nacimiento Faults. The Salinas River Valley consists of alluvium and uplifted sea floor sediments.

(D-3) Detailed geologic description of mineral deposit (to be) mined Quaternary alluvium - Salinas River sediment deposits consisting of fine to coarse sand and fine to coarse gravel.

(D-4) Using the mine site map or aerial photograph as a base, prepare a detailed geologic site map with two or more intersecting geologic stratigraphic cross sections (one perpendicular to the average site), to show the following information within the current and designated future mining and overburden disposal areas. * For hard rock operations only.

- a. The known surface and sub-surface extent and thickness of the mineral deposit to be mined.
- b. Extent and thickness of overburden (or waste rock).
- c. Detailed description of basic soil types to be encountered on the mining site.
- d.* Geologic formations.
- e.* Detailed description of all rock types to be encountered on the mine site
- f. * Description (with strike and dip measurements) of bedrock within 200 feet of mining or proposed mining area(s).
- g. Faults with location and relative movement.
- h.* Additional field measurements sufficient to determine the basic rock structure and fabric.
- i.* Orientation of the principle rock structure and fabric.
- j.* Delineation of any rock units that can be easily weathered.
- k. Delineation on the cross sections of the elevation of the average and seasonal high ground table(s).
- l. Any other geologic information necessary to describe the mineral deposit and the geologic engineering basis for the proposed mining and reclamation plans.

(D-5) Has exploratory or development drilling been used on the mining site? Yes No

If YES, show the location, by number, of all test holes on the "geologic site map" attached to the application. Also, for each test hole, show in feet and decimals the thickness and rock unit for each stratum overlying the mineralized zones or economic mineral deposit if the zone is discontinuous, also describe the intervening strata. Attach the report that includes the technical data for each hole that includes a table showing unit and thickness and the amount of overburden and commercial mineral deposit.

(D-6) Attach a description of the typical soil profile(s) (from ground surface to a minimum depth of ten feet) encountered on the site. If more than one profile, show extent of each on an aerial photograph overlay.

(D-7) What is the direction of groundwater flow in the area affected by the mining or processing operations? North - northwest

(D-8) Describe the environmental setting of the mining site using the Environmental Description Form.

SUPPLEMENT E: MINERAL PROCESSING & WASTE DISPOSAL

(E-1) Attach a diagrammatic sketch of the entire mineral processing system.

(E-2) Indicate if there will be any waste material resulting from the processing operations and how much volume. Yes No

If YES, how will this material be disposed of? _____

(E-3) FOR WET PROCESSING OPERATIONS: NA

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

b. Submit a diagrammatic flow chart of the process water handling system and attach a narrative explanation of the system.

c. Type of collection basins used: Concrete Wood Steel Earthen
Size of basins: _____ Attach calculations for basin sizing (storm interval/intensity)

d. For earthen basins only, explain how the bottom and sides will be made impervious and the slopes stabilized to prevent erosion. _____

e. Will sludge be removed from the settling basins? Yes No
If YES, describe the method and frequency of sludge removal and disposal. _____

f. Is there any discharge from the process water system? Yes No
If YES, submit a Regional Water Quality Control Board approval for the project.

SUPPLEMENT F: DEVELOPMENT OF THE MINE

(F-1) Using the mine site map or aerial photograph as a base, provide a detailed mine development plan map and cross sections clearly detailing the following:

- a. The accurate perimeter and total acreage of the area covered by this Reclamation Plan Application.
- b. The perimeter and acreage(s) of each area designated for current or future (specify) mining. Processing, stockpiling, overburden disposal or storage, waste disposal, settling ponds, water storage, and/or any other use relevant to the operation.
- c. The directions in which mining will progress, the anticipated height of any rock or soil faces or cuts and the anticipated depth of mine excavation and development. Reference benchmarks used to determine depth of excavation.
- d. Depiction of separate mining phases, if applicable. These phases should be integrated with concurrent or phased reclamation as described in Supplement "J".
- e. Indicate location of reference benchmarks used to determine depth of excavation.
- f. Any other information relevant to an understanding of Applicant's mining plans.

(F-2) Describe the development of the mining operation, including timetable for phasing and concurrent reclamation as detailed in Supplement "J".

Extraction will begin during the dry season (normally June 1st to October 31st) when surface water is absent and groundwater levels are sufficiently low for extraction. Extracted material will be processed on the terrace year-round above the riverbed. Annual cross sections will be surveyed before and after extraction to determine recruitment and extraction volumes, and to identify short and long term responses of the river system to extraction operations. Additionally, seven groundwater piezometers will be installed, which will aid in the monitoring and reporting of the seasonal groundwater table fluctuations in the Spring.

(If additional space is necessary, attach additional sheets.)

(F-3) Describe the method of mining.

Sand will be extracted from the riverbed using an E-JECT Systems E-17 Scraper (or similar equipment). The scraper will enter the extraction area(s) from the terrace(s), skim sand and gravel, and deliver the material to the stockpiles on the terrace.

(If additional space is necessary, attach additional sheets.)

(F-4) Describe method of soil salvage and storage for future mine reclamation. Show location(s) on plan map and identify in field. Indicate volume and describe how soil stockpile(s) will be protected from erosion.

No soil will be stockpiled.

(If additional space is necessary, attach additional sheets.)

(F-5) Describe method of removing, handling and storing topsoil.

No soil will be stockpiled.

(If additional space is necessary, attach additional sheets.)

(F-6) What will be done with non-usable material (impure, oversize, etc.) encountered during mining? If it is permanently placed, indicate what the compaction will be (in percent) and how it will be obtained.

All material extracted from the riverbed will be processed and transported off-site. There will be no waste material produced or stored on the Subject Property.

(If additional space is necessary, attach additional sheets.)

SUPPLEMENT G: STREAMS

(G-1) Will this operation involve the relocation, blockage, and/or alteration of any watercourse or stream?
 Yes No

If YES, what is the drainage area of the watershed above the operation? Salinas River and Vineyard Creek

(G-2) If YES to (G-1)

a. Have you obtained a streambed alteration agreement from the California Department of Fish and Game? Yes No

If YES, Agreement # _____ and Expiration Date _____ (Attach a copy)

b. Have you contacted the Regional Water Quality Control Board and Army Corps of Engineers regarding their requirements? Yes No

If YES, attach evidence of approvals obtained.

(G-3) Will any mining and/or the placing of spoil be:

a. Within 10 feet of any watercourse or stream? Yes No

b. Within the 100 Year Floodplain? Yes No

c. Within the Regulatory Floodway? Yes No

If YES, what measures will be taken to prevent this material from entering the stream or watercourse by erosion, siltation, or sliding?

Stockpiles will be set back from the riverbed and Best Management Practices (BMP's) will be employed to prevent materials from entering the channel during and following Storm events. BMP's will also be utilized for erosion control and to prevent discharge to the river.

(G-4) Have provisions been made to prevent the possible redirection of any stream into the operation?

Yes No

If YES, what are they and if structures have been placed, are they engineered? _____

(G-5) If the stream supports sensitive species or resource (ex. Red legged frog, indigenous fishery), what steps will be taken to protect these species? See attached and refer to biological assessment for

additional information. A list of all plant species identified in botanical surveys is also included herein.

(If additional space is necessary, attach additional sheets.)

SUPPLEMENT H: WATER, EROSION & SEDIMENTATION CONTROL

(H-1) SURFACE WATER

- a. How will surface water be handled in order to prevent its entrance into the actual excavation/mining area? No mining will occur in the presence of surface water. Water entering the mining area is necessary for sediment replenishment.
- b. If there is off-site discharge, has a Storm Water Pollution Prevention Plan been prepared for the Regional Water Quality Control Board and their approval obtained? Yes No
- If YES, attach evidence of the approval.

(H-2) GROUNDWATER

- a. What is the highest groundwater elevation in this area? 574 feet ASL Date: 12 - 3 - 2007
- b. What is the direction of groundwater movement in the affected area? north-northwest
- c. In consolidated material, what are the orientations of the major fractures or joints sets? N/A
- d. Will groundwater be encountered during the course of mining (including any perched, regional or artesian flow)? Yes No
- If YES, how will this water be handled? _____
- e. Will the method explained in d. (above) result in discharge from the operation? Yes No
- If YES, attach evidence of a Regional Water Quality Control Board approval.

(H-3) DATA TO BE SUBMITTED FOR SETTLING BASINS N/A

- a. Surface Water Erosion Control
1. Maximum total surface area to be drained by the basin(s) _____ acres.
 2. Maximum disturbed area to be drained by the basin(s) _____ acres.
 3. Minimum retention time _____ hours.
 4. Basin sizing based on: storm? interval? intensity?
 5. Discharge Point protected from erosion? Yes No
- If YES, attach figure showing basin and related facilities design including erosion protected discharge point.
6. Attach calculations verifying adequate capacity. See the California Stormwater BMP Handbook, Construction, Fact Sheet SE-2 (www.cabmphandbooks.com).
 7. Has the Regional Water Quality Control Board approved the surface water erosion control plans? Yes No
- If YES, attach evidence of approval.

b. Quarry Dewatering

1. The maximum anticipated discharge is _____ GPM: _____ MGD.
2. Minimum retention time in the pit sump or settling basin(s) _____ hours.
3. Will the method outlined in (H2d. above) result in a discharge from the operation?
 Yes No

If **YES**, show location of collection basins for settling and neutralization on the mining plan. Also, attach evidence of a Regional Water Quality Control Board and Army Corps of Engineer's approval.

c. Sludge

1. Will sludge be removed from the settling basins? Yes No

If **YES**, describe the method and frequency of sludge removal and disposal. If there is a potential for hazardous material to be located in the basins it must be tested by a state certified laboratory and appropriate treatment established. (Locate disposal site(s) on the Mine Development Plan).

2. If sludge is not to be removed, describe method to be used to reclaim settling basins after reaching their design capacity. _____

3. Attach both cross-section and plan views of the proposed settling basin(s) (or pit sump) and specify the length, width, depth, slope ratios and sludge storage capacity.

SUPPLEMENT I: PUBLIC & PRIVATE WATER SUPPLY INFORMATION NA

(I-1) List all public water supplies within three (3) miles of the closest discharge point of the proposed mining operation. Key and locate each public source on the USGS quadrangle.

KEY	NAME	ADDRESS	TYPE OF SUPPLY

(I-2) List all private sources of water supply on and within 1,000 feet of the mining area. Key and locate each source on the USGS quadrangle or mine development plan map.

KEY	NAME	ADDRESS	TYPE OF SUPPLY

SUPPLEMENT J: MINE RECLAMATION PROPOSAL

RECLAMATION PLAN MAP INSTRUCTIONS

(J-1) Using the mine site map or aerial photograph as a base, provide a detailed reclamation plan map and cross sections to show the following:

- a. The areas covered by the plan.
- b. Mining and reclamation phase boundaries
- c. Location of all drainage features, including ditches, ponds, berms, dikes, stream diversions, and natural drainages.
- d. Indicate the finished grade and profiles after reclamation.
- e. Areas to be revegetated, mulched, resoiled, decompacted or fertilized.
- f. All other pertinent reclamation information that is discussed in J-2 and can be shown graphically.

RECLAMATION NARRATIVE INSTRUCTIONS:

(J-2) Attach a "reclamation narrative" describing the proposed methods of reclamation, their phasing and timing, to be used in bringing the reclamation of the affected area to its end state. Also, describe how reclamation will be integrated with the mining plan (Supplement "F"). Include in the discussion those of the following topics which are applicable to the particular mine being reclaimed:

- a. Backfilling, grading, and slope treatments.
- b. Stabilization of all slopes. Include mined area, permanent waste dumps, tailings, settling ponds, etc. (Provide geotechnical stability analysis if final slope approaches the critical gradient.)
- c. Rehabilitation of pre-mining drainage.
- d. Resoiling, revegetation with evidence that proposed (and specified) plants can survive given the site topography, soil and climate and given the time of year for revegetation. List species to be planted.

- c. Removal, disposal, or utilization of residual equipment, structures, refuse, etc.
- d. Control of contaminants, (if applicable) especially with regard to surface runoff and groundwater.
- e. Removal or minimization of residual hazards.
- f. Treatment of streambeds and streambanks to control erosion and sedimentation.
- i. Indicate surface preparation, plant installation and seed application rate and method.
- j. Provide revegetation performance standards if native species will be used. If reclamation is to agricultural use, provide anticipated yields, crops, etc. (See CCR Section 3707 State Mining & Geology Board Reclamation Regulations)
- k. All other aspects of the proposed reclamation plan.

(J-3) If this plan does not provide for revegetation on all or part of the area, describe in detail alternate procedures proposed to prevent soil erosion and/or siltation.

River/creekbed extraction areas will not be revegetated and will be allowed to recover through natural processes. At the initiation of this project, these areas were bare sand or occupied by annual grasses.

Other vegetation removed will be replaced through mitigation plantings as described in the Reclamation Narrative.

(J-4) Prepare a detailed cost estimate, based on the financial assurance guidelines adopted by the state mining and geology board in today's dollars, for the first year of disturbance and removal of equipment and stockpiles. (The financial assurance cost estimate worksheet development by the office of mine reclamation can be used).

T B D

(J-5) Describe the ultimate physical conditions of the site and specify proposed use(s) and potential use(s) of the mined lands as reclaimed.

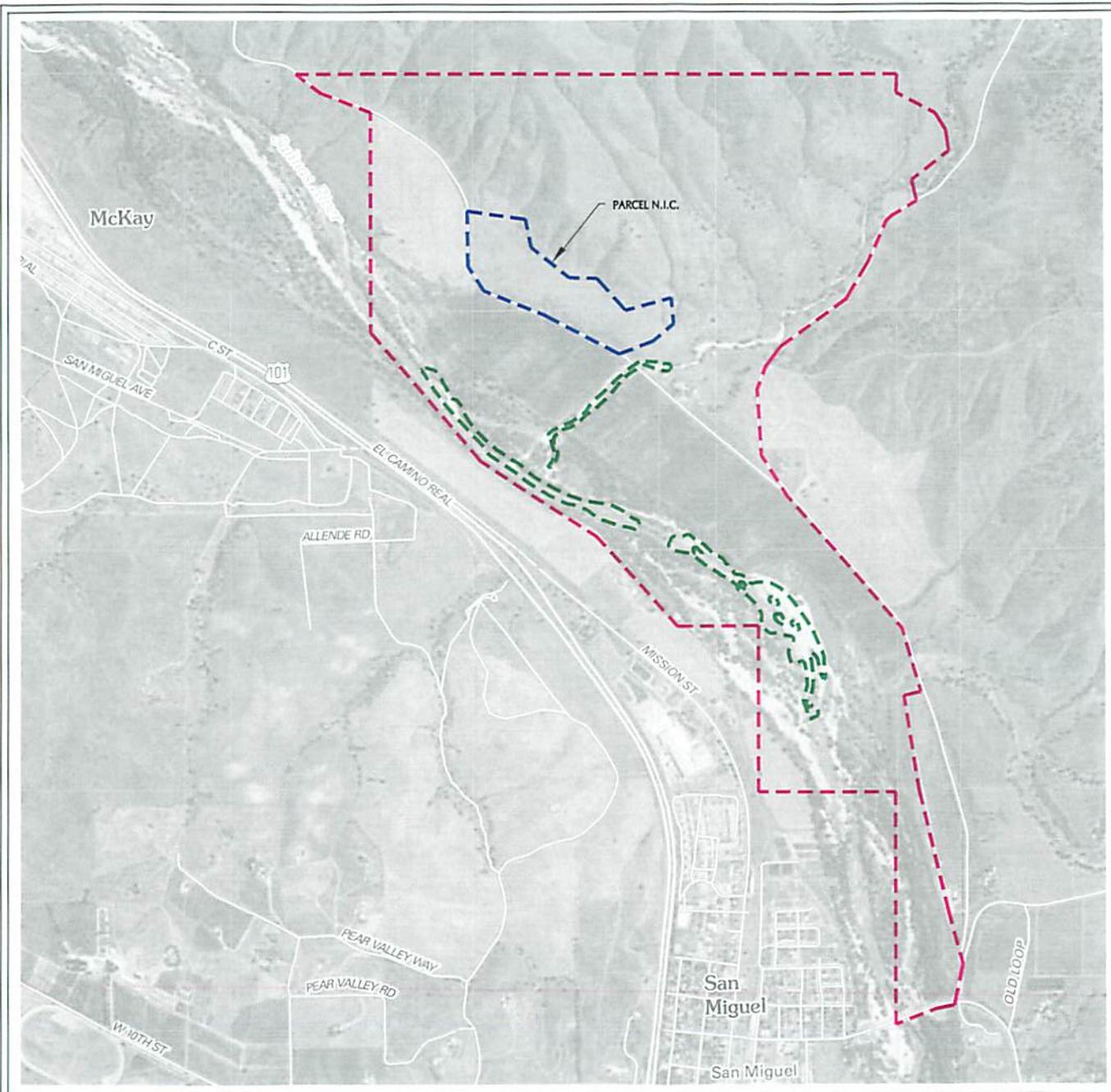
Following reclamation, the Subject Property will be restored to original use and condition. Portions of the agricultural field will be returned to crop production, and the stockpile areas near the barn will be returned to recreational uses (arena) or livestock corrals.

(J-6) Describe how reclamation of this site, in this manner, may affect future mining at this site and in the surrounding area.

Potential future mining at the site or surrounding areas will be unaffected by the reclamation.

SUPPLEMENT C

USGS 7 ½ Minute Topographic Quadrangle Map



NOT TO SCALE

- APPROX. EXCAVATION AREA
- PROPERTY BOUNDARY

PARCEL # & ACREAGE

- 027-420-001 (76.5 AC.)
- 027-420-002 (100.4 AC.)
- 027-420-003 (183.6 AC.)
- 027-420-005 (15± AC.)
- 027-420-009 (440.5 AC.)
- 027-420-010 (174.3 AC.)
- 027-420-016 (200± AC.)



LANDSCAPE ARCHITECTS SEA.



OASIS
LANDSCAPE
ARCHITECTURE
AND PLANNING

805-581-4800
FAX 805-545-0525
3427 MINGUELO CT
SAN LUIS OBISPO
CALIFORNIA 93401
NO. 008 - 12/08/00

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Project:

**PANKEY
SAND & GRAVEL
MINING PROJECT**

SAN MIGUEL,
CALIFORNIA

Client:

CHAD PANKEY

P.O. BOX 819
PASO ROBLES,
CA 93446

Sheet Contents:

SUPPLEMENT 'C'

Date: 8/31/09

Revised:

Job No.: 08-0157

Sheet:

'C'

No. of

SUPPLEMENT D

Mine Site Geologic Maps
and
Environmental Description Form



LANDING PROJECTS, INC.



OASIS
LAND USE
MANAGEMENT
AND PLANNING
800-541-4827
445 BUSH STREET
SAN FRANCISCO, CA 94102
P.O. BOX 10000
SAN JOSE, CA 95193

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Project: **PANKEY SAND & GRAVEL MINING PROJECT**

San Miguel, California

Client: **CHAD PANKEY**

P.O. BOX 819
PASO ROBLES,
CA 93248

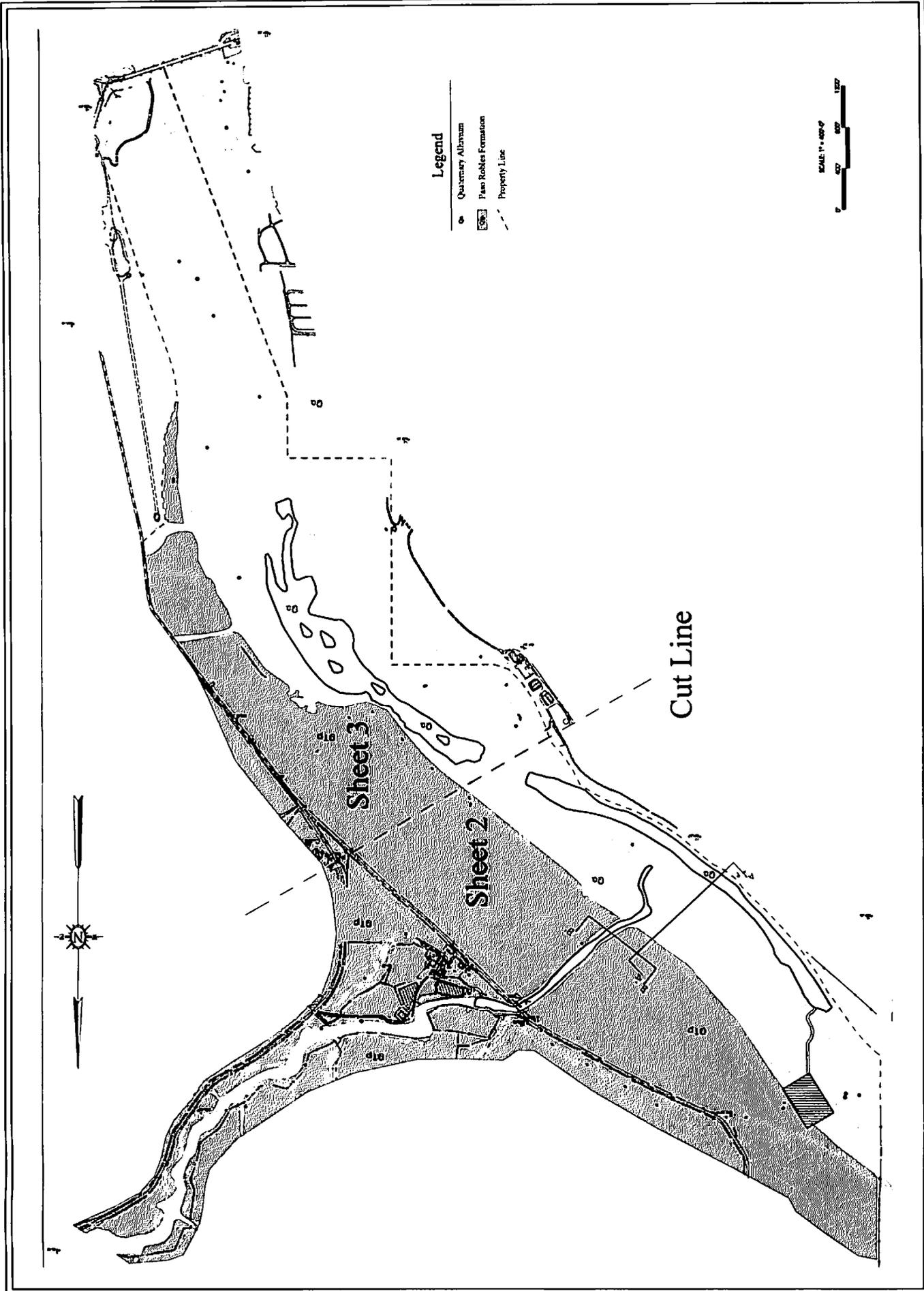
Sheet Description: **SITE GEOLOGIC MAP OVERALL**

Date: **8/1/00**

Revised:

Job No.: **08-0157**

Sheet: **'D1'**



Legend
○ Quaternary Alluvium
▨ Paso Robles Formation
--- Property Line

SCALE: 1" = 400'-0"
0 400 800 1200



JACQUES POTVIN, P.E.



OASIS
LANDSCAPE
ARCHITECTURE
AND PLANNING

800-441-4000
1415 18th Street, Suite 100
San Francisco, CA 94109

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PROJECT

PANKEY
SAND & GRAVEL
MINING PROJECT

BAH MOUJEL
CALIFORNIA

CLIENT

CHAD PANKEY

P.O. BOX 819
PAID ROBLES,
CA 93248

SHEET DESCRIPTION

SITE GEOLOGIC MAP
NORTHERN PORTION

DATE

03/19/09

PROJECT

SCALE: 1" = 200'-0"



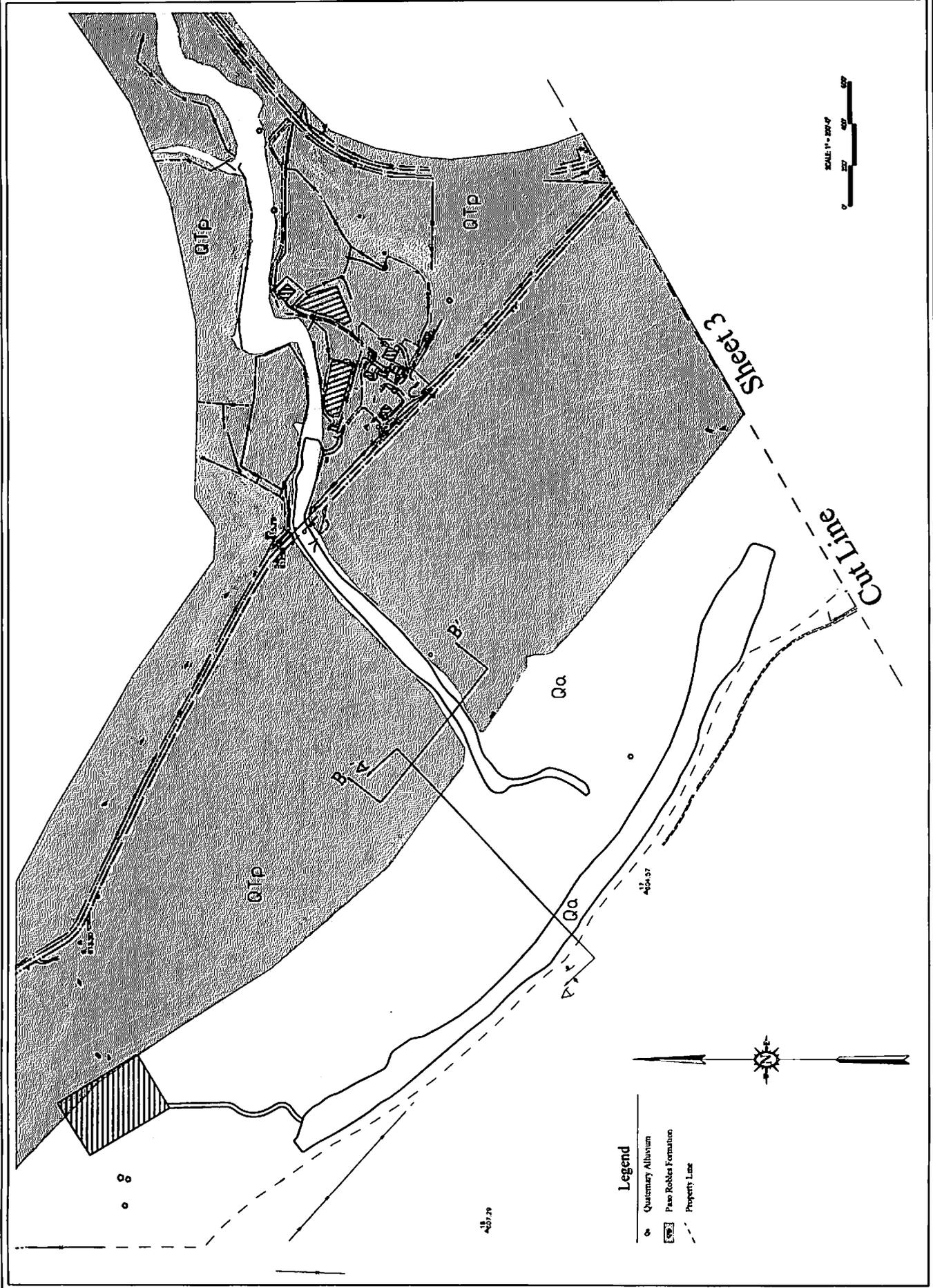
JOB NO.

03-0187

SHEET

'D2'

OF



Legend

- Qa Quaternary Alluvium
- P Paso Robles Formation
- - - Property Line





LANDSCAPE ARCHITECTS & PLANNERS, INC.

O.A.S.I.S.
LANDSCAPE
ARCHITECTS
AND PLANNERS,
INC.

1000-1441-0000
1441 BROADWAY
SAN FRANCISCO
SAN FRANCISCO
CALIFORNIA 94103

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Project:

**PANKEY
SAND & GRAVEL
MINING PROJECT**

**SAN MIGUEL,
CALIFORNIA**

Client:

CHAD PANKEY

P.O. BOX 819
PASO ROBLES,
CA 93448

Sheet Description:

**SITE GEOLOGIC MAP
SOUTHERN PORTION**

Date: 03/19/99

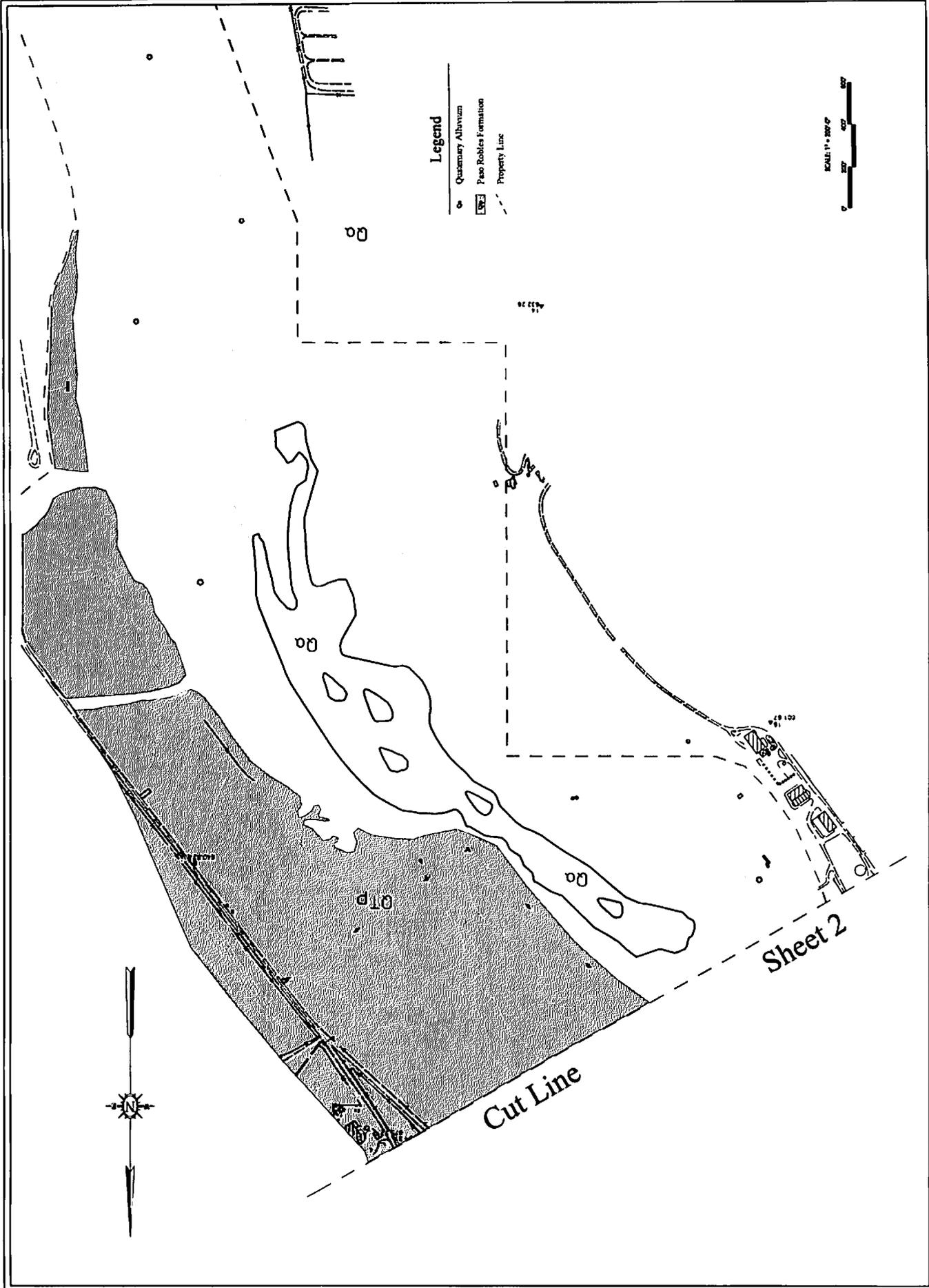
Revised:

Job No.: 04-0187

Sheet:

'D3'

of



Legend
Quaternary Alluvium
Peco Robles Formation
Property Line

SCALE: 1" = 200' @
0 100 200 300 400 500

Cut Line

Sheet 2



LANDSCAPE ARCHITECT'S SEAL



OASIS
LANDSCAPE
ARCHITECTURE
AND PLANNING

800-641-4200
748 800-640-0825
3437 MONTELEONE CT
94411 LINDSEY
CALIFORNIA 95011
chad@oasis.com

This drawing and instruments of service and are the property of Oasis Associates, Inc. All drawings and other information on this drawing are for use on the specific project and shall not be used otherwise without the expressed written permission of Oasis Associates, Inc.

Project:
**PANKEY
SAND & GRAVEL
MINING PROJECT**

SAN MIGUEL
CALIFORNIA

Client:
CHAD PANKEY

P.O. BOX 819
PASO ROBLES,
CA 93448

Sheet Contents:
**CROSS-SECTIONS
A-A' & B-B'**

Date: 8/31/09

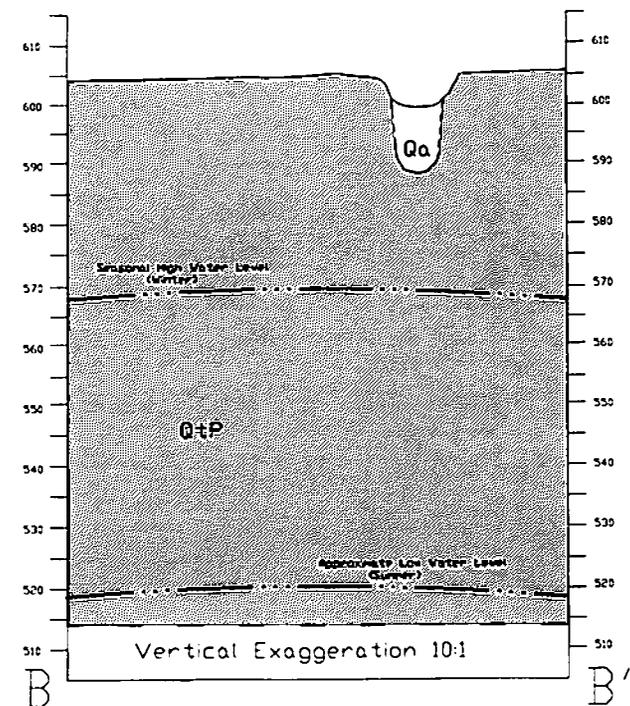
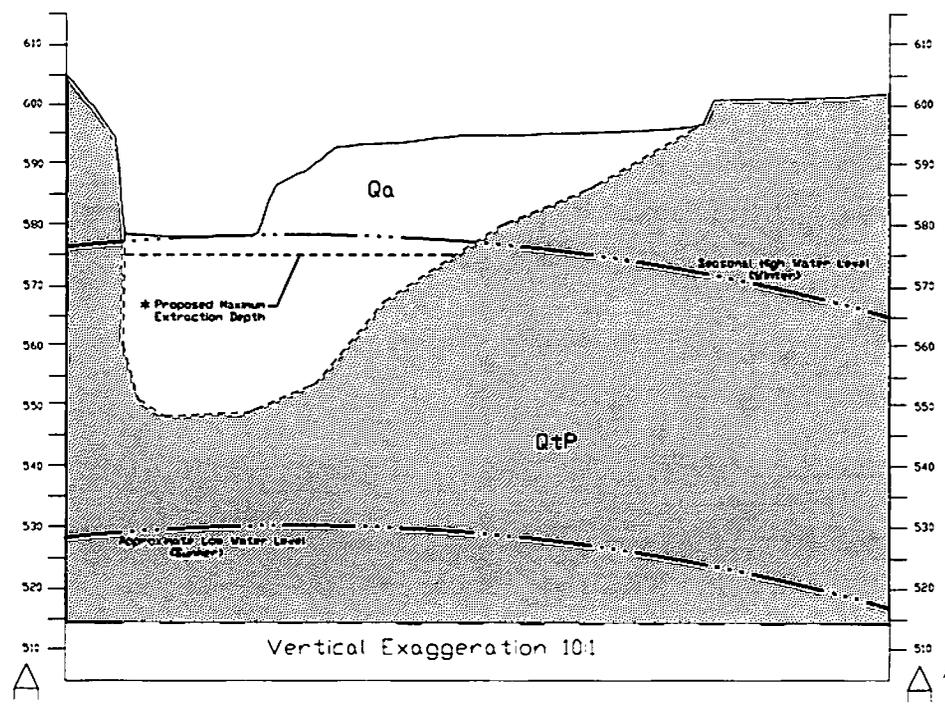
Revised:

Job No.: 03-0187

Sheet:

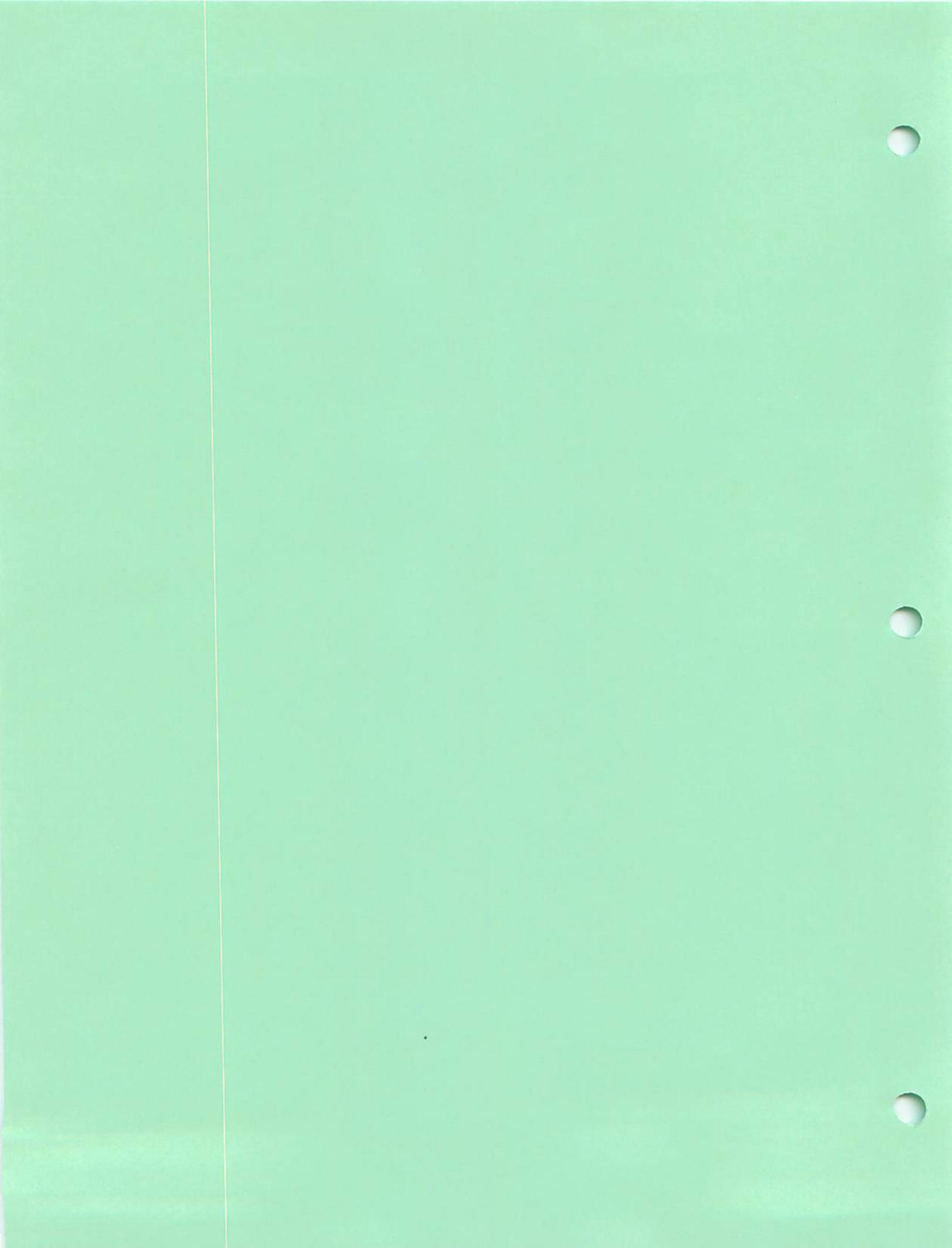
'D4'

No. of



- Legend**
- Qa Quaternary Alluvium
 - QtP Paso Robles Formation
 - Groundwater

*Please refer to the updated Geologic Cross Sections Map that shows maximum extraction depth at 575 feet. It should be noted that both Salinas River excavation sites (North and South) will have a maximum 2-ft annual total excavation depth, a 1-ft vertical buffer between excavation and the groundwater table, and a maximum 5-ft total excavation depth below the existing bed grade (i.e., bed grade before mining ensues). Vineyard Creek varies from this slightly in that its maximum seasonal extraction depth is 3-ft and its overall maximum extraction depth is 4-ft.



ENVIRONMENTAL DESCRIPTION FORM

San Luis Obispo County Department of Planning and Building File No _____

The California Environmental Quality Act (CEQA) requires all state and local agencies to consider and mitigate environmental impacts for their own actions and when permitting private projects. The Act also requires that an environmental impact report (EIR) be prepared for all actions that may significantly affect the quality of the environment. The information you provide on this form will help the Department of Planning and Building determine whether or not your project will significantly affect the quality of the environment.

To ensure that your environmental review is completed as quickly as possible, please remember to:

Answer ALL of the questions as accurately and completely as possible.

Include any additional information or explanations where you believe it would be helpful or where required. Include additional pages if needed.

If you are requesting a land division or a re-zoning, be sure to include complete information about future development that may result from the proposed land division or rezoning.

Include references to any reports or studies you are aware of that might be relevant to the questions asked or the answers you provide.

Should a determination be made that the information is inaccurate or insufficient, you will be required to submit additional information upon request.

Physical Site Characteristic Information

Your site plan will also need to show the information requested here

1. Describe the topography of the site:
Level to gently rolling, 0-10% slopes: 42.73 acres
Moderate slopes of 10-30%: 0 acres
Steep slopes over 30%: 0 acres
2. Are there any springs, streams, lakes or marshes on or near the site? Yes No
If yes, please describe: Salinas River, Vineyard Canyon Creek
3. Are there any flooding problems on the site or in the surrounding area? Yes No
If yes, please describe: Extraction area is in river channel and floodplain
4. Has a drainage plan been prepared? Yes No
If yes, please include with application.
5. Has there been any grading or earthwork on the project site? Yes No
If yes, please explain: _____
6. Has a grading plan been prepared? Yes No
If yes, please include with application.
7. Are there any sewer ponds/waste disposal sites on/adjacent to the project? Yes No
8. Is a railroad or highway within 300 feet of your project site? Yes No
9. Can the proposed project be seen from surrounding public roads? Yes No
If yes, please list: Indian Valley Road, Vineyard Canyon Road

Water Supply Information

1. What type of water supply is proposed?
 Individual well (existing) Shared well Community water system
2. What is the proposed use of the water?
 Residential Agricultural: explain _____
 Commercial/Office: explain Dust control
 Industrial: explain _____
3. What is the expected daily water demand associated with the project? 1,500 gallons
4. How many service connections will be required? None
5. Do operable water facilities exist on the site?
 Yes No If yes, please describe: Existing Ag well
6. Has there been a sustained yield test on proposed or existing wells?
 Yes No If yes please attach _____
7. Does water meet the Health Agency's quality requirements?
Bacteriological? Yes No Chemical? Yes No
Physical? Yes No Water analysis report submitted? Yes No
8. Please check if any of the following have been completed on the subject property and/or submitted to County Environmental Health.
 Well Driller's Letter Water Quality Analysis OK or Problems
 Will Serve Letter Pump Test _____ Hours _____ GPM
 Surrounding Well Logs Hydrologic Study Other _____

Please attach any letters or documents to verify that water is available for the proposed project.

Sewage Disposal Information N/A

If an on-site (individual) subsurface sewage disposal system will be used:

1. Has an engineered percolation test been accomplished?
 Yes No If yes, please attach a copy.
2. What is the distance from proposed leach field to any neighboring water wells? _____ feet
3. Will subsurface drainage result in the possibility of effluent reappearing in surface water or on adjacent lands, due to steep slopes, impervious soil layers or other existing conditions?
 Yes No
4. Has a piezometer test been completed? Yes No
5. Will a Waste Discharge Permit from the Regional Water Quality Control Board be required?
 Yes No

(a waste discharge permit is typically needed when you exceed 2,500 gallons per day)

If a community sewage disposal system is to be used:

1. Is this project to be connected to an existing sewer line?
 Yes No Distance to nearest sewer line: _____
Location of connection: _____
2. What is the amount of proposed flow? _____ g.p.d.
3. Does the existing collection treatment and disposal system have adequate additional capacity to accept the proposed flow? Yes No

Solid Waste Information

- 1. What type of solid waste will be generated by the project? Domestic Industrial
 Agricultural Other, please explain? _____
- 2. Name of Solid Waste Disposal Company: San Miguel Garbage
- 3. Where is the waste disposal storage in relation to buildings? Adjacent to offices
- 4. Does your project design include an area for collecting recyclable materials and/or composting materials? Yes No

Community Service Information

- 1. Name of School District: Paso Robles Unified School District
- 2. Location of nearest police station: 900 Park Street, Paso Robles
- 3. Location of nearest fire station: 1150 Mission Street, San Miguel
- 4. Location of nearest public transit stop: 14th Street and Mission Street, San Miguel
- 5. Are services (grocery / other shopping) within walking distance of the project? Yes No
 If yes, what is the distance? n/a feet / miles

Historic and Archeological Information

- 1. Please describe the historic use of the property: Agriculture - grazing and dryfarm / irrigated crops
- 2. Are you aware of the presence of any historic, cultural or archaeological materials on the project site or in the vicinity? Yes No
 If yes, please describe: _____
- 3. Has an archaeological surface survey been done for the project site? Yes No
 If yes, please include two copies of the report with the application.

Commercial/Industrial Project Information

Only complete this section if you are proposing a commercial or industrial project or zoning change.

- 1. Days of Operation: Monday - Friday Hours of Operation: M-F: 7am - 5pm¹
and 1/2 day Saturday Hours of Operation: Saturday: 7am - 12pm¹
- 2. How many people will this project employ? 4
- 3. Will employees work in shifts? Yes No
 If yes, please identify the shift times and number of employees for each shift _____
- 4. Will this project produce any emissions (i.e. gasses, smoke, dust, odors, fumes, vapors,)?
 Yes No
 If yes, please explain: Emissions from equipment, dust (controlled by water). See Air Emissions Impact Analysis, Golden Associates 2009.
- 5. Will this project increase the noise level in the immediate vicinity? Yes No
 If yes, please explain: Heavy equipment
(If loud equipment is proposed, please submit manufacturers estimate on noise output)
- 6. What type of industrial waste materials will result from the project? Explain in detail:
None

1. Scrapers will operate for up to 7 hours per day within the normal business hours of the facility.

7. Will hazardous products be used or stored on-site? Yes No
 If yes, please describe in detail: Diesel fuel, various petroleum and non-petroleum based products related to equipment operation and maintenance
8. Has a traffic study been prepared? Yes No If yes, please attach a copy
9. Please estimate the number of employees, customer and other project-related traffic trips to or from the project.
 Between 7:00 - 9:00 a.m. 4 max. Between 4:00 to 6:00 p.m. 4 max.
10. Are you proposing any special measures (carpooling, public transit, telecommuting) to reduce automobile trips by employees?
 Yes No If yes, please specify what you are proposing _____
11. Are you aware of any potentially problematic roadway conditions that may exist or result from the proposed project, such as poor sight distance at access points, connecting with the public road? Yes No
 If yes, please describe _____

Agricultural Information

Only complete this section: 1) within the Agricultural land use category or 2) your site is currently in agricultural production.

1. Is the site currently in Agricultural Preserve (Williamson Act)? Yes No
2. If yes, is the site currently under land conservation contract? Yes No
3. If your land is currently vacant or in agricultural production, are there any restrictions on the crop productivity of the land? That is, are there any reasons (i.e. poor soil, steep slopes) the land cannot support a profitable agricultural crop? Please explain in detail: Riverbed and lower terrace soils are poor quality and prone to flooding. Upper terrace soils currently producing alfalfa

Special Project Information

1. Describe any amenities included in the project, such as park areas, open spaces, common recreation facilities, etc.(these also need to be shown on your site plan): None
2. Will the development occur in phases? Yes No
 If yes describe: _____
3. Do you have any plans for future additions, expansion or further activity related to or connected with this proposal? Yes No
 If yes, explain: _____
4. Are there any proposed or existing deed restrictions? Yes No
 If yes, please describe: _____

Energy Conservation Information

1. Describe any special energy conservation measures or building materials that will be incorporated into your project*: None

* The county's Building Energy Efficient Structures (BEES) program can reduce your construction permit fees. Your building must exceed the California State Energy Standards (Title 24) in order to qualify for this program. If you are interested in more information, please contact the Building Services Division of the Department of Planning and Building at (805) 781-5600.

Environmental Information

1. List any mitigation measures that you propose to lessen the impacts associated with your project: Erosion control, revegetation and reclamation, surveys for sensitive species, avoidance of habitat, operations timing to avoid species, implementation of an adaptive management plan.

2. Are you aware of any unique, rare or endangered species (vegetation or wildlife) associated with the project site? Yes No
If yes, please list: Kit fox

3. Are you aware of any previous environmental determinations for all or portions of this property? Yes No
If yes, please describe and provide "ED" number(s): _____

Other Related Permits

1. List all permits, licenses or government approvals that will be required for your project (federal, state and local): _____

(If you are unsure if additional permits are required from other agencies, please ask a member of department staff currently assigned in either current planning or the environmental division)

California Department of Fish and Game - Streambed Alteration Permit

State Water Quality Control Board - Notice of Intent

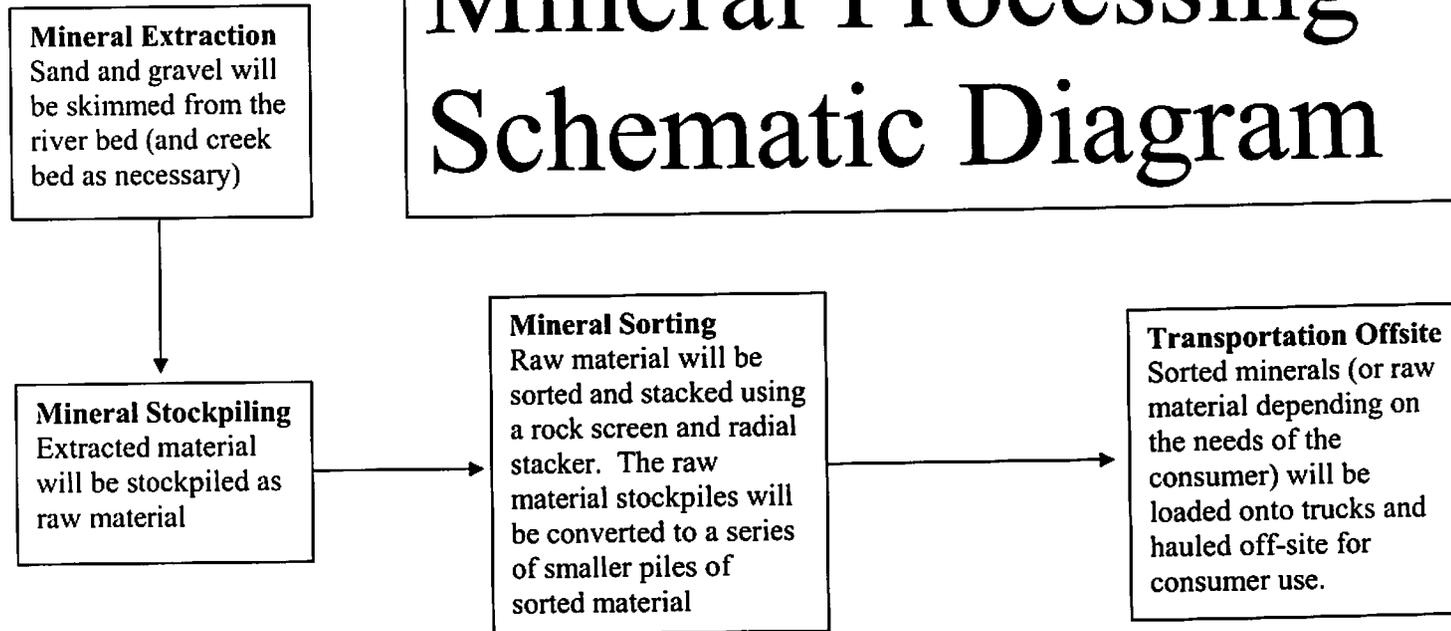
California Department of Conservation - Mine ID Number

SUPPLEMENT E
Mineral Processing System

Supplement E

Item 1:

Mineral Processing Schematic Diagram



SUPPLEMENT F
Mine Development Maps

On the website

SUPPLEMENT G

**Proposed Biological Mitigation Measures
and
Species List**

Proposed Biological Mitigation Measures:

The following measures, as incorporated into the project description, will reduce biological impacts to less than significant levels.

- Prior to initiation of mining activities, and after consultation with the California Department of Fish and Game regarding the total acreage of impacted kit fox habitat, evidence will be submitted to the County of San Luis Obispo, Department of Planning and Building, Environmental and Resource Management Division (County) (see contact information below) that states that one (1) or a combination of the following four (4) San Joaquin kit fox mitigation measures has been implemented:

- Provide for the protection in perpetuity, through acquisition of fee or a conservation easement of no more than 127.89-acres of suitable habitat in the kit fox corridor area (e.g., within the San Luis Obispo County kit fox habitat area, northwest of Highway 58), either on-site or off-site, and provide for a non-wasting endowment to provide for management and monitoring of the property in perpetuity. The total acreage of the kit fox mitigation area will be determined by the California Department of Fish and Game (Department) upon discussion with the applicant in consideration of the intermittent and temporary nature of the proposed extraction activities. Lands to be conserved will be subject to the review and approval of the Department and the County.

This mitigation alternative requires that all aspects of this program must be in place before County permit issuance or initiation of any ground disturbing activities.

- Deposit funds into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the kit fox corridor area within San Luis Obispo County, and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

This mitigation alternative can be completed by providing funds to The Nature Conservancy (TNC) pursuant to the Voluntary Fee-Based Compensatory Mitigation Program (Program). The Program was established in agreement between the Department and TNC to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act ("CEQA"). The fee, once established by the Department upon discussion with the applicant in consideration of the intermittent and temporary nature of the proposed extraction activities, will be payable to "The Nature Conservancy." This fee must be paid after the Department provides written notification about your mitigation options but prior to County permit issuance and initiation of any ground disturbing activities.

- Purchase, at the most (depending on consultation with the Department of Fish and Game to determine the extent of impacted kit fox habitat) 127.89 credits in a Department-approved conservation bank, which would provide for the protection in perpetuity of suitable habitat within the kit fox corridor area and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Purchase of credits must be completed prior to County permit issuance and initiation of any ground disturbing activities.

- If none of the above measures are available, a Mitigation Agreement may be established with the Department, including depositing of funds into an escrow account (or other means of securing funds acceptable to the Department) which would ensure the protection in perpetuity of, at the most (depending on consultation with the Department of Fish and Game to determine the extent of impacted kit fox habitat), 127.89-acres of suitable habitat within the kit fox corridor area and provide for a non-wasting endowment for management and monitoring in perpetuity. The Department can provide a draft agreement to review; a signed Mitigation Agreement will be submitted to the County prior to County permit issuance and initiation of any ground disturbing activities.
- Prior to initiation of mining activities, evidence will be provided that a qualified biologist acceptable to the County has been retained. The retained biologist will perform the following monitoring activities:
 - Prior to initiation of mining activities, the biologist will conduct a pre-activity (i.e., pre-construction) survey for known or potential kit fox dens and submit a letter to the County reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed), as applicable, to address any kit fox activity within the project limits.
 - The qualified biologist will conduct weekly site visits during site-disturbance activities (e.g., grading, disking, excavation, stock piling of dirt or gravel, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with appropriate mitigation measures. Site disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason. When weekly monitoring is required, the biologist will submit weekly monitoring reports to the County.
 - Prior to or during project activities, if any observations are made of San Joaquin Kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist will re-assess the probability of incidental take (i.e., harm or death) to kit fox. At the time a den is discovered, the qualified biologist will contact the U.S. Fish and Wildlife Service and the Department for guidance on possible additional kit fox protection measures to implement and whether or not a federal and/or state incidental take permit is needed. If a potential den is encountered during construction, work will stop until such time the U.S. Fish and Wildlife Service/Department determines it is appropriate to resume work.

If incidental take of kit fox during project activities is possible, before project activities commence, the U.S. Fish and Wildlife Service and the County will be consulted. The results of this consultation may result in require a Federal and/or State permit for incidental take during project activities. It is acknowledged that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.

- In addition, the qualified biologist will implement the following measures:
 - Within 30 days prior to initiation of site disturbance or initiation of mining activities, fenced exclusion zones will be established around all known and potential kit fox dens. Exclusion zone fencing will consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone will be roughly circular in configuration with a radius of the following distance measured outward from the den or burrow entrances:
 - i. Potential kit fox den: 50 feet
 - ii. Known or active kit fox den: 100 feet
 - iii. Kit fox pupping den: 150 feet
 - All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, will remain outside of exclusion zones. Exclusion zones will be maintained until all project-related disturbances have been terminated, and then will be removed.
 - If kit foxes or known or potential kit fox dens are found on site, daily monitoring during ground disturbing activities will be required by a qualified biologist.
- Prior to initiation of mining activities, a note on the project plans, which clearly states: *“Speed signs of 25 mph (or lower) will be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox.”* Speed limit signs will be installed on the project site within 30 days prior to initiation of site disturbance initiation of mining activities. In addition, prior to permit issuance and initiation of any ground disturbing activities, appropriate mitigation measures stated on the Developer's Statement / Conditions of Approval will be clearly delineated on project plans.
- During the site disturbance phase, operational activities associated with the mining project after dusk will be prohibited unless coordinated through the County, during which additional kit fox mitigation measures may be required.
- Prior to initiation of mining activities, and within 30 days prior to initiation of site disturbance and / or initiation of mining activities, all personnel associated with the project will attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (e.g., San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training will include the kit fox's life history, all mitigation measures specified by the County, as well as any related biological report(s) prepared for the project. The County will be notified shortly prior to this meeting. A kit fox fact sheet will also be developed prior to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.
- During the site-disturbance phase and for the life of the project, to prevent entrapment of the San Joaquin kit fox, all excavation, steep-walled holes or trenches in excess of two (2) feet in depth will be covered at the close of each working day by plywood or similar materials, or provided with one (1) or more escape ramps constructed of earth fill or wooden planks.

Trenches will also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they will be thoroughly inspected for entrapped kit fox. Any kit fox so discovered will be allowed to escape before field activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.

- During the site-disturbance phase and for the life of the project, any pipes, culverts, or similar structures with a diameter of four (4) inches or greater, stored overnight at the project site will be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If, during the construction phase, a kit fox is discovered inside a pipe, that section of pipe will not be moved, or if necessary, be moved only once to remove it from the path of activity, until the kit fox has escaped.
- During the site-disturbance phase and for the life of the project, all food-related trash items such as wrappers, cans, bottles, and food scraps generated will be disposed of in closed containers only and regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife will be allowed.
- Prior to, during, and after the site-disturbance phase and for the life of the project, use of pesticides or herbicides will be in compliance with all local, State and Federal regulations. This will minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.
- During the site-disturbance phase and for the life of the project, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped will be required to report the incident immediately to the County. In the event that any observations are made of injured or dead kit fox, the U.S. Fish and Wildlife Service and Department will be immediately notified by telephone. In addition, formal notification will be provided in writing within three (3) working days of the finding of any such animal(s). Notification will include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured will be turned over immediately to Department for care, analysis, or disposition.
- Prior to installation of any proposed fencing associated with the mining project, any long internal or perimeter fencing be proposed or installed, the following will be done to provide for kit fox passage:
 - If a wire strand/pole design is used, the lowest strand will be no closer to the ground than 12".
 - If a more solid wire mesh fence is used, 8" x 12" openings near the ground will be provided every 100 yards.

The County will be notified upon fence installation to verify proper installation.

- For the life of the project, the following measures will apply:
 - All project operations will maintain a minimum setback of 20 feet from property

boundaries;

- The proposed operations area will be setback 50 feet from the top of the riverbank;
 - The proposed extraction area will be setback 10 feet from the dripline of all riparian vegetation, or 20 feet from the toe of the riverbank, whichever is greater;
 - Prior to commencement of in-stream mining operations each season, all setbacks will be staked, flagged, or otherwise delineated so that they are clearly visible throughout the material extraction phase of the operation;
 - Upon completion of in-stream mining operations, the slope at the head and toe of the extraction area will not exceed 25:1 (Salinas River) or 4:1 (Vineyard Creek), and the slope along the sidewalls of the extraction area will not exceed 3:1;
 - Upon completion of in-stream mining operations, the slope away from riparian vegetation setbacks will also not exceed 3:1;
 - A maximum annual extraction depth of two (2) feet and a cumulative maximum extraction depth of five (5) feet from the surface elevations prior to initiation of mining operations in the first year within the Salinas River;
 - A maximum annual extraction depth of three (3) feet and a cumulative maximum extraction depth of four (4) feet from the surface elevations prior to initiation of mining operations in the first year within Vineyard Creek; and
 - For the life of the project, a vertical setback of 1 foot will be maintained above the level of the then existing subsurface flows.
- Prior to initiation of extraction activities, to avoid potential impacts to nesting birds, extraction activities will take place outside the bird nesting season, which is March 1st to July 15th. If mining activities occur during the bird nesting period, a survey for nesting birds will be conducted within two (2) weeks prior to ground disturbing activities by a qualified biologist in and adjacent to the project area. If nesting birds are found to be located within or adjacent to the project area, an appropriate buffer area will be established by a qualified biologist to ensure protection of the nesting birds. The biologist will determine the appropriate buffer distance based on the bird species, topography, vegetation, and type of disturbance. At a minimum, the buffer area will be delineated with brightly colored construction fencing. No additional measures will be implemented if active nests are more than the following distances from the nearest work site: (a) 100 yards for raptors; or (b) 50 yards for bird species other than least Bell's vireo. If active nests are closer than those distances to the nearest work site, a plan to monitor the behavior of the nesting birds during work will be prepared and submitted to USFWS and CDFG for review and approval. No mining or equipment staging activities will occur within the buffer area, which will remain in place until the biologist has determined that the young have fledged from the nest.
 - Upon completion of the required nesting bird survey, if least Bell's vireos are found to be on or near the mining operations, all mining activities at the site will immediately cease until the biologist has contacted the USFWS and CDFG and the County Environmental and Resource Management Division for further guidance, which will be done immediately. USFWS and CDFG may require the discontinuance of mining altogether at the site, or may allow mining to occur in a localized area of the site if they can determine that the mining operations will not disturb the vireo(s). The USFWS and CDG may require the development of a Habitat

Conservation Plan and obtainment of take permits from both agencies before mining operations can proceed. All the necessary requirements from CDFG and USFWS will be completed before mining operations resume.

- Prior to the start of each extraction season, on-site environmental training by a qualified biological monitor should be conducted to aid workers in recognizing sensitive species that may occur in the project area including the endangered San Joaquin kit fox, burrowing owls, nesting birds and other sensitive species. The program will educate personnel at the project site of the potential for the presence of sensitive wildlife and make them aware of all mitigation measures. Workers will be told to stop work and notify the biological monitor if they see a burrowing rodent, toad, or other animal. Signatures verifying the required training for all workers will be provided to the Planning and Building Department prior to each mining session.
- Prior to initiation of extraction activities, a qualified biologist/botanist will determine the total impact to the riparian vegetation that may need to be trimmed or removed to provide access to the river and will map those areas on the project site plans. The biologist / botanists will prepare a revegetation / restoration plan to mitigate for the loss of riparian vegetation at a minimum ratio of 2 acres restored for every 1 acre removed. The plan will be prepared as per the County's Guidelines for Preparation of Revegetation / Restoration Plans (consistent with CCR Section 3705(m)) and be submitted to the County Environmental and Resource Management Division for review and approval before it is implemented. At a minimum, but not limited to, the plan will include restoration goals, performance measures, remedial measures to implement should the performance measures not be reached, a schedule for plan implementation, and a monitoring program to monitor success of the plan. The plan will also include tasks for removal of all noxious weed species (consistent with CCR Section 3705(k)) in the riparian area on the subject parcel. Upon approval of the plan by the County, all measures identified in the plan will be implemented and all restoration, revegetation, and monitoring costs will be covered.
- Prior to project initiation, appropriate signage and/or fencing (highly visible markers) will be provided to restrict all disturbances to the approved mining area and the operations area designated on the site plan. No equipment or disturbances will take place outside these boundaries. The same mitigation measures will be enacted for the prime agricultural lands around the operations site. Any signage or fencing used to mark the disturbance areas will be temporary and will be removed at the end of each mining season within the river corridors.
- In accordance with the recommendations made in the Revised Biological Assessment (September 27, 2007), the following measures will be required for all site workers and implemented during construction activities:
 - The facility hours of operation will occur from 7:00 am to 5:00 pm Monday through Friday and from 7:00 am to 12:00 pm on Saturday. During these times, the facility will be open to dispensing sand to customers. The facility will be open year round for the sale of processed sand. However, the sand extraction and processing will take place on a more limited schedule.

Sand excavation using the scraper will occur only during the dry summer months over an estimated 83 days. The scrapers will operate for up to 7 hours per day within the normal business hours of the facility;

- Project vehicles and equipment will observe a maximum 20 mph speed limit throughout the property to reduce the potential for impacting wildlife;
- No firearms will be allowed in the mining / extraction area;
- In order to ensure that existing woodland and/or riparian vegetation is not damaged, no mining activities will occur outside of the designated work area boundaries;
- No mining vehicles will be parked or otherwise stored under any existing tree canopy and will be parked in staging areas only;
- A qualified biological monitor will conduct surveys and inspect the project areas prior to and during any work that may adversely affect burrowing animals. The biologist will monitor initial earth disturbing activities to relocate any unearthed wildlife, which includes excavation of raised sand bars in the riverbed. Monitoring will be required the first week of each mining season at a minimum, and will include spot checks on a weekly basis throughout the mining season. The results of the monitoring efforts will be provided to the Planning and Building Department;
- If the biologist determines that a sensitive species is present in the area of direct impact, work will be delayed until the individual(s) are relocated or relocate for the area on their own. The qualified biologist will be the only person allowed to relocate any wildlife species, and any required permits or Memorandums of Understanding from USFWS and/or CDFG will be obtained before relocation;
- Any potential sensitive species sightings will be reported to the biological monitor immediately and the appropriate agency will be notified if any federally or state-listed species enter the work site;
- Vegetation requiring trimming or removal will be conducted between October and January to reduce the impacts to nesting birds. If vegetation must be removed outside of this period, a biologist will conduct pre-activity surveys for nests. Avoidance of active nests will follow conditions described above;
- Extraction and disturbance areas will be limited to the minimum needed to conduct the proposed project to reduce the amount of disturbance to potential habitat for kit fox and other burrowing wildlife;
- Excavations deeper than two (2) feet will be covered at the end of each working day or provide escape ramps constructed on wooden planks for kit fox. The sidewalls of the extraction area will have slopes no more steep than 3:1 slopes;
- Trenches, pipes, culverts, or similar structures will be thoroughly inspected for kit fox and other wildlife before burying, capping, moving or filling;
- Equipment will be fueled and maintained in an appropriate staging area removed from any drainage or utilize a designated fueling area with secondary containment;
- Appropriate measures will be taken to prevent, contain, and clean up hazardous material spills;
- Trucks or other equipment will be washed in a designated containment area away from the riverbed, bank or associated drainages;

- To avoid attracting kit foxes or predators to the project site, adequate and appropriate closed trash receptacles will be located on site. All food-related trash will be removed from the project site;
 - To avoid or minimize potential effects to the San Joaquin kit fox, use of rodenticides and herbicides, if necessary, will be limited to chemicals and techniques that pose a low risk to kit foxes (e.g., zinc phosphide);
 - During all construction activities and throughout the use of the proposed facility signs will be posted around the proposed sand and gravel facility to educate and aware employees of the potential for San Joaquin kit fox;
 - To avoid obstruction of a potential movement corridor for the San Joaquin kit fox in the Salinas River, earthen berms or stockpiles within the riverbed will be at a 2:1 slope or less;
 - No outdoor lighting will be allowed unless approved with appropriate shielding;
 - If fencing of the proposed project site is necessary, fencing will allow for movement of San Joaquin kit fox through the area.
 - Prior to or during project activities, if any observations are made of San Joaquin kit fox, or any known or potential dens are discovered within the project limits, immediately notify the qualified biologist (Bob Stafford, CDFG Biologist at (805) 528-8670) and the County (Murry Wilson, Department of Planning and Building-Environmental and Resource Management at (805) 788-2352 or 781-5010).
 - All equipment, waste, and other debris will be removed from the site upon completion of mining activities.
- Upon completion of mining activities, all mining operations areas will be allowed to naturally return to original contours (including river channel and river banks), which may run the course of many years. Additionally, restoration efforts will be made by means of a revegetation / restoration plan, which will be prepared prior to initiation of mining activities, and will include a minimum of a 3:1 replacement ratio for all native shrubs and trees impacted as a result of project implementation. The plan will be prepared as per the County's Guidelines for Preparation of Revegetation / Restoration Plans (consistent with CCR Section 3705(m)) and be submitted to the County Environmental and Resource Management Division for review and approval before it is implemented. At a minimum, but not limited to, the plan will include restoration goals, performance measures, remedial measures to implement should the performance measures not be reached, a schedule for plan implementation, and a monitoring program. All measures identified will be implemented into the plan and all restoration, revegetation, and monitoring costs will be covered.
 - Prior to initiation of mining activities, contingencies for installation of protection fencing on the cuttings and seedlings (consistent with CCR Section 3705(l)) will be included as part of the Revegetation / Restoration Plans.
 - It is understood that prior to initiation of mining activities, the following agencies will need to be contacted to determine the need for other state or federal permits: California Department of Fish and Game, U.S. Fish & Wildlife Service, National Marine Fisheries Service, Army Corps of Engineers. Applicable permits and/or authorizations, or documentation that such permits and/or authorizations are not necessary will be submitted to the County prior to

issuance of construction permits for mining activities within the Salinas River and Vineyard Creek.

Monitoring

County Planning and Building staff or an approved monitor will review plans and conduct on-site reconnaissance to insure that construction-related and post-construction measures have been implemented.

G-5: Sensitive species with potential to occur on or near the Project Site

Plants

Species Name	Avoidance and Mitigation Measures
Big tarplant (<i>Blepharizonia plumose</i>)	Not Identified – See biological assessment.
Dwarf Clycadenia (<i>Calycadenia villosa</i>)	Not Identified – See biological assessment.
Obispo Indian paintbrush (<i>Castilleja densiflora obispoensis</i>)	Not Identified – See biological assessment.
Lemmon's jewelflower (<i>Caulanthus coulteri</i> var. <i>lemmonii</i>)	Not Identified – See biological assessment.
Abbott's bush mallow (<i>Malacothamnus</i>)	Not Identified – See biological assessment.
Davidson's bush mallow (<i>Malacothamnus davidsonii</i>)	Not Identified – See biological assessment.

Birds

Species Name	Mitigation Measures
Cooper's hawk (<i>Accipiter cooperii</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Tricolored blackbird (<i>Agelaius tricolor</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Golden eagle (<i>Aquila chrysaetos</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Great blue heron (<i>Ardea herodias</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Long-eared owl (<i>Asio otus</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Burrowing owl (<i>Athene cunicularia</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Ferruginous hawk (<i>Buteo regalis</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Northern harrier (<i>Circus cyaneus</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Yellow warbler (<i>Dendroica petechia brewsteri</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Willow flycatcher (<i>Empidonax traillii brewsteri</i>)	Preconstruction Surveys. See biological assessment for additional detail.
California horned lark (<i>Eremophila alpestris actis</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Prairie falcon (<i>Falco mexicanus</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Yellow-breasted chat (<i>Icteria virens</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Yellow-billed magpie (<i>Pica nuttalli</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	Preconstruction Surveys. See biological assessment for additional detail.

Mammals

Species Name	Mitigation Measures
Pallid bat (<i>Antrozous pallidus</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Hoary bat (<i>Lasiurus cinereus</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Small-footed myotis (<i>Myotis ciliolabrum melanorhinus</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Long-eared myotis (<i>Myotis evotis</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Yuma myotis (<i>Myotis yumanensis</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Monterey dusky-footed woodrat (<i>Neotoma macrotis luciana</i>)	Preconstruction Surveys. See biological assessment for additional detail.
San Joaquin pocket mouse (<i>Perognathus inornatus inornatus</i>)	Preconstruction Surveys. See biological assessment for additional detail.
Salinas pocket mouse (<i>Perognathus inornatus psammophilus</i>)	Preconstruction Surveys. See biological assessment for additional detail.
American badger (<i>Taxidea taxus</i>)	Preconstruction Surveys. See biological assessment for additional detail.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	On-site training for workers, avoidance. See biological assessment for additional details.

Reptiles

Species Name	Mitigation Measures
Southwestern pond turtle (<i>Actinemys marmorata pallida</i>)	Project timing and habitat avoidance. See biological assessment for additional details.
Coast horned lizard (<i>Phrynosoma coronatum frontale</i>)	Project timing and habitat avoidance. See biological assessment for additional details.

Amphibians

Species Name	Mitigation Measures
Arroyo toad (<i>Bufo californicus</i>)	Project timing and habitat avoidance. See biological assessment for additional details.
California red-legged frog (<i>Rana aurora draytonii</i>)	Project timing and habitat avoidance. See biological assessment for additional details.
Western spadefoot (<i>Spea hammondi</i>)	Project timing and habitat avoidance. See biological assessment for additional details.
Coast Range newt (<i>Taricha torosa torosa</i>)	Project timing and habitat avoidance. See biological assessment for additional details.

Fish

Species Name	Mitigation Measures
Steelhead – South/Central California Coast E.S.U. (<i>Oncorhynchus mykiss irideus</i>)	Habitat avoidance. See biological assessment for additional details.

SUPPLEMENT J

Plant Communities Map
and
Reclamation Narrative
and
Revegetation / Reclamation Plans



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Project:

**PANKEY
SAND & GRAVEL
MINING PROJECT**

SAN MIGUEL
CALIFORNIA

Client:

CHAD PANKEY

P.O. BOX 819
PASO ROBLES,
CA 93446

Plant Community:

EXISTING
VEGETATION

Date: 8/31/09

Revised:

Job No.: 08-0157

Sheet:

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Sh. of 17



Plant Communities

-  Agricultural Field
-  Riparian Scrub
-  Non-native Grassland
-  Cottonwood / Willow
-  Blue Oak Woodlands



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Project:

**PANKEY
SAND & GRAVEL
MINING PROJECT**

SAN MIGUEL,
CALIFORNIA

Client:

CHAD PANKEY

P.O. BOX 819
PASO ROBLES,
CA 93446

Sheet Contents:

EXISTING
VEGETATION

Date: 8/31/09

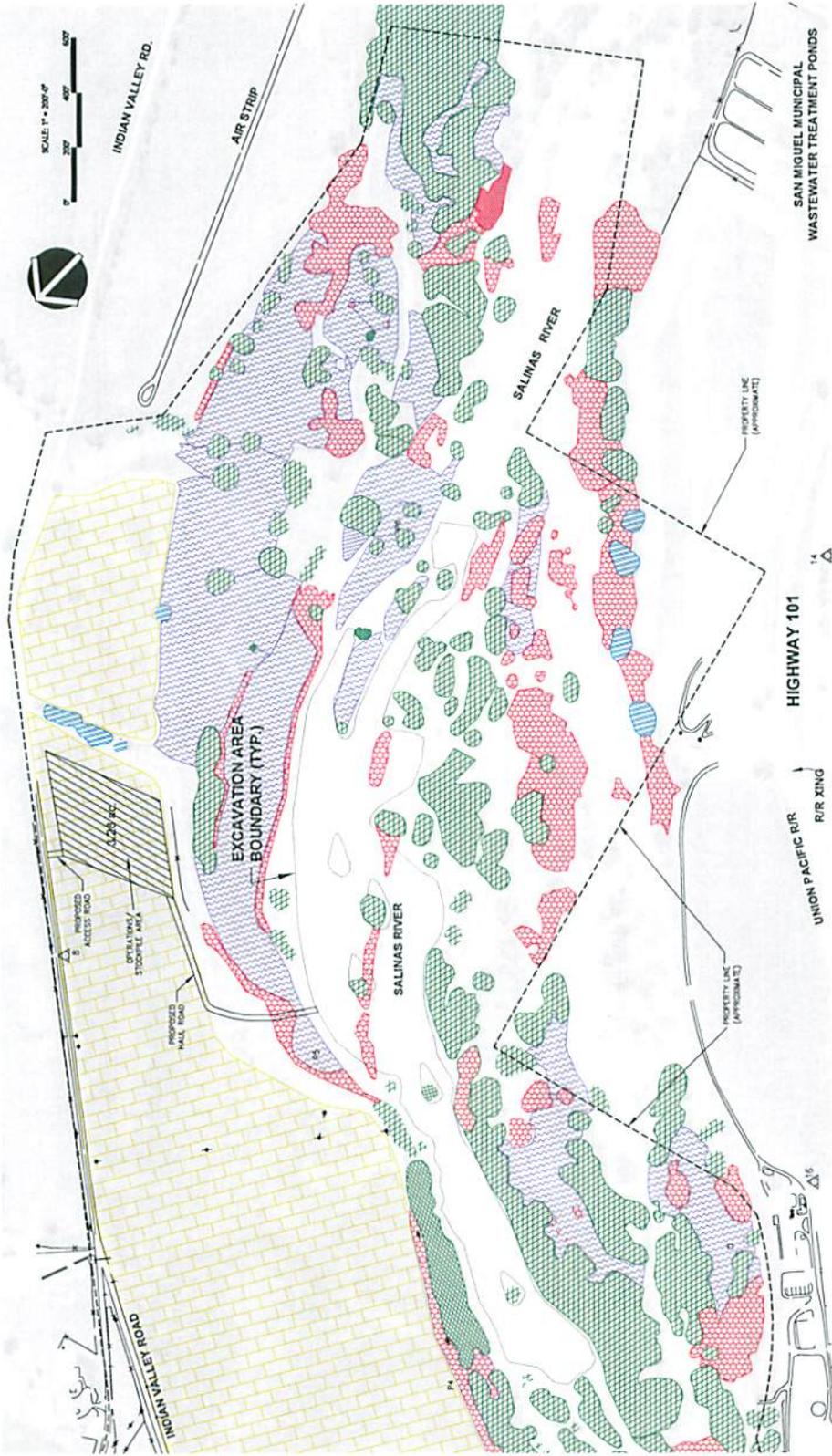
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Job No.: 08-0157

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No. 17



Plant Communities

-  Agricultural Field
-  Riparian Scrub
-  Non-native Grassland
-  Cottonwood / Willow
-  Blue Oak Woodlands



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**PANKEY
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MINING PROJECT**

SAN MIGUEL,
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Client:

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Date: 8/31/09

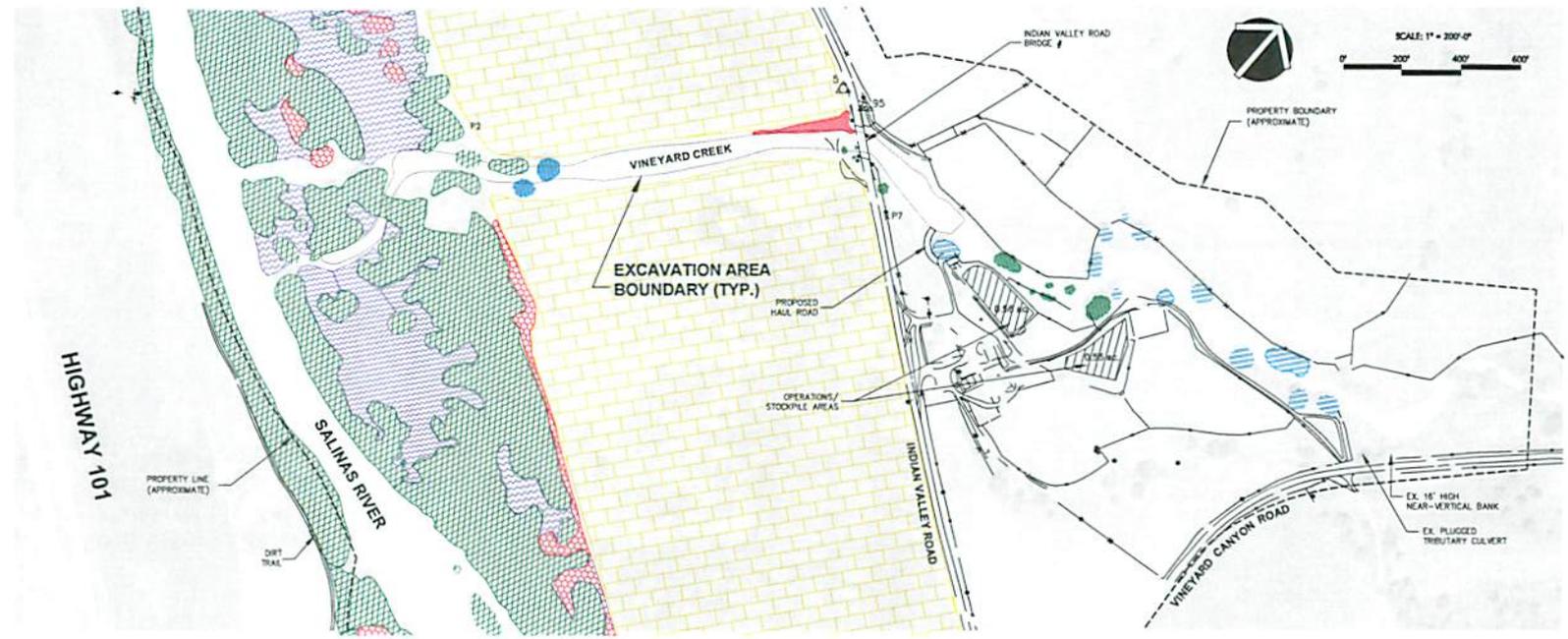
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Plant Communities

-  Agricultural Field
-  Riparian Scrub
-  Non-native Grassland
-  Cottonwood / Willow
-  Blue Oak Woodlands



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The Authority to undertake this Project is derived from the authority granted to the State of California by the State Water Resources Control Board and the State Water Resources Control Board of San Francisco, Inc.

Project
**PANKEY
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Sheet Contents
**WILLOW PLANTING
& PROTECT. CAGES**

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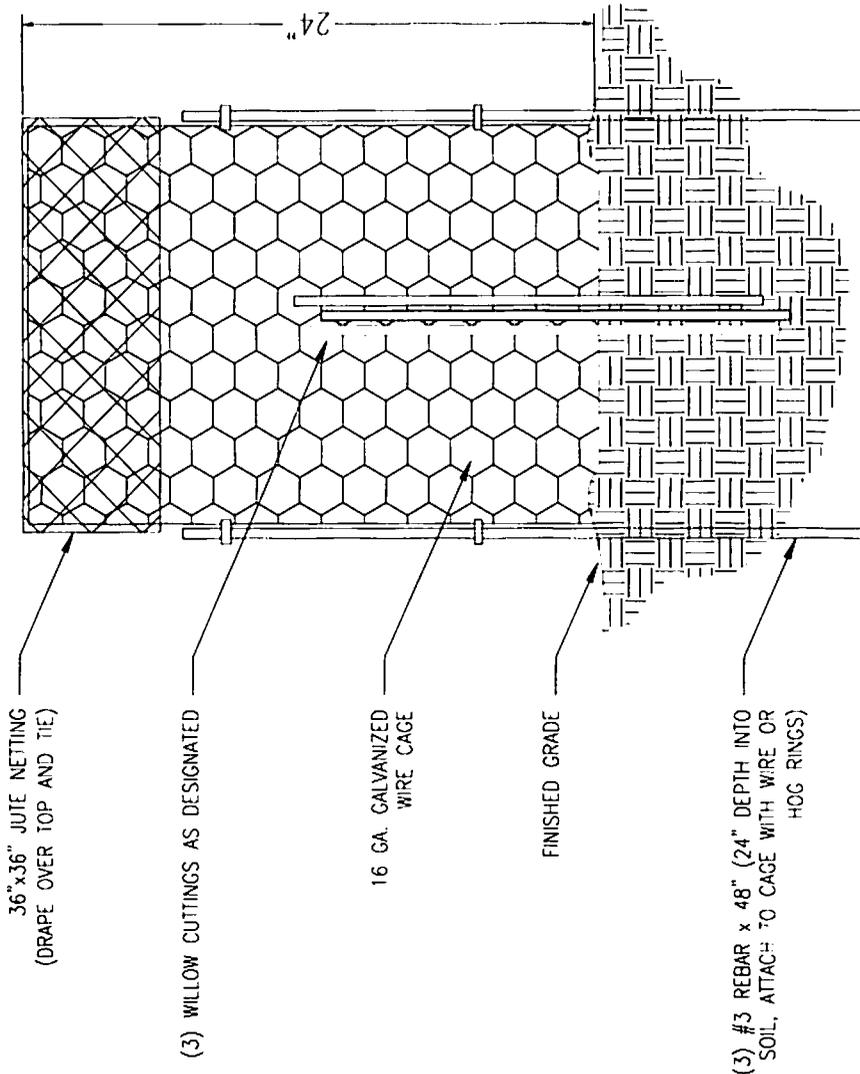
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Job No.: 08-0187

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J1.4

- WILLOW CUTTINGS**
1. Cuttings shall be obtained from on-site willows adjacent to the area of work.
 2. Willow cuttings shall be well rooted and shall be irrigated if planted between April and October. If planted between November and March, cuttings may be non-irrigated.
 3. Cuttings shall be healthy, 16" to 24" in length, and approximately 1/4" in diameter with at least one vigorous bud.
 4. Cuttings shall not be allowed to desiccate prior to planting. Cuttings may be placed in buckets of water, but shall not remain inundated longer than 24 hours.
 5. Cuttings shall be planted 3 per planting hole to an approximate depth of 1/2 the length of the cutting.
 6. Space cuttings a maximum of 30' on center across the designated area as depicted on the revegetation plan.



Supplement "J" – Mine Reclamation Proposal
for the proposed
Pankey Sand and Gravel
Conditional Use Permit (DRC2005-00193) and Reclamation Plan

APN 027-420-001, 002, 003, 005, 009, 010, 016
4444 Indian Valley Road,
San Miguel, CA 93451
02 September 2009

I. PROJECT SETTING

The Pankey Sand and Gravel project is located along a portion of the Salinas River at 4444 Indian Valley Road, approximately 1.25 miles north of the Cross Canyon Road intersection and approximately 1,200 feet northeast of the community of San Miguel. It is in the Agriculture land use category and is within the Salinas River planning area.

It should be noted that when instream sand and gravel mining greatly exceeds the natural sediment replenishment for long periods, there is potential for reducing river bed elevations. This could potentially cause damage to public and private infrastructure; reduce groundwater storage capacity; and impact riparian vegetation and fish passage suitability. Although none of these negative effects are present on the upper Salinas River in San Luis Obispo County, the five (5) recent proposals (i.e., Pehl, Weyrick, San Marcos, Viborg-Estrella, and Pankey Sand and Gravel Mines) to begin new instream mines on the Salinas River have raised questions by the resource agencies regarding the general sustainability of current instream mining practices.

Due to these concerns, the applicant has coordinated and collaborated with San Luis Obispo County, California Department of Fish and Game ("CDFG"), California Department of Mines and Geology ("CDMG"), National Oceanic and Atmospheric Administration ("NOAA"), Regional Water Quality Control Board ("RWQCB"), and US Fish and Wildlife Service ("USFWS") in attempt to obtain a basic understanding of how to proceed with the project, yet produce no (or negligible) impacts to the site-, reach-, and watershed-scale fluvial geomorphic forms, processes, and groundwater. Thus, using information shared amongst the aforementioned agencies, a fluvial geomorphologist, Matt Smeltzer, was retained by the applicant to consolidate all the available information into a collaborative, working draft document, the July 17, 2009 *Final Area-Wide Adaptive Management Plan for Avoiding, Minimizing, and Mitigating Impacts to Fluvial Geomorphology of the Upper Salinas River and its Tributaries* ("Plan").

This Plan evaluates the potential cumulative impacts of the proposed Pankey Sand and Gravel Mine Project, and estimates the effects of existing permitted and proposed new instream mines on the sand and gravel (bedload) sediment supply to the mainstem river. Using this information, the Plan is able to provide a preliminary technical basis and suggestions for implementing a new custom-designed area-wide monitoring and

management program for detecting deleterious project impacts, if any. This program will be essential in achieving demonstrably sustainable management of the instream sand and gravel resource.

II. DISTURBED PLANT COMMUNITIES

Central Coast Riparian Scrub

The project calls for minimal riparian scrub disturbance due to the placement of the haul roads located at the Southern Excavation Area (≈ 0.08 acres) and the Northern Excavation Area (≈ 0.17), resulting in a total disturbed area of 0.25 acres. See Table 1. This 0.25 acre disturbance will be revegetated at a 3:1 ratio. The plant community itself is described as a scrubby streamside thicket, varying from open to impenetrable, dominated by any of several willows. It is an early seral community that may succeed to any of several riparian woodland or forest types absent due to severe flooding disturbance. The Manuel of California Vegetation by Sawyer Keeler-Wolfe more accurately describes it as Sandbar Willow Series. This plant community typically occurs on relatively fine-grained sand and gravel bars that are closed to river channels and therefore close to ground water. Coarser substrates or greater depths to the water table favor dominance by *Baccharis*.

Non-native Annual Grassland

In addition to the riparian scrub community, approximately 0.10 acres of non-native grassland will be disturbed within the Southern Excavation Area, which will also be revegetated with riparian scrub at a 3:1 ratio. See Table 1. This plant community occurs in areas having relatively little (ten to twenty inches) rainfall throughout winter or spring. Typically there are four (4) to eight (8) months per year of summer drought when the soils dry out thoroughly and the temperatures often rise above 100°F. These areas are too hot and dry for woodlands and forests. However, where more moisture is available, often on north-facing slopes, in ravines or near springs, trees such as valley oaks (*Quercus lobata*) may grow among the grasses and forbs. The majority of common species present in this plant community are introduced non-natives.

Agricultural Field

A total of approximately 8.5 acres of agricultural land will be temporarily displaced for the duration of mine operations, which will be replaced at a 1:1 ratio. This is composed of 3.98 acres from the North Excavation Area (i.e., the entire 3.10 acre stockpile and a portion of the haul/access roads), and 4.52 acres from the South Excavation Area (i.e., the entire 3.28 acre stockpile and a portion of the haul/access roads). See Table 1. These areas historically have been utilized for a variety of agricultural operations, including grazing, alfalfa, vineyard, and dry-farmed crops.

Table 1: Current Project Vegetation Disturbance			
	Riparian Scrub (acres)	Non-Native Grassland (acres)	Agricultural Fields (acres)
North Excavation Area	0.17	0	3.98
South Excavation Area	0.08	0.10	4.52
Vineyard Creek Excavation² Area	0	0	0
Total	0.25	0.10	8.50

1. Stockpiles, haul / access roads, and excavation areas are located within anthropogenic communities (i.e., ruderal ["weedy"] associations along roadsides and disturbed fallow lands), thus area is not included in disturbance calculations.

III. RECLAMATION GOALS

Reclamation will consist of the removal of all equipment and materials, reconditioning and restoration of agricultural soils, and replanting of riparian scrub at a 3:1 ratio (including mitigation planting). This reclamation will begin in the fall season the year immediately following the termination of operations.

IV. METHODS OF RECLAMATION

A. Backfilling, Grading, and Slope Treatments

All mined materials will be utilized, and no stockpiling of waste materials or backfilling of the channel will be carried out.

B. Stabilization of Slopes

No steep slopes that would require geotechnical analysis or treatment will be created during mining or reclamation.

C. Removal of Equipment

At the end of mining, and the beginning of reclamation, all mine-related materials and equipment will be removed from the site. No residual equipment or structures will remain on the site following closure.

D. Control of Contaminants

All potential contaminants, such as fuel and equipment maintenance chemicals, will be removed at the close of operations.

E. Removal of Residual Hazards

No residual hazards (including potential contaminants) will remain after equipment is removed.

F. Riverbed and Bank Treatment

The riverbed will be allowed to recover naturally following the final extraction event. Bank areas disturbed by the operation will be revegetated as described in Section H below. The following erosion control measures will be able to handle runoff from not less than the 20 year, 1 hour intensity storm event:

- The removal of vegetation in advance of surface mining will be kept to a minimum;
- Erosion control facilities such as retarding basins, settling ponds, ditches, streambank stabilization, and diking will be constructed and maintained where necessary to control erosion (CCR §3706 (c)).

G. Rehabilitation of Pre-Mining Drainage

Mining activities will not affect drainage, thus no rehabilitation is necessary.

H. Resoiling and Revegetation

Resoiling:

No resoiling will be required for this reclamation, as no soil will be stockpiled, and no imported soils will be utilized.

Revegetation:

The following plant species are proposed to revegetate the designated areas on the Reclamation and Revegetation Map, which will total an area of approximately 1.05 acres (i.e., the disturbed 0.35 acres will be revegetated at a 3:1 ratio):

Table 2: Tree Palette		
Common Name	Latin Name	Cuttings at 30 feet o.c.
Red Willow	<i>Salix laevigata</i>	3/hole
Sandbar Willow	<i>Salix exigua</i>	3/hole

Table 3: Seed Varieties		
Common Name	Latin Name	Pounds PLS per acre
Coyote Bush	<i>Baccharis pilularis</i>	2
Mule fat	<i>Baccharis salicifolia</i>	2
Buckwheat	<i>Eriogonum fasciculatum</i>	3
Quailbush	<i>Atriplex lentiformis</i>	3
Wild rose	<i>Rosa californica</i>	2
Mugwort	<i>Artemisia douglasiana</i>	2
Western goldenrod	<i>Euthamia occidentlis</i>	2
Creeping wild rye	<i>Leymus triticoides</i>	5

Spanish clover	<i>Lotus purshianus</i>	3
Chick lupine	<i>Lupinus microcarpus</i>	2
Ragweed	<i>Ambrosia psilostachya</i>	2
Regreen™		10
Total		28

This proposed vegetation will be able to survive the given the topography, soil, and climate because each species already currently exists on or near the site. Additionally, planting these species during the wet and mild fall season will further aid in the vegetation's establishment.

I. Surface Preparation and Installation Methods

Agricultural Field:

Soils in the agricultural field will be restored through a series of mechanical treatments. The first mechanical treatment will consist of ripping the soil to a minimum depth of three (3) feet to remove compaction from the stockpiling of sand and operation of equipment. Secondary treatments will consist of discing and plowing of the soil in preparation for seeding. If available, organic material (preferably from the adjoining field) will be incorporated into the soil during the secondary treatment.

Riparian Areas:

This revegetation will consist of the replacement of any native scrub removed throughout the life of the operation, and will occur at a minimum ratio of 3:1. Replacement will be accomplished by planting a mixture of willow cuttings and shrub / herb seeds, which will be planted into the revegetation areas by means of:

- **Hydroseeding:** This process will consist of the application of a mixture of wood fiber, seed, fertilizer, and a soil stabilizing cover crop (i.e., Regreen™) with hydro-mulch equipment, which will temporarily protect exposed soils from erosion by water and wind. Please see Appendix A for additional hydroseeding specifications.
- **Cuttings:** The above mentioned Red Willow and Sandbar Willow seedlings will be randomly planted within the revegetation areas depicted on the Revegetation Map at an average application rate of 3 cuttings/hole at 30 feet on center.

The project site has the ability to provide supplemental irrigation if needed (e.g., in cases of drought), however, preference will be given to establish the revegetation during the fall, as to utilize seasonal rainfall. Revegetation must be self-sustaining in two (2) years without irrigation (this does not apply to the agricultural field). Soils underlying the haul/access roads between the extraction areas and stockpile areas will be decompacted and prepared in a similar manner.

Cuttings will be protected from herbivore predation and trampling by means of fencing and/or the placement of cages over individual plants if necessary. Fencing will be

maintained until revegetation efforts are successfully completed and the lead agency authorizes removal. Additionally, exotic weeds that presently occur on-site (e.g., Italian thistle (*Carduus pycnocephalus*), yellow star thistle (*Centaurea solstitialis*), Russian thistle (*Salsola iberica*), and perennial pepperweed (*Lepidium latifolium*)) will be managed chemically or mechanically (1) when they threaten the success of the proposed revegetation; (2) to prevent spreading to nearby areas; and (3) to eliminate fire hazard.

V. PERFORMANCE STANDARDS

Agricultural Field

The majority of the agricultural fields will remain in production with alfalfa (or other) crops, although the crop variety may change at the discretion of the property owner / farmer. At the close of mining, the reclaimed portions will be seeded with the same crops as the adjacent fields, and productivity of the reclaimed areas will be measured in direct comparison with the unimpacted portions of the fields.

Revegetation and Mitigation Areas

Planting success will be determined by the survival rate and aerial extent of all vegetation planted. Vegetation plantings will be considered successful when 80% of plantings are established, and the aerial extent of the plantings is greater than or equal to the aerial extent of riparian vegetation removed. The objective will be to have a density greater than the existing vegetation and canopy cover over much of the bank slope where it does not currently exist. Successful plant establishment is expected within two years following the close of mining operations. Table 4 shows specific riparian plant success criteria.

Table 4: Riparian Plant Success Criteria	
Criterion	Standard
<i>Hydroseeding</i>	
Percent Cover	80%
Density	1 native perennial stem per square meter
Species Richness	8 native perennial species
<i>Cuttings</i>	
Willows	70% - 80%

VI. REMEDIAL MEASURES TO IMPLEMENT SHOULD PERFORMANCE MEASURES NOT BE REACHED

If the above success criteria are not met after the initial 2 year period, remedial actions would be initiated and an additional 2 year monitoring period would be implemented to ensure that the remedial measures led to successful mitigation.

VII. SCHEDULE FOR PLAN IMPLEMENTATION (phasing and timing)

Table 5: Schedule for Plan Implementation				
Phase	Timing	Description	Criteria	Estimated Cost
Phase I: Pre-Mining Monitoring				
Monitoring	Prior to the first season of mining in the first year	Please refer to page 9, Section VII of this document	N/A	TBD
Phase II: Mining				
Operation / Extraction	One period of 20 years from issuance of permit	Sand and Gravel Mining and Processing	Completed at the termination of the 20 year operation lifespan.	N / A
Monitoring	Annually	Please refer to page 11, Section VII of this document	N/A	TBD
Phase III: Reclamation and Revegetation				
Implementation of herbivore predation protection methods	To begin <i>immediately</i> after the termination of the operation / extraction during the fall season	Cuttings will be protected from herbivore predation and trampling by means of fencing and/or the placement of cages over individual plants.	Will be installed if found to be necessary. Fencing will be maintained until revegetation efforts are successfully completed and the lead agency authorizes removal.	TBD
Hydroseeding	To begin <i>immediately</i> after the termination of the operation / extraction during the fall season	Will account for a portion of the 0.25 acres of disturbed riparian scrub habitat, which will be revegetated at a 3:1 ratio.	Completed after a period of two (2) years when all vegetation is sustained without aid of irrigation and all success criteria outlined in Table 4 are met.	TBD

Cutting Planting	To begin <i>immediately</i> after the termination of the operation / extraction during the fall season	Will account for a portion of the 0.25 acres of disturbed riparian scrub habitat, which will be revegetated at a 3:1 ratio.	Completed after a period of two (2) years when all vegetation is sustained without aid of irrigation and all success criteria outlined in Table 4 are met.	TBD
Agricultural Revegetation	To begin <i>immediately</i> after the termination of the operation / extraction during the fall season	The 8.5 acres of agricultural land disturbed will be restored through mechanical or organic treatment.	Productivity will be measured in direct comparison with the unimpacted portions of the fields	TBD
Non-Native Grassland Revegetation	To begin <i>immediately</i> after the termination of the operation / extraction during the fall season	0.10 acres of disturbed non-native grassland will be allowed to naturally revegetate.	None	TBD
Weed Management	To begin <i>immediately</i> after the termination of the operation / extraction during the fall season and as necessary for a 2 year period	Exotic weeds that presently occur on-site (e.g., Italian thistle (<i>Carduus pycnocephalus</i>), yellow star thistle (<i>Centaurea solstitialis</i>), Russian thistle (<i>Salsola iberica</i>), and perennial pepperweed (<i>Lepidium latifolium</i>)) will be managed chemically or mechanically.	Will take place when: (1) when they threaten the success of the proposed revegetation; (2) to prevent spreading to nearby areas; and (3) to eliminate fire hazard	TBD
Monitoring	Annually	Please refer to page 9, Section VII of this document	N/A	TBD
Phase IV: Post Excavation Monitoring				
Monitoring	Following the last year of mining for a period of one year	Please refer to page 11, Section VII of this document	N/A	TBD

VIII. MONITORING PROGRAM

Instream mining will be evaluated annually using extraction quantities, piezometers, cross sections, and aerial photos. The impacts of instream gravel extraction have been documented to affect patterns of bank erosion and to change elevation and morphology of the riverbed. These changes can in turn affect fish and wildlife habitat, flooding, and engineering structures.

A data collection and monitoring program will be coordinated with a qualified professional using topographic surveys, aerial photographs, piezometers, and mine production rates to track interactions between sediment transport processes, aggregate extraction, and channel geomorphology. Cumulative impacts associated with other instream mining operations and/or engineered structures will be considered.

An adaptive management approach to instream mining activities based on this information is essential. Permitted extraction rates will be reviewed periodically in light of the results of monitoring. Please refer to the *Area-Wide Adaptive Management Plan for Avoiding, Minimizing, and Mitigating Impacts to Fluvial Geomorphology of the Upper Salinas River and its Tributaries* for specific details. The following monitoring tasks are proposed:

First Year Pre-Excavation Monitoring Procedure

Mining will occur only under dry channel bed conditions. Prior to the first season of mining, the Operator will complete the following:

1. Establish expanded permanent survey control benchmark network in NAD83 UTM horizontal datum and NAVD88 vertical datum. Use traditional digital theodolite surveying and/or survey-grade GPS to expand the existing survey control network established on site in 2005 to provide additional permanent monuments:
 - a. Monitoring cross-section endpoints on terrace surfaces on either side of the Salinas River riparian corridor for not less than 20 total cross-sections spaced approx. 1,000 ft apart beginning approx. 500 ft downstream from the Big Sandy Creek confluence and extending upstream to San Miguel Bridge. Fix permanent-type air targets to the cross-section endpoints.
2. Install groundwater monitoring piezometers in an array comprising not less than six (6) along the east bank of the Salinas River from near the downstream end of the proposed North Excavation Area to near the upstream end of the proposed South Excavation Area, such that the average spacing between piezometers is not more than approx. 2,000 ft. Use 3-4-inch diameter PVC casing screened at a range of depths corresponding to approx. 0-10 ft below the adjacent river bed elevation. Install piezometers as close as practically feasible to the low-flow channel of the Salinas River, recognizing that piezometers within the riparian corridor will be subject to

replacement if scoured by floods. Survey location and elevation of finished grade at top of piezometer casing relative to permanent survey monuments established in 1. Being logging monthly measurements of depth to groundwater table (ft) and groundwater table elevation (ft NVD88).

3. Construct ingress/egress haul roads, operations/stockpile areas, and access routes.
4. Field survey baseline existing conditions at all of the 20 monitoring cross-sections. Collect existing conditions channel bed, bank, and bar surface profile data at a level of accuracy similar to geomorphic cross-section surveys. For example, collect data points at breaks and slopes and otherwise at intervals so that the elevation points are spaced not more than 50 ft apart on average, and may be as little as 5 ft apart in areas with complicated terrain. Also establish temporary cross-section endpoint markers at top of bank locations on either side of the active low-flow channel to facilitate future truncated surveys and spot elevation checks, as may be applicable after intervals of minimal channel change when surveying the entire section between permanent cross-section endpoint monuments would not provide additional useful data. Fix temporary air targets to these intermediate temporary cross-section endpoints. Also fix temporary air targets to at least 1 location on the river bed near each cross-section and survey that location/elevation. All air targeted survey points should be coded to allow stratification and exporting for LiDAR data calibration purposes.
5. Collect via LiDAR digital orthophotos and 1-ft contour interval digital topography for Subreach S-1. Requires establishing surveyed air target ground control in addition to ground control established in items 1.(a) and 4. above, as determined necessary according to TAC in consultation with LiDAR contractor.
6. Determine project maximum depth (redline) elevations at the site for observation during the remainder of the project lifetime. Use survey data for each of the permanently monumented monitoring cross-sections spanning the project excavation area in item 1.a. to determine the average existing conditions bed elevation. Use weighted averaging technique to determine average bed elevation for existing conditions. The redline elevation for that cross-section is 5.0 ft less than the average existing elevation.

First Year Excavation Phase Monitoring Procedure

7. Field survey-stake the permitted excavation area grading limits, or a uniform horizontal offset from the grading limit, for excavation guidance and setback compliance purposes. Stake the grading limit according to the horizontal setbacks in the Conditions of Approval, including: horizontal setbacks from existing toes of banks including banks of vegetated islands, from existing riparian tree driplines, and property boundaries. Stakes should be not more than 100 ft apart along the perimeter of the excavation area boundary and more closely spaced as may be necessary within

areas with complicated excavation area limits, such as in the vicinity of multiple vegetated islands and braided channel sections within the South Excavation Area.

8. Check groundwater table elevations and determine excavation depth along length of excavation areas within each of the six (6) piezometers to determine the groundwater elevation profile along the length of the excavation area(s). The excavation depth cannot exceed the annual maximum depth as conditioned by the permit (2 ft). If the groundwater table elevation is at least 1.0 ft lower than the planned post-excavation trench bed elevation than planned excavation can commence. If not, then the planned excavation depth needs to be revised so that the post-excavation trench bed elevation is at least 1.0 ft higher than the groundwater table. For excavation guidance, mark so determined excavation depth so that they are plainly visible on the grading limit offset stakes surrounding the perimeter of the excavation area.
9. Continue logging monthly groundwater table soundings.

First Year Post-Excavation Monitoring Procedure

10. Re-survey truncated cross-sections for the portion (approx. 13 total) of the total 20 monitoring cross-sections that span the finished excavation area(s). Use traditional surveying digital theodolite or survey-grade GPS to survey the portion of each cross-section spanning the active low-flow channel and the excavation area, such as between the temporary cross-section endpoint monuments established in item 4. above.
11. Submit to TAC pre- and post-excavation survey data and monthly groundwater table elevation data, and other information required by TAC for compiling annual report for the mine project area and Subreach S-1.

Ongoing Annual Excavation Monitoring Procedure

Each subsequent year during the project lifetime the operator may elect to mine material or forego mining as would depend on multiple factors, including the proximity of the groundwater table to the current river bed or trench bed elevation, amount of material replenishment occurring within the trench bed during the previous winter, etc. In no case shall the mining depth exceed 2 vertical feet in any one excavation year. The project total maximum excavation depth shall not exceed 5 feet. If the operator does not elect to mine in a given year, he/she will not be required to collect and submit cross-section or groundwater elevation data to TAC in that year.

Each spring following a winter with reasonably large winter flows in Subreach S-1 as determined by the TAC, the TAC will conduct a field evaluation and spot elevation survey within all or part of Subreach S-1, including the Pankey mine site Salinas River

excavation areas to evaluate the general level of sediment replenishment within the excavation areas, and the effectiveness of setbacks in minimizing bank erosion effects. If the TAC detects a deleterious level of bed elevation decline or bank erosion appears was induced by the mining activities, then it may, at its discretion require a cessation of mining until such time that bed elevations improve, or direct mitigation in the form of biotechnical bank stabilization and repairs at the affected sites. The TAC may also require repeat LiDAR data collection for all or part of Subreach S-1 according to degree of the observed channel changes and need for documenting the same as part of the ongoing Area-Wide Adaptive Management Plan.

The TAC will use its own periodic field observations and semi-annual cross-section data and monthly groundwater level monitoring data re. Subreach S-1 in conjunction with other similar data from other subreaches to prepare annual reports documenting the Pankey Project's compliance record, and long-term effects on groundwater table elevations, bed elevations, and bank erosion in Subreach S-1, including maintenance and monitoring of any biotechnical bank stabilization and repair work required as mitigation during the project lifetime.

The responsibility of evaluation of Project monitoring data and evaluating impacts and requirements for mitigation and adaptive management or adjustment of the Project's mining activities, including but not limited to, the annual maximum excavation depth, project maximum excavation depth (redline), minimum vertical setback from groundwater table elevation, and minimum horizontal setbacks from the toes of channel and island banks and riparian tree driplines, will rest solely with the TAC.

APPENDICES

Appendix A

Hydroseeding Specification

**APPENDIX A
HYDROSEEDING – Pankey Sand and Gravel**

SECTION 02940

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included:

1. All labor, materials, tools and the transportation and the performance of all the work required as indicated on the drawings and specifications, and reasonably incidental to:
 - a. Furnish all plant material;
 - b. Preparation and seeding of hydroseeded areas;
 - c. Clean up;
 - d. Establishment period;
 - e. Guarantee.

B. Requirements

1. Obstructions to landscaping operations: If rock, plaster, concrete debris, electrical cables, conduits or utility lines are encountered and cause conflict with landscaping operations, notify the Landscape Architect immediately.
2. Guarantees: The Contractor shall repair or replace any or all of the work, together with any other adjacent work which may be displaced by so doing, that may prove to be defective in its workmanship or material for the period of 120 days for all hydroseeded areas from the end of the maintenance period.

PART 2 - PRODUCTS

2.01 HYDROSEED MIX – EROSION CONTROL MIXTURE

A. All hydroseed mixes shall consist of the following (in lbs./acre):

- 2000 lbs. - Wood Fiber Mulch (green in color)
- 900 lbs. - Gro-Power Humus Base Fertilizer 5-3-1
- 400 lbs. - Gro-Power Controlled Release Fertilizer 12-8-8
- 100 lbs. - R2400-400CL Tackifier

	<u>Seed Mix (non-irrigated, in lbs./acre):</u>	<u>Minimum P.L.S.*</u>
2 lbs.	- Baccharis pilularis	1%
2 lbs.	- Baccharis salicifolia	3%
3 lbs.	- Eriogonum fasciculatum	10%
3 lbs.	- Atriplex lentiformis	50%
2 lbs.	- Rosa californica	50%
2 lbs.	- Artemisia douglasiana	10%
2 lbs.	- Euthamia occidentlis	15%
5 lbs.	- Leymus triticoides	80%
3 lbs.	- Lotus purshianus	75%
2 lbs.	- Lupinus microcarpus	70%
2 lbs.	- Ambrosia psilostachya	10%
<u>10 lbs.</u>	Regreen™	N/A
38 lbs.	TOTAL	

*P.L.S. = Pure Live Seed

- B. Deliver total seed requirements in unmixed, unopened bags to the site prior to seeding, with the producer's certificates attached showing purity/germination rates and weed content.
 - C. Supply Landscape Architect with seed test reports from a certified testing laboratory showing purity/germination rates and weed content 30 days prior to seeding.
 - D. All seed certificates are to be detached by the Landscape Architect and retained for permanent records. Landscape Architect may take samples of all specified seed for testing purposes, if testing is deemed necessary at a future date.
 - E. Seed mix shall contain no noxious weed species. Seed will be rejected if it is found to be wet, moldy, or damaged, or if weed content exceeds 0.5% by weight.

PART 3 - EXECUTION

3.01 COMBINATION OF MATERIALS

- A. Mixing shall be performed in a tank, with a continuous agitation system of sufficient operating capacity to produce a homogeneous slurry of fiber, seed, fertilizer, humectant, tackifier and water in the designated unit proportion.
- B. With the agitation system operation at part speed, water shall be added to the tank.
- C. The seed shall be added first; then fertilizer shall be added, and then the fiber. If a centrifugal pump and recirculation is employed, fiber is added before seed.
- D. The fiber shall not be added until the tank is at least one-third filled with water.
- E. The mixture shall be agitated at full speed when the tank is half-filled with water.
- F. All fiber shall be added by the time the tank is two-thirds to three-fourths full.
- G. Maximum permissible time of mix of fertilizer and seed shall be one hour in order to prevent deterioration of seed.

3.02 HYDROSEEDING AREAS

- A. The areas to be hydroseeded are as shown on the drawings.
- B. Soil surface in the areas to be hydroseeded shall be loose, friable and roughened to a depth of 2" so that seed will remain in place prior to seeding.
- C. Seed mix shall be uniformly seeded at rates specified in Section 2.00 - 2.01 and/or plan.
- D. Seed mix shall be applied prior to November 15 to take advantage of seasonal rainfall.

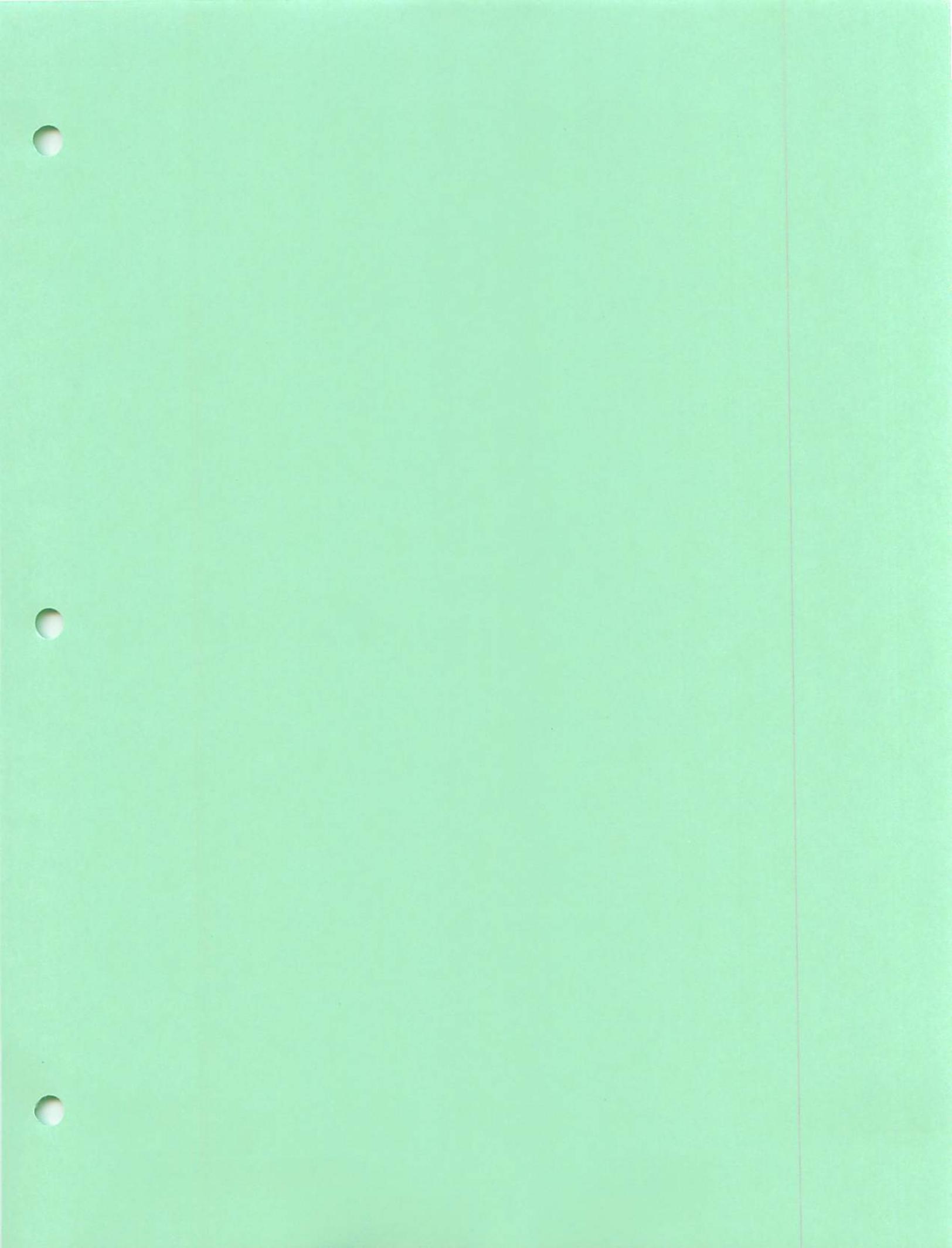
3.03 WEED CONTROL

- A. Subsequent to seed germination (and throughout the maintenance period) Contractor shall mechanically and/or chemically eradicate all weeds as soon as they can be identified.
- B. Remove all weeds from site before they set seed.

3.04 GUARANTEE

- A. All seeded areas shall be 100% established by the end of the maintenance period. Final acceptance will be postponed (maintenance period will be extended) until 100% establishment is achieved or approved by Owner.

END OF SECTION





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**PANKEY
SAND & GRAVEL
MINING PROJECT**

SAN MIGUEL,
CALIFORNIA

Client:

CHAD PANKEY

P.O. BOX 619
PASO ROBLES,
CA 93248

Plant Operator:

REVEGETATION
PLAN

Date: 01/09

Project:

Job No. 03-0117

Plant:

J1.1

Sheet No. 1

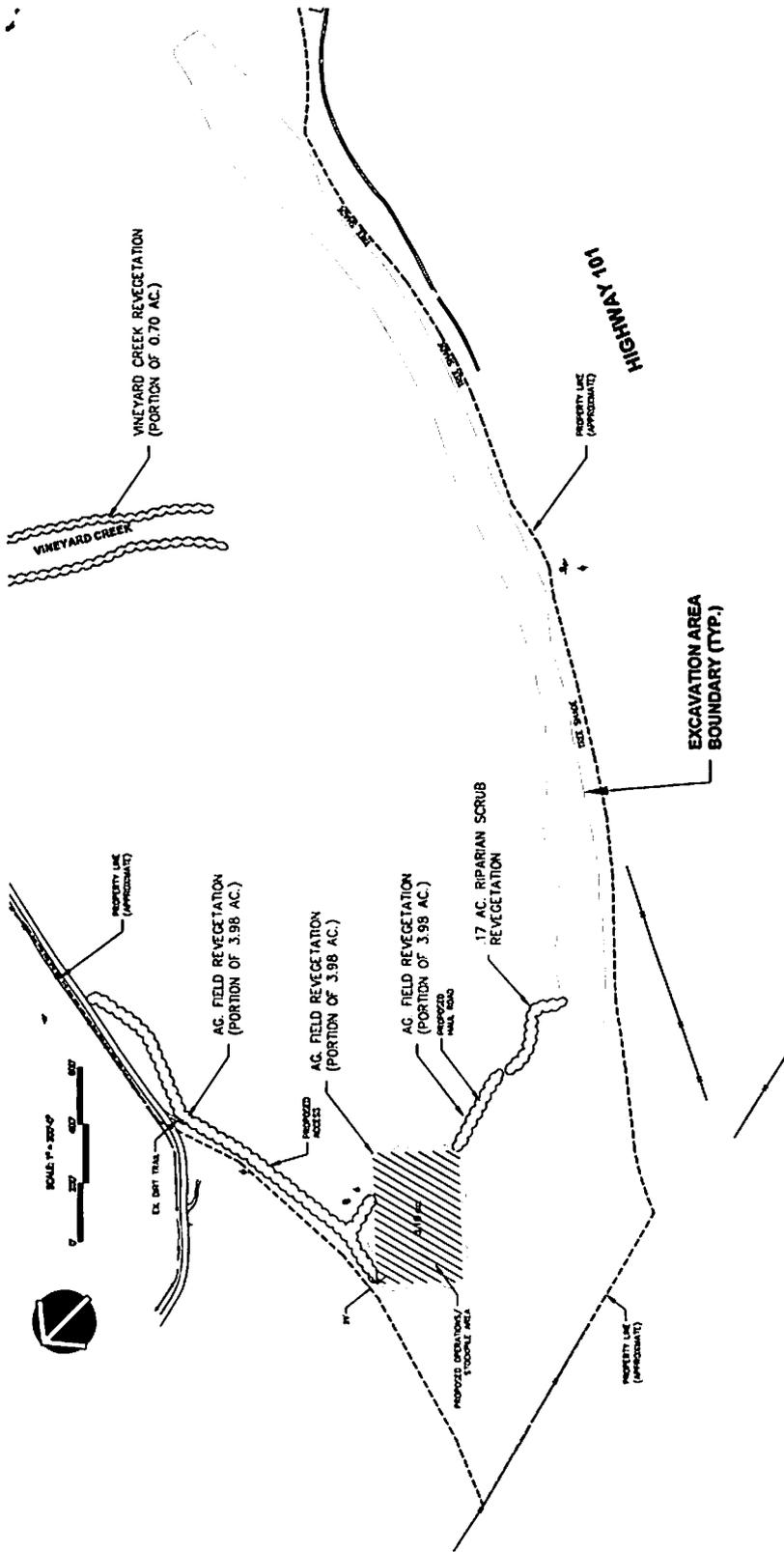


Table II: Overall Project Vegetation Inventory

Vegetation Type	Number of Plants (On 1/2 acre)	Number of Plants (On 1/2 acre)	Number of Plants (On 1/2 acre)
North American	0.17	0	3.98
South American	0.08	0.10	4.98
Temperate	0	0	0
Tropical	0.25	0.10	8.96
Total			



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MINING PROJECT**

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CALIFORNIA**

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**REVEGETATION
PLAN**

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J1.3

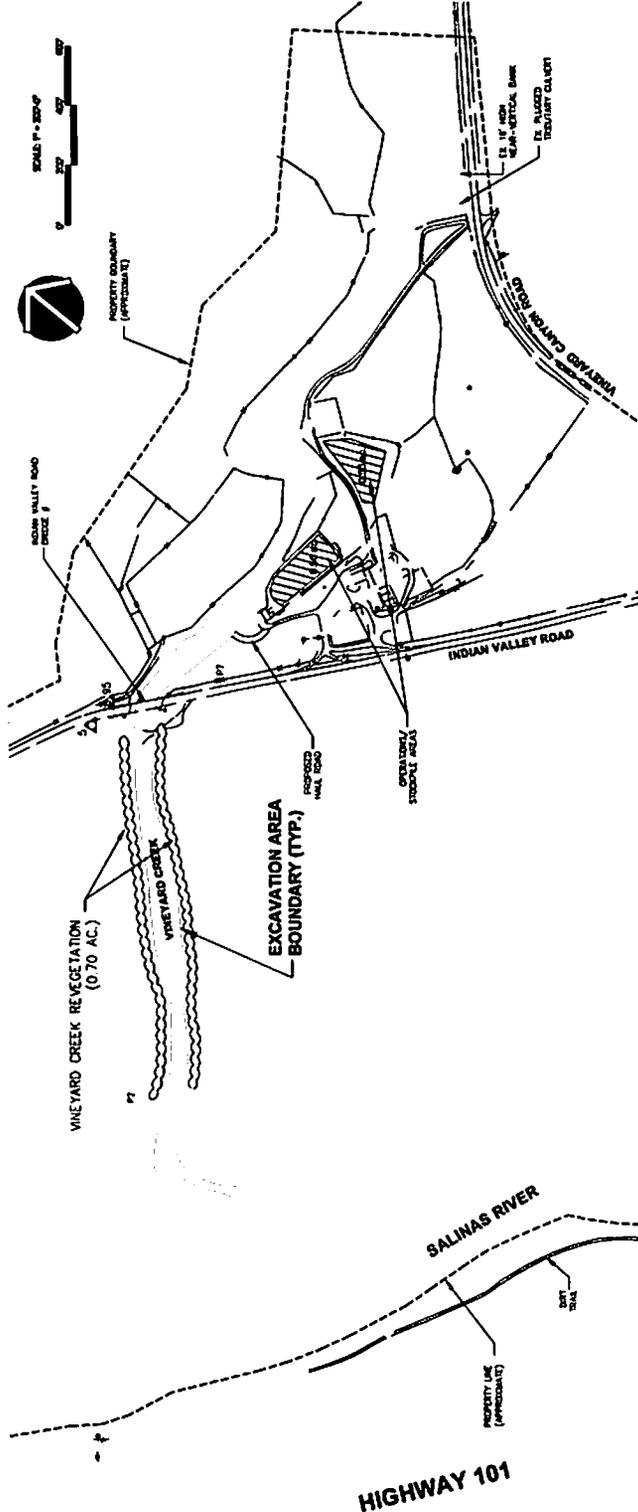


Table 1: Current Project Vegetation Metrics

Vegetation Type	Area (Acres)	Planting Density (Plants/Acre)	Total Plants
March	0.17	0	0
Excavation Area	0.08	0.10	4.32
Vineyard	0	0	0
Stock Pile	0.25	0.10	8.50
Total			12.82