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June 2, 2004

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Dear Supervisors:

SURFACE MINING PERMIT NUMBER 91-165-(5)
PETITIONER: CEMEX, INC.
12101 SOLEDAD CANYON ROAD
SOLEDAD CANYON ZONED DISTRICT
FIFTH SUPERVISORIAL DISTRICT
(3-VOTES)

JOINT RECOMMENDATION WITH THE DIRECTOR OF PLANNING THAT YOUR BOARD:

1. Rescind the Findings of the Board of Supervisors and Order denying Surface Mining Permit Number 91-165-(5), previously adopted on April 23, 2002.

2. Certify the Final Environmental Impact Report ("FEIR") prepared for the Soledad Canyon Sand and Gravel Reduced North Fines Storage Area Mining Project ("Project"), State Clearinghouse Number 91111066, pursuant to California Environmental Quality Act ("CEQA") Guideline section 15090; find that the FEIR has been completed in compliance with CEQA, the State CEQA Guidelines, and the County's Environmental Document Reporting Procedures and Guidelines; find that the Board has reviewed and considered the information contained in the FEIR and all comments and evidence presented during your previous public hearing on the Project, and that the FEIR reflects the independent judgment of the Board of Supervisors; find that the proposed designation of critical habitat for the southwestern arroyo toad which includes a part of the Project site does not constitute significant new information pursuant to CEQA Guideline section 15088.5; adopt the CEQA Findings of Fact (Exhibit A) pursuant to CEQA Guideline section 15091; find that the unavoidable significant effects of the

Project, after the adoption of all feasible mitigation measures and the imposition of Project conditions, are outweighed by specific economic, legal, social, technological, and other benefits of the Project; adopt the Statement of Overriding Considerations prepared for the Project; (Exhibit B) pursuant to CEQA Guideline section 15093; and adopt the Mitigation Monitoring and Reporting Plan for the Project (Exhibit C) pursuant to CEQA Guideline section 15091 (d) and find, pursuant to Section 21081.6 of the Public Resources Code, that the Mitigation Monitoring and Reporting Plan is adequately designed to ensure compliance with the mitigation measures during implementation of the Project.

3. Approve Surface Mining Permit No. 91-165-(5) and the findings (Exhibit D) and conditions (Exhibit E) relating thereto, and approve the Mining and Reclamation Plan (Exhibit F) and Financial Assurance Cost Estimate (Exhibit G) prepared for the Project.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The recommended actions are required to implement the federal court approved Consent Decree settling the federal civil rights and preemption lawsuit for damages and declaratory relief filed by Cemex, Inc. ("Cemex") and the United States against the County in 2002, in the case entitled *Cemex, Inc. v County of Los Angeles*; (USDC Case No. CV-02-747 DT). The Consent Decree provides for County approval of the Cemex mining Project under a set of negotiated project conditions. Your Board approved and executed the Consent Decree on February 3, 2004, and it was executed on behalf of Cemex and the United States shortly thereafter. Federal District Court Judge Dickran Tevrizian approved and entered the Consent Decree on May 6, 2004, after an extensive hearing in which the judge overruled all objections to the consent decree made by the City of Santa Clarita ("Santa Clarita").

The recommended actions will approve the environmental documentation, project entitlements, and related mining and reclamation plan and financial assurances for Surface Mining Permit 91-165-(5), to authorize Cemex, the successor in interest to Transit Mixed Concrete Company, to produce up to 56.1 million tons of federally-owned sand and gravel and to construct and operate appurtenant facilities, including a concrete batch plant, on approximately 460 acres in the unincorporated Soledad Canyon area of the Fifth Supervisorial District. The Project implements two ten-year United States Department of the Interior, Bureau of Land Management ("BLM") mineral sales contracts which were awarded by the federal government in 1990, following a competitive bidding process. The Project presented herein for approval is consistent with, and squarely within the limits of the proposal considered by your Board during your previous extensive public hearing on the project, which included the

receipt of oral testimony on January 23, 2001, April 24, 2001, November 27, 2001, and February 26, 2002, as well as the receipt of voluminous written testimony.

Your Board is required to take the recommended actions under the Consent Decree by July 5, 2004. The Project approval documents enclosed herein, including the proposed Project conditions, were exhibits to the Consent Decree, and are to be approved "as-is" under the terms of the Consent Decree. The federal court has approved the specific steps called for in this board letter and has determined that this process is substantively and procedurally lawful under applicable federal and state laws.

Implementation of Strategic Plan Goals

The proposed actions promote the County's Strategic Plan goal of organizational effectiveness and fiscal responsibility. They provide for the implementation of a federally-approved mining project in an area identified by the County General Plan as a state-recognized Regionally Significant Construction Aggregate Resource Area with the inclusion of numerous environmental mitigation measures and project conditions intended to reduce potential Project impacts while providing for settlement of significant litigation regarding the proposed Project.

FISCAL IMPACT/FINANCING

Approval of the recommendations will not result in direct additional net County costs. The Project conditions require that Cemex pay certain costs to defray staff expenses in connection with inspection and other enforcement activities and provides for Cemex to fund other mitigation and Project-related measures. No request for financing is being made.

FACTS AND PROVISIONS/LEGAL REQUIREMENT

Project Description and Chronology

As indicated in more detail in the Project Findings (Exhibit D), Cemex's predecessor filed its application with the County in 1991 for a surface mining permit to conduct the proposed mining activities pursuant to Section 22.56.1240, et seq. of the County Code. The Project site is located at 12101 Soledad Canyon Road within the Soledad Canyon Zoned District. The zoning of the Project site is M-2 (Heavy Manufacturing). A surface mining permit is required in this zone to conduct the proposed activities. Approximately 45 acres of the subject property were previously mined for sand and gravel over the prior 30 years. An abandoned surface mine remains on the Project site including an aggregate crushing mill, stockpile areas, and access roads. The remainder of the site is predominantly undisturbed and vacant. The

surface portion of the Project site is now owned by Santa Clarita. The sub-surface mineral rights are owned by the United States under management of the BLM. The Lang Station area in proximity to the subject property consists of other existing mining and industrial operations. Santa Clarita is situated approximately one and one-half miles northwest of the Project site. The nearest existing residential development to the Project site lies in unincorporated territory approximately one mile from the site boundary.

The mining proposal underwent a dual federal/county review process, since environmental and project approvals are required by both the BLM and the County. The BLM issued its approvals of the federal environmental document and its Record of Decision (the federal entitlement) for the Project in 2000.

The Los Angeles County Regional Planning Commission ("Commission") conducted a series of public hearing sessions on the mining proposal and received testimony on April 21, 1999, July 14, 1999, September 22, 1999, and December 1, 1999. The Commission unanimously voted to deny the surface mining permit application on February 16, 2000. Following that denial, Cemex determined to appeal the Commission's denial to your Board and also determined to pursue a less intensive version of the proposal which reduced the amount of storage of on-site mining spoils ("fines") on the northern side of the ridgeline on the Project Site. This version is referred to as the Reduced North Fines Storage Area ("RNFSA") proposal.

An extensive public hearing was conducted by your Board on the RNFSA proposal. Your Board received voluminous oral and written testimony on January 23, 2001. At that time your Board requested that County staff, Cemex, and representatives of Santa Clarita and the Acton and Aqua Dulce Town Councils meet to determine whether there were additional project alternatives and mitigation measures which might be imposed on the proposal. Several meetings were held among the involved parties. Additional mitigation measures were offered by Cemex, including the complete elimination of the North Fines Storage Area, but these were rejected by Project opponents. Your Board heard additional extensive testimony on the proposal on April 24, 2001. At the conclusion of that session, your Board indicated an intent to deny the Project as then-currently proposed, with the existing set of mitigation measures, and continued the hearing so that staff could report back with recommendations on the range of potential additional measures that had been recommended by Santa Clarita and community representatives.

Shortly thereafter, specimens of the southwestern arroyo toad, a federally endangered species, were discovered on the Project site and your Board's hearing was delayed during preparation of supplemental biological documentation and recommendations by the federal government. County staff prepared additional environmental documentation reflecting additional mitigation measures to address the discovery of the southwestern arroyo toad, and a set of Project conditions for your Board's consideration which incorporated, in whole or in part, some, but not all, of the project conditions which had been proposed by Santa Clarita and other community representatives. Significantly, County staff did not recommend inclusion of measures providing for rail haul, the use of imported water, or the prohibition against any reduction of the ridge line on the Project site either because the proposed measure would not significantly further reduce project impacts, did not have the legally required nexus, or substantially interfered with the amount of federally owned materials that could be mined at the site.

Your Board resumed its public hearing on the Project on November 27, 2001, at which time representatives of our Department of Public Works ("DPW") advised your Board that they had concerns regarding the methodology that had been used to analyze traffic impacts on Soledad Canyon Road. Although Cemex representatives testified that those traffic concerns were unfounded, your Board continued the public hearing to allow staff to analyze DPW's new traffic concerns. Thereafter, County staff determined that recirculation of the FEIR would be necessary to change to the traffic methodology that DPW was contending was more appropriate for evaluation of Project impacts on Soledad Canyon Road.

On January 25, 2002, Cemex filed its lawsuit, contending that the County was inappropriately delaying and interfering with the proposed federal mining project, was abusing the CEQA process, and had abridged Cemex's constitutional rights. Cemex specifically contended that DPW's change in positions regarding appropriate traffic methodologies was legally and factually unfounded. On February 26, 2002, your Board resumed the public hearing on the proposal. Cemex submitted additional written testimony, oral testimony, and a videotape supporting its position that the original traffic methodology was supportable from a traffic engineering standpoint and adequately addressed traffic impacts on Soledad Canyon Road. Your Board determined however, that since Cemex would not cooperate in the preparation of additional environmental documentation to address DPW's traffic concerns, the Project could not be approved. On April 23, 2002, your Board adopted findings indicating that Cemex had not satisfied the burden of proof necessary for approval of the Project.

On September 10, 2002, the United States intervened as a plaintiff along with Cemex in the pending lawsuit, alleging that the County's actions and denial of the Project were preempted under various federal laws.

The Consent Decree Process and Project Approval Documents

In December 2002, Judge Tevrizian ordered Cemex, the County, and the United States to mediation before retired federal court judge Layn Phillips as required under the federal district court rules. Thereafter, the parties engaged in a nine-month mediation process involving numerous lengthy and contentious mediation sessions. The mediation sessions resulted in the Consent Decree which provides for approval of the Project under a comprehensive set of environmental mitigation measures and compromise Project conditions. The Consent Decree included copies of all of the various approval documents which are included with this board letter.

All environmental mitigation measures which were included in the proposed FEIR will be implemented, with the exception of a single traffic mitigation measure relating to limitations on in-bound and out-bound truck trips to the Project Site. An alternative limitation on in-bound and out-bound truck trips is included instead, which, among other things, limits in-bound and out-bound aggregate trucks trips in the a.m. and p.m. peak hours to 8 and 20, respectively.

The Project conditions (Exhibit E) are variations of the conditions which had been proposed by County staff in November 2001. Those variations affect, among other things, provisions relating to hours of operation, yearly mining quantities, specific truck-trip limitations, the scope and frequency of compliance reports, the frequency of required inspections, the composition of the proposed community advisory committee, and proposed Cemex contributions to fund an open space, visual, air quality and traffic mitigation fund, and a clean school bus program. Your Board previously approved the agreed-to slate of Project conditions as part of the settlement process. Compliance with the Project conditions and environmental mitigation measures will be enforced by County staff consistent with County practice, and as provided for in the Project Conditions and Mitigation Monitoring and Reporting Plan. As is standard procedure for County land use approvals, the permittee (Cemex) must indemnify and defend the County in the event of any challenge to your approvals of the environmental documentation and land use entitlements for the Project.

The Consent Decree requires that your Board rescind your April 2002, denial of the Project. The Consent Decree further requires that your Board rescind your earlier determination that the original traffic analysis prepared for Project impacts on Soledad Canyon Road was inadequate, and that the new traffic methodology proffered by DPW in November 2001 is

legally required. This issue is addressed in more detail in the Environmental Documentation portion of this letter. The Consent Decree does not provide for your Board to re-open the public hearing on the Project or to recirculate the FEIR or to engage in further environmental review of the project at this point. Judge Tevrizian found that such recirculation or additional analysis is pre-empted given what the court considered to be substantial delays already encountered in the County's consideration of the Cemex proposal.

Judge Tevrizian conducted a court hearing on the legality and propriety of the Consent Decree on May 3, 2004. Santa Clarita contested the proposed Consent Decree arguing, among other things, that it violated CEQA and federal environmental laws, was contrary to public policy, and was the product of duress against the County. Judge Tevrizian rejected all of these arguments and specifically concluded that the Consent Decree ". . . not only results in a much more environmentally friendly Project than originally proposed or that would have resulted from completion of the litigation, but also resolves this complex and contentious litigation in a lawful and reasonable manner."

ENVIRONMENTAL DOCUMENTATION

The FEIR prepared for the Project comprehensively evaluates its potential environmental impacts. As indicated in more detail in the CEQA Findings of Fact (Exhibit A), the FEIR consists of the February 1999 Draft Environmental Impact Report, the February 1999 Technical Appendices to the Draft Environmental Impact Report, the August 2000 Additional Environmental Information to the Draft Environmental Impact Report, and the November 2001 FEIR (which includes the November 2001 Revised Final Environmental Impact Report, Volume 1 - Responses to Comments, the April 2001 Final Environmental Impact Report, Volumes 2-6, the November Revised Final Environmental Impact Report, Volume 7 -Technical Appendices and the November 2001 Final Environmental Impact Report, Volume 8 - Attachments to the City of Santa Clarita Letter dated December 26, 2000). The FEIR has been provided to your Board under separate cover.

The FEIR contains responses to all comments received by the County during several comment periods. The Draft Environmental Impact Report was circulated for public review from February, 1999 to November, 1999. The Additional Environmental Information to the Draft Environmental Impact Report was circulated for public review from August 17 through December 26, 2000. Your Board also accepted additional comments during its public hearing process.

The FEIR concludes that all potentially significant adverse environmental impacts of the Project can be reduced to a level of less than significance through the application of feasible mitigation measures with the exception of project specific air quality and visual quality impacts and cumulative air quality and biotic impacts. The Statement of Overriding Considerations (Exhibit B) describes overriding economic, legal, social, technological, and other benefits of the Project warranting its approval. Your Board has adopted similar statements of overriding considerations for significant projects, including the recently approved Spring Canyon residential project which is located across the Antelope Valley Freeway from the Project site.

The FEIR concludes that no significant new information was received during your public hearing process on the Project so as to require further recirculation of the environmental documentation under CEQA. The discovery of the federally endangered southwestern arroyo toad on the subject property following your April 24, 2001, public hearing session was the subject of a supplemental biological assessment and opinion at the federal level. A discussion of the discovery of the toad, and the inclusion of additional mitigation measures imposed by the federal government, as well as additional mitigation measures recommended by the County staff biologist, have been included in the FEIR and the Mitigation Monitoring and Reporting Plan. The draft environmental impact report for the project had already identified the Project site as having habitat that could be suitable for the toad. In approving the Consent Decree, the federal court agreed with the County's previous conclusion that the discovery of the toad on the Project site and the inclusion of the federally and staff proposed additional mitigation measures did not require recirculation of the FEIR.

As previously indicated at your Board's November 27, 2001, public hearing session on the Project, DPW indicated that the traffic methodology contained in the environmental documentation as it relates to impacts on Soledad Canyon Road should be revised to more accurately reflect DPW's opinion regarding such impacts. Your Board received written and oral testimony from Cemex and its traffic engineers indicating that the traffic methodology which was in the environmental document was adequate and was reasonable under accepted traffic engineering principles, and that Project would not result in significant traffic impacts. At that time, Cemex declined to cooperate in the preparation of an additional traffic report and environmental documentation which would have been necessary to reflect DPW's desire to revise the traffic methodology. County Counsel advised your Board at that time that you could find that the information presented by Cemex constituted substantial evidence to support the original traffic methodology, but that such decision would involve rejecting DPW's position. Your denial of Cemex's application on April 23, 2002, was in significant part based on the fact that Cemex had refused to cooperate in the preparation of that additional documentation.

The Consent Decree and approval documents presented with the Board letter provide that the County determines that the original traffic methodology used to analyze Project impacts upon Soledad Canyon Road is supported by substantial evidence and adequately addresses those impacts even if the later proposed methodology proffered by DPW would also have been a valid approach. The Director of Public Works has advised that although he continues to prefer the later suggested methodology, both methodologies are within the realm of reasonable traffic engineering methodologies.

In any event, in approving the Consent Decree the federal court concluded that additional environmental analysis and recirculation to address this traffic issue, or any other environmental issue, is pre-empted under federal law.

The CEQA Findings of Fact (Exhibit A) also address recent additional letters submitted by the South Coast Air Quality Management District and the California Department of Fish and Game, suggesting that significant new information relating to air quality and the arroyo toad requires that the Project FEIR be recirculated. The CEQA Findings conclude that no such new information was presented by those letters, and that the FEIR has already adequately addressed Project air quality and biotic impacts.

Finally, during the federal court's consideration of the Consent Decree on May 3, 2004, Santa Clarita contended that the recent release of a "proposed" designation by the United States Fish and Wildlife Service of a portion of the Project site as critical habitat for the arroyo toad constituted significant new information under CEQA requiring recirculation of the FEIR. In light of the fact that the proposed designation is not final and that the FEIR already fully addresses the actual existence of the toad on the subject property and the FEIR adopts all feasible mitigation measures regarding the toad and its habitat, this argument was rejected by the federal court.

County staff has independently analyzed a letter recently submitted by Cemex, concluding that the proposed critical habitat designation is not significant new information, and therefore, does not trigger recirculation of the FEIR pursuant to State CEQA Guidelines section 5088.5. County staff agrees that the proposed designation, even if it were to become a final designation, does not constitute significant new information and recirculation of the FEIR is not required. Accordingly, County staff recommends that your Board adopt the finding set forth in the recommendation section of this board letter that the proposed designation of critical habitat for the arroyo toad does not constitute significant new information and does not trigger recirculation of the FEIR. County staff bases its conclusion on the following:

1. The narrow question before the County is whether the proposed designation constitutes significant new information under state law, i.e., CEQA. Applicable case law indicates that designation of critical habitat does not automatically constitute significant new information.

2. The FEIR analyzed the Project's impacts to arroyo toad on a "species" basis and on a "habitat" basis. The FEIR's analysis of the Project's impacts on the arroyo toad were based on the 1996 Biological Assessment by BLM, the 1998 Biological Opinion by the U.S. Fish and Wildlife Service ("USFWS"), the 2001 Supplemental Biological Assessment by BLM, and the 2001 Supplemental Biological Opinion by USFWS. These documents analyze Project impacts on the toad, as well as its riparian habitat. The applicant's biologist reviewed these studies and all mitigation measures and Project Conditions in light of the proposed designation, and concluded that: (1) the studies adequately analyzed the Project's impacts on the proposed critical habitat, and (2) the Project as mitigated will not adversely modify the proposed habitat. County staff concurs in this conclusion, based on their independent review of CEMEX's most recent submittal and their independent knowledge of the Project, FEIR, and supporting documents.

3. The FEIR adopted as CEQA mitigation measures all of the terms and conditions from the federal biological documents and imposed Project Conditions to mitigate the biological impacts of the Project.

After considering extensive written briefing and oral argument by Cemex, the United States, the County, and the City, the federal court found that the FEIR and the Project entitlements recommended for approval herein were lawful and appropriate under the applicable state and federal environmental laws.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

Approval of the recommended actions will allow for implementation of Cemex's federally approved mining project. These approvals have no direct impact on other projects. Implementation of project conditions and mitigation measures will be monitored and enforced by County departmental staff consistent with standard protocols for County approved land use entitlements.

CONCLUSION

Your Board is requested to approve the recommended actions in order to comply with the County's obligations under the federally approved Consent Decree. The federal court has reviewed these proposed actions and has determined that they are lawful and reasonable.

Respectfully Submitted,

OFFICE OF THE COUNTY COUNSEL

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Chief Deputy County Counsel

DEPARTMENT OF REGIONAL PLANNING

James E. Hartl, AICP, Director of Planning

RGF:RDW

Enclosures

c: David E. Janssen
Chief Administrative Officer

Violet Varona- Lukens, Executive Officer
Board of Supervisors

James A. Noyes, Director
Department of Public Works

CEQA FINDINGS OF FACT

SOLEDAD CANYON SAND AND GRAVEL MINING PROJECT

STATE CLEARINGHOUSE NUMBER 91111066
COUNTY PROJECT NUMBER 91165

LOS ANGELES COUNTY DEPARTMENT OF REGIONAL PLANNING
320 WEST TEMPLE STREET
LOS ANGELES CALIFORNIA 90012

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CEQA FINDINGS OF FACT
FOR THE FINAL EIR FOR THE SOLEDAD CANYON SAND AND GRAVEL MINING PROJECT
LOS ANGELES COUNTY, CALIFORNIA
State Clearinghouse Number 91111066
Los Angeles County Project Number 91-165(5)

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SECTION 1.0 - INTRODUCTION

The County of Los Angeles ("County") Board of Supervisors ("Board") hereby certifies and finds that the Soledad Canyon Sand and Gravel Mining Project (Project) Final Environmental Impact Report ("FEIR"), State Clearinghouse Number 91111066, has been completed in compliance with the California Environmental Quality Act (Public Resources Code §21000 et seq.; "CEQA"), the State CEQA Guidelines (Cal. Code Regs., Title 14, Division 6, Chapter 3, § 15000 et seq.) and the County's Environmental Guidelines. The FEIR consists of the following documents:

(1) February 1999 Draft Environmental Impact Report ("DEIR");

(2) February 1999 Technical Appendices to the DEIR;

(3) August 2000 Additional Environmental Information to the Draft Environmental Impact Report ("AEIDEIR"); and

(4) November 2001 Final Environmental Impact Report FEIR, comprised of the following:

- November 2001 Revised Final Environmental Impact Report Volume 1 - Responses to Comments ("Revised FEIR Responses")[1];
- April 2001 Final Environmental Impact Report, Volumes 2-6;
- November 2001 Revised Final Environmental Impact Report Volume 7 – Technical Appendices;
- November 2001 Final Environmental Impact Report Volume 8 - Attachments to the City of Santa Clarita Letter Dated December 26, 2000.

These documents all comprise the FEIR. In addition, several additional documents which arise in the context of the CEQA process, but which post-date that process and completion of the FEIR, are being offered:

- A proposed January 2004 Mitigation Monitoring and Reporting Program ("MMRP")[2]; and
- Statement of Overriding Considerations.

The environmental review process spanned ten years, including over thirteen months of public review and approximately nineteen public hearing sessions, including at least ten public hearing sessions with public comment and/or testimony. The Board received, reviewed and considered the information contained in the following: (i) the FEIR; (ii) the application for Surface Mining Permit No. 91-165(5) to authorize the surface mining of aggregate (sand and gravel) and the operation of a concrete batch plant and appurtenant facilities, and to authorize a reclamation plan for the land; and (iii) all information contained in all hearings and submissions of testimony from officials and departments of the County, the applicant (as defined below), the public, and other agencies. Concurrently with the adoption of these Findings pursuant to and in accordance with Section 21081 of the Public Resources Code ("CEQA Findings"), the Board adopts a Mitigation Monitoring and Reporting Program as part of this FEIR.

Having received, reviewed and considered the foregoing information, as well as any and all information in the administrative record, and the record of proceedings and orders in the U.S. District Court litigation discussed below, as well as the provisions of the Consent Decree entered into in that litigation, the Board hereby makes the following CEQA Findings pursuant to Public Resources Code § 21081 and State CEQA Guidelines § 15090:

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[1] The November 2001 Revised FEIR Responses, include the April 2001 Responses to Comments.

[2] A draft MMRP was prepared in November 2001, but the current MMRP has been updated to reflect final mitigation measures for the RNFSA Project.

1.1 - PROJECT BACKGROUND AND ENVIRONMENTAL IMPACT REPORT PROCESS

CEMEX, Inc. ("CEMEX") successor-in-interest to Transit Mixed Concrete Company ("TMC"), a division of Southdown, Inc.,[3] is proposing to establish a sand and gravel mining operation in the Soledad Canyon area of unincorporated Los Angeles County ("County"), California. The mining operation involves mining a total of approximately 69.2 million tons of material to produce and sell 56.1 million tons of sand and gravel over a period of up to 20-years to fulfill the Federal Contracts that CEMEX entered into with the BLM, discussed below. The operation includes plans for a concrete batch plant to produce and deliver ready-mixed concrete to the local market. All proposed mining operations will be located north of Soledad Canyon Road and the Santa Clara River, in Los Angeles County, California.

The majority of the Soledad Canyon Sand and Gravel Mining Project site (project site) is a "split estate" with the mineral resources owned by the United States of America and administered by the BLM. The surface estate is privately owned. The BLM and the County both have responsibilities in connection with analyzing and approving a Mining and Reclamation Plan. This Plan is submitted in compliance with the Surface Mining and Reclamation Act of 1975, as amended ("SMARA"). The Mining and Reclamation Plan is also included as an attachment to the judicial Consent Decree as Exhibit I.

The County is the local Lead Agency for the project, with the County Department of Regional Planning (Department) administering the state-mandated environmental review process for the issuance of the Surface Mining Permit and approval of a Reclamation Plan and financial assurances for the Project. The County prepared the Final EIR, and the documents contained therein, to comply with CEQA and the State CEQA Guidelines (Cal. Code Regs. Title 14, Division 6, Chapter 3, §§ 15000 et seq. ("State CEQA Guidelines"). The FEIR has been prepared by the County in accordance with CEQA, as amended, and State and County Guidelines for the implementation of CEQA.

The County has relied on Section 15084(d)(3) of the State CEQA Guidelines, which allows acceptance of working drafts prepared by the applicant, a consultant retained by the applicant, or any other person. The County has reviewed and edited as necessary the submitted drafts to reflect the County's own independent judgment, including reliance on County technical personnel from other departments.

The project is also subject to the jurisdiction or review authority of other federal, state, regional, and local agencies including the BLM, the U.S. Army Corps of Engineers ("Corps"), U.S. Fish and Wildlife Service ("USFWS"), California Department of Fish and Game ("CDFG"), California Department of Conservation – Division of Mines and Geology ("CDMG"), California Regional Water Quality Control Board ("CRWQCB"), State Water Resources Control Board ("SWRCB"), various departments within the County, and South Coast Air Quality Management District ("SCAQMD").

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[3] CEMEX acquired Southdown in November 2000, and is successor-in-interest to Southdown and TMC.

The County's environmental review process for the project spanned ten years, including over thirteen months of public review and approximately nineteen continued public hearing sessions (including at least ten public hearing sessions with public comment and/or testimony), and two public circulations for comment of revised versions of the FEIR. The CEQA review process resulted in an eight-volume proposed FEIR of over 2,000 pages in length.

The County prepared an Initial Study and Notice of Preparation (NOP) of the DEIR for the project in late 1991. The NOP was circulated to appropriate public agencies and interested groups and individuals for a 30-day comment period from November 6 through December 6, 1991.

The DEIR was completed in February 1999 and circulated for public review from February 1999 to November 1999. The DEIR addresses the full range of Project-specific and cumulative environmental effects and identified mitigation measures to minimize and reduce, avoid or compensate for the adverse effects of the project. The DEIR also discusses a number of alternatives designed to allow the County to consider variations on the project in an effort to make an informed decision concerning possible environmental effects and ways to minimize such effects. The range of alternatives further considered that the project is a Federal project in that it proposes the mining of federal public resource (i.e., the mineral estate portion of the "split estate") and must be viewed in the context of the prior Federal land use decisions and the issuance of Federal Contracts. An EIR is not required to consider alternatives which are infeasible.

Based upon the analysis in the DEIR, the County Department of Regional Planning, through its Staff Analysis issued in April 1999, recommended to the County's Regional Planning Commission ("Regional Planning Commission") approval of an alternative to the project -- the Reduced North Fines Storage Area ("RNFSA") Alternative -- based on the conclusion that it was the most feasible "environmentally superior alternative."

On December 1, 1999, following public hearings in April, July, and September 1999, the Commission, by a unanimous vote, directed County staff to prepare findings denying TMC's application for a surface mining permit. On February 16, 2000, the Commission formally adopted findings denying TMC's application for a surface mining permit, again by a unanimous vote. The Commission did not take any action on the DEIR. On March 13, 2000, TMC appealed the Commission's action to the County Board of Supervisors.

Because the project proposes mining of federally-owned minerals, it was also subject to concurrent federal environmental review. The BLM functions as the federal lead agency for environmental review under the National Environmental Policy Act ("NEPA"), including preparation of an Environmental Impact Statement ("EIS") for the project. A Draft EIS was circulated for public review on May 5, 1999. On November 17, 1999, the BLM also circulated for public review a Supplement to the DEIS ("SDEIS") that identified the RNFSA Alternative as the BLM's Agency Preferred Alternative ("APA"), the identification of which is required under NEPA (see discussion below). On June 2, 2000, the BLM released its Final EIS ("FEIS") for the project which confirmed the BLM's selection of the RNFSA Alternative as the APA. On August 1, 2000, the BLM published a Record of Decision ("ROD") approving the Federal aspects of the Project. On January 8, 2002, the Interior Board of Land Appeals ("IBLA"), an administrative appeal body within the Department of Interior, issued an order denying various appeals of the

ROD. This order constituted the final agency action by the Department of Interior relating to the Project, and constituted final agency action approving the Federally-Approved Project.

In light of (1) the Commission's rejection of the Project, and (2) the BLM's selection and approval of the RNFSA Alternative as the APA in the SDEIS, FEIS, and ROD, the County and the Project Applicant decided to refine and focus the analysis of the RNFSA Alternative as the proposed project.

In August 2000, the County prepared the AEIDEIR. The AEIDEIR was circulated for public review from August 17 through December 26, 2000. The AEIDEIR was developed for the following purposes:

(1) To re-define the RNFSA Alternative as the proposed project ("RNFSA Project"), consistent with the scope of the Agency Preferred Alternative as described by the BLM in its June 2000 FEIS;[4]

(2) To expand the description and impact analysis of the previously-identified RNFSA Alternative along with proposed mitigation measures;

(3) To re-define the proposed project from the February 1999 DEIR ("Original DEIR Project") as an alternative to the RNFSA Project;

(4) To propose additional mitigation measures to be imposed on the RNFSA Project to minimize impacts, consistent with the measures previously identified in the BLM's SDEIS, FEIS, and ROD;

(5) To fully analyze these additional mitigation measures in relation to potential environmental impacts identified for the RNFSA Project.

The additional discussion provided in the AEIDEIR did not constitute "significant new information" as contemplated by Section 15088.5 of the State CEQA Guidelines, but rather clarified and amplified certain analyses contained in the DEIR, and imposed additional mitigation on the RNFSA Project.

On January 23, 2001 the County Board of Supervisors held a public hearing on the RNFSA Project and allowed for additional public testimony on the RNFSA Project. The Board of Supervisors then closed the public hearing with respect to the receipt of CEQA comments on the RNFSA Project as described in the AEIDEIR, and directed Staff to prepare the FEIR for the RNFSA Project. The Board of Supervisors further directed Staff, the applicant (TMC) and representatives of key project opponents, including the City of Santa Clarita, to discuss additional measures to address community concerns or alternatives which might provide reasonable additional mitigation to the RNFSA Project. From February 7, 2001 through March 20, 2001, the County Staff, TMC and the opponents held meetings and proposed additional mitigations. County Staff has considered these additional proposed mitigation measures and,

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4 The RNFSA Alternative, identified by the BLM as the Agency Preferred Alternative in the June 2000 FEIS, was subsequently approved by the BLM as the Federally-Approved Project in the August 2000 ROD.

where feasible, has incorporated such measures into the RNFSA Project and has analyzed such measures in the FEIR.

One of those mitigation measures, primarily designed to further reduce impacts to visual qualities, was identified as VQ5, the Mitigated Mining Cuts for the RNFSA Project ("Mitigated Mining Cuts" or "VQ5"). The Mitigated Mining Cuts eliminates calls for elimination of the North Fines Storage Area ("NFSA") and reduces impacts to the visual quality of the ridgeline. Additionally, the overall scale of mining would be reduced from 77.7 million tons as identified in the RNFSA Project, to 69.2 million tons of mining, which would also reduce certain other impacts. This mitigation measure essentially resulted in an 11 percent reduction in overall quantity of mining, as compared to the version of the project that included the NFSA. The elimination of the NFSA is required under Condition 9ab of the Project Conditions adopted as part of the judicial Consent Decree (*see* Consent Decree, Exhibit H). Elimination of the NFSA reduces associated visual impacts such as desilting/debris basins, access roads, and the engineered earthen fill area that would otherwise be visible from the Antelope Valley Freeway. Because the Mitigated Mining Cuts is a mitigation measure to reduce visual impacts, and not a design feature of the RNFSA Project, and because the RNFSA Project, absent mitigation, would contain as a design feature the NFSA, these Findings identify the pre-Mitigated Mining Cuts environmental effects of the RNFSA Project, and further discuss the manner in which effects are reduced by implementation of the Mitigated Mining Cuts, eliminating the NFSA. As analyzed in the FEIR, and in the administrative record, incorporation of the Mitigated Mining Cuts does not contribute any additional significant impacts, but rather only reduces impacts identified for the project.

On April 24, 2001, the Board of Supervisors held a public hearing on the RNFSA Project and indicated its intent not to approve it as configured at that time. The Board of Supervisors directed the Department to conduct further analysis of the RNFSA Project in response to input from specific community representatives regarding additional RNFSA Project revisions and mitigation measures. On May 3, 2001, the Department submitted letters to specific community representatives and to the applicant, requesting input from the parties regarding how various restrictions proposed during the April 24, 2001 hearing would affect the RNFSA Project. The parties responded to these requests during May 2001.

In May 2001, biologists employed by the City of Santa Clarita discovered the presence of arroyo toad tadpoles in the Santa Clara River in the vicinity of the RNFSA Project. Based on this discovery, the BLM prepared a Supplement to the Biological Assessment ("SBA") which it submitted to the U.S. Fish and Wildlife Service ("USFWS") on August 6, 2001, along with a request to re-initiate formal consultation pursuant to the Federal Endangered Species Act. In response to this request, the USFWS prepared a Biological Opinion ("BO") addressing the effects of the RNFSA Project on the arroyo toad, concluding in its October 25, 2001 BO that the RNFSA Project was not likely to jeopardize the continued existence of the species. The BO includes a number of mandatory measures imposed on the RNFSA Project to minimize impacts to the arroyo toad.

The County has independently reviewed the information and analyses provided both by the USFWS in its BO, as well as that provided by the BLM in its SBA, to assess whether the discovery of arroyo toads presented any significant RNFSA Project impacts not already

identified under CEQA. Based on this information, the Department has prepared an additional topical response ("BIO-4") addressing issues relating to the arroyo toad.

Also, based on a joint site review with the City of Santa Clarita, CEMEX, County, and BLM biologists, and with regard to information supplied to the County by the City, BLM, and USFWS, on November 13, 2001, the Department issued a "Report On Federally Endangered Arroyo Toad" to the Board, and transmitted Revised FEIR Responses, including more information on arroyo toad, to the Board. The Report recommended incorporation of additional Federal mitigation measures identified by the BLM and USFWS, and an additional County project condition requiring personnel training regarding arroyo toad by a qualified biologist. These measures accordingly are now included in the RNFSA Project. The Department concluded that, in compliance with CEQA, the discovery of arroyo toad on the subject property did not constitute significant new information regarding a new substantial adverse environmental effect of the RNFSA Project, and concluded that the proposed mining project, as appropriately mitigated and conditioned, would not have a significant effect on the endangered arroyo toad. Additionally, the Department concluded that re-circulation of the RNFSA Project environmental documentation was not required under the provisions of CEQA.

Previously, on November 5, 2001, the Department had issued a Staff Report analyzing the various revisions proposed by specific community representatives, as well as the input received from the parties. The Staff Report concluded that a version of the RNFSA Project incorporating all of the revisions and mitigation measures proposed by specific community representatives would result in a project that has not been analyzed in the current environmental document, and could not be approved by the Board of Supervisors without preparation and circulation of a new or revised environmental impact report.

Community representatives suggested several proposed conditions which did not relate to any specific environmental impacts and would not serve to mitigate any significant impacts for the RNFSA Project. These conditions included: (i) restricting project production in the first ten years of the Project to 14 million tons; (ii) a series of highly detailed reporting requirements on almost all aspects of the RNFSA Project; (iii) the imposition of nearly continuous monitoring on the RNFSA Project to ensure compliance with all mitigation measures, funded by the applicant but paid and supervised by the County; (iv) project review after ten years; (v) a health liability bond; (vi) a compliance trigger; (vii) a community advisory committee and (viii) the contribution of a lump sum of $500,000 plus an additional $25,000 per year to an open space dedication fund, and (ix) contribution to a fund to finance a local or SCAQMD program for clean school buses, including for the purchase of alternative fuel buses, lower-emitting diesel buses, or particulate trap retrofits. County staff addressed these proposed conditions in the November 2001 Staff Report. Several of these proposed conditions were initially recommended for the RNFSA Project by County Staff in a November 2001 Staff Report, but since that time, and based upon further consideration of information in the administrative record, including a November 19, 2001 letter submitted by CEMEX, the County has concluded that these proposed conditions are not feasible nor do they relate to any identified RNFSA Project impacts, particularly not to any significant impacts, and therefore the legally required nexus and proportionality between the RNFSA Project's impacts and the suggestions are not present. Additionally, regarding the suggested reporting requirements, there are already monitoring and reporting requirements for the RNFSA Project where appropriate and related to RNFSA Project impacts, e.g., water resources and air quality. The reporting suggested may also require the disclosure of information

that is proprietary or otherwise protected by law. Furthermore, the suggested compliance monitor is duplicative of the duties assigned to the relevant entities in the Mitigation Monitoring and Reporting Program pursuant to CEQA. Additionally, the County Code and SMARA already set forth guidance for the inspection of surface mining operations, so the suggestion is further duplicative and unnecessary. (County Code §22.56.1435.) Notwithstanding this, as part of the judicial Consent Decree in settlement of litigation, CEMEX has agreed to a County Compliance Monitor to oversee operations. (*See* Project Condition No. 30.) CEMEX also has agreed to the imposition of a Community Advisory Committee (Project Condition No. 32). Furthermore, though not required to reduce the impact of any identified significant impacts of the RNFSA Project, as part of the Consent Decree, CEMEX has agreed to pay over $1.5 million into an Open Space/Visual, Air Quality and Traffic Fund (Project Condition No. 36). Additionally, contribution to a school bus program does not mitigate any significant impacts of the RNFSA project, given that there are less than significant impacts on public health for the RNFSA Project, particularly at the schools in the area. Additional Conditions proposed by the community that were either incorporated into the Project Conditions or rejected based on lack of nexus and/or proportionality, or which were infeasible are discussed elsewhere in these Findings.

On November 27, 2001, the Board held a public hearing on the RNFSA Project. During this public hearing, the County Department of Public Works ("DPW") staff testified that they had certain concerns relating to the traffic methodology used to analyze the RNFSA Project traffic ("EIR Traffic Methodology"). Based on these concerns, the Board voted to continue the hearing to allow these traffic issues to be addressed. On or about December 20, 2001, DPW submitted a letter to CEMEX requesting a revised traffic analysis for the RNFSA Project. The revised traffic analysis requested by DPW differed from the EIR Traffic Methodology that had been included in the FEIR. CEMEX provided written objections to the County detailing how the revised traffic analysis diverged from the EIR Traffic Methodology.

1.2 – RELATIONSHIP BETWEEN THE CEQA ENVIRONMENTAL IMPACT REPORT PROCESS AND THE JUDICIAL CONSENT DECREE RESOLVING LITIGATION BETWEEN THE UNITED STATES OF AMERICA, LOS ANGELES COUNTY, AND CEMEX

On January 25, 2002, Project applicant CEMEX filed an action in U.S. District Court, Central District of California, entitled CEMEX, Inc. v. County of Los Angeles, CV-02-747 DT ("the Litigation"), challenging the County's alleged abuses of the CEQA review process, including in the preparation of the FEIR, to delay and frustrate implementation of the Federally-Approved Project. The United States of America intervened into the action on behalf of CEMEX, based on the United States' ownership of the minerals that are to be mined as part of the Federally-Approved Project. The Litigation was resolved through nine months of Court-ordered third-party mediation before a retired U.S. District Court Judge, resulting in a negotiated settlement by the United States, the County, and CEMEX, embodied in a judicial Consent Decree which subsequently has been entered by the U.S. District Court in the Litigation.

The controversy surrounding varying traffic methodologies was a primary focus of the CEMEX complaint in the Litigation, was referenced in detail in the United States' complaint-in-intervention, and was a key factor in the mediation negotiations leading to settlement of the Litigation. Consistent therewith, the County has re-examined in detail the information in the administrative record, including the extensive February 25, 2002 submittal by CEMEX on the

traffic impact issue, which the Board previously did not have the opportunity to consider in detail. As part of the Consent Decree, the parties addressed the issue of traffic which had been raised by DPW during the County's review of the RNFSA Project in late 2001. During the settlement negotiations, the County concluded that the traffic methodology employed in the FEIR was adequate, and that there were no significant traffic impacts for the RNFSA Project. However, to further minimize traffic-related impacts, the parties negotiated additional conditions (see Project Conditions 12 through 14, Consent Decree, Exh. H.)

Having conducted this review, and considered the issues raised by the CEMEX and United States allegations in the Litigation, and having reviewed the District Court's findings in the Consent Decree, the Board hereby finds the following: (i) the EIR Traffic Methodology utilized in the FEIR is adequate under CEQA to analyze traffic impacts of the RNFSA Project; (ii) the EIR Traffic Methodology is valid and adequate irrespective of whether the methodology set forth in a DPW February 2002 report might also be valid; and (iii) although the methodology set forth in the DPW's February 2002 report is more conservative, it is not necessary given the adequacy of the EIR Traffic Methodology, and the Board hereby expressly revokes any formal actions or conclusions to the contrary; (iv) for these reasons, the traffic mitigation measures in the FEIR are adequate under CEQA; and (v) additional traffic-related RNFSA Project Conditions agreed to by CEMEX and the United States in compromise of the Litigation through the Consent Decree process are not required by CEQA, but nonetheless further address RNFSA Project traffic impacts.

The Federally-Approved Project implements U.S. Department of the Interior, Bureau of Land Management (BLM) Contracts for the Sale of Units of Material Nos. CA-20139 and CA-22901 ("Federal Contracts"), authorizing the mining and production of 56.1 million tons of Federally-owned sand and gravel on approximately 460 acres in an unincorporated area of the County of Los Angeles. The BLM reviewed the Federally-Approved Project pursuant to the National Environmental Policy Act (NEPA) and issued a Record of Decision (ROD) on August 1, 2000, authorizing the specific manner in which the Federal Contracts are to be implemented. The ROD was appealed by various parties, but was upheld by the U.S. Department of the Interior, Board of Land Appeals (IBLA) in a published decision issued on January 8, 2002. Various other Federal approvals, as well as Federal laws and regulations, comprise the scope of Federal law and decision-making that affects and limits the scope of the Board's authority over the Federally-Approved Project. The Board conducted its CEQA review of the RNFSA Project in the context of the Federal Contracts, the BLM's Final FEIS, the ROD issued pursuant to NEPA, and the IBLA's decision upholding the ROD.

The Board's certification and adoption of the FEIR for the RNFSA Project, Number 91-165(5), State Clearinghouse Number 91111066, and its Findings of CEQA compliance relating to the RNFSA Project are thus made in the context of the Federally-Approved Project and the requirements of the Consent Decree. Accordingly, proposed CEQA Findings, as well as the proposed FEIR upon which they are based, were incorporated by reference into the Consent Decree, and were predicated on the determinations, stipulations and agreements made therein and as entered by the U.S. District Court. Furthermore, in making these final CEQA Findings, the Board recognizes the Findings are, in part, an outgrowth of the settlement of the Litigation which involves claims by the United States and CEMEX of Federal preemption, including assertions by the United States that the Federally-Approved Project is not governed by CEQA. The Board further recognizes that the U.S. District Court did not ultimately reach the issue of the

applicability of CEQA to the Federally-Approved Project because CEMEX and the United States asserted, and the Court found, that the County is preempted from any further regulation of the Federally-Approved Project beyond the CEQA review that has occurred to date, except as outlined in the Consent Decree. The Board hereby incorporates into these final CEQA Findings by this reference all of the findings of the U.S. District Court set forth in the Consent Decree entered as a final judgment in the Litigation, and acknowledges all of the claims, reservations and representations made by the parties therein.

However, though the CEQA Findings are issued in the context of, and proposed CEQA Findings were included as an exhibit to, the Consent Decree, the Board hereby further finds and concludes that these CEQA Findings, independent of the Consent Decree, comply in full with the requirements of CEQA, identifying a range of reasonable environmental conditions for the Federally-Approved Project in accordance with the Federal approvals and mitigating Federally-Approved Project-related impacts to less than significant levels where feasible.

1.3 - PROJECT FINDINGS INTRODUCTION

The Findings made by the County, pursuant to Section 21081 of CEQA, and Section 15091 of the State CEQA Guidelines, on the consideration of a Surface Mining Permit and Reclamation Plan for the RNFSA Project in the Soledad Canyon area of unincorporated Los Angeles County, California are presented below. All significant impacts of the RNFSA Project identified in the FEIR are included herein and are organized according to the resource affected.

The Findings in this document are for the RNFSA Project, which now includes elimination of the NFSA per the Mitigated Mining Cuts (i.e., VQ5) and Project Condition 9ab of the Consent Decree (see Consent Decree, Exh. H), and are supported by information and analysis from the DEIR, the AEIDEIR and the responses to all public comments and technical appendices, together comprising the FEIR, and other evidence in the administrative record.

Public Resources Code § 21081 requires the following:

> *Pursuant to the policy stated in Sections 21002 and 21002.1, no public agency shall approve or carry out a project for which an environmental impact report has been certified which identifies one or more significant effects on the environment that would occur if the project is approved or carried out unless both of the following occur:*
>
> *(a) The public agency makes one or more of the following findings with respect to each significant effect:*
>
> > *(1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.*
> >
> > *(2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.*

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

(b) With respect to significant effects which were subject to a finding under paragraph (3) of subdivision (a), the public agency finds that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment.

State CEQA Guidelines §15091 requires the following:

(a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

(1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

For each significant impact, a Finding has been made as to one or more of the following, as appropriate in accordance with Public Resources Code § 21081 and State CEQA Guidelines § 15091:

A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant;

A2. Changes or alterations have been required in, or incorporated into, the RNFSA Project that avoid or substantially lessen the significant environmental effect as identified in the FEIR;

B. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have

been adopted by such other agency or can and should be adopted by such other agency; and/or

C. Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the FEIR.

A narrative of supporting facts follows the appropriate Finding. For many of the impacts, one or more of the Findings above have been made. Finding (B) appears because, although the County is the lead agency, it has limitations on its power to require or enforce certain mitigation. Whenever Finding (B) occurs, agencies with jurisdiction to impose certain mitigation measures have been specified in italicized brackets (i.e., *[agency]*). It is these agencies, within their respective scopes of authority, which would have the ultimate responsibilities to adopt, implement, and enforce the mitigation discussed within each type of impact that could result from RNFSA Project implementation. However, under adopted California statutory legislation (AB3180, CORTESE), the lead agency has the responsibility to ensure that mitigation measures contained in the FEIR are effectively implemented.

Whenever Finding (C) was made, the County has determined that there will be, even after mitigation, an unavoidable significant level of impact due to the RNFSA Project, and sufficient mitigation is not feasible to reduce the impact to a level of less than significant. Such impacts are always specifically identified in the supporting discussions. The Statement of Overriding Considerations applies to all such unavoidable significant impacts, as required by Sections 15092 and 15093 of the State CEQA Guidelines.

SECTION 2.0 – POTENTIAL ENVIRONMENTAL EFFECTS OF THE PROJECT THAT ARE LESS THAN SIGNIFICANT, OR THAT HAVE BEEN MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT

This section uses the following three categories to identify the environmental effects of the RNFSA Project for each environmental issue area.

- Environmental Effects that are Less Than Significant: A number of adverse impacts are identified for the RNFSA Project that are less than significant. Because these impacts are not significant, no changes or alterations have been incorporated into the RNFSA Project for these adverse impacts. The Initial Study prepared for the Project in 1991 identified no impacts/insignificant impacts in the following issue areas: Sewage Disposal, Education, and Utilities. These issue areas were not further addressed in the DEIR.

- Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects: Several environmental effects of the RNFSA Project have been found to be adverse, but less than significant and are presented in this section. State CEQA Guidelines § 15126.4(a)(3) state that "Mitigation measures are not required for effects which are not found to be significant." Thus, while the environmental effects in this section are less than significant, the mitigation measures identified have been proposed to address concerns raised by the public and agency requirements. These mitigation measures have been incorporated by reference into the conditions of approval for the

proposed RNFSA Project, and are set forth in the December 2003 Mitigation Monitoring and Reporting Plan.

- Significant Environmental Effects that have been Mitigated to a Level of Less Than Significant: All FEIR mitigation measures as set forth in the December 2003 Mitigation Monitoring and Reporting Plan have been incorporated by reference into the conditions of approval for the proposed RNFSA Project. These mitigation measures and conditions of approval will result in a substantial mitigation of the effects of the RNFSA Project such that the effects are not significant or have been mitigated to a level of less than significant.

2.1 - GEOTECHNICAL RESOURCES

2.1.1 - Potential Environmental Effects of the Project that are Less than Significant

None.

2.1.2 – Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

None.

2.1.3 - Potential Environmental Effects that have been Mitigated to a Level of Less than Significant

A. Fill Slope Stability

Impact: Fill areas in mining cuts may result in significant impacts related to slope stability.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure G2 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Fill areas in mining cuts may result in significant impacts related to slope stability. Fines produced during mining will be backfilled into the mining cuts. (DEIR, p. 3-18.) However, Cut 1 will have a substantial portion of the overall fines placement. Excess fines would be filled into the western end of the cut, and reclamation of the area would proceed from west to east as the area is filled. Fines would continue to be stored in the Cut 1 area until it reaches capacity. (Revised FEIR Responses, p. 2-94.) The County DPW and generally accepted geotechnical industry standards for minimum factors of safety for all permanent cut or fill slopes are 1.5 and 1.1 for static and pseudo static loading conditions, respectively. (DEIR, p. 3-16 to 21.) In the

DEIR, Hilltop Geotechnical, Inc. (Hilltop) (1993a, 1993b, 1995a, 1995b, 1996, 1997c) performed a slope stability analysis for the NFSA and the planned fill slopes in mining cuts throughout the Original DEIR Project site. (DEIR, p. 3-16 to 21.) This was performed following earlier studies for slope stability using direct shear testing. Subsequent Hilltop supplemental slope stability evaluations (1996 and 1997c) determined the degree of compaction required to achieve a 1.5 factor of safety per County DPW directives. (DEIR, pp. 3-17 and 18.) Additional analysis was conducted for the RNFSA Project in the AEIDEIR (Hilltop 1998). (AEIDEIR, p. 3-2.) This included pseudo static slope evaluations using newer fault magnitude information obtained from the CDMG (1996). Hilltop also reviewed the Mitigated Mining Cuts final reclaimed fill slopes. (Hilltop 2001, FEIR Vol. 6, Appendix L.) These evaluations determined the fill slope design parameters required to achieve a 1.5 factor of safety acceptable to the County, and will be implemented through Mitigation Measure G2. The same requirements below apply to other areas of the site that will have fines backfilled into the mining cut.

The Mitigated Mining Cuts mitigation and Project Condition 9ab (*see* Consent Decree) eliminate the NFSA, thereby eliminating potential RNFSA Project geotechnical impacts on the north side of the ridge. Accordingly, Mitigation Measure G1, which specified NFSA fill slope design parameters, is not necessary. (*See* AEIDEIR, p. 3-2; November 2001 Responses to Comments, Revised FEIR Responses, pp. 2-98 to 102; Hilltop 2001, FEIR Vol. 6, Appendix L.)

The potentially significant effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

G2. Fill slope stability in the Cut 1 fill area will be obtained by constructing 2:1 (horizontal to vertical) slopes and achieving 75 percent relative compaction. Benches will be constructed at 35-foot-wide and 90-foot-vertical intervals. To mitigate the potential for surficial instability, the outer 10 feet of the proposed fill slopes will be constructed with a soil material having minimum strength characteristics of cohesion equal to 175 psf and angle of internal friction equal to 35 degrees or some other alternative soil strength combination that will result in the minimum factor of safety of 1.5 (Mitigation Measure G2.)

B. Cut Slope Stability

Impact: Cut slopes resulting from mining operations may result in significant impacts related to slope stability.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measures G2 and G4 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Cut slope instability can result in significant impacts related to mining operations. (AEIDEIR, p. 3-2.) Under the RNFSA Project, Cut 1 would be mined to the 1,925-foot elevation. (Revised FEIR Responses, p. 2-94 and Figure 2.1-7R.) In the DEIR, Hilltop (1997a, 1997b, 1997c)

performed a slope stability analysis for the planned mining cuts throughout the Original DEIR Project site, and suitable factors of safety were found to occur for all portions of the site under both static and seismic loading based on geotechnical industry-accepted standards except for the northeast portion of the mining area. (DEIR, p. 3-18.) Further analysis was conducted for the RNFSA Project in the AEIDEIR. (Hilltop 1998). (AEIDEIR, p. 3-2.) Hilltop also reviewed the Mitigated Mining Cuts temporary cut slopes and the final reclamation cut and fill slopes. (Hilltop 2001, FEIR Vol. 6, Appendix L.) Following review of the Mitigated Mining Cuts, suitable factors of safety were found to occur for all portions of the site. Slope design parameters such as those proposed in mitigation measure G4 below can achieve acceptable static and pseudo static factors of safety which exceed the safety factors of the County. (DEIR, p. 3-18; AEIDEIR, p. 3-2.)

Modifications to the mining cuts on the south side of the ridge with the Mitigated Mining Cuts mitigation and Project Condition 9ab (*see* Consent Decree) will not have an impact on slope stability. (*See* FEIR Revised Responses, pp. 2-986 to 2-102; Hilltop 2001, FEIR Vol. 6.)

The potentially significant effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measures:

G4. To achieve suitable factors of safety for cut slopes, the following mitigation is presented. For the cut slopes at the northeast portion of the mining area, overall inclinations of the slopes will be flattened from 1.15:1 to 1.25:1. For the cut slopes at the far northeast portion of the mining area, the overall inclinations of the slopes will be flattened from 1.15:1 to 1.30:1 (Mitigation Measure G4).

C. Former Mining Area Slope Stability

Impact: Mining may result in potential slope stability impacts on the near-vertical former mining area cut slopes.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure G3 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Mining and stabilization of the existing former gravel pit cut slopes could have significant impacts. Recommendations have been made for stabilizing the near-vertical walls of the existing 40-acre pit (STE 1991). (DEIR, p. 3-19.) Static and pseudo-static analyses of the pit slope stability were performed using the PCSTABL5 computer program to calculate factors of safety against failure. A 0.15-g horizontal acceleration was used to simulate a seismic event. (DEIR, p. 3-19.) Initially, the bottom of the pit walls on the west, north, and northeast sides will be buttressed with fill. To avoid slope stability impacts, the mined cut slopes will be laid back as proposed in Mitigation Measure G3, below. No significant adverse impacts with regard to slope stability are anticipated. To the contrary, a beneficial impact will result because an existing physical hazard will be alleviated. (DEIR, p. 3-19.)

The effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

G3. Ultimately, the former gravel pit high walls will be altered to a 1.15:1 (horizontal to vertical) slope using 15-foot-wide benches at 100-foot vertical intervals. The bottom of the pit walls on the west, north, and northeast sides will be buttressed with fill to provide a buffer zone and increase slope stability. (Mitigation Measure G3)

D. Interim Mining Cuts Slope Stability

Impact: Mining area cut slopes may result in impacts related to slope stability.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure G5 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

A slope stability analysis was carried out in the DEIR to determine reasonable bench widths and vertical spacings to be used during the mining operation to achieve acceptable slope stability (Hilltop 1993b). (DEIR, pp. 3-19 to 3-20.) The overall interim pit slopes are anticipated to have an approximate slope of 1:1 (horizontal to vertical). Benches will be excavated at regular intervals within this overall temporary slope inclination and will serve as access roads during the lifetime of the operation. (DEIR, p.3-19.) Additional analysis was conducted for the RNFSA Project in the AEIDEIR, and in the FEIR. (Hilltop 1998, AEIDEIR, p. 3-2.; Hilltop 2001, FEIR Vol. 6, Appendix L.) Based on the results of these analyses, acceptable stability for interim slopes will be achieved along the working face with the implementation of slope design parameters imposed by Mitigation Measure G5. (DEIR, p. 3-20.)

The potential significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

G5. Interim mining cuts will be constructed using 35-foot-wide benches over 35-foot elevational changes, during the removal of the native material, while controlling surface runoff and erosion (Mitigation Measure G5).

E. Operational Procedures

Impact: Mining activities could have a potential significant impact by creating geologic hazards. Relative to mine safety and procedures, significant operational impacts are avoided by standard conditions for regular monitoring and reporting of fill operations in compliance with the zoning code.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measures G6 and G7 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Geologic hazards are geological conditions or phenomena that present a risk or are a danger to life or property. (DEIR, pp. 3-16 to 21.) However, a number of geologic hazard impacts are less than significant for the RNFSA Project including; surface rupture, liquefaction, settlement, and soil expansion. (DEIR, pp. 3-16 to 3-17.) Potentially hazardous areas are associated with the previous rock and gravel processing operations occurring at the RNFSA Project site and proposed mining activities. The implementation of Mitigation Measures G2 through G5 will mitigate those hazards to levels of less than significant. (DEIR, pp. 3-16 to 22.) In addition, standard conditions of approval will also be applied to the RNFSA Project through the imposition of Mitigation Measures G6 and G7, which are designed to ensure that there will be no significant geotechnical impacts from mining and reclamation activities. (DEIR, p. 3-22.)

The potential significant effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measures:

G6. The mining activity will be regularly monitored throughout the life of the RNFSA Project by a California registered civil engineer or engineering geologist, and periodic testing of the fill materials will be performed to verify strength parameters of the fill soil and relative compaction. The mine operator will maintain all records of correspondence, reports, and designs provided by the registered professional. (Mitigation Measure G6)

G7. Proposed mining and reclamation specifications and procedures will be in accordance with the County of Los Angeles Planning and Zoning Code, Title 22, Part 9, Chapter 22.56 Surface Mining Permits. (Mitigation Measure G7)

2.2 - WATER RESOURCES

2.2.1 - Potential Environmental Effects of the Project that are Less than Significant

The RNFSA Project site is downstream of the Acton Valley Subunit communities of Acton and Aqua Dulce, and no impacts to water resources for these communities would occur.

The RNFSA Project's use of water is relatively small in comparison to the total water resources available to downstream users in the Eastern Subunit, and no significant impacts are expected. (DEIR, p. 3-66; AEIDEIR, p. 3-5.) The AEIDEIR presents a 1999 summary of water supply and demand for the Eastern Subunit from the Santa Clara Valley Water Report (SCVW Report) showing a surplus of from 69,900 to 55,800 acre-feet in water supply conditions for existing and near term demand. (AEIDEIR, p. 3-6.) Therefore, RNFSA Project water use would have an adverse but less than significant impact on downstream users.

No impacts were identified relative to local water users. Water use in the site vicinity is limited to small domestic use.

2.2.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

None.

2.2.3 - Potential Environmental Effects of the Project that have been Mitigated to a Level of Less than Significant

A. Local and Regional Impacts to Water Resources

Impact: Uncontrolled pumping of subsurface flows of the Santa Clara River could result in significant impacts on sensitive ecological habitats during the dry months of dry years.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measures WR1 and WR2 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations are within the responsibility and jurisdiction of another public agency *[SWRCB, BLM, USFWS]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Finding

A potentially significant impact on local sensitive ecological habitats is possible during dry months of dry years if pumping of river underflow continues unabated. (DEIR, p. 3-65; AEIDEIR, p. 3-7.) This would occur under a scenario of continued pumping of Santa Clara River underflow without the usual anticipated recharge. Month-to-month and yearly variations in precipitation with resultant variations in surface flow leave open the possibility that constant pumping could cause significant impacts in riparian habitat. (DEIR, p. 3-65; AEIDEIR, p. 3-6.) Impacts to sensitive ecological habitats were analyzed in the DEIR and discussed in the AEIDEIR. Local sensitive ecological habitat occurs adjacent to and downstream from the site. (AEIDEIR, p. 3-6.) Substantial evidence on the availability of water was presented in the DEIR and updated in the AEIDEIR. (See DEIR, pp. 3-29 to 57; AEIDER, p. 3-3 to 5.) In addition, CEMEX has proposed necessary mitigation measures including a Habitat Protection Plan as discussed in Mitigation Measure WR1 and the reduction or cessation of pumping, if necessary, and may resort to imported water as a supplemental source of water in dry periods, as provided in Mitigation Measure WR2.

Community representatives suggested the use of imported water for the RNFSA Project. County staff addressed this proposal in the November 2001 Staff Report. This suggestion is not feasible. The impacts to the Santa Clara River, including water quality and water resources impacts, are less than significant after mitigation. (DEIR, p. 3-68.) Therefore, the legally required nexus between the RNFSA Project's impacts and the suggestion to support its imposition is not present. The use of imported water was examined as an alternative in the DEIR and was determined to be infeasible due to the costs and environmental impacts of bringing imported water to the site by either pipeline or trucking. (DEIR, pp. 3-394 to 396.) However, CEMEX has agreed to include Mitigation Measure WR2 under which they will periodically investigate the feasibility of using imported water as a supplemental source of water during the course of the RNFSA Project.

In addition, CEMEX will abide by all conditions of its SWRCB permit to appropriate water from the Santa Clara River. The SWRCB permit will ensure that CEMEX's use of water is reasonable and beneficial. (See DEIR, pp. 3-26 to 29.) CEMEX will also implement the Water Shortage Contingency Plan submitted to the California Division of Water Rights in the Answer to Vested Rights Protests vs. Application No. 29967 (West Coast Environmental 1994) presented in Appendix H in Volume 6 of the FEIR.

Potential impacts to arroyo toad habitat were analyzed in the SBA prepared by the BLM (August 2001) and the Biological Opinion (BO) issued by the USFWS (October 25, 2001). (FEIR Revised Responses, pp. 2-48 to 61.) Additional measures mandated by the USFWS in the BO have been incorporated into the RNFSA Project. (Revised FEIR Responses, p. 2-48.) These include increased protections during construction of wells and pipelines and increased groundwater elevation and surface flow monitoring including the installation of three additional monitoring wells up gradient and down gradient of the site. (Revised FEIR Responses, pp. 2-61 to 69.) The BO concludes that the RNFSA Project is not likely to jeopardize the continued existence of the arroyo toad due to the fact that a small proportion of the range of the toad would be affected and the number of individuals that would be affected by the proposed action would be relatively small. (Revised FEIR Responses, p. 2-57.) Independent of the conclusions in the BO, the mitigation measures imposed by the BO, as well as implementation of the Habitat Protection Plan, will mean that RNFSA Project water extractions will not result in a significant impact on arroyo toad or its habitat. Additionally, the measures incorporated into the RNFSA Project by the BO, and independently required as part of the FEIR, will further minimize RNFSA Project impacts on the arroyo toad and its habitat. (See the Biota findings and mitigation measures discussed below.)

The Mitigated Mining Cuts would reduce the quantity of excess fines produced. (Revised FEIR Responses, p. 2-82.) The total quantity of fines to be stored on site would be reduced, which would result in a corresponding reduction in the quantity of water resources being used for fugitive dust control and compaction of fines. Elimination of the NFSA would reduce the length of the fines storage conveyor by roughly 50 percent in Phase 2, and therefore, would reduce the water resource requirements for spray control for the conveyor by approximately 50 percent. Elimination of the NFSA would also reduce the length of the onsite haul road by roughly 50 percent in Phase 2 of the RNFSA Project. Accordingly, water used for dust suppression on that road would also be reduced by approximately 50 percent. (*Ibid.*) The acreage of active area on the south side of the ridge for mining and fines storage would remain approximately the same. Therefore water resource usage for dust control in these areas would not change. In addition, water usage for aggregate, and ready-mixed concrete processing, would remain the same.

Overall water usage would slightly decrease with implementation of the Mitigated Mining Cuts, thereby reducing water resource impacts. (*Ibid.*)

The significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measures:

WR1. CEMEX will conduct a monitoring program for water resources and sensitive ecological habitats in the immediate vicinity of the RNFSA Project. The Habitat Protection Plan has been prepared in cooperation with the BLM and the USFWS who have responsibility for Plan compliance, review and adjustments over the life of the RNFSA Project. The Plan includes the following components:

- Four existing monitoring wells, as shown on Figure 3.1.2-5 of the DEIR, will be maintained to monitor water levels of the Santa Clara River underflow during the life of the RNFSA Project.

- Surface flows of the Santa Clara River will be monitored during the life of the RNFSA Project at a location(s) to be determined in conjunction with Responsible Agencies prior to the start of mining.

- The riparian and aquatic habitat in the immediate vicinity of the site will be monitored as detailed in the habitat protection plan presented in Appendix F6 of the DEIR.

- The Habitat Protection Plan contains action levels that will trigger adjustments to mining operations to reduce RNFSA Project water consumption to avoid significant degradation of the ecologically sensitive habitats attributable to the RNFSA Project. Operational adjustments will include one or more of the following:

  - seasonal sand and gravel production adjustments through stockpiling materials,

  - seasonal management of concrete production,

  - stockpiling fines temporarily to eliminate water used in the compaction process,

  - increased use of dust palliatives for dust control,

  - temporary reduction or cessation of pumping of river underflows, and

  - cessation of mining operations, if necessary. (Mitigation Measure WR1).

WR2. The feasibility of importing commercially available water as a supplemental source of water for operations during dry periods will be investigated periodically during the course of the RNFSA Project. Any such water identified shall have appropriate water quality characteristics consistent with the Regional Water

Quality Control Board Basin Plan Water Quality objectives. Any such feasible sources shall be discussed with the County Department of Regional Planning to determine how such source(s) shall be delivered to the site. (Mitigation Measure WR2).

2.3 - FLOOD

2.3.1 - Potential Environmental Effects of the Project that are Less than Significant

After the RNFSA Project, the NFSA would decrease the drainage area for the Bee Canyon wash by 20 acres, the RNFSA Project would increase the drainage area by 5 acres for a net decrease of 15 acres, or 1.2% of the total drainage area. This change in the overall size of the drainage area is not considered to be significant.

Down gradient culverts from Soledad Canyon Road are not subject to impacts due to RNFSA Project implementation. The major downstream culvert is a 48-inch diameter culvert that runs under the Southern Pacific Railroad. This culvert has adequate capacity for both phases of the RNFSA Project, thus no significant adverse impacts would result.

2.3.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

None.

2.3.3 - Potential Environmental Effects of the Project that have been Mitigated to a Level of Less than Significant

A. Stormwater Runoff

Impact: Removal of existing vegetation will increase the rate of stormwater runoff, including an increase in the amount of sediment carried by runoff, which may impact surface water quality. Mining activity will change the size of the watershed drainage, increasing runoff in some areas and decreasing it in others such as the existing 30-inch culvert under Soledad Canyon Road (east of the existing access road), which also may impact surface water quality.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure F1 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

The RNFSA Project site drains to the Santa Clara River. (DEIR, p. 3-74; AEIDEIR, p. 3-8.) The final drainage plans exist as a drainage concept designed by C.A. Rasmussen (1993) and

erosion control designs for onsite facilities are reflected in the Project plan sheets of the Application for Surface Mining Permit. The drainage concept analyzes the hydrology and hydraulics of the existing facilities and those that will exist during and after RNFSA Project operations. (DEIR, p. 3-76.) Stormwater runoff from each tributary drainage area will be channeled into one of four basins as discussed in Mitigation Measure F1. These desilting/debris basins will trap the sediments and debris that occur in the onsite flood flows and will also trap sediment and debris from all storm events (including capital storms) and discharge clearer water to offsite areas. The basins will retain all of the stormwater from lesser storms for controlled later release. (DEIR, p. 3-77.) The drainage facility requirements were based on 50-year capital flood in accordance with the guidelines of the County Hydrology/Sedimentation Manual (1991). The basins will be subject to final approval by the County prior to construction. (*Ibid.*)

The original drainage concept (C.A. Rassmussen 1993) was updated in the AEIDEIR to incorporate the RNFSA and removal of the existing mill (West Coast Environmental 1998) and no impacts were identified or new mitigation measures required for the RNFSA Project. (AEIDEIR, p. 3-9.) Implementation of the RNFSA Project plans and mitigation measures will result in beneficial rather than adverse impacts. An addendum to the drainage concept was prepared for the Mitigated Mining Cuts (West Coast Environmental 2001, FEIR Vol. 6). The drainage concept consists of the original drainage concept and the addendum to the drainage concept.

Elimination of the NFSA by the Mitigated Mining Cuts would result in no RNFSA Project impacts to the naturally occurring flood water drainage patterns that are present on the north side of the ridge. Therefore, desilting/debris Basins A, B and C on the north side of the ridge would no longer be required. As presented in the addendum to the drainage concept, the number of desilting/debris basins for the project would be reduced from seven to four. This change in the number of desilting/debris basins is documented in the Revised FEIR Responses (p. 2-28). Stormwater sampling would also no longer be required on the north side of the ridge. Outfalls A, B and C would be removed from the Stormwater Pollution Prevention Program. Drainage patterns on the south side of the ridge would remain the same. (AEIDEIR, p. 3-9; Revised FEIR Responses, p. 2-102.)

The potentially significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

F1. The RNFSA Project will include construction of four desilting/debris basins according to the specifications of the Drainage Concept Plan and addendum to the Drainage Concept Plan to control surface runoff and sedimentation. During final design, the Applicant shall submit detailed plans for the debris basins including a static and seismic slope study that analyzes all proposed debris basin slopes greater than 3:1 gradient. Plans shall be approved by the Department of Public Works (DPW) prior to the commencement of grading work on the RNFSA Project. (Mitigation Measure F1)

B. Adequacy of Existing Culvert

Impact: The existing 36-inch culvert under Soledad Canyon Road (west of the existing access road) is not adequate to pass projected runoff volumes, which could result in a significant impact.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure F2 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

The drainage concept analyzes the hydrology and hydraulics of the existing facilities and those that will exist during and after RNFSA Project operations. (DEIR, p. 3-76; AEIDEIR, p. 3-9.) Stormwater runoff from each tributary drainage area will be channeled into one of the desilting/debris basins. Tributary drainage areas were calculated for each phase of the RNFSA Project. The stormwater runoff rate was estimated for each basin under each condition. (DEIR, p. 3-77.) The required debris capacity and flow rate for basin outlet pipes was estimated, as was the resultant flow to each existing culvert for each RNFSA Project condition. The drainage facility requirements were based on 50-year capital flood in accordance with the guidelines of the County Hydrology/Sedimentation Manual (1991). Based on this analysis, it was determined that the existing 36-inch culvert under Soledad Canyon Road (west of the existing access road) is inadequate to pass project runoff volumes from the RNFSA Project. Replacement of the 36-inch culvert with a 45-inch culvert as provided in Mitigation Measure F2 will provide adequate culvert discharge capacity. (DEIR, p. 3-83; AEIDEIR, p. 3-11.)

The potentially significant effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

F2. A 45-inch culvert will be installed under Soledad Canyon Road to accommodate existing runoff conditions as well as conditions for the RNFSA Project. Construction of desilting/debris Basin 2E and the addition of the 45-inch-diameter culvert under Soledad Canyon Road are RNFSA Project design features that result in beneficial impacts by correcting inadequate existing conditions. (Mitigation Measure F2)

C. Maintenance of Debris Basins/Contact with Hazardous Materials

Impact: Potentially significant impacts may be associated with maintenance of debris basins and flood water contact with hazardous materials.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through implementation of Mitigation Measure F3 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Conclusion:

Potential negative impacts are associated with floodwater contacting hazardous materials and with the maintenance of debris basins. CEMEX will design, build, and operate the proposed facilities according to the specifications detailed in the Storm Water Pollution Prevention Plan (SWPPP) and the Spill Prevention Control and Countermeasures Plan (SPCCP), as set forth in Mitigation Measure F3. By doing so, the risk of floodwater contact with hazardous materials will be minimized or eliminated, and any such contact will be contained onsite, where it can be immediately remediated. (DEIR, p. 3-83.)

The potentially significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

F3. Proper maintenance and cleaning of erosion control facilities and desilting/debris basins will be conducted as part of the RNFSA Project operations. Inspection frequencies and maintenance procedures are required by the SWPPP (see Appendix B1 of the DEIR). These procedures are detailed in the Storm Water Management Practices section of that plan. In addition, the requirement that the stormwater desilting/debris basins will be inspected after every storm event and every 24 hours during prolonged storm events will be conducted and will be added to the SWPPP. Prevention of spills of hazardous materials, such as petroleum fuels and products, is addressed in the SPCCP plan (see Appendix B2 of the DEIR). (Mitigation Measure F3)

2.4 - WATER QUALITY

2.4.1 - Potential Environmental Effects of the Project that are Less than Significant

None.

2.4.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

None.

2.4.3 - Potential Environmental Effects of the Project that have been Mitigated to a Level of Less than Significant

A. Impacts from Pre-Mining and Construction Activities

Impact: Significant water quality impacts may occur onsite from pre-mining and construction activities, including grading and road construction that will increase debris flow and sedimentation downstream if uncontrolled during the rainy

season. Surface/groundwater contamination from oil, grease, fuel, or dust palliatives is possible.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the implementation of Mitigation Measures WQ1 and WQ2 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations such as Mitigation Measure WQ2 are within the responsibility and jurisdiction of another public agency *[CRWQCB]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

Potentially significant water quality impacts may occur in surrounding surface waters due to pre-mining and construction activities including grading and road construction that will increase debris flow and sedimentation downstream if uncontrolled during the rainy season. (DEIR, pp. 3-104 to 105.) Surface water or groundwater contamination from oil, grease, fuel, or dust palliatives is possible. (DEIR, p. 3-106.) The RNFSA Project includes implementation of a Drainage Concept Plan and its addendum and a Storm Water Pollution Prevention Program (SWPPP) to mitigate pre-mining and construction impacts, as required by Mitigation Measure WQ1. The Drainage Concept Plan proposes facilities, namely desilting/debris basins, that are designed to retain debris of a 50-year storm event, but will also provide an important retention function during more frequent storm events. (DEIR, pp. 3-104 to 105.) The SWPPP, which will be implemented pursuant to the Statewide General Industrial Activities NPDES Permit by the LARWQCB, identifies potential sources of pollutants that may affect the quality of stormwater discharges from the RNFSA Project site and sets forth practices to reduce those pollutants in stormwater discharges, as required by Mitigation Measure WQ2. (DEIR, p. 3-105.)

The potentially significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

WQ1. The proposed Drainage Concept Plan will be implemented by CEMEX. The drainage concept establishes a drainage plan and facility requirements for the RNFSA Project and provides the design parameters for the location, sizing, and scheduling of the erosion control facilities to handle the runoff, sedimentation, and debris flows generated by the RNFSA Project. The plan addresses drainage during the pre-mining road construction and grading phase, during the mining operation, and after completion of mining. (Mitigation Measure WQ1)

WQ2. CEMEX will implement provisions of the SWPPP. The SWPPP (1) identifies potential sources of pollutants that will adversely affect stormwater discharges from the site and (2) describes in detail specific best management practices to reduce the levels of pollutants in stormwater discharges. Key elements of the SWPPP include a preventive maintenance program for vehicles and the stormwater conveyance systems, a system of good housekeeping measures to

control contamination of runoff, and a system of desilting/debris basins designed for settling out excess suspended sediments in the site runoff, thus controlling downstream sedimentation. (Mitigation Measure WQ2)

B. Impacts from Mining and Processing Operations

Impact: Mining and processing operations could cause significant impacts to water quality.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measures WQ3 and WQ6 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations such as Mitigation Measure WQ6 are within the responsibility and jurisdiction of another public agency *[CRWQCB]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

All runoff from within the general area to be mined, including some natural areas, would pass through desilting/debris basins prior to discharge to natural drainages. No significant impacts would occur. (AEIDEIR, p. 3-11.)

Because the depth to groundwater at the Original DEIR Project site was more than 25 feet, no significant impact from the migration of chloride ions was expected. (DEIR, p. 3-111.) The impacts on groundwater quality resulting from the RNFSA Project were evaluated due to the increased depth of excavation. The deeper cut of the RNFSA Cut 1 would not be in the boundary of a groundwater basin, and the material to be excavated is a conglomerate formation, which is a sedimentary rock formation. Accordingly, no additional impact over that of the Original DEIR Project is anticipated. (AEIDEIR, p. 3-11.)

Spills of hazardous materials and accidents involving mining machinery can contaminate surface water and groundwater if such spills are not detected, contained and promptly cleaned up. (DEIR, p. 3-109.) To prevent and minimize accidental releases of petroleum products, a Spill Prevention, Control, and Countermeasures Plan (SPCCP) has been prepared. (See DEIR, Appendix B2.) Implementation of the requirements outlined in the SPCCP, and Mitigation Measure WQ3, should ensure that any major accidental spills are promptly contained and cleaned up. (DEIR, p. 3-109.) Minor spills or leaks are not expected to have a significant impact on surface water or groundwater quality, but will be appropriately cleaned up. The SPCCP has been prepared in accordance with the requirements of 40 CFR, Part 112 and California Health and Safety Code, Chapter 6.67, Section 25270 and will be subject to reporting to the CRWQCB – Los Angeles Region. (DEIR, p. 3-107).

Fugitive dust from onsite roads and dust generated during aggregate and concrete production can degrade water quality of the surrounding area. (DEIR, p. 3-109.) Dust that comes in contact

with stormwater runoff will become suspended in the water as part of the total suspended solids (TSS) load discharged from the site. Dust suppression for the RNFSA Project will be accomplished in part with the use of chemical dust palliatives, which are materials that control dust and have binding characteristics. Chemical dust palliatives will be applied primarily to dirt roads, and to a limited extent, gravel surfaced roads. (DEIR, p. 3-109.) Water will be used to control dust on stockpiles of aggregate. Some water may be needed for pre-wetting dirt access roads to compact and prepare road surfaces before applying the dust palliative. (DEIR, p. 3-109.) The RNFSA Project includes an SPCCP to ensure that significant adverse impacts from hazardous materials spills do not occur.

The use of chloride-based dust palliatives to suppress fugitive dust could adversely impact stormwater runoff. Chloride washing off of road surfaces will either be carried in runoff into the desilting/debris basins or down slope into soils on the road shoulder. However, given the small areas to be treated, and relative to the large quantities of stormwater expected to flow off the site, it is expected that the limited amount of chloride released with stormwater discharges will not be significant. (DEIR, p. 3-111.) In response to comments on the AEIDEIR, Mitigation Measure WQ6 was added to respond to the concerns of using chloride-containing dust suppressants when the Santa Clara River is listed as impaired for chlorides on the California 303(d) list. They will not be used unless specifically agreed to by the Los Angeles County Sanitation District and the RWQCB. (Revised FEIR Responses, p. 4-62.)

Elimination of the NFSA by the Mitigated Mining Cuts measure (VQ5) would eliminate stormwater runoff from disturbed surface areas on the north side of the ridge. This would eliminate water quality impacts from activities on the north side of the ridge. The total area disturbed by the RNFSA Project would be reduced by 24 percent, resulting in reduced stormwater runoff from disturbed surface areas.

Community representatives suggested a complete ban on chlorides. County staff addressed this proposal in the November 2001 Staff Report. This suggestion is not feasible. There are no significant impacts to water quality identified due to the use of chlorides at the RNFSA Project, and therefore the legally required nexus between the RNFSA Project's impacts and the suggestion to support its imposition is not present. However, in response to community concerns, under Mitigation Measure WQ6 the RNFSA Project will not use chloride-based dust palliatives onsite as long as the Santa Clara River is listed as impaired for chlorides on the California 303 (d) List, unless agreed to by the Los Angeles County Sanitation District and the Regional Water Quality Control Board. (Revised FEIR Responses, p. 2-30.)

The potentially significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

WQ3. CEMEX will implement provisions of the SPCCP. Use of secondarily contained above-ground storage tanks (ASTs) to hold dust palliative, diesel fuel, waste oil, fresh motor oil, and hydraulic fluid onsite will minimize exposure of these products to surface water and groundwater. As previously stated, the risk of undetected leaks is much smaller with ASTs than with underground storage tanks (USTs). Additionally, the SPCCP identifies procedures and controls that will be implemented over the life of the RNFSA Project to prevent and minimize the release of chemicals into the area's surface waters. The SPCCP's main focus is

storage of diesel, hydraulic oil, motor oil, and waste oil in all ASTs having capacities of greater than 55 gallons (no USTs are planned for the facility). However, areas of the site designated for storage of smaller volumes of potentially hazardous materials (e.g., solvents and cleaners) are also covered in the SPCCP. General compliance requirements relating to facility operations that are addressed in the SPCCP include spill response, leaks and malfunctions, rainwater accumulation, inspection, changes, training, and recordkeeping. (Mitigation Measure WQ3)

WQ6. The use of chloride-based dust palliatives on-site will be prohibited as long as the Santa Clara River is listed as impaired for chlorides on the California 303(d) List, unless specifically agreed to by the Los Angeles County Sanitation District and the Regional Water Quality Control Board (Mitigation Measure WQ6).

C. Septic Tank Leach Field

Impact: Construction of an onsite sanitary septic tank leach field could have significant impacts on water quality.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure WQ4 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Construction of an onsite sanitary septic tank leach field could have an impact on water quality because the site is located in an area that has been classified as having severe septic tank limitations because of impermeable soils, fractured rock, or other geotechnical limitations. (DEIR, p. 3-108.) The DEIR and AEIDEIR originally proposed as Mitigation Measure WQ4 that septic tank leach fields would be built if an appropriate onsite location could be found. (DEIR, p. 3-113, AEIDEIR, p. 3-12.) In response to comments, and to ensure that discharges from the RNFSA Project will not exceed Basin Plan objectives, Mitigation Measure WQ4 was modified to require that a septic tank be installed, and eliminated the possibility of leach fields. (Revised FEIR Responses, p. 4-16 to 17.)

The potentially significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

WQ4. CEMEX will install a septic tank onsite that is designed for routine pump out. (Mitigation Measure WQ4)

D. Mining Reclamation Impacts

Impact: Mining activities could have significant impacts to runoff and sedimentation before reclamation revegetation activities are completed.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure WQ5 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

The Reclamation Plan is part of the RNFSA Project (AEIDEIR, p. 2-1) and is a combination of processes that minimize adverse environmental effects of surface mining and return the land to a beneficial end use. (AEIDEIR, p. 2-26.) The Reclamation Plan includes final contouring and revegetation of disturbed areas as set forth in its component Revegetation Plan. The draft Reclamation Plan, and its Revegetation Plan component, were described in the AEIDEIR for the RNFSA Project. (AEIDEIR, pp. 2-26 to 41.) A Final Reclamation Plan, consistent with the Surface Mining and Reclamation Act, Public Resources Code §§ 2710 et seq. ("SMARA") and Section 22.56.1420 of the Los Angeles County Code, will be adopted following completion of the CEQA process. The Final Reclamation Plan revises the draft Reclamation Plan discussed in the AEIDEIR to address changes to the project, including elimination of the NFSA.

The goals of revegetation include erosion control, among others. Revegetation will occur before the first wet season after the areas are mined. (AEIDEIR, p. 2-28.) Soil erosion control practices will also be important to limit the amount of sedimentation occurring downstream. To avoid significant impacts due to sedimentation of downstream areas, the desilting/debris basins should not be removed until disturbed areas have been revegetated, as required by Mitigation Measure WQ5. (DEIR, p. 3-111.)

The potentially significant effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

WQ5. Desilting/debris basins will not be removed until disturbed areas have been successfully revegetated. (Mitigation Measure WQ5)

2.5 - NOISE

2.5.1 - Potential Environmental Effects of the Project that are Less than Significant

The noise from construction (preproduction phase) will add up to 2 dBA at the most proximate receptors in the Aqua Dulce area and less than 1 dBA at the town center. These increases are virtually non-detectable and will have a less than significant impact. (DEIR, p. 3-130.)

Noise from traffic during preproduction will raise the CNEL by the virtually non-detectable level of less than 1 dBA, and no significant noise impacts will result. (DEIR, p. 3-130.)

A small volume of the RNFSA Project's traffic would access Agua Dulce Road (47 ADT in Phase 1 and 82 ADT in Phase 2). However, based on a total ADT of 2,250 for Phase 1 and 5,000 for Phase 2, the RNFSA Project's noise contribution along this road will not present a significant impact. (DEIR, p. 3-141.)

No significant impacts from blasting or excavation noise would be produced for nearby receptors with the exception of potential future lots in Bee Canyon that may be affected by Cut 1, and specific mitigation is presented (Mitigation Measure N2) for those lots. (DEIR, pp. 3-133, 3-135.) (The impact on potential Bee Canyon lots is discussed below.)

Based on atmospheric attenuation and the effects of intervening topography, noise from RNFSA Project construction and operations will not exceed significance criteria at other potential receptor locations including in and around the town of Agua Dulce. (DEIR, pp. 3-130, 3-133, 3-138.)

2.5.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

A. Vibration from Blasting Operations

Blasting associated with mining activities may be audible and perceptible within approximately ½ mile of the location of blasting. Noise and vibration impacts associated with blasting are discussed both in the DEIR and in the AEIDEIR. (DEIR, pp. 3-130 to 133; AEIDEIR, p. 3-13 to 14.) When blasting is to be performed, the single-event noise level may temporarily exceed the long-term excavation activity noise levels and thus create a brief noise intrusion. A program of low-yield blasting will be implemented to loosen the material at the RNFSA Project site for mining. (DEIR, p. 3-130.) The actual blasting is a rapid event, typically lasting only seconds and due to the placement of charges underground, blasting typically produces less noise than the heavy equipment used in the mining operation. Because the occurrence is so brief, it does not significantly raise the CNEL. Blasting may be more of a nuisance impact due to potential ground vibrations. (DEIR, p. 3-132.)

The RNFSA Project blasting ground vibrations will range from barely perceptible at some receptor locations, to strongly perceptible at the proposed Bee Canyon project location. (DEIR, p. 3-133.) Human response to these levels of vibration varies. Although the impact on identified receptors is less than significant, mitigation consistent with the federal Office of Surface Mining Reclamation and Enforcement ("OSMRE") regulations will be implemented through imposition of Mitigation Measure N1. (DEIR, p. 3-133.)

This less than significant effect is further reduced with the adoption of the following feasible mitigation measure:

N1. The Applicant will conduct blasting operations in general conformance with the federal OSMRE regulations as stated in 30 CFR, Chapter VII, Sections 816.61 through 816.68 and other applicable regulations. Conformance shall be demonstrated through preparation of a detailed Blasting Plan identifying RNFSA Project compliance with the stated requirements (as minimum standards) and through monitoring of blasting activities. The Blasting Plan shall be reviewed and approved by the County prior to conducting any blasting onsite. The Blasting Plan shall provide for the following:

- Submission to and approval by the County of the specific blast design prior to blasting, where such blasting will occur within 1,000 feet of habitable buildings outside the permit area.

- Conducting a public awareness program, including notification of all residents within ½ mile of any part of the permit area of the opportunity to request a pre-blast survey. The notification is to be done at least 30 days prior to initiation of blasting. A CEMEX information officer who can be contacted by telephone for information will be designated.

- Publication of the anticipated blasting schedule at least 10 days prior to the beginning of the blasting program via a newspaper of general circulation in the RNFSA Project area and by direct mail to residents within ½ mile, and republication at least every 12 months or whenever substantive changes to the schedule are to be implemented.

- Placement of warning signs and access controls to blast areas.

- Incorporation of the provision that blasting shall be conducted to prevent injury to persons, damage to public or private property outside the permit area, adverse impacts on any underground mine, and change in course, channel, or availability of surface or groundwater outside of the permit area.

- Conducting blasting so that the maximum air overpressure shall not exceed 133 dB (2-Hz minimum) measured directly between the nearest occupied residence and the blast site (ref. U.S. Bureau of Mines Report of Investigations 8485 (1980) "Structure Response and Damage Produced by Airblast from Surface Mining").

- Conducting blasting so that the peak particle velocity generated from any blast shall not exceed 0.5 in/sec for vibration frequencies below 40 Hz, and 2.0 in/sec for vibration frequencies of 40 Hz or more, measured directly between the nearest occupied residence and the blast site (U.S. Bureau of Mines 1980b). Other methods of determining acceptable particle vibration such as the use of scaled-distance equations shall be allowed subject to approval by the County.

- Conducting periodic monitoring offsite to ensure compliance with airblast and vibration standards and providing a seismograph record of each blast. Monitoring shall be conducted at a representative residential receptor and at a representative location adjacent to the Santa Clara River riparian habitat.

- Controlling flyrock at the blast site in accordance with OSMRE regulations. That is, flyrock traveling in the air or along the ground shall not be cast from the blasting site.

- Maintain records as specified by the County of all blasts for a minimum 3-year period.

- Identification of conditions when blasting will be curtailed, including atmospheric conditions that are conducive to transmission and amplification of noise offsite, and/or conditions conducive to the transport of high levels of fugitive dust emissions offsite. The Blasting Plan will identify such conditions where blasting is to be curtailed by the Applicant. The program shall also specify the candidate control measures specifically aimed at reducing blasting fugitive emissions.

- Identification of other parameters affecting blasting such as the regulatory requirement that blasting be conducted during daylight hours. Blasting shall be prohibited on Sundays and specified holidays.

- Implementing specific measures to prevent nitrate contamination of surface and groundwater due to use of ammonium nitrate/fuel oil ("ANFO"). (Mitigation Measure N1)

B. Noise Impacts to Resident at Nearby Intersection

Although not a significant impact, the residence located above Soledad Canyon Road at the intersection of Soledad Canyon Road and Agua Dulce Canyon Road (the Easterly residence) could experience an increase in noise levels (less than 5 dBA CNEL) due to increases in average daily traffic ("ADT") projected for Soledad Canyon Road. (Revised FEIR Responses, p. 2-43; AEIDEIR, p. 3-14; DEIR, pp. 3-139 to 3-142.) In response to comments on this issue, Mitigation Measure N4 will ensure that noise impacts to this residence will remain less than significant.

Impacts due to RNFSA Project vehicle-generated noise at the nearest residence to the RNFSA Project site were identified as less than significant. The Easterly residence is located east of the RNFSA Project above Soledad Canyon Road at the intersection of Soledad Canyon Road and Agua Dulce Canyon Road.

This less than significant effect is further reduced with the adoption of the following feasible mitigation measure:

N4. The applicant will provide the residence located above Soledad Canyon Road at the intersection of Soledad Canyon Road and Aqua Dulce Canyon Road (the Easterly residence) with noise attenuation in the form of either a sound wall or the installation of noise reduction windows. (Mitigation Measure N4)

2.5.3 - Potential Environmental Effects of the Project that have been Mitigated to a Level of Less than Significant

A. Noise Impacts to Surrounding Proposed Residential Uses

Impact: Bee Canyon homes, if constructed, along the west RNFSA Project boundary could be subject to noise exposure exceeding 65 community noise equivalent level (CNEL) during Mining Cut 1, which could result in a significant impact.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure N2 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Based on the operational and vehicle noise contours and depending on the proposed lot configurations of the proposed Bee Canyon project, a portion of the proposed Bee Canyon project may intersect the projected 65 CNEL operations noise contour of the RNFSA Project. (DEIR, p. 3-143; AEIDEIR, p. 3-14.) Therefore if constructed, homes located on the westernmost boundary of the RNFSA Project may be subject to significant noise during excavation of Mining Cut 1. However, constructing berms or cut slopes can shield these homes and reduce the impact to less than significant, as required by Mitigation Measure N2. (DEIR, p. 3-145.)

Elimination of the NFSA by the Mitigated Mining Cuts would mean that no noise would be generated on the north slope from sources that were formerly located north of the ridge. With this mitigation, noise from the sources within the active mining area located on the south side of the ridge essentially remain as presented for the RNFSA Project. (Revised FEIR Responses, p. 2-103.)

The potentially significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

N2. Depending on the proposed lot configurations of the proposed Bee Canyon project, homes located west of the westernmost boundary of the RNFSA Project may be subject to significant noise during mining Cut 1 operations. If the Bee Canyon project is constructed, the noise impact from mining will be reduced to less than significant by constructing berms or cut slopes to shield lots from direct noise exposure as confirmed through acoustic evaluation (based on final grading contours of the Bee Canyon project). It is anticipated that these measures would be applicable only if the Bee Canyon project were actually constructed. (Mitigation Measure N2)

B. Noise Impacts to Surrounding Residential Uses

Impact: Several lots within the River's End Trailer Park and proposed Bee Canyon project, if constructed, could experience greater than 5 dBA CNEL increase in noise level due to increases in average daily traffic (ADT) projected for Soledad Canyon Road, which is a potentially significant impact.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure N3 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

A significant impact has been identified as the result of RNFSA Project vehicle-generated noise at the River's End Trailer Park. (DEIR, p. 3-145; AEIDEIR, p. 3-14.) In accordance with the noise model, the proposed grade separation should provide an attenuation of 12 dBA. This would reduce the noise generated along Soledad Canyon Road to a level less than specified by the noise ordinance. (DEIR, p. 3-145; AEIDEIR, p. 3-14.) Specifically, with RNFSA Project implementation, the resultant noise level at the River's End Trailer Park office would be approximately 58-dBA CNEL. Although this value is below the 65-dBA CNEL as specified in the local ordinance, it represents an increase of 5 dBA from present levels and thus will be clearly audible to the residents in the park. (DEIR, p. 3-145.) At the proposed Bee Canyon project, if constructed, two lots are potentially within the 65 CNEL contour of Soledad Canyon Road. (DEIR, p. 3-146.) Structural noise attenuation will operate to reduce the noise effects at these locations as required by Mitigation Measure N3.

Another means of reducing truck-generated noise at the River's End Trailer Park would be to reroute haul trucks along Agua Dulce Road. This mitigation was rejected as infeasible for the following reasons. (DEIR, p. 3-146.) Haul trucks proceeding along Agua Dulce Road would create a noise level roughly equivalent to that predicted along Soledad Canyon Road. Several residents located along Agua Dulce Road are situated at the same elevation or higher than the road with a clear view of the road. Furthermore, several of these residents are located closer to the road than those situated in the trailer park. Finally, because the hills rise on either side of the road, the noise is contained in an "amphitheater-like setting." This can reflect noise to the receptors, thus elevating noise levels by as much as 3 dBA above that predicted by the noise model. The affected residents would experience an increase in the ambient noise level that would exceed the 5-dBA criterion as well as the 65-dBA County ordinance level. Due to the grade separation, residents at the River's End Trailer Park would need a relatively low soundwall to block their line of sight and mitigate vehicle-generated noise. Residents located along Agua Dulce Road are situated higher than the road and would need a much higher wall to block the line of sight and vehicle-generated noise. Furthermore, the residents at the trailer park are clustered together at a bend in the road and would require a relatively short wall (in length) to provide the necessary attenuation. Along Agua Dulce Road, the residents are scattered, thus necessitating construction of a separate wall for each impacted dwelling. (DEIR, p. 3-146.)

The potentially significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

N3. At the River's End Trailer Park, and the proposed Bee Canyon project, if constructed, soundwalls or berms will be constructed adjacent to affected lots to mitigate offsite truck transportation noise. Prior to wall construction, a more thorough study will be conducted by qualified personnel in the fields of structural engineering, environmental noise assessment, and architectural acoustics to design for soundwall placement and consideration of overall dimension, materials used, height differential between the roadway and the receptors, grade and curvature of the road next to the receptors, and the position of the receptors at the bottom of the slope. (Mitigation Measure N3)

2.6 - PUBLIC SERVICES

2.6.1 - Potential Environmental Effects of the Project that are Less than Significant

None.

2.6.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

None.

2.6.3 - Environmental Effects of the Project that have been Mitigated to a Level of Less than Significant

A. Impacts to Fire Protection Services

Impact: Potentially significant impacts associated with fires during mining operations include sparks from equipment, storage of fuels, and possible use of explosive materials in a high-fire potential area.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measures PS1 through PS8 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations such as Mitigation Measures PS1 and PS8 are within the responsibility and jurisdiction of another public agency *[Cal-OSHA, LACFD]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

Typical impacts associated with mining operations include sparks from equipment, storage of fuels, and possible use of explosive materials in a high fire potential area. (DEIR, p. 3-148; AEIDEIR, p. 3-17.) The proposed Mining Plan has been designed to avoid potential impacts on public services. No explosives would be stored on the site and explosives would be used only by an authorized outside contractor as required by Mitigation Measure PS2. (AEIDEIR, p. 3-17.) Removal of vegetation in advance of moving to new active mining areas would reduce plant density and the fuel for fire hazards, and thereby reduce the fire hazard on the site. (*Ibid.*; DEIR, p. 3-148.) Fire prevention training would be provided to employees, and fire prevention equipment will be onsite, as required by Mitigation Measure PS1. Two 600,000-gallon onsite water tank would be used to store water and to fight fires in an emergency, as required by Mitigation Measures PS3 and PS4. (Revised FEIR Responses, p. 2-71.94.) Additionally, earthmoving equipment and manpower are available to aid in fire suppression. No need for expansion of local fire services is required for the RNFSA Project. Further, road construction

will be designed to aid in fire prevention through the imposition of Mitigation Measures PS6 and PS7. In response to comments, the minimum road width was expanded to 26 feet, and the requirement that fire protection shall comply with County code requirements was added, as set forth in Mitigation Measures PS5 and PS8. (Revised FEIR Responses, p. 3-68.)

Implementation of the Mitigated Mining Cuts results in no changes to impacts to public services, which remain less than significant with identified mitigation. (Revised FEIR Responses, p. 2-81.)

The significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

PS1. Fire prevention training for all employees will be conducted based on California Occupational Safety and Health Administration (Cal-OSHA) standards, and fire prevention equipment will be available onsite (Mitigation Measure PS1).

PS2. No explosives will be stored onsite (Mitigation Measure PS2).

PS3. The water storage facilities onsite will be accessible to fire equipment by an all weather road capable of supporting 50,000 pounds. The road width should be a minimum of 26 feet within 25 feet of either side of the tank connection (Mitigation Measure PS3).

PS4. The water storage tanks should have a 4 inch and 2 1/2 inch outlet with National Standard threads. These outlets should be no more than 6 feet from the road (Mitigation Measure PS4).

PS5. The minimum road width shall be 26 feet throughout the mining operation and must reach to within 150 feet of all buildings and equipment. The fire department shall have access to site gates (Mitigation Measure PS5).

PS6. Grades on gravel roads should not exceed 10 percent. If they are paved, then a 15 percent grade is acceptable (Mitigation Measure PS6).

PS7. Turnarounds will be provided on any road that exceeds 300 feet or one every 1/4 mile to 1/2 mile. The minimum radius is 32 feet (Mitigation Measure PS7).

PS8. A minimum 200-foot fuel break will be provided around any mining operation. Fire protection shall comply with all applicable County code requirements (Mitigation Measure PS8).

2.7 - AIR QUALITY

2.7.1 - Potential Environmental Effects of the Project that are Less than Significant

On November 21, 2003, nearly two years after completion of the CEQA public review and comment process, and during the course of the mediation settlement negotiations relating to the Litigation during which time there was no active CEQA or other administrative permitting

process before the County relating to the RNFSA Project, the South Coast Air Quality Management District ("SCAQMD") in response to requests made by project opponent City of Santa Clarita, submitted a letter to Santa Clarita providing several comments relating to the air quality analysis for the RNFSA Project. Santa Clarita subsequently submitted the SCAQMD letter to the County.

The County's consideration of the SCAQMD comments is made in light of the U.S. District Court's findings and determinations made during the course of the Litigation as well as in the Consent Decree. The District Court determined that further environmental review for the RNFSA Project under CEQA is constrained under principles of federal preemption and the requirements of CEQA itself including the state appellate court case interpreting CEQA entitled Sunset Drive Corp. v. City of Redlands, 73 Cal. App. 4th 215 (4th Dist. June 30, 1999), given the length of time already undertaken by the County for project-related environmental review, except as outlined in the Consent Decree.

Notwithstanding the late date of the SCAQMD submittal, and the above principles constraining further CEQA review, the County has independently analyzed the substance of the SCAQMD comments within the context of CEQA, and has conducted an independent evaluation of the SCAQMD's comments based upon evidence in the administrative record. The County hereby finds that the comments do not rise to the level of significant new information requiring recirculation or additional environmental review pursuant to State CEQA Guidelines § 15088.5.

One comment made by SCAQMD was that the AEIDEIR did not include a risk analysis for diesel particulate emissions from delivery trucks. In fact, the AEIDEIR analysis did include analysis of delivery trucks on the project site, but did not include analysis of delivery trucks on Soledad Canyon Road. At the time the EIR documents were prepared, no such risk analysis was required, nor did SCAQMD have any guidance documents on this issue. SCAQMD did not raise this issue in either of its comment letters on the DEIR or AEIDEIR. SCAQMD's recent comment is based on its "Health Risk Guidance for Analyzing Cancer Risks From Mobile Source Idling Emission for CEQA Air Quality Analysis", which was developed by SCAQMD in December of 2002.

Such an analysis does not appear necessary for Soledad Canyon Road, the primary project access route from the Antelope Valley Freeway, because the Guidance document identifies truck traffic on local streets and/or arterials as an applicable category of truck movement, but does not include truck traffic on highways. In fact, Soledad Canyon Road is a two-lane road that is a non-urban access road classified as a Major Highway in the County Master Highway Plan and is neither a local street nor an arterial. (DEIR, p. 3-283.) Accordingly, evaluation of health risks from travel on Soledad Canyon Road does not appear to be required under the HRA Guidance. Nonetheless a health risk assessment has been conducted for the Project, as would be conducted for a local street or arterial.

The Project Applicant submitted a health risk analysis using ISCST3 for comparative purposes for diesel truck travel on Soledad Canyon Road. (Letter from Jeffer, Mangels, Butler & Marmaro, LLP to Richard A. Weiss, dated January 15, 2003 ["CEMEX January 15, 2004 letter"], Exhibit 1 -- West Coast Environmental, January 15, 2004, "On-Road Haul Truck Diesel Particulate Matter Health Risk Assessment ["HRA"]) The model was run using an exposure duration of 20 years, which is the life of the Project, and 70 years which is overly conservative

but is suggested by SCAQMD. Because the Project has a legally defined life span based on contracts between the United States and CEMEX, unlike the warehouse and distribution centers for which the Guidance document was written, the use of a 70-year lifetime exposure period is not appropriate for the project. Nonetheless, the results of this analysis show that the cancer risk for on road diesel truck travel for the Project is less than 10 in a million for both 20 years and 70 years.

A second comment made by SCAQMD was that the operational emissions for the RNFSA Project should be estimated on the California Air Resources Board's ("CARB") latest emissions model, EMFAC2002, rather than EMFAC7G, which was used for the RNFSA Project. However, use of EMFAC 2002 does not result in an overall increase of emission estimates for CO, ROG, PM10 or NOx. The emission factors in the DEIR and AEIDEIR are based on EMFAC7G emission factors for an assumed Phase 1 starting year of 1998 and a Phase 2 starting year of 2008. In fact, however, the Project is now anticipated to begin operations in the year 2005 with an estimated Phase 2 starting year of 2015. This change in starting years for Phases 1 and 2 affects the on-road mobile source emissions due to the modernization of the overall vehicle fleet. When on-road mobile source emissions are updated using EMFAC2002 and the new starting years, emissions estimates decrease from the DEIR/AEIDEIR estimated emissions, because EMFAC2002 addresses the modernization of the overall vehicle fleet being used, i.e., with time, the average emissions per truck decrease with improvements in technology. (CEMEX January 15, 2004 letter, Exhibit 2 – West Coast Environmental, January 15, 2004, Technical Responses to SCAQMD Letter, dated November 21, 2003 ["SCAQMD Response"].)

A third comment from SCAQMD states that the carbon monoxide (CO) hot spots analysis for the Project was performed using emission factors from EMFAC7G, and that it should be updated to use the emissions factors from EMFAC 2002, and that a CO hot spots analysis for truck idling at the site may be appropriate but is voluntary. However, CO emission factors for the Project are lower when updated for EMFAC2002 and the years 2005 and 2015, than those assumed in the DEIR and AEIDEIR. This is again due to the lowered on-road mobile source emissions assumed under EMFAC2002 described above. Thus, use of EMFAC2002 results in lower emissions from haul trucks and less potential to create a CO hot spot. (SCAQMD Response.) Additionally, a CO hot spots analysis for idling trucks on-site is not warranted because no public receptors are located more than ¼ mile from the nearest residence and there are no sidewalks, public parking lots or other pedestrian areas nearby. (SCAQMD Response.)

Carbon monoxide (CO) hot-spots modeling for both RNFSA Project phases showed that RNFSA Project traffic will not raise the ambient CO concentration at the nearest sensitive receptor (located 50 feet from the road). When combined with the highest observed CO concentration near the site, neither state nor federal criteria levels would be exceeded and no significant adverse impacts will result. (DEIR, p. 3-166.)

Emissions impacts for Phase 1 and Phase 2 operations are less than significant for sulfur oxide emissions. (DEIR, p. 3-162.)

2.7.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

A. Construction Fugitive Dust Emissions

Dust from physical site disturbance, material deliveries, employee commuting, and wind erosion during high wind episodes may create an impact beyond the property line. However, dust impacts are not expected to be significant during the construction phase. (DEIR, pp. 3-161 and 162.) A detailed analysis of construction fugitive dust emissions is presented in the DEIR. (*Ibid.*) This analysis is applicable to the RNFSA Project as well as the Original Proposed Project. (AEIDEIR, p. 3-23.) As indicated on page 3-162 of the DEIR, the PM-10 emissions would be below the applicable South Coast Air Quality Management District level of significance and applicable significance criteria, and therefore no adverse impacts are anticipated. Mitigation Measure AQ1b will ensure that these impacts remain less than significant.

This less than significant effect is further reduced with the adoption of the following feasible mitigation measure:

AQ1b. Although dust impacts are not expected to be significant during the construction phase, standard measures will be implemented to control fugitive dust emissions during construction as required by SCAQMD Rules 402 and 403. These rules contain a nuisance provision that gives an SCAQMD inspector wide latitude to enforce dust abatement, particularly in the event of a nuisance complaint. Because of the extreme distances from sensitive receptors, no nuisance complaints are anticipated. Still, typical abatement measures, including daily watering of active construction areas and all traveled dirt roads to minimize dust lofting from vehicular disturbance, will be used.

The RNFSA Project is subject to Rule 403 and will prepare a fugitive dust plan that will be reviewed and approved by the SCAQMD on an annual basis. The plan will include Best Available Control Measures (BACM) and the regulation prohibits both visible dust and PM-10 concentrations in excess of 50 μg/m3 at the RNFSA Project boundary. The RNFSA Project will comply with the requirements of Rule 403 (Mitigation Measure AQ1b).

2.7.3 - Potential Significant Environmental Effects that have been Mitigated to Less than Significant

A. Construction Exhaust Emissions

Impact: Exhaust emissions from trucks and earthmoving equipment during the construction phase will create potential impacts both onsite and in the surrounding area.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure AQ1a which avoid

or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Findings

Exhaust emissions during the construction phase from trucks and earthmoving equipment create a potentially significant air quality impact for nitrogen dioxide. A detailed analysis of construction exhaust emissions is presented in the DEIR. (DEIR, pp. 3-160 to 171.) This analysis is applicable to the RNFSA Project as well as the Original DEIR Project. (AEIDEIR, pp. 3-23 to 27.) Site construction will create exhaust pollutants from onsite earth movement and equipment bringing building materials onsite. Nitrogen dioxide (NO2) emissions may exceed the SCQAMD quarterly threshold criterion and mitigation is necessary. (DEIR, p. 3-161; AEIDEIR, p. 3-27.) Control measures imposed pursuant to Mitigation Measure AQ1a to ensure that equipment is operating as designed and at optimum levels will reduce the pollutants generated by the equipment to the maximum extent feasible.

The potential significant effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

AQ1a. Mitigation for both heavy equipment and vehicle travel is limited. However, the following will reduce these emissions to the maximum extent feasible:

- maintain equipment in tune per manufacturer's specifications;
- use catalytic converters on gasoline-powered equipment;
- retard diesel engine timing by 4 degrees;
- install high-pressure fuel injectors;
- use reformulated, low-emission diesel fuel;
- substitute electric and gasoline-powered equipment for diesel-powered equipment where feasible;
- where applicable, do not leave equipment idling for prolonged periods;
- curtail (cease or reduce) construction during periods of high ambient pollutant concentrations (i.e., Stage II smog alerts);
- retard fuel injection timing, resulting in NOx reduction of 30 percent (> 40 percent in AP-42);
- use high-pressure fuel injectors resulting in PM-10 reduction in excess of 80 percent with a reduction in hydrocarbons; and

- use low-emission fuels resulting in unquantified reductions in all emissions. (Mitigation Measure AQ1a)

Equipment built to meet EPA/CARB certified engine standards incorporates a number of combustion system improvements. Therefore mitigation measure AQ1a involving retarding diesel engine timing by 4 degrees and installing high-pressure fuel injectors would not be applicable to this equipment.

B. Diesel Exhaust Particulate Emissions

Impact: Diesel exhaust particulate emissions from trucks and earthmoving equipment will create impacts both onsite and in the surrounding area.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure AQ5 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Findings

Diesel exhaust particulate emissions from mobile sources.may be significant. (AEIDEIR, pp. 3-26 to 27.) No specific CEQA significance threshold has been established for diesel exhaust particulate emissions from mobile sources. The FEIR has used the exposure risk of 1 in 100,000 set forth in Proposition 65 as a basis for developing mitigation designed to minimize exposure to diesel exhaust particulate emissions. The 1 in 100,000 exposure risk level in Proposition 65 provides a threshold for exposure to toxics below which no "significant risk" is posed, and therefore the use of this threshold as a standard for the mitigation measure reflects general state law concerning exposure to toxics. (AEIDEIR, p. 3-26.) A detailed analysis of diesel particulate exhaust emissions and exposure risk is presented in the AEIDEIR. (See AEIDEIR, p. 3-33 and Appendix A, B, and C.) Particulate filters or equivalent technology will be installed on select off-road diesel equipment and will reduce the emission of diesel exhaust particulates to a level that is less than significant under the applicable threshold of significance, as required by Mitigation Measure AQ5. (AEIDEIR, p. 3-27.)

In its November 21, 2003 letter, SCAQMD commented that there is no evidence that a 95% control efficiency for diesel particulate emissions is achievable at this time, and thus diesel particulate emissions would exceed those identified in Mitigation Measure AQ5. However, Mitigation Measure AQ5 is not dependent on the use of particulate filters achieving 95% control efficiency. Rather, AQ5 focuses on reducing diesel particulate emissions to a level that would not exceed the health risk significance threshold of 1 in 100,000, which is equivalent to the SCAQMD maximum individual cancer risk threshold of 10 in a million. Under AQ5, alternative methods to reduce diesel particulate emissions may be used, including the use of cleaner engines for heavy duty off-road equipment, which would result in lower uncontrolled diesel particulate emissions. The use of later model heavy duty off-road equipment would result in lower uncontrolled diesel particulate emissions, which in combination with particulate filter control efficiency of 85%, would result in residual diesel particulate emissions which are within the

emissions threshold identified in the AEIDEIR. (AEIDEIR, p. 3-33.) If particulate filters with a control efficiency of 95% or greater are not available, CEMEX will be required to implement alternative or additional methods in combination with filters or in place of filters to reduce diesel exhaust particulate emissions from on-site operations to the levels identified in AQ5. Thus, implementation of Mitigation Measure AQ5 will ensure that impacts to diesel exhaust particulates from on-site operations will not exceed the maximum individual cancer risk of 10 in one million.

In addition, SCAQMD suggested that additional mitigation measures should be included to further reduce diesel particulate emissions. Additional mitigation measures, however, are not required because with implementation of Mitigation Measure AQ5, project impacts associated with diesel particulate emissions are less than significant, and thus there is no requirement under CEQA to include additional mitigation measures. However, the County has independently assessed the mitigation measures suggested by SCAQMD, and has concluded that no additional mitigation measures are required because the measures identified by SCAQMD are either: (i) already included for the RNFSA Project; (ii) are not applicable to the RNFSA Project; (iii) do not relate to significant impacts of the RNFSA Project; or (iv) are infeasible. (SCAQMD Response.)

The effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

AQ5. The Project Applicant will incorporate the use of particulate filters or equivalent technology to ensure that annual diesel exhaust particulate emissions from mobile sources at the Project site will be less than 1,735 lbs/year for Phase 1 and Phase 2. At this level of annual emissions, the exposure risk for the Project related to diesel particulate emissions would be less than 1 in 100,000, for residential receptors, as shown in the analysis in Appendix C of the AEIDEIR.

In order to achieve this level of diesel exhaust particulate emissions, CEMEX will install particulate filters that achieve 95 percent or greater reduction in diesel exhaust particulates on the following equipment:

Phase 1: one 13 cubic yard pit loader; two 100-ton haul trucks; and one water truck.

Phase 2: two 13 cubic yard pit loaders; four 100-ton haul trucks; one water truck; two front end loaders; and one 35-ton dump truck.

If particulate filters with a control efficiency of 95 percent or greater are not available, CEMEX will implement alternative or additional methods in combination with filters or in place of filters to reduce diesel exhaust particulate emissions to less than 1,735 lbs/year.

Since diesel exhaust has recently begun to receive a high degree of attention, significant advances in control technology for heavy equipment are anticipated in the future. As these advances take place, CEMEX will review new technologies for their feasibility and applicability. Alternative methods for achieving equivalent or better diesel particulate

reductions may be implemented in place of or in combination with particulate filters. These alternatives may include:

- Conversion of some equipment to alternative or dual-fuel technology, if this becomes feasible.
- Purchasing lower emitting equipment, if it becomes available when new purchases are being considered.
- Use of low sulfur diesel, if it becomes available.

2.8 - BIOTA

2.8.1 - Potential Environmental Effects of the Project that are Less than Significant

No significant impacts will occur to the wildlife movement corridors. (DEIR, p. 3-213.)

Habitat for the least Bell's vireo and the southwestern willow flycatcher occurs on the Santa Clara River adjacent to the RNFSA Project site. (DEIR, p. 3-228.) Although neither species presently inhabits the riparian area, RNFSA Project operational noise will affect the habitat areas. Although most of the riparian zone would experience noise levels of less than 65 CNEL, two areas could experience levels greater than 65 CNEL. Single event noise from blasting will be limited to levels normally acceptable to residential receptors, and will not represent a significant effect by itself. Although operational noise levels may degrade the nearby habitat relative to reoccupation, these species are known to inhabit similar areas impacted by roadway noise and railway noise at up to 70 dBA. The impact to the endangered habitat of riparian birds is considered adverse but less than significant. (*Ibid.*)

The Santa Clara River is a jurisdictional water. The RNFSA Project will not result in the discharge of fill material to the river, and no significant adverse impacts will result. (AEIDEIR, p. 3-48.)

No wetlands or perennial aquatic habitat features (e.g., pools and riffles), salmonid habitat, fish spawning areas, or sensitive species associated with wetlands occur in the operations area. No perennial riverine systems occur in the operations area. No impacts to wetlands or special aquatic sites are associated with the RNFSA Project. (AEIDEIR, p. 3-47.)

On December 8, 2003, over two years after completion of the CEQA public review and comment process, the California Department of Fish and Game ("DFG") recently submitted a letter to the County identifying several concerns relating to the RNFSA Project, including a concern regarding potential impacts on the slender-horned spineflower (Dodecahema leptoceras). This letter follows two prior DFG comment letters dated September 23, 1999 and November 8, 2000 commenting on both the DEIR and AEIDEIR.

The County's consideration of DFG's letter is made in light of the U.S. District Court's findings and determinations made during the course of the Litigation as well as in the Consent Decree. Notwithstanding this, as well as the late date of the DFG's submittal, the County has considered the issues submitted by DFG, and concludes that it does not raise new significant information, particularly in light of the fact that all of the issues raised in DFG's December 8, 2003 letter were

raised either by DFG itself or other parties prior to the preparation of the Revised FEIR Responses to Comments in November 2001.

DFG claims that the RNFSA Project would potentially result in a significant impact on the slender-horned spineflower, requiring formal consultation under the Federal Endangered Species Act ("ESA") and resulting in a significant unmitigated impact under CEQA. This comment was raised in DFG's November 8, 2000 comment letter, and is addressed in the Revised FEIR Responses. (See Revised FEIR Responses, pp. 4-14 to 4-16.) As detailed in the DEIR and AEIDEIR, no significant impacts will occur to the slender-horned spineflower that occurs more than ½ mile from the RNFSA Project's operating area. (DEIR, p. 3-227; AEIDEIR, p. 3-48.) The slender-horned spineflower will not be affected by runoff or by PM10 from RNFSA Project operations. (DEIR, pp. 3-227 to 228; AEIDEIR, p. 3-48.)

Moreover, with elimination of the NFSA per the Mitigated Mining Cuts (VQ5), and as required by Project Condition 9ab of the Consent Decree, potential impacts to the slender-horned spineflower are further reduced for the RNFSA Project. DFG's December 8, 2003 comment expressly states that the alleged impacts it identifies would not result if the RNFSA Project "is redesigned to avoid placement of fines in Bee Canyon." The United States Bureau of Land Management ("BLM"), in response to the City of Santa Clarita's July 2001 request for reinitiation of consultation under the ESA, stated in its August 6, 2001 Supplement to the Biological Assessment ("SBA") for the RNFSA Project that reinitiation of formal consultation for this species is not required, especially after elimination of the NFSA. (Revised FEIR Volume 7 – Technical Appendices, Supplement to Biological Assessment, p. 6.) Since the Mitigated Mining Cuts eliminates fines placement in Bee Canyon, the County further concludes that there is no significant or new information raised by DFG's comment.

The constraints on upward dispersion of arroyo toads into the mining area result in a low probability that toads would be affected by mining or shipping activities associated with the RNFSA Project. The active railroad tracks and existing traffic on Soledad Canyon Road represent barriers that help to restrict these species from the upland portions of the RNFSA Project area. (Revised FEIR Responses, p. 2-44.) No significant impact will result. (See DEIR, p. 3-219; Revised FEIR Responses, pp. 2-48 to 61.)

2.8.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

None.

2.8.3 - Environmental Effects of the Project that have been Mitigated to a Level of Less than Significant

A. Onsite Loss of Natural Vegetation Communities and Habitat

Impact: The loss of 119 acres of natural vegetation and wildlife habitat is a significant adverse impact. During vegetation removal, impacts could occur to nesting birds

protected under the Migratory Bird Treaty Act of 1918, and on sensitive species, including the California gnatcatcher.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measures B1, B2, B8 and B9 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations such as Mitigation Measures B8 and B9 are within the responsibility and jurisdiction of another public agency *[USFWS, USACOE, CDFG]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

The removal of vegetation is considered a significant adverse impact because there will be substantial local loss of species diversity in natural vegetation. (AEIDEIR, p. 3-46.)

The Angeles National Forest, a designated open space area of 651,874 acres, is located adjacent to the RNFSA Project site. The open space area consists of approximately 250,000 acres located northwest of the RNFSA Project site and approximately 400,000 acres located southeast of the RNFSA Project site. (DEIR, p. 3-224.) Approximately 11,398 acres (2%) of the Angeles National Forest is coastal sage scrub, and approximately 185,214 acres (28%) is mixed and semidesert chaparral. (DEIR, p. 3-225.)

The RNFSA Project prior to implementation of the Mitigated Mining Cuts would have affected three acres of coastal sage scrub and 152 acres of coastal sage scrub-semidesert chaparral, coastal sage scrub-mixed chaparral, and mixed chaparral, representing approximately 0.03 percent and 0.1 percent of the distribution of these communities, respectively, as compared to the regionally designated open space of the Angeles National Forest. (AEIDEIR, p. 3-46.) Implementation of the Mitigated Mining Cuts (and Project Condition 9ab from the Consent Decree) will reduce the total affected acreage to be disturbed to 119 acres: 1 acre of Coastal Sage Scrub, 103 acres of Coastal Sage Scrub/Semidesert Chaparral, 5 acres of Coastal Sage Scrub/Mixed Chaparral and 10 acres of Mixed Chaparral. (Revised FEIR Responses, p. 2-106.)

The RNFSA Project includes reclamation and revegetation of disturbed habitat as required by Mitigation Measure B1. (DEIR, p. 3-225.) The site is contiguous with open space habitat, including the Angeles National Forest. The adjacent open space is accessible to the more mobile species which will be displaced by the RNFSA Project. Given the small relative percentage of the open space habitat to be disturbed by the RNFSA Project in the area, the impacts associated with the loss of natural vegetation communities and wildlife habitat in the RNFSA Project area are less than significant with implementation of the Reclamation Plan which includes the Revegetation Plan. (DEIR, p. 3-225.)

The CDFG concerns with respect to potential impacts to birds addressed in the Migratory Bird Treaty Act will be fully mitigated by Mitigation Measure B8, by among other things, avoiding nesting birds during the breeding season and establishment of a buffer around active nests. As

well, vegetation clearing will be conducted either during the non-breeding season or during the breeding season only if a qualified biologist conducts a pre-construction survey and any nesting areas are avoided until the nest is no longer active. (Revised FEIR Responses, p. 2-45.)

Recent sightings of California gnatcatchers in the vicinity of Sand Canyon changed the potential for occurrence of this species to occur in the RNFSA Project area. (Revised FEIR Responses, p. 2-44.) Because the Sand Canyon location is within the dispersal range of this species, it is reasonable to conduct protocol surveys for the California gnatcatcher in areas of suitable habitat prior to each new phase of vegetation removal, or until such time as the species is no longer listed under either the California or Federal Endangered Species Acts, pursuant to Mitigation Measure B9. (Revised FEIR Responses, pp. 2-44 to 45.)

Potential impacts on the onsite sensitive plant species (Pierson's morning glory, slender mariposa lilly, Plummer's mariposa lilly, and club-haired mariposa lilly) were previously identified on the northwestern region of the RNFSA Project Site. Individuals of these species on the north side of the RNFSA Project would not be impacted, but there is potential that they could occur on the southwest edge of the site near the ridge. The difference is that the plants near the debris Basins B and C would not be impacted with the incorporation of the Mitigated Mining Cuts. Mitigation Measure B2 to protect these plants still applies, but is modified to take out the reference to the debris basins on the north side of the ridge. (Revised FEIR Responses, p. 2-106.)

With implementation of the Mitigated Mining Cuts, the requirements for reclamation in the NFSA would no longer apply. Mitigation Measure B7 (avoidance of the western- and eastern-most ephemeral drainages) in the NFSA would no longer be required under the Mitigated Mining Cuts. (Revised FEIR Responses, p. 2-106.) All other biological analyses, impacts and mitigations still would apply after implementation of the Mitigated Mining Cuts. (Revised FEIR Responses, p. 2-107.)

Community representatives sought to impose a requirement that mining on the RNFSA Project site be completed within 20 years, and that reclamation would occur after the 20-year period. County staff addressed this proposal in the November 2001 Staff Report. This suggestion is not feasible. The Federal Contracts allow up to 22 years of mining, and thus this suggestion would conflict with that federally-prescribed time period. This suggestion would not mitigate any significant impacts, and therefore the legally required nexus between the RNFSA Project's impacts and the suggestion to support its imposition is not present. Reclamation of the site will take place according to SMARA and other applicable laws and regulations, and will take place immediately upon completion of mining in an area, while mining is still ongoing in other areas. Therefore the suggestion is duplicative of regulations and mitigation measures already imposed on the RNFSA Project, and would delay reclamation beyond what is currently required.

The potentially significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measures:

B1. The Reclamation Plan provides for concurrent revegetation of the site with species presently found onsite. The Reclamation Plan outlines revegetation specifications and establishes performance criteria for success of revegetation of the site (Mitigation Measure B1).

B2. Potentially significant impacts on sensitive plant species (Peirson's morning glory, slender mariposa lily, Plummer's mariposa lily, and club-haired mariposa lily), if they were to occur on the southwest edge of the site near the ridge, as determined by a qualified biologist prior to any vegetation removal, will be mitigated by the following actions. Seeds of these sensitive species shall be collected from impacted populations as fines storage proceeds, and the seeds shall be incorporated into the Revegetation Plan for the site. These plant species, especially Peirson's morning glory, are found in areas that have experienced disturbance such as fire or clearing. Therefore, incorporating the seed of these species into the revegetation plan for the site will provide a means to salvage the populations, and impacts on these species will be reduced to less than significant levels.

As additional assurance to preserve the genetic diversity that these individuals represent through these species' representative ranges, the following specification shall be adhered to: A donation in the amount of $4,000 shall be given to the Rancho Santa Ana Botanical Gardens for the collection and preservation of seeds of both slender mariposa lily and Plummer's mariposa lily. Initial seed collection will be done prior to any ground disturbance, with subsequent seed collection during the life of the RNFSA Project (Mitigation Measure B2).

B8. The following mitigation measures shall be implemented to ensure that there would be no significant impacts to nesting birds and no violation of the Migratory Bird Treaty Act as part of the RNFSA Project:

- Vegetation clearing shall be conducted during the non-breeding season (August 16 through January 31) to limit impacts to nesting birds.

- In the event that vegetation clearing is necessary during the breeding season (February 1 through August 15), then a biologist shall conduct a pre-construction survey to identify the locations of any breeding birds within the areas that will be affected by the clearing. If the biologist finds an active raptor nest within or adjacent to the areas requiring clearing, then the biologist shall delineate a 500-feet wide buffer zone. This zone shall be marked with flagging and construction or clearing shall not be conducted within this buffer zone until the biologist determines that the nest is no longer active.

- If the biologist identifies active nests of other bird species within or adjacent to the areas requiring clearing, then the biologist shall delineate a 250-feet wide buffer zone. This zone shall be marked with flagging and construction or clearing shall not be conducted within this buffer zone until the biologist determines that the nest is no longer active. (Mitigation Measure B8).

B9. Prior to each phase of vegetation removal within the proposed mining development envelope, the applicant shall perform general wildlife surveys for

the presence of any sensitive species listed at the time of the survey by either California Fish & Game or U.S. Fish and Wildlife Service. In particular, the applicant shall undertake protocol surveys for the California gnatcatcher in areas of suitable habitat prior to each new phase of vegetation removal or until such time as this species is no longer listed under either the California or Federal Endangered Species Acts. The surveys shall be conducted by a biologist who is permitted by the USFWS to conduct surveys for this species and the surveys shall be conducted according to the accepted USFWS protocol. Reports of the results of these surveys also shall be submitted to the Department of Regional Planning and USFWS. If any sensitive species are present, the applicant shall contact the appropriate trustee agency for recommended recovery and relocation procedures. (Mitigation Measure B9).

B. Onsite Impacts to Coastal Western Whiptail Habitat

Impact: The loss of habitat for the coastal western whiptail could result in a significant impact if substantial numbers of the species appear onsite.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the implementation of Mitigation Measure B3 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Implementation of the RNFSA Project, after implementation of the Mitigated Mining Cuts, will result in the loss of 119 acres of wildlife habitat over the 20-year life of the RNFSA Project. (Final Revised Responses, p. 2-106.) This habitat supports a variety of reptiles, birds, and smaller mammals, and is also used as foraging habitat for larger mammalian and avian carnivores such as coyotes, foxes and hawks. Removal of this habitat on general wildlife is considered adverse and significant because it will cause substantial loss of wildlife diversity. (DEIR, p. 3-226.)

Some suitable habitat is present onsite which could support the coastal western whiptail. (DEIR, p. 3-226.) Impacts to this sensitive species would only be considered significant if a viable population of the species occurs onsite. The coastal western whiptail could occur over the RNFSA Project site. No individuals were observed during site surveys conducted between 1990 and 1995. (DEIR, p. 3-227.) If the coastal western whiptail was found on the site in considerable numbers, there would be the potential for significant impacts to the species. (*Ibid.*; AEIDEIR, p. 3-47.) The coastal western whiptail is often associated with disturbed sites. Thus, revegetating disturbed portions of the site as soon as mining activity is complete with the types of vegetation already found on-site will mitigate this impact fully, as required by Mitigation Measure B3.

The potentially significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

B3. Potential significant impacts on the coastal western whiptail will be reduced to less than significant with the implementation of the Reclamation Plan which is set forth as part of the RNFSA Project actions. This species is often associated with disturbed sites, and implementation of the RNFSA Project would not represent a permanent loss of its habitat. Even though the Reclamation Plan is part of RNFSA Project actions, the applicant shall assure its implementation with oversight to be provided by the County. (Mitigation Measure B3)

C. Impacts to Wildlife from Lighting

Impact: Stray lighting from facilities could have significant impacts on wildlife activity in adjacent offsite areas.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through implementation of Mitigation Measure B4 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Preservation of downstream habitats along the Santa Clara River is the greatest offsite concern related to implementation of the RNFSA Project. (DEIR, p. 3-228.) A potential impact to adjacent offsite wildlife occurs from necessary security lighting during nighttime hours. Security lighting around facility structures and equipment has the potential to introduce stray lighting into offsite habitat areas. The introduction of stray lighting into outlying habitats could disrupt wildlife activities and is considered a potentially significant impact. (DEIR, p. 3-228.) These impacts can be mitigated with the use of low-intensity lighting, and with directional shielding of lighting to reduce spillover effects, as required by Mitigation Measure B4.

The potentially significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

B4. Impacts from stray lighting from facilities and equipment yards will be reduced to a level of less than significant with the use of low-intensity lighting and direction shields. (Mitigation Measure B4)

D. Adjacent Offsite Impacts to Riparian Vegetation and Wildlife

Impact: Uncontrolled surface runoff from the site could result in a significant impact on riparian vegetation and wildlife habitat.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure B5 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations are within the responsibility and jurisdiction of another public agency *[CRWQCB]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

The RNFSA Project could result in impacts to the sensitive river habitat for the endangered unarmored threespine stickleback and arroyo toad from increased surface disturbance of the RNFSA Project site above the Santa Clara River, increased erosion and sedimentation in the River. Uncontrolled surface water runoff from the RNFSA Project site could cause increased erosion and sedimentation in the Santa Clara River. Increased sedimentation could significantly impact aquatic and semiaquatic wildlife, including the unarmored threespine stickleback and arroyo toad. (DEIR, pp. 3-228 to 229; AEIDEIR, p. 3-48.) The RNFSA Project includes installation and maintenance of four desilting/debris basins to control surface runoff and sedimentation from the site. With implementation of the runoff control plans as required by Mitigation Measure B5, no significant impacts to the sensitive river habitat from RNFSA Project-related sedimentation are anticipated. In addition, the SWPPP and the SPCCP serve to reduce the quantity and protect the quality of any runoff that does move offsite. (DEIR, p. 3-83.)

Implementation of the Mitigated Mining Cuts reduces the number of desilting/debris basins originally contemplated, from seven to four, as a result of the decreased area to be disturbed after implementation of the Mitigated Mining Cuts. (Final Revised Responses, p. 2-98.) This does not reduce the effectiveness of the basins to mitigate potential impacts to biology because drainage patterns on the south side of the ridge would remain the same. (Final Revised Responses, p. 2-102.)

The potentially significant effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

B5. Potential impacts on the Santa Clara River biological resources from uncontrolled surface runoff from the site will be mitigated through implementation of RNFSA Project design measures including construction and maintenance of four desilting/debris basins and implementation of the RNFSA Project SWPPP and SPCCP (Mitigation Measure B5).

E. Loss of Riparian Habitat and Riparian Species from Pumping

Impact: Uncontrolled subsurface pumping from the Santa Clara River could result in a significant impact on sensitive riparian species and their habitat.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through implementation of Mitigation Measures B6 and B10 and BO1 through BO16 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations such as the Biological Opinion Mitigation Measures are within the responsibility and jurisdiction of another public agency *[USFWS, CDFG]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

Riparian vegetation in the floodplain may be subject to significant impacts from uncontrolled pumping of subsurface flows of the Santa Clara River for the RNFSA Project. (DEIR, p. 3-227.) Riparian vegetation in the floodplain includes willow-cottonwood woodland and willow scrub. A RNFSA Project-related decrease in groundwater levels during the growing season of a dry year could intensify the effects of a drought on these riparian communities. Loss of riparian habitat caused by such effects would be considered a significant adverse impact. (*Ibid.*)

Uncontrolled pumping of the underflow of the Santa Clara River during the dry months of drought years could result in significant adverse impacts to sensitive fish species found in the river, specifically the essential habitat of the unarmored threespine stickleback and to other sensitive wildlife that nest in riparian habitat. (DEIR, pp. 3-228 to 229.) Sensitive wildlife species may have a potential to occur adjacent to the RNFSA Project site in the willow/cottonwood habitat. These species may potentially move through the willow scrub in Area B but would not be expected to nest there due to the level of disturbance and the short stature and/or low density of the vegetation. The cottonwood/willow habitats located upstream and downstream of Area B are considered more suitable for nesting activities. (AEIDEIR, p. 3-47.)

Any pumping that causes permanently flowing stickleback habitat to run dry or lose essential habitat qualities would be considered a significant adverse impact. The USFWS reviewed the Final Biological Assessment in accordance with Section 7 of the Endangered Species Act, and determined in its Biological Opinion (January 14, 1998) that the RNFSA Project is not likely to jeopardize the continued existence of the unarmored threespine stickleback. (Revised FEIR Responses, p. 2-47.) Potential impacts on willow scrub habitat will be mitigated through implementation of the Habitat Protection Plan as described for water resources (Mitigation Measures WR 1 and B6). (DEIR, pp. 3-227 to 3-229; AEIDEIR, p. 3-48; Revised FEIR, pp. 2-48 to 49.) The Habitat Protection Plan includes a monitoring plan for water resources of the Santa Clara River and a habitat monitoring program, and is also enforced through the imposition of Mitigation Measures B6 and B10. (See DEIR, Appendix F6.) At certain action levels, operational adjustments will have to take place to reduce project water consumption, and could include cessation of pumping if the impact is severe enough. (FEIR Revised Responses, pp. 2-47; see also FEIR Revised Revised Responses, pp. 2-61.) With these measures, the RNFSA Project also would not be expected to significantly impact any aquatic or riparian habitats that may support the least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, arroyo toad, or California red-legged frog, however sensitive species surveys will be conducted prior to the initiation of pumping to determine whether these species exist in the area, to determine an updated baseline against which to measure any impacts the RNFSA Project may have (Mitigation Measure B10). (Revised FEIR Responses, pp. 2-47.)

Uncontrolled pumping and associated activities required for construction and maintenance of water wells and pipelines have the potential to adversely impact the arroyo toad. The USFWS reviewed the Supplement to the Biological Assessment in accordance with Section 7 of the Endangered Species Act, and determined in their Biological Opinion (October 25, 2001) that the RNFSA Project is not likely to jeopardize the continued existence of the species due to the fact that a small proportion of the range of the toad and the number of individuals that would be affected by the proposed action would be relatively small. (Revised FEIR Responses, p. 2-48.) Based on a joint site review of the RNFSA Project site by the City of Santa Clarita, Cemex, County, and BLM biologists, and with regard to information supplied to the County by the City, BLM, and USFWS, the Department issued to the Board a Report On Federally Endangered Arroyo Toad (November 13, 2001), and transmitted a revised FEIR including more information on arroyo toad to the Board. (Revised FEIR Responses, pp. 2-48 to 71.) The Report recommended incorporation of additional Federal mitigation measures identified by the BLM and USFWS, and an additional County project condition requiring personnel training regarding arroyo toad by a qualified biologist. The Department concluded that, in compliance with CEQA, the discovery of arroyo toad on the subject property did not constitute significant new information regarding a new substantial adverse environmental effect of the RNFSA Project, and further concluded that the proposed mining project, as appropriately mitigated and conditioned, would not have a significant effect on the endangered arroyo toad. Additionally, the Department concluded that re-circulation of the RNFSA Project environmental documentation was not required under the provisions of CEQA. As stated above, the toad as well as other species will be protected by implementation of the Habitat Protection Plan, and the terms and conditions mandated by the USFWS in the 2001 Biological Opinion which have been incorporated into the RNFSA Project by the County.

As per terms and conditions set forth in the Biological Opinion dated January 14, 1998 addressing the unarmored threespine stickleback, prepared by the USFWS, the BLM is responsible to the USFWS for compliance actions to implement the measures above and terms and conditions as contained in the Biological Opinion. In addition, the BLM shall require CEMEX to prepare an annual report for its review by December 1 of each year the mine is in operation or reclamation phases. The report shall document the effectiveness of the monitoring plan and shall guide decisions on modifications to the plan. (FEIR, Volume 6—Technical Appendices, Appendix B, p. 14.)

As per terms and conditions set forth in the Biological Opinion dated October 25, 2001 addressing the arroyo toad, prepared by the USFWS, the BLM is responsible to the USFWS for compliance actions to implement the terms and conditions as contained in the Biological Opinion. (Revised FEIR Responses, p. 2-48.) In addition, the BLM shall require CEMEX to prepare an annual report for its review by January 31 of each year that the Biological Opinion is in effect. The report shall document a detailed summary of the previous year's activities and their effects on the arroyo toad. (See Revised FEIR, Vol. 7.) The measures required in the BO are incorporated into the FEIR, and are set forth below, even though the federal agencies have the responsibility for monitoring compliance with them. (Revised FEIR Responses, p. 2-57 and 2-61.)

On December 8, 2003, DFG submitted a letter suggesting that the FEIR contains allegedly new information about the presence of the arroyo toad on the project site. This letter follows two

prior DFG comment letters dated September 23, 1999 and November 8, 2000, commenting on the DEIR and AEIDEIR.

At the time DFG received the FEIR in November 2001, the FEIR included additional information regarding the arroyo toad based on its discovery in the vicinity of the project site in the spring of 2001. (Revised FEIR Responses, pp. 2-48 to 2-71, Revised FEIR Volume 7 – Technical Appendices, Supplement to Biological Assessment ("SBA") and USFWS Supplemental Biological Opinion, October 25, 2001 ("SBO").) The FEIR incorporates all of the Reasonable and Prudent Measures, and the implementing Terms and Conditions, identified by the USFWS in the SBO as mitigation measures for the RNFSA Project, BO1 through BO16 below. The FEIR's analysis, as well as County Staff's November 13, 2001 report to the Board, concluded that discovery of the arroyo toad did not constitute significant new information regarding a substantial adverse environmental effect of the RNFSA Project. The County, as lead agency, is not required under CEQA to consult with responsible or trustee agencies regarding its determination that this was not significant new information. DFG never commented on the conclusions presented in the FEIR or the November 13, 2001 report, notwithstanding the fact that it was provided notice of the Board's November 27, 2001 hearing at which the SBO was to be considered.

Now, DFG claims that the RNFSA Project includes the presence of five additional production wells and three new monitoring wells, and that changes to the Habitat Protection Plan constitute significant new information.

The SBA identifies "potential well locations" for additional wells to be located in Area B of the Project site. (SBA, Figure 1; Revised FEIR Responses, p. 55, Figure 1.) The SBA analyzed future additional production well sites in the event that monitoring of well production showed an effect on the Santa Clara River and the habitat it provides for arroyo toad. (Revised FEIR Responses, pp. 2-59 to 2-61.) The SBA gives guidance to the Project applicant and the County in the event new production well sites are used to reduce impacts to the Santa Clara River and the arroyo toad habitat. But even if new wells are drilled, that would not be significant new information. Since the total amount of water drawn from all of the production wells would not exceed the amounts discussed in the DEIR and AEIDEIR, there would not be any increased impacts on the Santa Clara River or the habitat it provides from additional production wells. The SBA guidance protects surface flows through the manmade bedrock flood control channel located at the most easterly and upstream reach of the River on the Project site, by suggesting potentially two or more well sites in Area B, rather than extracting water from just one production well, so that the amount of water drawn from any one location is decreased. (Revised FEIR Responses, p. 2-59; SBA, p. 23.) The SBA does not specify the installation of five new wells, nor does it contemplate the operation of five new wells. Possible additional wells are contemplated only to substitute for wells discussed in the FEIR to reduce impacts to arroyo toad and the habitat provided by the Santa Clara River. The well construction guidelines required by the USFWS in the SBO provides measures to address impacts new production wells may have on riparian habitat. (SBO, pp. 6-7.) The County has incorporated these requirements as mitigation measure BO7, below.

The addition of three monitoring wells for the RNFSA Project was addressed in the FEIR. (Revised FEIR Responses, pp. 2-59 to 2-60.) As a result of the supplemental biological review

process, the USFWS increased the number of monitoring wells from three to six, which will provide additional information regarding potential impacts of project withdrawals on downstream flows (SBO, p. 7), and was included to reduce potential impacts to the arroyo toad and its habitat, as described in Mitigation Measure BO8 below. The SBO also includes additional action levels at which water pumping will be modified or eliminated and specifies when pumping can resume. (SBO, pp. 8-9.) These measures will provide further protection for the permanently flowing UTS habitat downstream of the site. Water is not pumped for production from these wells, thus they do not impact drawdown of the aquifer. (Revised FEIR Responses, p. 2-63.) Inclusion of these additional monitoring wells is consistent with the Habitat Protection Plan, and is not significant new information.

DFG also claims that changes to the Habitat Projection Plan ("HPP") is significant new information. The HPP was designed to be dynamic, and intended to adapt to Project phasing and the results of monitoring. (Revised FEIR Responses, pp. 2-47, 2-59 to 2-60; see also the SBA and SBO--November 2001 FEIR Volume 7 – Technical Appendices, Appendix F6.) The Habitat Protection Plan specifically contemplates changes to the RNFSA Project in order to protect the aquatic and riparian habitats in the Santa Clara River adjacent to the project site. (Revised FEIR Responses, pp. 2-46 to 2-47.) In any event, the addition of the three monitoring wells was not a change to the HPP, but instead additional monitoring required by the USFWS, and adopted by the County as further mitigation.

DFG also that the RNFSA Project will have a significant unmitigable impact on unarmored threespine stickleback ("UTS") because any "take" of the species would be a violation of Fish and Game Code Section 5515. As DFG acknowledges, this comment was made in DFG's November 8, 2000 comment letter, and was responded to in the FEIR. (Revised FEIR Responses, pp. 4-5 to 4-8.) DFG further alleges that the allegedly new production and monitoring wells may increase the potential of the RNFSA Project to result in "take" of UTS. Because there is no increase in the water withdrawal, there will not be any new significant impact to the UTS. (Revised FEIR Responses, pp. 2-47, 4-5 to 4-8.) Thus, this comment raises no significant new information. Further, the SBA concluded that reinitiation of consultation for the UTS was not required. (SBA, p. 8.) Thus, this comment does not raise significant new information.

The potentially significant effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

B6. Potential impacts on riparian habitat and proposed critical habitat of the unarmored threespine stickleback and regionally sensitive riparian vegetation from uncontrolled pumping of the underflows of the Santa Clara River will be mitigated through implementation of the Habitat Protection Plan. The monitoring plan will be a multifaceted program of water resource monitoring and habitat monitoring of the permanent flowing stickleback habitat downstream from the site, as well as seasonal habitat adjacent to and downstream of the site. The habitat protection program is presented in detail in Appendix F6 of the DEIR. The monitoring program will contain action levels based on habitat requirements for the unarmored threespine stickleback and riparian vegetation. These action levels will trigger adjustments to mining operations to reduce RNFSA Project water consumption, including the temporary cessation of pumping if necessary.

In response to below-seasonal average rainfall, mining operations will be adjusted during the dry season to reduce water consumption. Operational adjustments will include one or more of the following:

- seasonal sand and gravel production adjustments,
- seasonal management of concrete production,
- temporary stockpiling of fines,
- increased use of dust palliatives,
- temporary reduction or cessation of pumping of river underflows, and
- cessation of mining operations, if necessary (Mitigation Measure B6).

B10. Prior to the initiation of any water extraction for mining activities, the applicant shall incorporate baseline data of presence of sensitive riparian species into the Habitat Protection Plan. This baseline data shall consist of the mapping of all riparian vegetation habitats, both upstream and downstream from the production wells for a distance of no less than 1,000 feet. In addition, protocol surveys within this riparian habitat shall be conducted for the presence of least Bell's vireo, southwestern willow flycatcher, yellow-billed cuckoo and the southwestern arroyo toad as part of this baseline data. The surveys shall be conducted by a biologist who is permitted by the USFWS to conduct surveys for these species and the surveys shall be conducted according to the accepted USFWS protocol (Mitigation Measure B10).

In addition, as discussed above, the following measures from the BO are incorporated into the FEIR, though responsibility for their implementation is with either the BLM or the USFWS (referred to as the "Service" below):

BO1. The measures proposed by CEMEX in the biological assessment and summarized in the Federal biological opinion are incorporated as terms and conditions of the biological opinion and shall be included by the BLM as conditions of the mining and reclamation plan for the proposed Project.

BO2a. If the water quality and quantity parameters reach the action levels defined in the biological opinion (table titled Comparison of Unarmored Threespine Stickleback Habitat Requirements and Monitoring Plan Action Levels) the BLM shall require CEMEX to notify the appropriate BLM office and to cease pumping water from the alluvium of the Santa Clara River until the action levels defined in the table are again achieved.

BO2b. If pumping has been suspended until at least the water quality and quantity standards defined by the action levels are once again achieved, the BLM shall limit the amount of water pumped from the alluvium of the Santa Clara River by CEMEX to a rate and amount that will not result in fluctuations of the water level,

water temperature, or oxygen level. This limitation shall remain in effect until the onset of rains during the next wet season.

BO3. The BLM shall ensure that CEMEX uses only herbicides approved for spraying in and near aquatic sites, such as Rodeo, within 100 feet of the Santa Clara River when water flow is present in the river. Other herbicides may be used, according to their label restrictions, to control giant reed on upper floodplain terraces.

BO4. The BLM shall require CEMEX to prepare an annual report for its review by December 1 of each year the mine is in operation or reclamation phases. After BLM's review, the report shall be forwarded to USFWS by January 15. The report shall document the effectiveness of the monitoring plan proposed by CEMEX and the terms and conditions, a summary of the information that was collected regarding water quality and quantity from the previous year, a summary of the results obtained from the habitat monitoring, and the results of any work to remove exotic species. If appropriate, the report shall also recommend modifications to the monitoring plan and terms and conditions to enhance the protection on unarmored threespine stickleback while making them more workable for CEMEX and the BLM.

BO5. On locating dead unarmored threespine sticklebacks, initial notification must be made in writing to the USFWS Division of Law Enforcement and by telephone and writing to the Ventura Field Office within three working days of its finding. The report shall include the date, time, location of the carcass, a photograph, cause of death, if known, and any other pertinent information. Care shall be taken in handling dead specimens to preserve biological material in the best possible state for later analysis. The remains of unarmored threespine sticklebacks shall be placed with the Los Angeles County Museum of Natural History. Arrangements regarding propser disposition of potential specimens shall be made with the museum by the project monitor prior to implementation of the action.

BO6. The BLM and CEMEX will remove other exotic species from the habitat of the unarmored threespine stickleback when possible. In particular, any individuals of the African clawed form that are encountered should be destroyed.

BO7. Construction of Wells and Pipeline

a. A qualified biologist shall conduct a training session for all well and pipeline installation personnel prior to construction of project wells and pipelines. The training session will focus on information on the arroyo toad, indications of its activity, limits on project disturbance, keeping the site clear of trash and debris, and notifying monitors immediately if indicators of the arroyo toad are encountered.

b. Access to well development sites will be limited to pre-existing access routes to the greatest extend possible; vehicle travel related to well development shall be limited to daylight hours.

c. The footprint of new disturbance areas will be minimized to the maximum extend feasible; new disturbance will be monitored by an onsite biologist responsible for overseeing construction monitoring activities.

d. A water pollution control plan will be developed for pipeline installation and well development prior to site disturbance. The plan will be developed to the satisfaction of the qualified biologist.

e. The limits of project disturbance for well and pipeline installation will be clearly defined and marked in the field and reviewed by a monitoring biologist prior to initiation of work.

f. The well development will be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars.

g. If well development cannot be conducted without placing equipment or personnel in sensitive habitats, the development will be timed to avoid the breeding season or be timed so that work within or near the stream channel is conducted during the dry season.

h. Silt fencing or other sediment trapping materials will be installed around the well construction sites to minimize the transport of sediment and debris. Care will be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream. An onsite biological monitor will oversee such activities.

i. Equipment storage, fueling, and staging areas will be located on upland sites and a spill prevention control and countermeasures plan specific to the well and pipeline installation will be used.

j. No fill material will be deposited into watercourses.

k. The project biologist will visit the work site periodically throughout the duration of the well and pipeline installation to ensure that all practicable measures are being employed to avoid incidental disturbance of habitat and species.

l. The removal of native vegetation will be minimized and overseen by the onsite biological monitor.

m. To avoid attracting predators of arroyo toad, the site will be kept as clean of debris as possible.

n. Exclusionary fencing will be placed around well development sites at the direction of the onsite biological monitor. For a period of seven days, three times each day, prior to well installation, the qualified biologist will inspect the exclusionary fence lines and remove any amphibians

(including arroyo toads) and reptiles colleted in capture pits. (The "capture pits" are pitfall traps that would be located inside the fencing. Removed animals will be relocated to suitable habitat adjacent to, and outside of, the area of disturbance.

o. If it is to be installed above ground, the pipeline will be elevated to allow arroyo toads and other amphibians to cross underneath.

BO8. Water Withdrawal

a. Three additional monitoring wells will be installed and will be designated MW4, MW5, and MW6.

b. Two of the monitoring wells (MW4 and MW5) will be installed up gradient of the easternmost production well for the operation.

c. Monitoring well MW6 will be installed in the vicinity of permanent monitoring stations P2 and P3 as described in section 3.2.4.3 of the biological assessment.

d. These three wells will be equipped and operated to provide for continuous monitoring of ground water elevations at each well. In addition, the static groundwater elevation for each well will be recorded weekly. Static groundwater elevation is assumed to be the elevation of the groundwater 24 hours after all pumping has ceased (recovered head).

e. Data generated from these wells will be reviewed weekly by CEMEX.

(i) Data from monitoring well MW4, the farthest upstream well, will be monitored to ensure that the pumping at any of the production wells does not have an effect on the surface water flowing to the bedrock channel, as described in section 6.2 of the supplemental biological assessment.

(ii) The groundwater elevation in MW5 will be monitored to ensure that the groundwater elevations of MW4 are not influenced by any of the production wells.

(iii) The relationship between the static groundwater elevation in MW4 and MW6 will be determined. This relationship will be used to quantify effects of project pumping on groundwater elevations at MW6. Data from MW4 and MW6 will be compared to ensure that project water extractions do not reduce surface flows downstream of Pole Canyon Fault near P2 to an extent that it would be detrimental to the riparian and aquatic habitat of the arroyo toad and other sensitive species.

f. Pumping of the easternmost production well will be regulated so that water diversions from the underflow do not affect surface water flowing into the bedrock channel. Pumping will be curtailed if water levels in MW4 and MW5 indicate that pumping effects are detrimental to the maintenance of surface flows through the bedrock channel.

BO9. The Bureau shall ensure that the education program includes information on all relevant aspects of the protective program for the arroyo toad.

A Service-approved biologist shall conduct a training session for all project personnel prior to the onset of any ground-disturbing activities within the action area. At a minimum, the training shall include a description of the arroyo toad and its habitat; the general provisions of the Endangered Species Act; the necessity for adhering to the provisions of the Act; the penalties associated with violating the provisions of the Act; the specific measures that are being implemented to conserve the arroyo toad during mining and associated operations; and the boundaries within which the specific actions may be accomplished. The program shall also cover the restrictions and guidelines that must be followed by all construction personnel to reduce or avoid effects on these species during project implementation.

BO10. The Bureau shall ensure that only qualified personnel handle arroyo toads and only in an appropriate manner and for the minimal amount of time required.

a. Only qualified personnel authorized under the auspices of this biological opinion shall handle arroyo toads. The Bureau or Transit Mixed Concrete shall submit the credentials of biologists who they wish to handle arroyo toads to the Service, for its review and approval, at least 15 days prior to the onset of the activities which they may be authorized to conduct.

b. When capturing and removing arroyo toads from work sites, the Service-approved biologist shall minimize the amount of time that animals are held in captivity. During this time, they shall be maintained in a manner that does not expose them to temperatures or any other environmental conditions that could cause injury or undue stress.

c. To avoid transferring disease or pathogens between aquatic habitats during the course of surveys and handling of arroyo toads, the Service-approved biologist shall follow the Declining Amphibian Population Task Force's Code of Practice. You may substitute a bleach solution (0.5 to 1.0 cup of bleach to 1.0 gallon of water) for the ethanol solution. Care shall be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat.

d. When conducting pitfall trapping, the Service-approved biologist shall ensure that all open traps are checked in the morning before temperatures or other environmental factors become stressful to trapped arroyo toads. If

pitfall traps will be inactive, they shall either be removed from the ground and the hole backflled or the lids shall be securely closed.

BO11. The Bureau shall require CEMEX to remove arroyo toads from the areas where monitoring wells are to be installed.

Arroyo toads shall be removed from the area of temporary disturbance around all monitoring wells to be installed in potential habitat. The procedures proposed by the Bureau and CEMEX, as modified by these terms and conditions, shall be implemented during the installation of the monitoring wells.

BO12. The Bureau shall require that the water pipeline be elevated through habitat of the arroyo toad and be maintained in a manner that does not impede the movement of arroyo toads.

a. The water pipeline shall be elevated above the surface of the ground when in arroyo toad habitat. The pipeline need not be elevated when crossing extensive disturbed areas that, in the opinion of the Service-approved biologist, are unlikely to support arroyo toads; the pipeline may be buried on either side of a road when it crosses a road within arroyo toad habitat.

b. When determining the height to which the pipeline should be elevated, the Bureau shall ensure that arroyo toads would have free unimpeded passage and consider whether vegetation or debris flows could block movement of individuals.

c. At least once per year, the Service-approved biologist shall inspect the water line. where it traverses habitat of the arroyo toad to determine whether debris or vegetation along the pipeline could impede movement of arroyo toads. In making this determination, the Service-approved biologist shall consider whether arroyo toads could be expected to easily cross or move around any obstructions.

d. If the Service-approved biologist determines that the movement of arroyo toads past the pipeline is substantially impeded, the Bureau shall ensure that Transit Mixed Concrete removes the blockage as soon as possible. The Service-approved biologist shall oversee the removal, using the same precautions when handling and moving arroyo toads as described elsewhere in these terms and conditions.

e. The Service-approved biologist shall ensure that any maintenance activity along the pipeline in habitat of the arroyo toad is conducted in a manner that minimizes the potential for injury or mortality. The Service-approved biologist shall define work areas in conjunction with the project manager, remove arroyo toads from harm's way (if necessary), and implement other protective measures, as described in these terms and conditions to protect arroyo toads during maintenance activities.

BO13. The Bureau shall ensure plans relating to the inadvertent release of hazardous materials are in place prior to the onset of ground-disturbing activities.

Prior to the onset of any ground-disturbing activity within or adjacent to arroyo toad habitat, the Bureau shall review CEMEX plans to prevent the inadvertent spills of hazardous materials and to remediate any such spill that may occur. These plans shall specifically discuss the implications of spills in habitat of the arroyo toad and include methods to remediate these spills in the least damaging manner.

BO14. The Bureau shall ensure that effects to arroyo toads that may occur during monitoring activities are avoided or reduced.

a. The Service-approved biologist shall inspect areas to be used for biological, hydrological, and other monitoring prior to their use by workers.

b. Biological (other than that directed at arroyo toads), hydrological, and other monitoring shall not be conducted within or adjacent to arroyo toad breeding pools or in areas where metamorph arroyo toads are abundant. The determination of abundance of metamorphs shall be made by the Service-approved biologist. The primary criterion to be used in determining if work in a given area must be delayed is whether the monitoring activities are likely to result in mortality of several metamorphs. If the Service-approved biologist makes this determination and mortality cannot be avoided through the implementation of site- and instance- specific measures, the monitoring activity shall be delayed until such time when metamorphs are no longer abundant; alternatively, the monitoring shall be moved to another site. When in doubt regarding whether metamorphs should be considered abundant or site- and instance-specific protective measures, the Service-approved biologist shall contact the Service and Bureau for guidance; telephone contact may be used to expedite resolution of the issue.

BO15. The Bureau shall require CEMEX to reduce the level of take of arroyo toads associated with the removal of giant reed.

a. The Service-approved biologist shall inspect areas where removal of giant reed is proposed prior to the onset of removal activities.

b. If arroyo toads or suitable habitat is present, the Service-approved biologist shall define where trails, staging areas, and other general sites of disturbance may occur. Sensitive areas, such as breeding pools and sites where numerous animals may be in burrows, shall be marked and avoided.

c. If avoidance of arroyo toads outside of breeding pools is not possible, the Service approved biologist shall move these individuals to a nearby safe location.

d. Breeding pools that contain tadpoles or eggs of arroyo toads shall be avoided until all individuals have left the water.

e. These procedures may be used to remove salt cedar (Tamarix spp.) and other nonnative species.

BO16. The Bureau shall ensure that protective measures for the arroyo toad are consistently implemented.

a. The Service-approved biologist(s) shall have the authority to stop specific work activities until appropriate corrective measures are taken when unintended effects to arroyo toads occur. If an arroyo toad is observed within a designated work area and cannot be avoided, all work shall stop until the animal leaves the work area or until it is captured and relocated by a Service-approved biologist to outside of the work area to avoid injury or mortality.

b. If CEMEX does not implement the protective measures for the arroyo toad, the Bureau shall suspend work on the mining operation until such time that Transit Mixed Concrete is again in full compliance.

2.9 - CULTURAL RESOURCES

2.9.1 - Potential Environmental Effects of the Project that are Less than Significant

The potential for paleontological resources is low because the formation conglomerates are not considered to be fossil-bearing. Thus, no significant impacts are anticipated. (DEIR, p. 3-235.)

2.9.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

None.

2.9.3 - Potential Environmental Effects of the Project that have been Mitigated to a Level of Less than Significant

A. Impacts to Historic Resources

Impact: RNFSA Project activities may impact historic archaeological sites and historic resources.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measures CR1, CR2 and CR3 which avoid or substantially lessen the significant environmental effect as

identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations are within the responsibility and jurisdiction of another public agency *[BLM, SHPO, Native American Tribes]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

Impacts to historic resources are analyzed in the DEIR. One Historic Archaeological site, LAN 1847H, is located within the boundaries of the RNFSA Project. This site is located within a portion of the site where no RNFSA Project-related ground disturbance is currently planned. (DEIR, p. 3-235.) Because LAN-1847H has not been evaluated, its potential importance is not known. Based on evidence presented in the DEIR and during preparation of the FEIR, there is the potential for the Site to contain yet undiscovered historic resources. (DEIR, p. 3-235.) To ensure that the site is not impacted, it will be avoided as required by Mitigation Measure C1, and protected by a fence installed under the direction of an archaeological monitor. If future plans may include disturbance of the area, the site will be properly characterized and any impacts mitigated through the imposition of Mitigation Measure C3. (DEIR, p. 3-235.)

In response to comments, and to ensure that no cultural resources would be impacted by the RNFSA Project, Mitigation Measure CR3 was added. This measure requires a walk-over survey to be completed prior to quarrying operations in each area of the project. (Revised FEIR Responses, pp. 2-107, 4-55.)

With the Mitigated Mining Cuts, there would be even less potential for disturbance as activity on the north slope would be substantially reduced and limited to the ridge. Still, since the archaeological site is within the RNFSA Project boundary, mitigation measures CR1, CR2 and CR3 would still apply. (Revised FEIR Responses, p. 2-107.)

Community representatives recommended that CEMEX notify the Department of Regional Planning, the County Monitor, and the Project opponents (the City and the Agua Dulce and Acton Town councils) of the discovery of any cultural resources discovered on the Project Site within 24 hours of the discovery. County staff addressed this proposal in the November 2001 Staff Report. However, since that time, the County has re-evaluated the suggested condition and based on all of the evidence in the administrative record, including a November 19, 2001 response document submitted by CEMEX responding to the Department of Regional Planning's November 2001 Staff Report[3], has concluded that this suggestion is not feasible. This notification would not reduce any identified significant impacts of the RNFSA Project, and therefore the legally required nexus between the RNFSA Project's impacts and the suggestion to support its imposition is not present. However, as part of the judicial Consent Decree to settle litigation, CEMEX has agreed to immediately cease activity in any area of newly discovered

[3] "CEMEX's Response to County Staff's November 2001 Staff Report and Proposed Conditions Regarding Surface Mining Permit NO. 91-165(5) Soledad Canyon Sand and Gravel Mining Project", submitted to the Board of Supervisors on November 19, 2001.

cultural resources, and to report to the Department of Regional Planning within 72 hours of such discovery. (Project Condition No. 40.)

The potentially significant effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measures:

CR1. Under current construction plans, the historic archaeological site (LAN-1847H) will be avoided. However, to ensure that the site is not disturbed by construction activities, the site will be fenced under the direction of an archaeological monitor. With this measure, the site will be avoided and protected, which is a preferred mitigation measure under CEQA. (Mitigation Measure CR1)

CR2. If future construction plans cannot avoid and protect the site, all construction will cease and an archaeological test program that includes archival research will be necessary to determine the site's importance. If the site is found to be important, a data recovery program will be implemented to mitigate impacts to a less than significant level. (Mitigation Measure CR2)

CR3. A walk-over survey shall be conducted prior to grading new mining areas. If during the walk-over survey, pre-construction or construction phases of the RNFSA Project, historic properties are discovered, CEMEX, will consult with the BLM to make reasonable efforts to avoid, minimize, or mitigate potential adverse effects to such properties. To aid in the resolution of any adverse effects, CEMEX would notify the BLM within 48 hours of the discovery of the site. The BLM will consult with the State Historic Preservation Officer (SHPO) and any Indian tribe that might attach religious or cultural significance to the affected property. CEMEX will be guided in its approach to any discovered sites by the provisions in 36 CFR Part 800 and appropriate consultation with the BLM. (Mitigation Measure CR3)

If any sites are found that might contain human remains, associated or unassociated funerary objects, sacred objects, or items of cultural patrimony as those terms are defined by the Native American Graves Protection and Repatriation Act (25 U.S.C. Section 3001), CEMEX will cease the activity in the area of discovery, make a reasonable effort to protect the items discovered before resuming such activity, and provide notice, pursuant to U.S.C. Section 3002(d).

Following the notification under this subsection, and upon certification by the Secretary of the department or the head of any agency or instrumentality of the United States or the appropriate Indian Tribe that notification has been received, CEMEX will resume activities in the area of discovery after 30 days of such certification. In addition, CEMEX will notify the Los Angeles County Coroner. If the Coroner determines that the burials are Native American, a Most Likely Descendant designated by the California Native American Heritage Commission will be notified and a reburial plan will be formulated, following procedures required by Public Resources Code, Sections 5097.94, 5097.98, 5097.99, and Health And Safety Code, Section 7050.5." (Mitigation Measure CR3).

2.10 - VISUAL QUALITY

2.10.1 - Potential Environmental Effects of the Project that are Less than Significant

View from City of Santa Clarita. From the Sand Canyon overcrossing of the Antelope Valley Freeway, the view of the RNFSA Project area is of the west face. (DEIR, p. 3-254.) This view of the west side of the RNFSA Project site is from a location farther west than the Soledad Canyon viewshed analysis above, and is considered to be representative of what viewers in the eastern portion of the City of Santa Clarita will see. (DEIR, p. 3-255.)

From this location, mining-related changes to the terrain will be visible, but will appear as minor changes to the overall viewshed. Given the distance of the site to Santa Clarita (approximately 2 miles) the RNFSA Project site is not a dominant viewshed feature, but only a background element. From this distance the differences in landform will be hard to depict. Impacts to views from Santa Clarita are considered less than significant. (*Ibid.*)

Views from the Angeles National Forest. Views of mining cuts will be visible from higher elevations in the Angeles National Forest but will comprise only a small portion of the overall viewshed from higher and distant locations. From a distance, the site will blend into the surrounding terrain in a manner consistent with other disturbance. Impacts to viewshed areas within the National Forest will be less than significant for both operations and reclamation. (DEIR, p. 3-269.)

2.10.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

None.

2.10.3 – Potential Environmental Effects of the Project that are Potentially Significant but have been Mitigated to a Level of Less than Significant

A. Nighttime Illumination

Impact: Nighttime illumination of processing areas on the south side of the ridge will incrementally add to indirect light pollution and is considered potentially significant.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure VQ4 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

There is the potential for some stray lighting to flow from the site and become a nuisance factor to communities in the general area. The proposed RNFSA Project will incorporate night lighting in the processing and operations areas of the site on the south side of the ridgeline. (DEIR, p. 3-270.) The lighting to be provided at the site, which will be characteristic of an industrial operation, will include lighting for both employee safety and site security. (DEIR, p. 3-270.)

The proposed lighting density on the south side of the ridge would be equivalent to less than 1 street light per ten acres of land, less than half the typical urban residential area. Lighting densities for typical urban residential areas range from one street light for every two acres to one light for every five acres. (DEIR, p. 3-277.)

The RNFSA Project's source of lighting will add to the amount of indirect light pollution or urban glow that may be observed in rural communities, such as Agua Dulce. (DEIR, p. 3-277.) The RNFSA Project's impacts are minor, but can be mitigated by the incorporation of modern lighting systems that direct lighting to specific areas and shielding to prevent spillover effects, and are required by Mitigation Measure VQ4. (DEIR, p. 3-277.)

The potentially significant effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

VQ4. The RNFSA Project will incorporate modern lighting systems that direct light to specific areas and will prevent stray lighting from spilling onto surrounding areas . No lighting will be directed upward. (Mitigation Measure VQ4)

2.11 - TRAFFIC

The FEIR utilized one of two methods identified in the County's Traffic Impact Analysis Report Guidelines, County DPW 1997 ("TIA Guidelines"). The TIA Guidelines "establish procedures to ensure consistency of analysis and the adequacy of information presented and timely review by County staff." The TIA Guidelines identify two methodologies that may be used to analyze traffic impacts: (1) a volume-to-capacity ratio methodology, which was used for the RNFSA Project (EIR Traffic Methodology), or (2) a Level of Service ("LOS") methodology set forth in Chapter 8 of the 1994 Highway Capacity Manual. DPW had been informed as of about October 30, 1997, that the EIR Traffic Methodology would be the one used. Utilizing the EIR Traffic Methodology, and implementing the resulting mitigation measures identified by the County, there are no residual significant impacts under CEQA. The EIR Traffic Methodology adequately addresses all RNFSA Project traffic impacts. The second methodology is simply more conservative, but is not required for the RNFSA Project because the EIR Traffic Methodology is adequate under CEQA.

2.11.1 - Potential Environmental Effects of the Project that are Less than Significant

None.

2.11.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

A. Limitation of Peak Hour Trips

The traffic impacts of the RNFSA Project remain the same as the Original DEIR Project. (AEIDEIR, p. 3-63.) The Traffic Study found that RNFSA Project traffic will not generate significant RNFSA Project-specific effects based on the County's impact criteria and the County's Congestion Management Program criteria. (DEIR, p. 3-297; AEIDEIR, p. 3-63.)

This less than significant effect is further reduced with the adoption of feasible Project Condition No. 13, agreed to in the Consent Decree as a compromise of Litigation, in lieu of Mitigation Measure T4 of the November 2001 RNFSA Project FEIR Mitigation Monitoring and Reporting Program, which will not be implemented. Though project-specific impacts are less than significant, Mitigation Measure T4 was originally proposed in the FEIR as a way to further minimize the less than significant traffic impacts of the RNFSA Project. As then proposed, Mitigation Measure T4 provided that: "Southdown will reduce a.m. peak hour trips by 25%. This reduction will be implemented by not shipping more than 35 outbound truck trips during the a.m. peak traffic hour during Phase 2 of the Project. (This mitigation is subject to exception in case of emergencies or in the event of special projects which may involve a need for aggregate or ready-mixed concrete for a continuous placement of ready-mixed concrete.)"

Thus, under Mitigation Measure T4, CEMEX would have been limited to 35 outbound trucks during the a.m. peak traffic hour during Phase 2.

Now, under Condition No. 13 of the Consent Decree, although not required under CEQA, the RNFSA Project's total truck trips in the a.m. and p.m. peak hours for Phases 1 and 2 will be limited. Condition No. 13 seeks to limit both inbound and outbound truck trips in the a.m. peak hour and the p.m. peak hour. Thus, under Condition No. 13, inbound and outbound truck trips will be limited to 8 in the a.m. peak hour, and 20 in the p.m. peak hour for both Phase 1 and Phase 2 of the Project. A Transportation Management Plan ("TMP"), will also limit outbound truck trips during the hours prior to and following the a.m. peak hour. The permittee will also implement a series of notification measures pursuant to Condition 13 designed to limit inbound peak hour truck trips. Condition No. 13 therefore results in greater restrictions on traffic than would have been imposed by Mitigation Measure T4.

Though Condition No. 13 seeks to limit both inbound and outbound truck trips, because inbound trucks will be operated by parties other than CEMEX, the County specifically acknowledges that the inbound truck trip limitations on other than CEMEX are not mandatory, but only desired. The County has found that, based on the EIR Traffic Methodology, the potential impact is less than significant, and these truck trip limitations do not constitute mitigation measures required by CEQA, but rather comprise an agreed-to Project Condition. The County therefore expressly finds that the failure of the notification measures to achieve inbound limits shall not constitute a violation of CEQA.

Community representatives proposed that the RNFSA Project utilize rail haul in place of trucking on the Antelope Valley Freeway or the Golden State Freeway. County staff addressed this proposal in the November 2001 Staff Report. This suggestion is not feasible for several

reasons. No unmitigated significant traffic impacts have been identified for the proposed mining project, and therefore the legally required nexus between the RNFSA Project's impacts and the suggestion to support its imposition is not present. No significant environmental impacts of the Project (air quality, visual quality, or cumulative air quality or biota) would be reduced to a level of less than significant with rail haul. A terminus for the rail has not been identified, and there would be additional environmental impacts at the terminus. Most importantly, rail haul would likely have greater overall environmental impacts on biological resources, including additional impacts on the endangered arroyo toad, visual resources, noise, and public safety.

Community representatives suggested a restriction on operating hours for the RNFSA Project. County staff addressed this proposal in the November 2001 Staff Report. However, since that time, the County has re-evaluated the suggested condition and based on all of the evidence in the administrative record, including the November 19, 2001 response document submitted by CEMEX responding to the Department of Regional Planning's November 2001 Staff Report, has concluded that this suggestion is not feasible. The RNFSA Project's impacts to traffic resources are mitigated to a less than significant level through implementation of Mitigation Measures T1 through T3, and therefore the legally required nexus between the RNFSA Project's impacts and the suggestion to support its imposition is not present. [DEIR, p. 3-304.] Furthermore, the proposed restrictions are not consistent with the Los Angeles County Congestion Management Program ("CMP"). In any event, the applicant has agreed to Revised Draft Condition #9r, which proposed restrictions on crushing operations and sought to restrict aggregate truck traffic to and from the RNFSA Project Site during critical business hours.

Community representatives sought to require CEMEX to provide full funding to the Department of Public Works for the resurfacing and repaving of Soledad Canyon Road. County staff addressed this proposal in the November 2001 Staff Report. This suggestion is not feasible. The suggestion does not mitigate any significant impacts of the RNFSA Project, and therefore the legally required nexus between the RNFSA Project's impacts and the suggestion to support its imposition is not present. Additionally, the RNFSA Project will only contribute approximately 13% of the traffic on Soledad Canyon Road, which does not warrant requiring CEMEX to fund 100% of roadway improvements, and therefore the legally required rough proportionality between the RNFSA Project's impacts and the suggestion is also not present. Accordingly, CEMEX is required to comply with Mitigation Measure T3, which requires it to contribute its fair share of costs to fund resurfacing and repair of Soledad Canyon Road.

Community representatives suggested a severe restriction on mining trucks from Agua Dulce Canyon Road, Escondido Canyon Road, and Sierra Highway. County staff addressed this proposal in the November 2001 Staff Report. This suggestion is not feasible. There are no significant impacts of the RNFSA Project on these roads, and therefore the legally required nexus between the RNFSA Project's impacts and the suggestion to support its imposition is not present.. However, as part of the judicial Consent Decree CEMEX has agreed to provide various dedications and improvements on roads in the area, as well as fund improvements in the vicinity of Soledad Canyon Road. (See Project Conditions Nos. 11 and 12.)

2.11.3 - Environmental Effects of the Project that have been Mitigated to a Level of Less than Significant

A. Site Access and Safety

Impact: The RNFSA Project has a potentially significant safety impact as a result of heavy trucks slowly accelerating into the traffic on Soledad Canyon Road.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure T2 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

An area of concern regarding traffic is the operational safety of the RNFSA Project's truck fleet, including day-to-day interface with local traffic that may include school buses and passenger vehicles. (DEIR, pp. 3-302 to 303.) The RNFSA Project access road is located along a stretch of road with limited visibility in either direction. (DEIR, p. 3-301.) Typical speeds along Soledad Canyon Road near the RNFSA Project site are on the order of 50 mph. Based on a speed of 50 mph, the required minimum site distance for safe braking and maneuvering of automobiles is 500 feet. (*Ibid.*) The majority of the traffic generated by the RNFSA Project will be heavy trucks. Heavy trucks have increased braking and maneuvering distances over passenger cars and require longer sight distances. However, the extra distance needed is usually afforded by the increased height of the operator from the road. Based on placement of the access road, 500 feet of visibility will be attained and will not present a significant impact. (DEIR, p. 3-302.) Further, creation of a four-way intersection will aid visibility issues as the intersection will be designed with adequate sight distance. The constraints of heavy trucks to react quickly to turning conditions will also be mitigated by the four-way intersection through which all traffic must pass and yield as appropriate. These are all requirements of Mitigation Measure T2. (*Ibid.*)

Another area of concern in traffic safety is the operational safety of the applicant's truck fleet. The general safety of truck operations will be dictated by CEMEX's established company-wide safety program, which specifically addresses maintenance and inspection of trucks, and includes a driver training element. (DEIR, p. 3-302.)

The potentially significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

T2. Access to the site will be relocated from its existing location on Soledad Canyon Road to a point opposite of the existing access road for the C.A. Rasmussen mining operations on the south side of Soledad Canyon Road. This would create a conventional four-way intersection on Soledad Canyon Road. The RNFSA Project will provide one shared left-turn/through lane and one exclusive right-turn lane on the north approach and aligned with the existing access road for the C.A. Rasmussen facility. A left-turn lane and one shared through/right-turn lane on both the east and west approaches on Soledad Canyon Road will be provided.

The westbound merging lane will be designed with adequate sight distance to the satisfaction of the County Department of Public Works, Traffic and Lighting Division. All striping improvements will also be approved by the Department. RNFSA Project proposed access improvements are shown on Figure 3.1.11-4 of the DEIR. Some trees and shrubs to the east and west of the access road will be cleared, as necessary, to afford an unimpeded view of oncoming traffic.

In computing the required slope easements along Soledad Canyon Road, the applicant will include that area which may be required for line of sight to the satisfaction of the County DPW. Additionally, the applicant will submit a geotechnical report for the DPW review and approval addressing the stability of any proposed side slope gradients greater than a 2:1.

If and when actual traffic conditions would warrant a traffic signal, CEMEX's pro-rata share of the traffic signal installation costs for the RNFSA Project access road/Soledad Canyon Road intersection will be 100 percent. (Mitigation Measure T2)

B. Pavement Wear on Soledad Canyon Road

Impact: RNFSA Project traffic may have a significant impact to wear on Soledad Canyon Road.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measure T3 which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

RNFSA Project traffic, combined with cumulative traffic in the RNFSA Project area, will contribute to wear on Soledad Canyon Road. A Traffic Index for pavement impacts was calculated for the traffic volume and mix forecast. Based on the forecast traffic volumes, the existing structural segment is sufficient for year 2000 loadings. If truck volumes occur as forecast, the existing structural segment will be sufficient until 2008. (DEIR, p. 3-301.)

Truck volumes are forecast to increase when CEMEX Phase 2 begins. If truck volumes are as forecast for Phase 2, the existing structural segment will not be sufficient and the roadway will need to be repaved. (*Ibid.*) The impact of the RNFSA Project will be mitigated through the imposition of Mitigation Measure T3.

This analysis is based upon projected volumes and vehicle mix, therefore review of the roadway surface and truck volumes will be necessary to determine the actual time and specifications of pavement overlay.

Implementation of the Mitigated Mining Cuts would result in no changes to traffic impacts, which would remain less than significant. (Revised FEIR Responses, p. 2-108.)

The potentially significant effects identified in the FEIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

T3. The Applicant will contribute its fair share of costs to resurface the specific section(s) of pavement on Soledad Canyon Road. Paving shall be accomplished prior to the start of Phase 2 or at a later date as substantiated with a revised traffic index analysis, which includes trucks generated by other projects. (Mitigation Measure T3)

2.12 - LAND USE

2.12.1 - Potential Environmental Effects of the Project that are Less than Significant

No significant land use impacts would result due to implementation of the RNFSA Project. (DEIR, pp. 3-322 to 323; AEIDEIR, p. 3-66.) One benefit of the Mitigated Mining Cuts is that if off-site development occurs in Bee Canyon, the elimination of the NFSA would provide for substantial separation between a new project located there, and the RNFSA Project operations due to the elimination of the NFSA. (Revised FEIR Responses, p. 2-108.)

2.12.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

The RNFSA Project would have no significant impacts due to inconsistency with applicable plans, since the RNFSA Project site has been previously mined pursuant to a CUP, the proposed use is allowed in the zone and is surrounded by compatible uses, and since the site has been designated as Regionally Significant for mining. (DEIR, pp. 3-322, 2-5 to 19; AEIDEIR, p. 3-66.) However, the County will review and approve the proposed Reclamation Plan as a RNFSA Project condition as required by Mitigation Measure LU1.

Analysis supporting the land use findings is found in the DEIR and AEIDEIR. The RNFSA Project area is designated or recognized by the following agencies as an area of regionally important aggregate resources: County of Los Angeles, State Department of Conservation, State Mining and Geology Board, and the Bureau of Land Management. (DEIR, p. 2-5 to 19.) The RNFSA Project is consistent with local planning policy and compatible with existing surrounding land uses.

The RNFSA Project site is located in unincorporated Los Angeles County and is zoned for heavy manufacturing uses (M-2). (DEIR, p. 3-306.) The proposed mining and extraction use is permitted in this zone subject to a surface mining permit issued by the County of Los Angeles; the RNFSA Project will also require County approval of a Reclamation Plan. The County's Santa Clarita Valley Area Plan designates the RNFSA Project area for hillside management (HM). (DEIR, p. 3-306.) The County General Plan designates the RNFSA Project as a Regionally Significant Construction Aggregate Resource Area. (DEIR, p. 3-310.) The RNFSA Project is consistent with the County Board of Supervisors policy to "protect important mineral resources by a long-range approach toward mineral resource utilization" as described in the Santa Clarita Valley Area Plan. (DEIR, pp. 3-306 to 307.)

The BLM identified the site in their South Coast Resource Management Plan Record of Decision that designated all BLM public lands including split estates as available for mineral material sales. (DEIR, p. 3-310.) The RNFSA Project area has been identified by CDMG as an area of regional significance, known to contain mineral resources. (*Ibid.*) Additionally, under SMARA, extraction of minerals from such an area is of prime importance. (DEIR, p. 3-308.) Under the County's General Plan, known mineral resources are to be protected from encroachment of incompatible uses.

This less than significant effect is further reduced with the adoption of the following feasible mitigation measure:

LU1. The County will review and approve the proposed Reclamation Plan to reclaim mined lands to a usable condition. Under the proposed Reclamation Plan, at the conclusion of the Federal Contracts, CEMEX will reclaim the CEMEX RNFSA Project processing site and/or all inactive disturbed areas. Any areas not used for continued mining will be reclaimed and revegetated for use as open space. Upon approval of all applicable permits and plans, the RNFSA Project will be deemed consistent with state, regional, and local land use policies and designations. (Mitigation Measure LU1)

2.12.3 - Potential Environmental Effects of the Project that have been Mitigated to a Level of Less than Significance

None.

2.13 - PUBLIC HEALTH AND SAFETY

2.13.1 - Potential Environmental Effects of the Project that are Less than Significant

None.

2.13.2 - Potential Environmental Effects that are Less Than Significant, but are Mitigated to Further Reduce Effects

A. Public Health Effects of Dust

Although less than significant, top soil at the Site could contain Valley Fever spores, which could be released to the atmosphere during top soil removal. (AEIDEIR, pp. 3-70.) The likelihood of the illness being attributed to activities at the RNFSA Project site is less than significant due to the RNFSA Project's location, proposed Mitigation Measure PSH6, and applicable SCAQMD rules. (*Ibid.*) It is important to note that the spores are usually found 4 to 12 inches below the surface of the soil. (AEIDEIR, p. 3-67.) The amount of surface disturbance during the life of the RNFSA Project will be approximately 15 acres per year. Once the top 12 inches have been excavated, the active mining operations pose little risk to the public.

(AEIDEIR, p. 3-69.) Limiting top soil removal to normal or low wind days will minimize the potential for spores to become wind borne. (AEIDEIR, pp. 3-69 to 70.)

Community representatives sought to require CEMEX to wash all trucks before exiting the Project Site to suppress dust and airborne particulates. County staff addressed this proposal in the November 2001 Staff Report. However, since that time, the County has re-evaluated the suggested condition and based on all of the evidence in the administrative record, including the November 19, 2001 response document submitted by CEMEX responding to the Department of Regional Planning's November 2001 Staff Report, has concluded that this suggestion is not feasible. This suggestion is duplicative of regulations and mitigation measures already imposed on the RNFSA Project. The RNFSA Project currently has a number of measures in place that will minimize fugitive dust emissions from aggregate trucks. (Mitigation Measures AQ2.3 and AQ2.4.) Furthermore, the SCAQMD identifies Best Available Control Measures for fugitive dust emissions in Rule 403 Fugitive Dust. This suggestion would also require the use of up to an additional 46,560 gallons of water per day (up to 42.9 acre feet per year). Therefore, the suggestion may have negative impacts on water use and wastewater discharges.

Community representatives also suggested requiring CEMEX to fund school air conditioning retrofits. County staff addressed this proposal in the November 2001 Staff Report. This suggestion is not feasible. The RNFSA Project has less than significant impacts on public health and safety at surrounding schools, the nearest school is three miles away, and there are no schools along the freeway access route. Though the RNFSA Project would have air quality impacts that remain significant after all feasible mitigation measures are implemented, the cost of the requested retrofit could exceed $6.5 million dollars when the PM10 levels generated by the mine operations would be less than 1% of the source within one-quarter mile, the distance identified by the Department of Toxic Substances Control to be analyzed for school proximity. The RNFSA Project would have a less than significant impact on public health, and therefore the legally required nexus between the RNFSA Project's impacts and the suggestion to support its imposition is not present. [Revised FEIR Responses, pages 2-33 to 2-35.]

This less than significant effect is further reduced with the adoption of the following feasible mitigation measure:

PHS6. CEMEX will not remove topsoil on high wind days.

2.13.3 - Environmental Effects of the Project that have been Mitigated to a Level of Less than Significant

A. Potential Fuel Spills and Public Access and Safety

Impact: The major environmental safety issues involve the risks associated with potential spills of fuels or hazardous materials and safety issues involving public access in and around the RNFSA Project area, or public contact with mining operations.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the implementation of Mitigation Measures PSH1 through PSH5 which avoid or substantially lessen the significant environmental

effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations such as Mitigation Measures PSH1 through PSH5 are within the responsibility and jurisdiction of another public agency *[CRWQCB, MSHA, OSHA, LACFD]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

The RNFSA Project includes two diesel above ground storage tanks. (DEIR, p. 3-324.) The risk of spills will be reduced since storage and dispensing of fuel onsite will comply with state and federal regulations including inspections by OSHA and CRWQCB to ensure proper fuel storage, as required by Mitigation Measures PSH2 and PSH5. (*Ibid.*) If a spill should occur, the RNFSA Project includes the Spill Prevention, Control, and Countermeasure Program (SPCCP), with emergency response measures that mitigate potential adverse impacts from accidental spills, as required by Mitigation Measure PSH1. (*Ibid.*; see also DEIR Appendix B2.) As well, the County Environmental Health Department and State Office of Emergency Services will be contacted regarding implementing required protective measures for a spill, and if the spill contacts any type of water, the U.S. E.P.A. will also be contacted. (DEIR, p. 3-324.)

Mining operations will include occasional blasting onsite. (DEIR, p. 3-325.) To eliminate the danger of accidental blasting or contact with explosives, no explosives will be stored onsite, and blasting will only be conducted by a qualified independent contractor pursuant to State of California Construction Safety Orders (Cal-OSHA) Article 8, Section 1550-1580, per Mitigation Measure PSH5. Ingredients for explosives will be transported to the site by a licensed blasting company pursuant to state safety regulations. In addition, any use of explosives onsite, and all mining operations, will be in accordance with the Mine Safety and Health Administration, and any other applicable regulations, including County Uniform Fire Codes, as also required by Mitigation Measure PSH5. (*Ibid.*) Compliance with these regulations will serve to keep any risks associated with mining activities to below a level of significance.

Potentially significant impacts on public safety would occur if the public comes in contact with mining operations. Public access to the RNFSA Project site will be restricted to reduce the potential for accidents, through fencing, gated entrances and proper signage, as required by Mitigation Measures PSH3 and PSH4. (DEIR, p. 3-325.)

The potential significant effects identified in the Final EIR are mitigated to below a level of significance with the adoption of the following feasible mitigation measure:

PSH1. Detailed emergency response plans are presented in the SPCCP and will be strictly followed (Mitigation Measure PHS1).

PSH2. All Mine Safety and Health Administration (MSHA) and other applicable regulations will be strictly enforced. (Mitigation Measure PHS2)

PSH3. Public access will be restricted to reduce the potential for accidents. Active mining areas will be fenced, and signs will be posted restricting access to RNFSA Project site (Mitigation Measure PHS3).

PSH4. The facility will be gated to control public access. (Mitigation Measure PHS4).

PSH5. Compliance with all regulations and requirements of OSHA, MSHA, and all applicable County 1994 Uniform Fire Codes will be observed (Mitigation Measure PHS5).

PHS6. CEMEX will not remove topsoil on high wind days.

SECTION 3.0 - FINDING REGARDING SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT FEASIBLY BE MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT

The County has determined that, although FEIR mitigation measures, design features included as part of the RNFSA Project, and conditions of approval imposed on the RNFSA Project will provide a substantial mitigation of the following effects, the following effects cannot be feasibly or effectively mitigated to a level of less than significant

3.1 - AIR QUALITY FINDINGS

A. Operations Exhaust Emissions

Impact: Operations exhaust emissions from trucks and earthmoving equipment create impacts both onsite and in the surrounding area.

Findings: A2. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measures AQ1c and AQ4 that avoid or substantially lessen the significant environmental effect as identified in the FEIR.

C. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make the mitigation measures or RNFSA Project alternatives identified in the FEIR infeasible.

Facts Supporting the Findings

Exhaust emissions will be generated from onsite operation of heavy equipment used for mining and processing and onsite operation of haul trucks, and present a significant impact. A detailed analysis of operations exhaust emissions is presented in the AEIDEIR. (AEIDEIR, pp. 3-23 to 41 and Appendix A thereto.) This analysis is specific to the RNFSA Project and replaces the analysis in the DEIR, which was for the Original DEIR Project. Both Phases 1 and 2 are anticipated to exceed the significance criteria for CO, NO2, PM10 and ROG, and a significant

impact is anticipated. (AEIDEIR, p. 3-40.) The emissions, anticipated control efficiencies, and residual impacts for Phases 1 and 2 after mitigation are presented in Tables 3.1.7-8 and 3.1.7-9 in the AEIDEIR. Note that in both Phases 1 and 2, NO2, PM10 and ROG will remain significant even after mitigation such as that presented in Mitigation Measure AQ1c.

The RNFSA Project will use EPA/CARB certified internal combustion engines in order to reduce the emissions from off-road diesel powered mining equipment. The resulting changes in heavy equipment emissions based on use of the EPA/CARB certified engines is presented in Appendix A of the AEIDEIR. However, even with use of these engines as required by Mitigation Measure AQ4, the residual emissions remain significant.

Implementation of the Mitigated Mining Cuts slightly reduces fugitive dust emissions and combustion emissions. Despite these reductions, residual impacts to air quality remain significant. (Revised FEIR Responses, p. 2-106.) However, it should be noted that the County has determined that the Project is consistent with the requirements of the South Coast Air Quality Management Plan ("SCAQMP"), and thus the RNFSA Project's emissions were contemplated in the planning for future development in the region, are consistent with the assumptions and objectives of the SCAQMP, and will not interfere with the region's ability to comply with Federal and State air quality standards. (Draft EIR, pp. 3-185 to 3-186.)

In addition to the mitigation measures presented for onsite operations, CEMEX has made a commitment to reduce traffic congestion by providing the transit improvements. The following mitigation measures indicate that the identified effects of the RNFSA Project have been reduced to the maximum extent feasible but are not anticipated to reduce them to a level that is not significant.

AQ1c. Because most of the trucks will be independently owned and operated, CEMEX has little control over these emissions. Still, CEMEX does have some control over these emissions while the trucks are onsite and in the selection of the owner-operators. Applicable mitigation then includes the following:

- Trucking will be performed on a 24-hour-per-day basis. This will reduce emissions by allowing trucks to operate during nonpeak hours, increasing truck speeds, and eliminating prolonged idling in traffic, thereby decreasing truck emissions.

- When operating onsite, trucks will not be left idling for prolonged periods.

- Applicant-operated trucks that are observed to emit excessive amounts of smoke (particulate matter) will either be tuned up or repaired, as applicable. Private owner-operators will be warned that, if their trucks emit excessive amounts of smoke, they will not be allowed future access to the facility.

- Where applicable, high-pressure fuel injector nozzles will be used, and diesel engine timing will be retarded by 4 degrees, except as modified by mitigation measure AQ-4. (This includes both trucks and heavy equipment) (Mitigation Measure AQ1c).

AQ4. This mitigation measure incorporates the use of EPA/CARB certified engines where applicable for the RNFSA Project. For equipment falling in the appropriate horsepower ranges, the RNFSA Project will use equipment which meets EPA/CARB emission standards for non-road engines. For Phase 1, the minimum standards which would apply would be the 1996 standards for 175-750 hp engines and the 2000 standards for equipment rated >750 hp. Additional equipment purchased for Phase 2 of the RNFSA Project will meet the year 2001 standards for 175-750 hp.

Equipment built to meet EPA/CARB certified engine standards incorporates a number of combustion system improvements. Therefore mitigation measure AQ1c involving retarding diesel engine timing by 4 degrees and installing high-pressure fuel injectors would not be applicable to this equipment.

The applicant will maintain a log of on-site equipment specifications that demonstrates compliance with this measure. Verification will be made by the County at the annual SMARA inspection (Mitigation Measure AQ4).

B. Operations Fugitive Dust

Impact: Operations fugitive dust emissions from trucks and earthmoving equipment create impacts both onsite and in the surrounding area.

Findings: A2. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the implementation of Mitigation Measures AQ2 and AQ3 that avoid or substantially lessen the significant environmental effect as identified in the FEIR.

B. Such changes or alterations such as those in Mitigation Measures AQ2 and AQ3 are within the responsibility and jurisdiction of another public agency *[SCAQMD]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

C. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make the mitigation measures or RNFSA Project alternatives identified in the FEIR infeasible.

Facts Supporting the Findings

Fugitive dust will be generated from the onsite operation of heavy equipment, rock and batch plant operations, materials reclamation, and erosion of the exposed areas, and presents a significant impact. A detailed analysis of fugitive dust emissions is presented in the AEIDEIR. (AEIDEIR, pp. 3-28 to 40.) This analysis is specific to the RNFSA Project and replaces the analysis in the DEIR, which was for the Original DEIR Project. Tables 3.1.7-6 and 3.1.7-7 in the AEIDEIR list the fugitive dust PM-10 emissions, assumed control efficiency, and residual emissions for Phase 1 and 2 operations, respectively. (AEIDEIR, pp. 3-34 to 36.)

With the elimination of the NFSA through implementation of the Mitigated Mining Cuts, a conveyor for fines will still be used, however fines at the Mitigated Mining Cuts would be conveyed to the Cut 1 area until it reaches capacity, and will comply with Mitigation Measure AQ3. (Revised FEIR Responses, p. 2-94.)]

With the Mitigated Mining Cuts, and imposition of Project Condition 9ab, the amount of material mined will be reduced from 77.7 million tons to 69.2 million tons (11 percent). This will reduce combustion emissions from the pit loader and the onsite 100-ton haul trucks by 11 percent as well. NOx emission reductions associated with this change are estimated to be approximately 19 lb/day in Phase 1, and 37 lb/day in Phase 2. In addition, fugitive dust emissions from material handling by these units will decrease by 11 percent from the AEDEIR values, resulting in PM10 emission reductions of 9.3 lb/day in Phase 1 and 15.5 lb/day in Phase 2. (Revised FEIR Responses, p. 2-103.) However, Mitigation Measure AQ2 will still be imposed to reduce fugitive dust controls.

The amount of fines to be stored onsite will be reduced by 40 percent (from 21.1 to 12.6 million tons). Combustion and fugitive dust emissions from fines storage area activities will be reduced by a similar amount. (Revised FEIR Responses, pp. 2-103 to 105.) The fines material to be transported by conveyor will be reduced by 40 percent resulting in a corresponding decrease in fugitive dust emissions from fines storage conveyor operations. (Revised FEIR Responses, p. 2-106.) Overall, fugitive dust emissions and combustion emissions would be slightly reduced with implementation of the Mitigated Mining Cuts. Despite these reductions, residual impacts to air quality remain significant. (*Ibid.*) However, the County has determined that the RNFSA Project is consistent with the South Coast Air Quality Management Plan, ("SCAQMP"), and thus the RNFSA Project's emissions were contemplated in the planning for future development in the region, are consistent with the assumptions and objectives of the SCAQMP, and will not interfere with the region's ability to comply with Federal and State air quality standards.

Community representatives sought to require CEMEX to install, maintain and operate particulate filters that achieve 95 percent or greater reduction in diesel exhaust particulates within three years from the effective date of RNFSA Project approval for both on-road and off-road RNFSA Project equipment. County staff addressed this proposal in the November 2001 Staff Report. However, since that time, the County has re-evaluated the suggested condition and based on all of the evidence in the administrative record, including the November 19, 2001 response document submitted by CEMEX responding to the Department of Regional Planning's November 2001 Staff Report, has concluded that this suggestion is not feasible. RNFSA Project impacts with regard to diesel particulate emissions are already reduced to less than significant with implementation of Mitigation Measure AQ5, which involves installation of diesel particulate filters on select off-road RNFSA Project equipment, and therefore the legally required nexus between the RNFSA Project's impacts and the suggestion to support its imposition is not present. (AEIDEIR, pp. 3-32 to 34) In addition, CARB has adopted standards for on-road diesel engines which would be in conflict with this recommendation. Therefore, this suggestion is duplicative of regulations and mitigation measures already imposed on the RNFSA Project.

Community representatives sought to require CEMEX to cover all aggregate haul trucks exiting the Project Site with tarping "to minimize fugitive air-borne particulate matter." County staff addressed this proposal in the November 2001 Staff Report. However, since that time, the

County has re-evaluated the suggested condition and based on all of the evidence in the administrative record, including the November 19, 2001 response document submitted by CEMEX responding to the Department of Regional Planning's November 2001 Staff Report, has concluded that this suggestion is not feasible. This suggestion is duplicative of regulations and mitigation measures already imposed on the RNFSA Project. Mitigation Measure AQ2 adequately mitigates potential fugitive dust from the trucks. State law provides clear standards for either covering trucks or using freeboard. (Vehicle Code §23114.) In addition, South Coast Air Quality Management District Rule 403 identifies Best Reasonably Available Control Measures for High Wind Conditions as "Cover all haul vehicles; or Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads." (SCAQMD, Rule 403.)

The following mitigation measures indicate that the identified effects of the RNFSA Project have been reduced to the maximum extent feasible but are not anticipated to reduce them to a level that is not significant. In addition, pursuant to Project Condition 9j, CEMEX is required to obtain valid Permit to Construct and/or Permit to Operate for all stationary equipment prior to operations.

AQ2. The RNFSA Project is subject to Rule 403 and will prepare a fugitive dust plan that will be reviewed and approved by the SCAQMD on an annual basis. The plan will include Best Available Control Measures (BACM) and the regulation prohibits both visible dust and PM-10 concentrations in excess of 50 μg/m3 at the RNFSA Project boundary. The RNFSA Project will comply with the requirements of Rule 403.

Mitigation measures and control efficiencies for each dust-generating operation are presented. These measures will be incorporated in to the Rule 403 Fugitive Dust Plan as follows:

- The product conveyor systems include the use of covered transfer points controlled by negative pressure vented to a bag house augmented by water or surfactant spray in the main plant area. Resultant fugitive dust emissions are projected to be roughly equivalent to those produced by covered conveyors, and no further mitigation is warranted.

- In accordance with the SCAQMD permitting for the site, all permitted dust-producing equipment involved in rock crushing and conveyance must be vented to filters kept moist using spray bars.

- Mitigation includes twice-daily watering followed by immediate broom-truck sweeping with a high efficiency street sweeper (as per SCAQMD Rule 1186) of paved roads to control the fugitive dust kicked up by the vehicles' tires. The control efficiency is dependent on the ability to remove silt from the road, and application of the above measures is conservatively estimated to result in a 90-percent control efficiency.

- In addition to travel over paved surfaces, onsite travel will include material movements over unpaved surfaces because of travel on unpaved roads situated

between the paved access road and the aggregate facility. For these unpaved roads, mitigation includes regular application of a chemical dust suppressant with a demonstrated control efficiency in excess of 80 percent.

- Mitigation for offsite truck travel on paved and unpaved roads includes using wet spray during truck loading of sand and broom-truck sweeping of the roadway as trucks leave the site. Furthermore, in accordance with Assembly Bill No. 3220, Clapton 1486, aggregate materials shall only be carried in the cargo area of a vehicle. The cargo area shall not contain any holes, cracks, or openings through which the materials may escape, regardless of the degree to which the vehicle is loaded.

Additionally, all trucks shall be equipped with the following:

- properly functioning seals or any openings used to empty the load, including, but not limited to, bottom-dump release gates and tailgates;

- splash flaps behind every tire, or set of tires, regardless of position on the truck, truck tractor, or trailer;

- center flaps at a location to the rear of each bottom-dump release gate or trucks or trailers equipped with bottom-dump release gates. The top of the center flap shall not be lower than the adjacent tires or set of tires, and the bottom of the center flap shall extend to within 5 inches of the pavement surface;

- fenders that completely cover the tops of the tires not already covered by the truck, truck tractor, or trailer body;

- complete enclosures on all vertical sides of the cargo area, including, but not limited to, tailgates;

- shed boards designed to prevent aggregate materials from being deposited on the vehicle body during top loading; and

- covers to keep transported materials from blowing, where feasible, except that vehicles transporting aggregate materials shall not be required to cover their loads if the load where it contacts the sides, front, and back of the cargo container area remains 6 inches from the upper edge of the container area, and the load, at its peak, does not extend above any part of the upper edge of the cargo container area.

- Fugitive emissions from equipment activity in the fines backfill area will be controlled with water spray with a control efficiency in excess of 50 percent. Implementation of mitigation measure AQ3 will eliminate the use of scrapers in the fines backfill area.

- To control wind erosion, inactive areas will be controlled by dust suppressants with an efficiency in excess of 80 percent, and by RNFSA Project design, active areas will receive water spray with an efficiency of at least 50 percent. Because more area will be inactive than active at any one time, an assumed 75-percent control efficiency is applied to the site as a whole.

- An anemometer shall be placed onsite to monitor wind speed. It shall be calibrated and maintained in accordance with Rule 403, for use with the Fugitive dust plan (Mitigation Measure AQ2).

AQ3. To further reduce PM-10 emissions, CEMEX shall use a semi-stationary "fines" conveyor system to move fines from the mobile crusher, located in the active fines backfill area. A mobile conveyor will tie in to this stationary fines conveyor thereby allowing fines to be distributed without the need for subsequent trucking of this material.

The mobile crusher has the ability to remove almost all of the fines during the crushing procedure. This crusher shall be equipped with two separate mobile conveyor systems. One of these mobile conveyor systems will transport fines removed in the initial crushing process to the stationary fines conveyor and subsequently to the fines backfill area. The other mobile conveyor will transport excavation products to the main product conveyor which takes it to the rock plant for further processing.

Not all of the fines are removed at the mobile crusher and the rock plant also produces a modicum of fines during the processing procedure. These fines will be hauled by dump truck from the rock plant back to the fines backfill area. Transfer points on the conveyor will be controlled by wet suppression (Mitigation Measure AQ3).

3.2 - VISUAL QUALITY FINDINGS

3.2.1 - Potential Environmental Effects of the Project that have been Feasibly Mitigated but Remain Significant

A. Visual Impacts from Land Form Alteration

Impact: Potential visual impacts due to mining operations could result from activities and changes associated with the RNFSA Project, even after implementation of the Mitigated Mining Cuts and reclamation activities. Major changes in the form, line, color, and texture of the existing view from the Antelope Valley Freeway and developments to the north of the Site could result.

Findings: A2. Changes or alterations have been required in, or incorporated into, the RNFSA Project through the imposition of Mitigation Measures VQ1, VQ2, and VQ5 that avoid or substantially lessen the significant environmental effect as identified in the FEIR.

C. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make the mitigation measures or RNFSA Project alternatives identified in the FEIR infeasible.

Facts Supporting the Findings

To analyze the changes in landform resulting from mining activity, GIS simulations of the following three conditions were prepared from 13 representative viewpoint locations: (1) existing conditions, (2) mining conditions at the end of Phase 2 activity after 20 years (representing the greatest amount of topographic modification), and (3) conditions at the end of reclamation. The locations analyzed were chosen as being the most representative viewpoints. (DEIR, p. 3-251.)

Most viewers of the RNFSA Project site will be mobile viewers traveling along the Antelope Valley Freeway or Soledad Canyon Road. Views of the site from these locations will result in significant impacts during the life of the RNFSA Project. Other viewshed locations will experience impacts ranging from significant to not significant depending on the distance of the viewer to the site.

Community representatives suggested a ban on any reduction in the ridgeline. County staff addressed this proposal in the November 2001 Staff Report. This suggestion is not feasible. The proposed elimination of any lowering of the ridgeline would not reduce significant impacts for the RNFSA Project –air quality and visual quality—to less than significant. In addition, this suggestion has already been addressed by incorporation of the Mitigated Mining Cuts (VQ5) and Condition 9ab, which significantly reduce the RNFSA Project's visual impacts.

The AEIDEIR presents a plan of mining for the RNFSA Project that absent implementation of the Mitigated Mining Cuts would bring the ridgeline down by 80 to 150 feet, retaining between 50 to 80 feet more of the peak ridgeline as compared to the Original DEIR Project. (AEIDEIR, p. 3-55.) With implementation of the Mitigated Mining Cuts, the overall visual impacts to viewers are substantially reduced, but remain significant. (Revised FEIR Responses, p. 2-108.)

Community representatives suggested elimination of the NFSA. The County and CEMEX have responded to this suggestion, and elimination of the NFSA is required of the RNFSA Project through the Mitigated Mining Cuts (VQ5) and Project Condition No. 9ab.

The Mitigated Mining Cuts (Mitigation Measure VQ5) will eliminate the NFSA, thus substantially reducing the visual impacts to viewers of the north slope of the RNFSA Project site, including viewers from the Antelope Valley Freeway. (Revised FEIR Responses, p. 2-107.) The views from the west and south for travelers eastbound along the Antelope Valley Freeway and Soledad Canyon Road and from locations along Soledad Canyon Road in both directions would remain as described in the FEIR. (AEIDEIR, pp. 3-54 to 62.) The Mitigated Mining Cuts measure would reduce the ridgeline elevation by an average of approximately 45 feet as compared to the RNFSA Project without this mitigation, which would have reduced the ridgeline elevation by an average of approximately 80 feet. (Revised FEIR Responses, p. 2-108.) Thus, with the Mitigated Mining Cuts, the amount of ridgeline lowering will be reduced by nearly 44

percent as compared to the RNFSA Project. (Revised FEIR Responses, p. 2-82.) Also under the Mitigated Mining Cuts, a further reduction of visual impacts to the ridgeline will occur as a result of the elimination of the Cut 3 northerly high elevation access road, and elimination of the northerly exposure of ridgeline cuts related to initiation of Cut 3. Under the Mitigated Mining Cuts, all excavation for mining cuts will commence from the south side of the ridge (in order to minimize visual impacts to the ridge that might otherwise be visible from the Antelope Valley Freeway). (*Ibid.*) With elimination of the NFSA, Mitigation Measure VQ3, which required grouping of vegetation and contouring in the reclamation of the NFSA, is no longer necessary.

Visual impacts to the south side of the ridge will remain similar, with the exception that at the end of mining, certain access roads that were to be left in place will now be mined out, leaving a smooth overall serrated slope, without access roads to the higher elevations. Reclaimed contours of the earthen backfill areas on the south side of the ridge will remain the same under the Mitigated Mining Cuts. (*Ibid.*)

Reclamation and revegetation will occur in a particular area starting every growing season after mining activity in that area has ceased, as required by Mitigation Measure VQ1. During the final phase of reclamation, the roads will be resloped to conform to the surrounding topography, as required by Mitigation Measure VQ2.

The following mitigation measures reduce the identified effects of the RNFSA Project to the maximum extent feasible but are not anticipated to reduce them to a level that is not significant.

VQ1. Reclamation and revegetation will occur starting every growing season after mining activity has ceased in particular areas (Mitigation Measure VQ1).

VQ2. During the final phase of reclamation, the roads will be resloped to conform with the surrounding topography (Mitigation Measure VQ2).

VQ5. A modified approach to Mining Cuts 3 and 4 would reduce visual impacts. Mine Cut 3 would be modified so that there would be no access road construction or cut slopes visible on the north side of the northeast-southwest trending ridge (as shown on Figure 2.1-8 of the AEIDEIR). Mine Cuts 3 and 4 would still occur, but excavation activities would commence from the south side of the ridge generally out of the direct line of sight from the Antelope Valley Freeway. In order to minimize the reduction in ridgeline elevation, access roads which were to be left in place at the end of mining (as shown on Figure 2.1-11 of the AEIDEIR) will be mined out instead. This will leave a smooth overall serrated slope on the south side of the ridge. Additional excess fines would be backfilled into the quarry floor at elevation 1925. Implementation of this modified approach eliminates the need for the NFSA.

Overall, visual quality impacts would be substantially reduced with implementation of the Mitigated Mining Cuts. Despite these reductions, residual impacts to visual quality remain significant.

SECTION 4.0 - FINDINGS REGARDING CUMULATIVE ENVIRONMENTAL EFFECTS WHICH CANNOT BE MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT

As defined by the State CEQA Guidelines, cumulative impacts are defined as two or more individual effects that, when considered together, are considerable or can compound or increase other environmental impacts. State CEQA Guidelines § 15355. The list of past, present and probable future project producing related or cumulative impacts considered in the FEIR is set forth in the DEIR at p. 3-351. Several cumulatively considerable incremental effects have been identified for the RNFSA Project that cannot be feasibly mitigated to a level of less than significant.

4.1 - CUMULATIVE IMPACTS—AIR QUALITY

Impact: The area, including the RNFSA Project area, is out of attainment for O3 and PM-10. Construction of cumulative projects will further degrade local air quality on a temporary basis. Operational traffic for mining and residential projects will each add incrementally to regional air cell pollutants.

Findings: A2. Changes or alterations have been required in, or incorporated into, the RNFSA Project that avoid or substantially lessen the significant environmental effect as identified in the FEIR.

B. Such changes or alterations are within the responsibility and jurisdiction of another public agency *[SCAQMD]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

C. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make the mitigation measures or RNFSA Project alternatives in the FEIR infeasible.

Facts Supporting the Findings

The RNFSA Project area is out of attainment for both O3 and PM-10 particulate matter. Construction of the cumulative projects will further degrade local air quality, as well as the air quality of the SCAB and MDAB. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. Operational traffic for cumulative projects will each add incrementally to regional air cell pollutants. (DEIR, p. 3-358; AEIDEIR, p. 3-75.) The RNFSA Project has been found to be consistent with the SCAQMP. (DEIR, pp. 3-185 to 3-186; Revised FEIR Responses, pp. 2-41 to 2-42.) Mitigation measures as presented for the RNFSA Project will aid in mitigating these impacts to the extent feasible and many could be applied to other cumulative projects. Mitigation Measures for residential/commercial developments will primarily come from traffic congestion management and other regional air quality strategies. Implementation of these Mitigation Measures will reduce cumulative impacts but they will remain significant. While implementation of the Mitigated Mining Cuts reduces the incremental effect of the RNFSA Project, it does not mitigate its impacts to below a level of

significance. (Revised FEIR Responses, p. 2-106.) Thus, the cumulative air quality impacts remain significant. This is because in accordance with the SCAQMD methodology, any project that produces a significant air quality impact in an area that is out of attainment adds to the cumulative impact, and this cumulative impact is considered significant. (DEIR, p. 3-358; AEIDEIR, p. 3-75.)

4.2 - CUMULATIVE IMPACTS—BIOTA

Impact: Significant cumulative impact from the permanent loss of natural habitats from residential and commercial developments. Mining projects have long-term, but temporary impacts and are subject to federal, state, and local regulations governing revegetation.

Findings: A2. Changes or alterations have been required in, or incorporated into, the RNFSA Project that avoid or substantially lessen the significant environmental effect as identified in the FEIR.

C. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make the mitigation measures or RNFSA Project alternatives identified in the FEIR infeasible.

Facts Supporting the Findings

Significant cumulative impacts on plant and animal resources from the cumulative list of projects and the RNFSA Project include the permanent loss of natural habitats from mining, residential and commercial developments in the area. Additional cumulative impacts on wildlife and habitats from residential developments will result from encroachment on surrounding natural habitats from human and domestic pets. (DEIR, p. 3-359; AEIDEIR, p. 3-75.) Current federal, state, and local regulations require reclamation of aggregate mineral mining sites including recontouring and revegetation with appropriate plant species, and will be implemented at the RNSFA Project. Thus, the RNFSA Project will contribute only a small portion to the cumulative biological impact on habitat because of recontouring and revegetation of the site. (DEIR, p. 3-359; AEIDEIR, p. 3-75.) The Mitigated Mining Cuts further reduce the RNFSA Project impacts on biology. (Revised FEIR Responses, pp. 2-106 to 2-107.) However, cumulative impacts remain significant because of permanent loss of natural habitats. (DEIR, p. 3-359; AEIDEIR, p. 3-75.)

Unregulated water use and uncontrolled runoff from cumulative projects would result in a significant impact on species that use the riparian or aquatic habitat of the Santa Clara River, such as the unarmored threespine stickleback. (DEIR, p. 3-359; AEIDEIR, p. 3-75.) Use of water resources is regulated by the State of California, Division of Water Resources. Regulating appropriation of water resources includes consideration for the protection of in stream habitats such as those occurring along the Santa Clara River. Therefore, state regulation of water resources, and mitigation measures imposed on the RNFSA Project, preclude the possibility of uncontrolled water use from the Santa Clara River, and the cumulative impact on the Santa Clara River is less than significant. (DEIR, p. 3-359; AEIDEIR, p. 3-76.)

In addition, the USFWS through their Biological Opinions (January 1998 and October 2001) for the RNFSA Project also addressed cumulative effects to the unarmored threespine stickleback and the arroyo toad for future state and private actions reasonably expected to occur in the RNFSA Project area. (See Biological Opinion, FEIR, Volume 7.) After reviewing the effects of the Proposed Action and the cumulative effects, both BOs concluded that the proposed action is not likely to jeopardize the continued existence of either species. (Revised FEIR Responses, pp. 2-47, 2-57.) Thus, the RNFSA Project's incremental effect is not cumulatively considerable.

Based on a joint review of the RNFSA Project site by the City of Santa Clarita, Cemex, County, and BLM Biologists, and with regard to information supplied to the County by the City, BLM, and USFWS, the Department issued to the Board a Report On Federally Endangered Arroyo Toad, and transmitted a Revised FEIR including more information on the arroyo toad to the Board. (Revised FEIR Responses, pp. 2-48 to 71.) The Report recommended incorporation of additional Federal mitigation measures identified by the BLM and USFWS, and an additional County project condition requiring personnel training regarding arroyo toad by a qualified biologist. The County incorporated all of these conditions into the RNFSA Project. (Revised FEIR Responses, p. 2-57.) The County concluded that the proposed mining project, as appropriately mitigated and conditioned, would not have a significant effect on the endangered arroyo toad. (Revised FEIR Responses, p. 2-58.) Thus, the RNFSA Project's incremental effect is not cumulatively considerable, and there are no cumulative impacts to the arroyo toad.

However, as discussed above, although the RNFSA Project will contribute only a small portion of the impact on the loss of habitat because of recontouring and revegetation of the site, cumulative impacts remain significant because of the permanent loss of natural habitats.

SECTION 5.0 - FINDINGS REGARDING CUMULATIVE ENVIRONMENTAL EFFECTS THAT ARE MITIGATED BELOW A LEVEL OF SIGNIFICANCE

Potential cumulative impacts were identified for the RNFSA Project for which changes or alterations have been required in, or incorporated into, the RNFSA Project that avoid or substantially lessen the significant environmental effect as identified in the FEIR.

5.1 - CUMULATIVE IMPACTS—GEOTECHNICAL

Impact: Cumulative RNFSA Project grading will increase the potential for significant area wide soils erosion.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Impacts resulting from grading for construction of residential, commercial, and industrial project areas will alter the topography in the RNFSA Project vicinity. Cut-and-fill operations will be

necessary to prepare street grades, lots, and pads for development. Because of the rugged terrain in the area, grading could be substantial. Grading and mining activities will also increase the potential for significant erosion of soils from the area. The overall cumulative impact is considered significant. (DEIR, pp. 3-353 to 354.) The RNFSA Project contributes incrementally to this impact, and is reduced further by the implementation of the Mitigated Mining Cuts. (AEIDEIR, p. 3-72; Revised FEIR Responses, p. 2-102.)

The cumulative impacts of the list of projects and the RNFSA Project is reduced to below a level of significance since required geotechnical soils investigations during individual project design and site development and construction will be required to comply with the County standards for required soils and geologic investigation report recommendations to mitigate geologic hazards on a case-by-case basis. (DEIR, p. 3-354; AEIDEIR, p. 3-72.)

5.2 - CUMULATIVE IMPACTS—WATER RESOURCES

Impact: Growth from both mining and non-mining projects has the potential to result in significant, but mitigable, impacts to local surface and groundwater resources.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations are within the responsibility and jurisdiction of another public agency *[SWRCB, CDFG]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

The cumulative projects are located near the boundary in the Acton Valley and Eastern Subunits of the Santa Clara Valley. (DEIR, p. 3-354.) Locally, the growth of both mining and other projects in the area will have the potential to significantly impact both local surface and groundwater resources. The RNFSA Project will contribute to the decrease of flows in the Santa Clara River during low-flow periods. (DEIR, p. 3-354; AEIDEIR, p. 3-72.) The implementation of the Mitigated Mining Cuts reduces the incremental effect of the RNFSA Project on water resources. (Revised FEIR Responses, p. 2-102.)

The RNFSA Project will use an average of 442 AFY during Phase 1 and 726 AFY during Phase 2. The amount of water proposed for usage by the IMF operation is less than 5 AFY and would not present a significant cumulative impact, however with the addition of the proposed usage for the CalMat[4] project application for appropriation from Agua Dulce Creek and the Santa Clara River, cumulative water extractions for this portion of the river would increase to 1,042 AFY during Phase 1 and 1,326 AFY during Phase 2 of the RNFSA Project. (DEIR, p. 3-355; AEIDEIR, p. 3-73.) As noted in Section 3.1.2.3 Water Resources of the AEIDIER, impacts on

[4] Now known as Vulcan.

downstream riparian habitat due to the RNFSA Project could be significant if pumping were to continue unabated during dry months of dry years. (AEIDEIR, p. 3-6.) With no mitigations, the proposed extractions could result in significant cumulative impacts on the UTS habitat. (AEIDEIR, p. 3-73.) Based on the extraction volume proposed for the CalMat project, it is expected that they also will need to develop measures to mitigate their project impacts.

Mitigation measures for water resources for the list of projects and the RNFSA Project require coordinated management plans as well as individual project-specific measures. Cumulative projects will have to comply with plans or mitigation such as the Water Shortage Contingency Plan (WSCP), use of imported water, state-mandated water conservation, use of treated wastewater, and groundwater recharge. (DEIR, p. 3-354; AEIDEIR, p. 3-72.) In addition, CEQA, the Endangered Species Act and California water law require that projects which may result in significant impacts must mitigate those impacts to protect endangered species and riparian and permitted users with superior water rights. (AEIDEIR, p. 3-73.) Any subsequent water rights applicant would be required to mitigate for effects to UTS habitat, other endangered species, riparian uses, and other superior water rights. (AEIDEIR, p. 3-73.) Also, the SWRCB will declare if and when the river is fully appropriated. No such declaration has been made with regard to the Santa Clara River system. Therefore, surplus water is available for beneficial use. The SWRCB must consider overall cumulative impacts on that system prior to issuing any permits to appropriate water from the Santa Clara River system. (DEIR, p. 3-355; AEIDEIR, pp. 3-73 to 74.)

With regard to the Western Portion of the Acton Valley Subunit, total cumulative usage absent mitigation is estimated to range from 2,250 AFY in Phase 1 to 2,600 AFY in Phase 2. (AEIDEIR, p. 3-73.) Since recoverable water for the Western Portion of the Acton Valley Subunit is estimated at 2,092 to 6,275 AFY with a mid-point of 4,184 AFY, this total estimated usage is well below the mid-point of estimated recoverable water for the watershed. Once appropriate mitigations are incorporated for any subsequent uses, cumulative impacts will not be significant. (*Ibid.*)

The RNFSA Project's incremental effect is not cumulatively considerable since it will mitigate cumulative impacts on water resources through implementation of a WSCP for the Soledad Canyon site. Additionally, CEMEX will implement a Habitat Protection Plan and measures mandated by USFWS in the 2001 Biological Opinion for protection of sensitive ecological habitats that are dependent on water resources. (See Revised FEIR Responses, pp. 2-61 to 69.) The Habitat Protection Plan and Biological Opinion measures provide for specific actions to reduce RNFSA Project water use in relation to key aquatic/riparian habitat indicators. Furthermore, CEMEX will abide by all conditions of its SWRCB permit to appropriate available water from the Santa Clara River for regulation at the regional level. (DEIR, p. 3-355; AEIDEIR, p. 3-74.)

5.3 - CUMULATIVE IMPACTS—FLOOD

Impact: Velocity and runoff mainly from nonmining/nonindustrial developments have the potential to significantly increase downstream peak flows and flood concerns.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

The velocity and quantity of runoff will be increased by cumulative projects, mainly nonmining/nonindustrial residential and commercial developments. (DEIR, p. 3-355; AEIDEIR, p. 3-74.) This will involve a significant increase in downstream peak flows, creating additional flooding concerns and a significant cumulative impact. The RNFSA Project will not contribute substantially to this impact because its incremental impact is further reduced by implementation of the Mitigated Mining Cuts (see Revised FEIR Responses, p. 2-102), it will not create impervious surfaces and will control surface runoff by installing and maintaining desilting/debris basins and culverts as discussed in Section 3.1.3.3 of the DEIR. (See also AEIDEIR, p. 3-74 and Revised FEIR Responses, p. 2-102.)

Cumulative mitigation for flood protection is a regional issue that will require integrated planning of both downstream flood control structures as well as upstream retention basins. This will reduce impacts to less than significant. (AEIDEIR, p. 3-74.)

5.4 - CUMULATIVE IMPACTS—WATER QUALITY

Impact: Cumulative projects upstream have the potential to significantly affect groundwater quality within the Acton Basin if pollutants are discharged to areas of high groundwater permeability. Cumulative project development will create impervious surfaces that can impact downstream water quality by contributing stormwater pollutants into drainages to the Santa Clara River. Mining and industrial projects in the area can increase sedimentation from grading activities, and other unregulated activities will also contribute to water quality.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations are within the responsibility and jurisdiction of another public agency *[CRWQCB]* and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

Most of the groundwater recharge to the Acton Basin occurs within the watershed of the upper Santa Clara River that is upstream of the RNFSA Project. Cumulative projects upstream can affect groundwater quality in the vicinity within the Acton Basin if pollutants are discharged to areas of high groundwater permeability. (AEIDEIR, p. 3-74.) It is expected that implementation

of mitigation measures on a project-by-project basis will be necessary to reduce these significant impacts on groundwater quality to a level of less than significant. (DEIR, p. 3-356; AEIDEIR, p. 3-74.)

Cumulative project development will create impervious surfaces that can impact downstream water quality by contributing stormwater pollutants into drainages to the Santa Clara River. Mining and industrial projects in the area can increase sedimentation from grading activities, and other unregulated activities. (DEIR, p. 3-356; AEIDEIR, p. 3-74.) Each of the cumulative projects on the list is expected to include project-specific analysis and mitigation. (AEIDEIR, p. 3-74.) Such oversight will at a minimum include compliance with applicable National Pollutant Discharge Elimination System (NPDES) permits to reduce stormwater runoff impacts. With erosion control practices during construction, construction of storm drains, adherence to state and local regulations, and mining and industrial compliance in developing and adhering to SPCCPS and SWPPP, the RNFSA Project's incremental impacts would be reduced to less than significant for cumulative projects. (DEIR, pp. 3-356 to 357; AEIDEIR, p. 3-74.)

5.5 - CUMULATIVE IMPACTS—NOISE

Impact: Cumulative project-generated traffic has the potential to raise traffic and noise levels along Soledad Canyon Road.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Noise produced during construction activities will increase noise levels in the RNFSA Project vicinity on a short-term basis. (DEIR, p. 3-357; AEIDEIR, p. 3-74.) Because of the mountainous terrain and small number of sensitive receptors in the area, other local projects are not expected to produce overlapping construction noise; therefore, cumulative construction noise impacts are not considered significant. (DEIR, p. 3-357.)

Of greater concern than onsite construction noise is the noise produced by cumulative project-generated traffic because impending residential development as well as mining activities will raise traffic levels along Soledad Canyon Road. (DEIR, p. 3-357; AEIDEIR, p. 3-74.) Mitigation measures will reduce the incremental impacts to less than significant levels for the RNFSA Project, and implementation of the Mitigated Mining Cuts further reduces the RNFSA Project noise impacts on the north slope. (DEIR, p. 3-357; Revised FEIR Responses, p. 2-103.) It is expected that other major projects to be situated within the area or that use Soledad Canyon Road will undergo separate environmental studies to quantify their noise impacts and will be responsible for their fair shares of the necessary mitigation. (DEIR, p. 3-357.)

5.6 - CUMULATIVE IMPACTS—PUBLIC SERVICES

Impact: A significant impact for fire protection services results due to limited County budget to upgrade area fire protection services.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Cumulative development in the RNFSA Project area will increase the demand for public services, especially fire services, because of the rugged terrain in the RNFSA Project vicinity and classification as a high fire hazard area. In addition, more stations and accompanying equipment may be required to service cumulative projects. (DEIR, p. 3-357.)

The County is in the process of upgrading fire protection in the area. (DEIR, p. 3-358.) It is expected that various project applicants will cooperate with the County to assure that sufficient fire services are provided. CEMEX will provide onsite water tanks for fire-fighting as well as fire prevention training for employees and adherence to all uniform fire codes. (*Ibid.*) The projects on the cumulative list are expected to mitigate fire impacts through mitigation fees (which CEMEX will be paying as a per-square-foot building fee) and, for residential and commercial developments, the dedication of property for location of additional emergency service facilities. (*Ibid.*; see also AEIDEIR, p. 3-75.) These measures will reduce any significant impacts to levels of less than significant.

5.7 - CUMULATIVE IMPACTS—CULTURAL RESOURCES

Impact: Impacts to area historic and prehistoric resources are significant.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

Two historic archaeological sites and one historic resource were found near the RNFSA Project site but will not be impacted by the RNFSA Project. Two historic sites and 15 prehistoric sites have been recorded to the north and east within 1 mile of the RNFSA Project site. These resources and/or previously undiscovered resources could be impacted by cumulative projects.

(DEIR, pp. 3-359 to 360; AEIDEIR, p. 3-76.) Mitigation measures to reduce impacts to less than significant for cumulative impacts on cultural resources include project-specific site surveys conducted for each area proposed for construction, avoidance of sites, and site testing and data recovery, as appropriate under federal, state, and local requirements. ((DEIR, pp. 3-359 to 360; AEIDEIR, p. 3-76.) The incremental effect of the RNFSA Project is reduced with implementation of the Mitigated Mining Cuts and the mitigation measures for the RNFSA Project. (Revised FEIR Responses, p. 2-107.) Accordingly, there are no significant cumulative impacts on cultural resources.

5.8 - CUMULATIVE IMPACTS—VISUAL QUALITIES

Impact: Cumulative projects will each contribute to short-term impacts from construction, long-term impacts from landform modification, and incremental increases from nighttime lighting and is considered significant.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Development of cumulative projects will create short-term impacts which will result from temporary disturbance to scenic settings from construction. Long-term impacts will result from the alteration of the landscape from the present mountainous/rural atmosphere to that of an increasingly more urban setting in the greater area through construction of commercial and residential developments. (DEIR, p. 3-360; AEIDEIR, p. 3-76.) Cumulative projects, depending on size and location to viewsheds, will create impacts considered adverse and significant. Visual impacts will be mitigated on an individual basis with techniques such as screening, reclamation, and revegetation. (DEIR, p. 3-360; AEIDEIR, p. 3-76.)

Development of cumulative mining and residential projects will incrementally increase the amount of nighttime lighting used in the RNFSA Project area and is significant. This impact can be controlled by standard measures adopted by public agencies to control light pollution. With careful planning, impacts can be reduced to less than significant. (DEIR, p. 3-360; AEIDEIR, p. 3-76.)

5.9 - CUMULATIVE PROJECTS—TRAFFIC

Impact: Most of the RNFSA Project traffic will use Soledad Canyon Road and the Antelope Valley Freeway/Soledad Canyon Road interchange. Traffic on Soledad Canyon Road at this interchange will have an unacceptable LOS in Phases 1 and 2 with or without RNFSA Project traffic if other related projects are developed. The east approach of Soledad Canyon Road near the Antelope Valley Freeway intersection will also result in a significant cumulative impact.

Findings: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

B. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts Supporting the Findings

The DEIR Traffic Study analyzed the combined impacts of the RNFSA Project, the cumulative list of projects, and a growth factor of 1.5 percent per year. Fifty percent of the cumulative projects traffic was assumed for Phase 1 analysis (year 1999), and 100 percent was assumed for Phase 2 analysis (year 2009). (DEIR, p. 3-360; AEIDEIR, p. 3-76.) Significant cumulative traffic impacts were found in Phase 1 and Phase 2 for the intersection of Soledad Canyon Road and the Antelope Valley Freeway and the easternmost segment of Soledad Canyon Road. (DEIR, p. 3-361; AEIDEIR, p. 3-76.) The cumulative traffic projected for Soledad Canyon and Agua Dulce Canyon Roads and the Antelope Valley Freeway will have an incremental adverse impact that is not considered significant for the roadway and freeway sections analyzed. (DEIR, p. 3-361; AEIDEIR, p. 3-76.) The traffic analysis in the DEIR addresses mitigation measures necessary to reduce the cumulative impacts to a level of less than significant, and determined that the incremental impact of the RNFSA Project could be mitigated to below a level of significance. (DEIR, p. 3-361; AEIDEIR, p. 3-76.) Thus, the RNFSA Project does not contribute a significant incremental effect to cumulative traffic.

In addition to the feasible mitigation measures imposed on the RNFSA Project's traffic impacts that reduce its incremental effect to below a level of significance, Project Conditions 12c and 13 from the Consent decree serve to further reduce impacts of project traffic on roadways and intersections.

5.10 - CUMULATIVE IMPACTS—LAND USE

Impact: Cumulative projects have the potential to result in incompatible adjacent uses that could result in significant impacts as well as inconsistencies with applicable land use policies.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Development of cumulative projects will influence the present atmosphere of undeveloped hillsides, passive open space, and scattered low-density rural residential and recreational uses

along the Santa Clara River corridor that currently typify the Soledad Canyon area. Cumulative residential projects have the potential for inducing growth within neighboring areas and encouraging land uses that may not be compatible with mineral extraction uses. However, the RNFSA Project will not contribute to any cumulative land use impacts because the RNFSA Project site is designated as a Regionally Significant Construction Aggregate Resource Area by the state and is consistent with federal resource plans. The County General Plan outlines the land use goals and policies that will govern the magnitude of growth of the area. It is assumed that cumulative development will be required to conform with the appropriate land use plans and policies relative to mineral resource production, and thus cumulative impacts on land use will not be considered significant. (DEIR, p. 3-361; AEIDEIR, p. 3-77.)

5.11 - CUMULATIVE IMPACTS—PUBLIC HEALTH AND SAFETY

Impact: Growth in the RNFSA Project area primarily related to mining projects may contribute to onsite health and safety concerns.

Finding: A1. Changes or alterations have been required in, or incorporated into, the RNFSA Project which avoid or substantially lessen the significant environmental effect as identified in the FEIR. Such changes or alterations reduce the significant environmental effect identified in the FEIR to a level of less than significant.

Facts Supporting the Finding

Cumulative impacts associated with anticipated growth in the RNFSA Project area include several health and safety considerations, especially in association with the number of mining projects proposed. Public access should be restricted for all mining projects and appropriate access restrictions should be considered for all industrial projects. In addition, mining areas should be fenced and signs posted restricting access to RNFSA Project roads and mining sites. Compliance with all OSHA, MSHA, and applicable County fire codes will mitigate impacts on a project-by-project basis. No cumulative impacts on health and safety are expected. (DEIR, p. 3-361; AEIDEIR, p. 3-77.)

SECTION 6.0 - FINDINGS REGARDING ALTERNATIVES TO THE PROJECT

Section 3.5 of the DEIR identified and analyzed a reasonable range of feasible alternatives to the Original DEIR Project which feasibly obtained most of the basic objectives as required by State CEQA Guidelines § 15126.6. These alternatives were developed to respond to significant impacts identified for the Original DEIR Project, as well as to respond to input from agencies and the public. (DEIR, p. 3-362; AEIDEIR, p. 1-2.)

The range of alternatives considered was developed based on the fact that the Original DEIR Project is a "federal project" in that the Site consists of a Federal public resource (i.e., the mineral estate) which is subject to environmental regulation by the County as the local lead agency. The feasible alternatives must therefore account for the nature and extent of the Federal interest in the minerals at the Site, and the limited nature of CEMEX's interests as a contractor to the Federal government. (DEIR, pp. S-2, 3-377.) Thus, because the Federal government only

owns the mineral estate at the RNFSA Project site, its property interests relative to the use of the surface are limited to the right of access and occupancy for mining and mining-related purposes. Therefore, the range of activities the Federal and County governments could consider at the Site are limited to land uses relating to the mineral estate. Moreover, prior federal land use decisions by the BLM include several actions that affect the range of feasible alternatives to the RNFSA Project:

(1) The decision to sell for development up to 100 million tons of aggregate material at the RNFSA Project site, pursuant to the 1988 United States District Court-ordered settlement between the Federal Government and the prior mining operator at the site, and the requirements of the Minerals Materials Act of July 31, 1947, including the land use determination that releasing and selling the aggregate material was the most appropriate use of the federal public resources;

(2) Preparation of EA No. CA-066-EA947, and the Decision Record and Finding of No Significant Impact ("FONSI") pursuant to NEPA, which established the parameters for the competitive bidding process which in turn led to issuance of the Federal Contracts; and

(3) Issuance of the Federal Contracts, the terms of which included mining of 56 million tons of sand and gravel over a period of 20 years.

(4) Approval by the BLM of the South Coast Resource Management Plan (RMP) and Record of Decision which concluded that there is a high demand for the sand and gravel at the Project site.

(Revised FEIR Responses, pp. 2-6, 2-72 to 2-73.)

The project objectives are: (1) provide a reliable and economically viable source of construction minerals, primarily for the Santa Clarita Valley and the greater Los Angeles area; (2) develop construction mineral reserves in the Saugus-Newhall P-C Region in areas designated as Regionally Significant Construction Aggregate Resource Area by the California Division of Mines and Geology; (3) develop a source of ready-mixed concrete for the Santa Clarita Valley; (4) mining the RNFSA Project Site to produce 56.1 million tons of PCC aggregates and provide $28 million in royalties to the Federal Government in accordance with the Federal Contracts and (5) provide for the environmentally sound and economically feasible reclamation of the Site. (DEIR, pp. S-3, 1-9, 3-362.)

During the course of its review of the project under the National Environmental Policy Act ("NEPA"), the BLM circulated a Supplemental Draft Environmental Impact Statement that identified the RNFSA Alternative as the BLM's Agency Preferred Alternative, as required under NEPA. The BLM selected this alternative as the final form of the Project in its June 2000 Final Environmental Impact Statement and in its August 2000 Record of Decision for the Federally-Approved Project.

The DEIR identified the RNFSA Project as the Environmentally Superior Alternative (DEIR, p. 3-409.) County Staff recommended approval of the RNFSA Project in its April 21, 1999 staff report to the Planning Commission because it would reduce air quality and visual impacts. The

RNFSA Project would reduce the total area affected by the mining cuts and result in reduced environmental impacts, while still allowing for the production of 56.1 million tons of sand and gravel to fulfill the Federal Contracts. (AEIDEIR, p. 1-3.) Due to deeper excavation in the mining area earlier in the mining schedule, more excess natural fines can be backfilled into the area that has been mined out. Also, the RNFSA Project would retain between 50 to 80 feet more of the peak ridgeline than if the Original DEIR Project were implemented. (AEIDEIR, p. 1-3.)

Based on these considerations, the RNFSA Alternative was proposed by Staff and the applicant as the proposed project because it would achieve the stated objectives while substantially lessening the significant effects.

In light of the BLM's approval of the RNFSA Alternative as the Federally-Approved Project, and in light of the County Staff's initial recommendation for approval of the RNFSA Alternative, the County and CEMEX agreed to replace the original version of the proposed project in the DEIR (known as the Original DEIR Project) with a different proposed project, previously identified as the RNFSA Alternative. The RNFSA Alternative thus became the RNFSA Project, as discussed in the AEIDEIR prepared in August 2000. (AEIDEIR, pp. 1-1 to 1-6.)

The selection of the RNFSA Project, however, does not alter the discussion of alternatives presented in the DEIR. (AEIDEIR, p. 3-77.) Both the Original DEIR Project and the RNFSA Project would produce 56.1 million tons of aggregates. (AEIDEIR, p. 1-4.) However, the RNFSA Project would involve a modified approach to mining the site that involves a deeper first cut allowing for storage of fines materials in the cut. (AEIDEIR, p. 1-4.) Other than this difference in the progression of mining cuts, all other operational aspects of the RNFSA Project remain the same as the Original DEIR Project. (AEIDEIR, p. 1-4.) The DEIR concluded that the RNFSA Alternative was the environmentally superior alternative because it would reduce air quality and visual impacts. (DEIR, pp. 3-391 to 392, 3-416.) Thus, because the RNFSA Project has the same or lesser impacts than the Original DEIR Project as discussed in the DEIR, the comparison of alternatives is not altered. Accordingly, the alternatives analyzed in the DEIR are still appropriate alternatives to the RNFSA Project. (AEIDEIR, p. 1-6.)

In addition, imposition of the Mitigation Measures identified for the RNFSA Project further reduce the impacts identified, including, for example, by elimination of the NFSA.

6.1 – ORIGINAL DEIR PROJECT

Description: This alternative would extract 83 million tons of material and produce 56.1 million tons of sand and gravel over a 20-year period. This alternative would have used the NFSA for the entire 20-year life of the Project. (DEIR, pp. 1-9, 1-21.)

Finding: This alternative was not selected because, while most of the project objectives would be met, this alternative would result in increased visual quality and air quality impacts.

Facts Supporting the Finding

The DEIR analyzed the Original DEIR Project, as identified in the surface mining permit application submitted by CEMEX, along with a range of reasonable Project alternatives. Based

upon the analysis in the DEIR, the Department, through its Staff Analysis issued in April 1999, recommended to the Planning Commission for possible approval the Reduced North Fines Storage Area Alternative (now, the "RNFSA Project"), based on the conclusion that it was the most feasible "environmentally superior alternative." (AEIDEIR, p. 1-3; see also DEIR, pp. 3-391 to 392.) The RNFSA Project was subsequently described in detail in the AEIDEIR, and modified in the FEIR Responses to eliminate the NFSA.

On November 17, 1999, the BLM also circulated for public review a Supplemental Draft Environmental Impact Statement (SDEIS) that identified the RNFSA Alternative as the BLM's Agency Preferred Alternative (APA), the identification of which is required under NEPA. On June 2, 2000, the BLM released its Final EIS for the Project (FEIS) which confirmed the BLM's selection of the RNFSA Alternative as the APA.

The Original DEIR Project would result in greater impacts to visual quality and air quality. (DEIR, pp. 3-389 to 390; AEIDEIR, p. 1-3.) While the visual impacts would remain significant under the RNFSA Project (see AEIDEIR, p. 3-62; FEIR Responses, p. 2-107 to 2-108), the Original DEIR Project would have an increase in the overall visual impact on the north slope because the NFSA would exist and impact views at least until it was reclaimed, as well as a greater extent of surficial impact along the ridgeline. This is due, in part, to the fact that backfilling of fines in the NFSA would occur for the entire 20 years of mining, and under the current RNFSA Project, the NFSA has been eliminated. Furthermore, selection of the Original DEIR Project would result in greater lowering of the ridgeline. (See AEIDEIR, pp. 3-54 to 62; see also FEIR Responses, pp. 2-107 to 2-108.)

The Original DEIR Project would maximize the total area affected by mining cuts at 130 acres and would also increase the storage area needed because it would include use of the NFSA. This alternative would also result in a change in onsite operations. This change in onsite operations, coupled with use of the NFSA, would result in an increase in operational emissions when compared to the RNFSA Project, due to increased rock excavation and processing and decreased materials handling associated with fines placement. Thus, while still significant, there would be an increase in overall air quality impact. (See AEIDEIR, pp. 3-18 to 3-40; see also FEIR Responses, pp. 2-103 to 2-106.)

Water use for the Original DEIR Project would be greater than for the RNFSA Project, due to the increased quantity of excavated and backfilled material over the contract period. (AEIDEIR, pp. 3-3 to 8; see also FEIR Responses, p. 2-102.) Construction activities and noise sources, blasting, and operations related to development of the Original DEIR Project would be similar to the RNFSA Project. The schedule of mining cuts would increase the length of time that potential sensitive receptors in the proposed Bee Canyon project(if that project is constructed) would be exposed to operations on the north face. (AEIDEIR, pp. 3-13 to 17; FEIR Responses, p. 2-103.)

A detailed comparison of the differences between the Original DEIR Project and RNFSA Project is set forth in the AEIDEIR. (AEIDEIR, pp. 1-4 to 1-6.) However, as discussed above, imposition of the Mitigation Measures identified for the RNFSA Project further reduce the impacts identified, including, for example, by elimination of the NFSA.

6.2 - NO PROJECT ALTERNATIVE

Description: This alternative would retain the RNFSA Project site in its current land use, which includes an existing unreclaimed quarry area and stockpiles. No further mining would occur onsite. There would be no approved reclamation plan or financial assurance for reclamation of the existing mining area onsite.

Finding: The alternative is not preferred because it fails to meet the project objectives identified in the EIR or provide mitigation for present onsite conditions, that, if left in their present state, will result in impacts from flooding and erosion and impacts on water quality resources.

Facts Supporting the Finding

When compared to the RNFSA Project, the No Project Alternative was found to have less impact in all but two resource areas. The No Project Alternative has the potential to result in greater impacts on flooding and water quality resources. Under this alternative, no mining is proposed to occur, and the site would remain in its present state as vacant land that includes an existing quarry mined by a previous operator. Because there would be no mining, there would be no approved plan or financial assurance for the reclamation of the existing quarry within the site. The existing quarries and stockpiles would not be recontoured, leaving some unstable slopes in place, and the slopes would not be revegetated. (DEIR, p. 3-379.) The County subsequently received a reclamation plan for the stockpile area only and the slopes would remain unstable. The No Project Alternative would also not provide desilting/debris basins to mitigate site erosion and sedimentation impacts that exist presently onsite and would continue with no project. (*Ibid.*) Also, existing conditions onsite may eventually result in adverse impacts on water quality and unarmored threespine stickleback habitat in the Santa Clara River due to the sedimentation from the unreclaimed quarry. (DEIR, pp. 3-379 to 381.) Finally, the No Project Alternative would not meet the project purpose and objectives to provide a reliable and economically sound source of construction materials to the Santa Clarita Valley and greater Los Angeles area; to develop construction mineral reserves in the Saugus-Newhall P-C Region; to develop a source of ready-mixed concrete for the Santa Clarita Valley; and to achieve the terms of the Federal Contracts.

6.3 - BATCH PLANT LOCATION ALTERNATIVE

Description: This alternative examines locating the batch plant at an offsite location. Consideration was given to locating the batch plant near Lang Station, adjacent to the intersection of Soledad Canyon Road and the Antelope Valley Freeway about 1½ miles west of the RNFSA Project site. This would require delivering aggregate to the plant by trucks rather than by conveyor belts.

Findings: This alternative was not selected because, while most of the basic project objectives would be met, the alternative would provide only a slight reduction in air quality and visual impacts but would leave both as unavoidable significant impacts, while also increasing traffic impacts.

Facts Supporting the Findings

By locating the batch plant west of the mining site, additional impacts would occur on traffic due to the additional distance traveled to the batch plant. (DEIR, pp. 3-392 to 393.) However, the reduction in water requirements for the batch plant could partially reduce impacts on water resources and sensitive biological resources. (DEIR, p. 3-393.) A negligible reduction in impacts on air quality from this alternative would result because the batch plant is already 1½ miles farther west and thus slightly closer to construction job sites. (DEIR, p. 3-393.) A slight reduction in impacts on visual resources from this alternative would occur because the project site would no longer contain a batch plant, and the alternative site contains existing mining and batch plant operations. (DEIR, p. 3-393.) However, these impacts would remain significant under the Batch Plant Location Alternative. While no additional truck traffic would access the Antelope Valley freeway ramps, there would be an additional 180 truck round trips for Phase 1 and 350 truck round trips for Phase 2 on Soledad Canyon Road to deliver aggregate to Lang Station, thus increasing impacts on traffic, but not to significant levels. (DEIR, p. 3-393.)

6.4 - RECLAIMED WATER ALTERNATIVE

Description: This alternative considers use of other water sources such as reclaimed water and imported water. The nearest existing potential sources of reclaimed water that could serve the RNFSA Project are County wastewater treatment plants located in Palmdale, Saugus, and Valencia, however availability is uncertain.

Findings: This alternative was not selected because, while most of the project objectives would be met, the alternative would require the transport of reclaimed water via truck which would increase impacts on traffic, noise, and air quality. This would leave visual resources and air quality as unavoidable significant impacts, while also increasing traffic and noise impacts. Additionally, there are no large-scale reclaimed water systems presently known to be available in the Santa Clarita Valley. The Castaic Lake Water Agency is currently preparing a Reclaimed Water Master Plan that will encompass a large portion of the valley. However, it is presently unknown when and if suitable quality reclaimed water would be available for use by the RNFSA Project. For this latter reason, the feasibility of bringing a pipeline to the site is also unknown.

Facts Supporting the Findings

Water from the State Water Project is potentially available to the County through the Antelope Valley East Kern Water Agency. However, using imported water for habitat maintenance or for increases in habitat is potentially harmful to the unarmored threespine stickleback and other sensitive species because it contains a variety of detrimental predators, competitors, and parasites. (DEIR, p. 3-395.)

The Reclaimed Water Alternative could reduce impacts on local water resources. (DEIR, p. 3-395.) However, based on the means of transporting reclaimed water, other resource areas would have increased impacts such as the increased traffic, noise, and air quality impacts associated with trucking water to the site. (DEIR, pp. 3-394 to 3-396.) Additional short-term impacts on biota, traffic, noise, and air quality would result from construction of a reclaimed water pipeline

if a source could be found. (DEIR, pp. 3-394 to 3-396.) Transporting reclaimed water would increase impacts on traffic, noise, and air quality caused by trucks or construction of a pipeline to the site. (DEIR, p. 3-396.)

However, impacts on water resources and sensitive biological resources due to the RNFSA Project as presently planned can be mitigated to less than significant. The Reclaimed Water Alternative would create additional impacts and would not eliminate any of the RNFSA Project's significant impacts that could not otherwise be mitigated to less than significant levels.

6.5 - PRODUCT TRANSPORTATION ALTERNATIVE

Description: This alternative considers using the existing railroad for transportation of aggregate product from the site to the Los Angeles market. Transporting the aggregate product would still require truck delivery of aggregate from a single rail distribution location in the Los Angeles region. Further analysis of this alternative was developed for the Final EIR based on public comments (see FEIR, Volume 1 Responses to Comments, Topical Response ALT-2.)

Findings: This alternative was not selected because, while most of the basic project objectives would be met, the alternative would still result in significant unavoidable impacts to air quality and visual quality. Air quality impacts would be reduced locally, but would be increased regionally from the combination of rail and truck haulage, and thus would still be significant with an overall net increase. Impacts for visual quality remain significant for this alternative. Rail activity would significantly increase impacts locally. Development of the necessary rail spur near the RNFSA Project Site would pose physical problems that make this alternative practically infeasible.

Facts Supporting the Findings

Although this alternative would decrease impacts associated with localized traffic and air quality at the Site, it would not reduce the overall air quality impacts and would result in an overall net increase of regional air quality emissions, and thus would not reduce impacts to levels which are less than significant. (DEIR, pp. 3-396 to 3-397.) In fact, impacts on these resources would be transferred from the Site to the Los Angeles rail end distribution point. (DEIR, pp. 3-396 to 3-397.) In addition to emissions from the rail hauling, truck trips which generate emissions would be required at the Los Angeles rail end point to deliver the materials to the final product distribution areas. These truck trips would cause increased impacts on traffic and air quality. Also, although local air quality impacts in the vicinity of the RNFSA Project Site would be reduced, they would still be significant. (DEIR, pp. 3-396 to 3-397.) Regionally, air quality and traffic impacts would increase due to the combination of rail haul and truck haul distribution. (Revised FEIR Responses, pp. 2-75 to 2-78.) Even with a Los Angeles rail end point for distribution, many trucks will travel the same, if not more miles to construction sites since a good portion of the sites would include the San Fernando and Santa Clarita areas. (Revised FEIR Responses, pp. 2-75 to 2-78.) This alternative product transport would transfer air quality and traffic impacts to locations in the vicinity of the Los Angeles distribution center and ultimate trucking destinations for the materials. (Revised FEIR Responses, pp. 2-75 to 2-78.) Thus, while the rail haul alternative would reduce local impacts to air quality and traffic in the RNFSA Project vicinity, it would not reduce any of the RNFSA Project's significant impacts to less than

significant levels due to the transferred, regional impacts, and could increase traffic impacts significantly. (DEIR, p. 3-397; Revised FEIR Responses, p. 2-75 to 2-78.) However, as discussed above, imposition of the Mitigation Measures identified for the RNFSA Project further reduce the impacts identified, including, for example, by elimination of the NFSA.

Impacts for visual quality remain significant for this alternative because a conveyor system, rail spur, loading facility and siding would need to be constructed. (Revised FEIR Responses, pp. 2-74 to 2-78.) Noise impacts associated with reduced local truck trips would decrease with the rail haul, but train noise impacts on local sensitive receptors would increase proximate to the rail line. (Revised FEIR Responses, p. 2-78.) .) Biological resources impacts would increase due to additional acreage disturbance to accommodate the rail spur to the RNFSA Project Site. (Revised FEIR Responses, p. 2-78.) In addition, development of a rail spur near the RNFSA Project Site poses a number of physical problems that make this alternative practically infeasible. (Revised FEIR Responses, pp. 2-74 to 2-75.) The topography in the vicinity of the RNFSA Project Site is rugged and steep, and construction of a rail line directly to the Site would be a physical impossibility. Even if construction of the rail line were feasible, such construction could result in impacts to biological resources in the sensitive riparian corridor. Finally, construction of the rail spur and associated surface disturbance would result in erosion and sedimentation into the Santa Clara River, resulting in a significant impact. (Revised FEIR Responses, pp. 2-74 to 2-78.)

6.6 - ALTERNATIVE NORTH FINES STORAGE AREA ALTERNATIVE

Description: This alternative considers a North Fines Storage Area within the area immediately north of the RNFSA Project fines storage site, still adjacent to the Antelope Valley Freeway. All mining excavation operations would remain the same as those of the RNFSA Project.

Findings: This alternative was not selected because, while most of the basic project objectives would be met, the alternative would still result in significant unavoidable impacts to air quality and visual quality. The location of the alternative fines areas would result in slight increases in air quality and visual resource impacts and would increase biological and geotechnical impacts.

Facts Supporting the Findings

The Alternative North Fines Storage Area Alternative results in several areas of impact that would be greater than those of the RNFSA Project fines area including a greater use of water, more complex drainage requirements, and greater impacts on air quality, biota, and visual quality. (DEIR, p, 3-404.) Increased air quality and water usage impacts result from the further distances of haul truck travel. (DEIR, pp. 3-402 to 3-403.) Biota and drainage impacts result from the features inherent in the proposed sites, including larger drainage areas, flowing water, and oak trees that would require removal. (DEIR, pp. 3-401 to 3-403.) Visual impacts would be placed closer to the Antelope Valley Freeway, would be obtrusive, and would cover a greater surface area than the RNFSA Project fines area. (DEIR, p. 3-403.) Both geotechnical and land use impacts are considered to be similar to or greater than the RNFSA Project fines area. (DEIR, pp. 3-401 and 3-404.) However, as discussed above, imposition of the Mitigation Measures identified for the RNFSA Project further reduce the impacts identified, including, for example, by elimination of the NFSA.

6.7 - REDUCED QUANTITY MINING CONCEPT ALTERNATIVE

Description: This alternative examines a mining concept that would reduce some significant environmental impacts of the RNFSA Project by reducing the quantity of sand and gravel extracted from the site. Under this alternative, mining activity would progress in a manner similar to the RNFSA Project for the early portion of the RNFSA Project. However, mining activity would be curtailed after completion of approximately 50 percent of Cut 3 (of the Original DEIR Project mining plan), which would avoid lowering the northeast-southwest ridgeline that occurs through the completion of Cuts 3 and 4 of the originally proposed mining plan. This alternative involves mining 47 million tons of material to produce 32 million tons of PCC aggregates. This alternative has been evaluated because of its potential to reduce visual, air quality, and transportation impacts.

Findings: This alternative was not selected because, while most of the basic project objectives would be met, the alternative would still result in significant unavoidable impacts to air quality and visual quality. This alternative would not reduce peak daily traffic and peak daily emission quantities for air quality. This alternative would fail to provide aggregate products necessary to meet the continuing demand for PCC aggregate in the Los Angeles market area. The alternative also does not meet the objectives for the quantity of material to be produced that were established through the Federal Contracts issued to CEMEX by the BLM in 1990.

Facts Supporting the Findings

The Reduced Quantity Mining Concept Alternative would result in less environmental impact than the RNFSA Project in three particular resource areas. Overall, this alternative would have less impact on visual resources due to the reduced amount of landform alteration needed to accomplish the concept. (DEIR, p. 3-409.) In avoiding completion of proposed Cut 3 to the west and eliminating Cut 4, lowering of the northeast-southwest ridgeline is avoided. Nonetheless, because of changes to form, line, and texture associated with this alternative, the visual impacts would remain significant because plant operations would be visible from Sand Canyon Road, a scenic highway. (DEIR, p. 3-409.) However, as discussed above, imposition of the Mitigation Measures identified for the RNFSA Project further reduce the impacts identified, including, for example, by elimination of the NFSA.

With regard to air quality, this alternative produces 32 million tons of product, which is approximately 57 percent of the RNFSA Project tonnage. Total air quality impacts over the 20-year mining period would be reduced by approximately 43 percent. (DEIR, p. 3-414.) However, peak daily operations would remain the same as the RNFSA Project. Emissions on a day-to-day basis would remain significant for nitrogen oxide, PM-10, and reactive organic gases under Phases 1 and 2, and CO under Phase 2. (DEIR, p. 3-407.) The reduced tonnage of aggregates produced by this concept would also result in reduced truck traffic on Soledad Canyon Road over the 20-year mining period. (DEIR, p. 3-408.) However, on a daily basis, truck traffic could be as high as with the RNFSA Project. Other impacts under this alternative would be essentially the same as the RNFSA Project. (DEIR, p. 3-409.) This alternative would generate 12.9 million tons of fines, 11.9 million tons of which would still need to be deposited in the proposed North

Fines Storage Area. Impacts from drainage, including drainage and erosion control, would be the same as the RNFSA Project. Peak water use and impact on water resources would be similar to the RNFSA Project but would be less over the life of the RNFSA Project in proportion to the reduced amount of aggregate mined.

Finally, this Alternative would not meet the project purpose and objectives to provide a reliable and economically sound source of construction materials to the Santa Clarita Valley and greater Los Angeles area; to develop construction mineral reserves in the Saugus-Newhall P-C Region; to develop a source of ready-mixed concrete for the Santa Clarita Valley; and to achieve the terms of the Federal Contracts. (DEIR, p. 3-416.) The DEIR and AEIDEIR state that one of the purposes and needs for the project is to fulfill contractual parameters entered into by CEMEX with the Federal Government. Under these Contracts, CEMEX is contracted to produce 56.1 million tons of PCC-grade aggregates and to pay the Federal Government $28 million in royalties. (DEIR, p. 3-414.) Prior to bidding on the Federal Contracts, CEMEX conducted feasibility evaluations that determined the amount of material needed to be produced to provide a reliable amount of PCC aggregate for the greater Los Angeles market with a reasonable economic return was 56.1 million tons. CEMEX found that producing less material than the 56.1 million tons would still involve similar royalty, facility construction, and operating costs as compared to the investment in the RNFSA Project.

6.8 - ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

Finding: Several other alternatives were considered during scoping which were not analyzed in detail in the EIR because they were not feasible. These are summarized below.

Facts Supporting the Findings

Alternative Sites Outside of Soledad Canyon: Nine alternative mining sites were considered as sources of sand and gravel prior to selection of the Soledad Canyon site. Two mining sites north of Redlands in western San Bernardino County were dropped from consideration due to the presence of threatened and endangered species in the mining area and designation of the area by BLM as an Area of Critical Environmental Concern. Two sites near Corona in northwestern Riverside County were rejected due to the presence of threatened and endangered species, and high royalty requirements relative to low material quality. Two sites in southern Orange County off Ortega Highway were dropped from consideration because of questionable material quality, impacts to sensitive habitats, and excessive distance from the primary target market, resulting in hauling costs and excessive air quality impacts. A site near the town of Littlerock in Antelope Valley was determined infeasible also due to excessive distance from the primary target market. The Moorpark site in Ventura County is owned by CEMEX and was considered as an alternative; however, this site contains a high amount of sand (88 percent) and could not produce enough gravel without excessive mining to supply the primary target market. One mining site in the Angeles National Forest was considered and then dropped from detailed analysis due to low material quality and lack of access. (DEIR, p. 3-363 to 3-365.)

Original Mining Concept: Another mining concept considered production of 170 million tons of sand and gravel versus 56 million tons, by mining the entire ridge from the top down.

Adverse impacts to most resources would have been incrementally greater than the 56 million ton alternative. (DEIR, p. 3-365.)

Alternative Fines Storage Using Offsite Landfills: Another alternative proposed disposing of the excess fines at regional landfills rather than onsite. However, this would have resulted in significant impacts to public services since most landfills are near capacity and do not need fill material. Also, the impact of hauling fines to landfills on air quality and traffic would have been substantially greater, and was not considered economically feasible. (DEIR, pp. 3-365 to 3-377.)

SECTION 7.0 - CERTIFICATION OF THE FEIR

Pursuant to Public Resources Code § 21081 and State CEQA Guidelines § 15090, the County of Los Angeles certifies that:

(1) The FEIR, State Clearinghouse No. 91111066, is an accurate and objective statement that fully complies with CEQA, the State CEQA Guidelines and the County Environmental Guidelines;

(2) As the decisionmaking body for the County of Los Angeles, the FEIR was presented to the Board of Supervisors, and the Board reviewed and considered the information in the FEIR prior to approving the RNFSA Project; and

(3) The FEIR reflects the County of Los Angeles' independent judgment and analysis.

The County of Los Angeles Board of Supervisors further finds that no comments or responses to comments made during or after the review period for the FEIR, and received prior to the adoption of these CEQA Findings, or made during any other public hearing on the RNFSA Project, rise to the level of significant new information requiring recirculation or additional environmental review pursuant to State CEQA Guidelines § 15088.5.

SECTION 8.0 - FINDINGS REGARDING MITIGATION MONITORING AND REPORTING PLAN

As required by Public Resources Code §21081.6, the Board, in adopting these Findings, also adopts a Mitigation Monitoring and Reporting Plan as prepared by the environmental consultant under the County's direction. This Plan is designated to ensure that, during RNFSA Project implementation, the County, and other responsible parties will comply with the mitigation measures adopted in these Findings.

The Board hereby finds that the Mitigation Monitoring and Reporting Plan, which is incorporated herein by reference, meets the requirements of Public Resources Code §21081.6 by providing for the implementation and monitoring of RNFSA Project conditions intended to mitigate environmental effects of the RNFSA Project.

SECTION 9.0 - CUSTODIAN OF RECORDS

The location and custodian of the documents or other material which constitute the record of proceedings upon which the County's decision is based is the Los Angeles County Department of Regional Planning, 320 West Temple Street, Room 1348, Los Angeles, California, 90012.

SECTION 10.0 - LIST OF ACRONYMS AND REFERENCES

LIST OF ACRONYMS

ADT	Average daily traffic
AEIDEIR	Additional Environmental Information to the Draft Environmental Impact Report
AFY	Acre-feet per year
ANFO	Ammonium Nitrate/Fuel Oil
APA	Agency Preferred Alternative
ASTs	Above-ground storage tanks
BACM	Best Available Control Measures
BLM	Bureau of Land Management
Cal-OSHA	California Occupational Safety and Health Administration
CDFG	California Department of Fish and Game
CDMG	California Department of Conservation- Division of Mines and Geology
Commission	County's Regional Planning Commission
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
Corps	U.S. Army Corps of Engineers
County	Los Angeles County
CRWQCB	California Regional Water Quality Control Board
dBA	A-weighted decibel scale
DEIR	Draft Environmental Impact Report
DEIS	Draft Environmental Impact Statement
DPW	Department of Public Works
EIS	Environmental Impact Statement
EPA/CARB	Environmental Protection Agency/California Air Resources Board
Federal Contracts	contracts

FEIR	Final Environmental Impact Report
FEIS	Final Environmental Impact Statement
Hilltop	Hilltop Geotechnical, Inc.
HM	Heavy manufacturing
MSHA	Mine Safety and Health Administration
NB	North-bound
NFSA	North Fines Storage Area
NEPA	National Environmental Policy Act
NO2	Nitrogen Oxide
NOP	Notice of Preparation
NWP	Nationwide permit
O3	Ozone
OSMRE	Office of Surface Mining Reclamation and Enforcement
PCC	Portland cement concrete
Plan	Habitat Protection Plan
Project	Soledad Canyon Sand and Gravel Mining Project
PM-10	Fine particulate matter
RNSFA Alternative	Reduced North Fines Storage Area Alternative
ROD	Record of Decision
ROG	Reactive Organic Gas
SB	South-bound
SBA	Supplement to the Biological Assessment
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCVW Report	Santa Clara Valley Water Report
SDEIS	Supplemental Draft Environmental Impact Statement
SHPO	State Historic Preservation Officer
SMARA	Surface Mining and Reclamation Act 1975
SPCCP	Spill Prevention, Control, and Countermeasures Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TLD	Traffic and Lighting Division
TMC	Transit Mix Concrete Company

TSS	Total suspended solids
USFWS	U.S. Fish and Wildlife Service
USTs	Underground storage tanks
WSCP	Water Shortage Contingency Plan

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STATEMENT OF OVERRIDING CONSIDERATIONS

SOLEDAD CANYON SAND AND GRAVEL MINING PROJECT

STATE CLEARINGHOUSE NUMBER 91111066
COUNTY PROJECT NUMBER 91165

LOS ANGELES COUNTY DEPARTMENT OF REGIONAL PLANNING
320 WEST TEMPLE STREET
LOS ANGELES CALIFORNIA 90012

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STATEMENT OF OVERRIDING CONSIDERATIONS FOR THE SOLEDAD CANYON SAND AND GRAVEL MINING PROJECT SURFACE MINING PERMIT NUMBER 91-165(5)

The Board of Supervisors ("the Board") of the County of Los Angeles ("the County") hereby adopts the following Statement of Overriding Considerations ("SOC") for the Soledad Canyon Sand and Gravel Mining Project ("Project"). The project as set forth in the CEQA Findings adopted herewith and as set forth herein is the Reduced Fines North Storage Area Project ("RNFSA Project").

The Final Environmental Impact Report (Final EIR) for the RNFSA Project[1] identifies and discusses the potentially significant environmental effects that will occur as a result of the RNFSA Project. The County hereby finds that, with implementation of the mitigation measures discussed in the Final EIR and adopted pursuant to the CEQA Findings and the Mitigation Monitoring and Reporting Plan, all but three of the potentially significant environmental effects identified for the Project RNFSA Project, air quality (project-specific and cumulative), visual quality and cumulative biota, can be mitigated to a less than significant level. The remaining three significant environmental effects have been mitigated as much as feasible. The County further finds that any mitigation measures discussed in the Final EIR or in any public comments on the RNFSA Project that were not imposed were rejected as infeasible, and that all other RNFSA Project alternatives are infeasible because they do not accomplish most of the basic project objectives and do not reduce its environmental impacts..

The County, having reduced the potentially significant environmental effects of the RNFSA Project through changes and alterations, as well as the adoption of the mitigation measures identified in the CEQA Findings and the Mitigation Monitoring and Reporting Plan, and having balanced the economic, legal, social, technological and other benefits of the RNFSA Project against its potential, unavoidable significant environmental effects, hereby finds that the benefits of the RNFSA Project outweigh these unavoidable significant environmental effects, and that these effects are therefore "acceptable" based on one or more of the overriding considerations discussed below in accordance with Public Resources Code §21081(b).

1.0 RELATIONSHIP BETWEEN THE CEQA STATEMENT OF OVERRIDING CONSIDERATIONS AND THE JUDICIAL CONSENT DECREE RESOLVING LITIGATION BETWEEN THE UNITED STATES OF AMERICA, LOS ANGELES COUNTY, AND CEMEX

On January 25, 2002, Project applicant CEMEX, Inc. ("CEMEX") filed an action in U.S. District Court, Central District of California, entitled CEMEX v. County of Los Angeles, CV-02-747 (DT) ("the Litigation"), challenging the County's alleged abuses of the CEQA review process, including in the preparation of the FEIR, to delay and frustrate implementation of the Federally-Approved Project. The United States of America

[1] The scope of documents comprising the Final EIR are identified in the CEQA Findings of Fact for the RNFSA Project, adopted by the Board in conjunction with this SOC.

intervened into the action on behalf of CEMEX based on the United States' ownership of the mineral that are to be mined as part of the Federally-Approved Project. The Litigation was resolved through Court-ordered third-party mediation, resulting in a negotiated settlement by the United States, the County, and CEMEX, embodied in a judicial Consent Decree which subsequently has been entered by the U.S. District Court as a final judgment in the Litigation. The County's certification and adoption of the Final EIR for the RNFSA Project, its Findings of CEQA compliance relating to the RNFSA Project, and its balancing of the economic, legal, social, technological and other benefits of the RNFSA Project against its potential, unavoidable significant environmental effects in arriving at this SOC, are made in the context of the requirements of the judicial Consent Decree. This Statement of Overriding Considerations and the CEQA Findings are, in part, an outgrowth of the settlement of the Litigation.

The Project implements U.S. Department of the Interior, Bureau of Land Management (BLM) Contracts for the Sale of Units of Material Nos. CA-20139 and CA-22901 (Federal Contracts), authorizing the mining and production of 56.1 million tons of Federally-owned sand and gravel on approximately 460 acres in an unincorporated area of the County. The BLM reviewed the Project pursuant to the National Environmental Policy Act (NEPA) and issued a Record of Decision (ROD) on August 1, 2000, authorizing the specific manner in which the Federal Contracts are to be implemented. The ROD was appealed by various parties, but was upheld by the U.S. Department of the Interior, Board of Land Appeals (IBLA) in a published decision issued on January 8, 2002. Various other Federal approvals, as well as Federal laws and regulations, comprise the scope of Federal law and decision-making that affects the scope of the Board's authority over the Federally-Approved Project. The Board conducted its CEQA review of the Project in the context of the Federal Contracts, the BLM's Final Environmental Impact Statement (FEIS), the ROD issued pursuant to NEPA, the IBLA's decision upholding the ROD, as well as various other federal laws and approvals relating to the RNFSA Project.

The County's certification and adoption of the Final EIR for the RNFSA Project, its Findings of CEQA compliance relating to the RNFSA Project, and its balancing of the economic, legal, social, technological and other benefits of the RNFSA Project against its potential, unavoidable significant environmental effects in arriving at this SOC, are thus made in the context of the Federally-Approved Project and the requirements of the judicial Consent Decree. Accordingly, a proposed SOC, proposed CEQA Findings, as well as the proposed FEIR upon which they are in part based, were incorporated by reference into the judicial Consent Decree, and were predicated on the determinations, stipulations and agreements made therein and as entered by the U.S. District Court.

Furthermore, in making this final SOC, the County recognizes the Findings are, in part, an outgrowth of the settlement of the Litigation which involves claims by the United States and CEMEX of Federal preemption, including: (i) assertions by the United States that no SOC is required of the County because the Federally-Approved Project is not governed by CEQA; (ii) assertions by the United States and CEMEX that no SOC is required of the County because the County lacks discretion to approve or deny the Project, and only acts to impose reasonable environmental regulations, beyond which all County regulation of

the Project is preempted by federal law; and (iii) assertions by the United States and CEMEX that no SOC is required of the County because an SOC is a land use decision-making document, and is thus not applicable where the County exercises no land use decision-making powers. The Board hereby incorporates into this SOC by this reference all of the findings of the U.S. District Court set forth in the judicial Consent Decree entered as a final judgment in the Litigation, and acknowledges all of the claims, reservations, and representations made by the parties therein.

However, though the SOC is issued in the context of, and a proposed SOC was included as an exhibit to, the judicial Consent Decree, the County hereby further finds and concludes that this SOC, independent of the judicial Consent Decree, complies in full with the requirements of CEQA, by balancing the economic, legal, social, technological, and other benefits of the RNFSA Project against its unavoidable environmental risks, and concludes that such benefits outweigh the adverse effects of the RNFSA Project, and that the adverse environmental affects are therefore considered acceptable.

2.0 FEDERAL CONSIDERATIONS AND BENEFITS

A. Federal Land Use Decisions

1. The RNFSA Project proposes the mining of federal public resources owned by the United States of America and managed by the BLM, and, under principles articulated by federal law, the Federal government retains authority to determine the appropriate use of such Federal public resources.

2. The Federal government has determined that mining is the appropriate land use at the RNFSA Project Site, in accordance with the Federal Land Policy and Management Act of 1976 (42 U.S.C. § § 1701 et seq.), the Federal Materials Act of 1947 (30 U.S.C. §§601 et seq.), and BLM implementing regulations. The County recognizes that the Federal land use decisions are consistent with both State and County policies and goals regarding the development of significant mineral material resources within the State and County.

3. The Federal government, through the efforts of the U.S. Department of the Interior, has engaged in a 15-year process to develop the United States' mineral estate at Soledad Canyon, including the following actions:

    a. A Federal court-ordered settlement in 1988, pursuant to which the BLM determined to offer up the minerals at the Site for competitive bid;

    b. The completion by the BLM in 1989 of a Federal Environmental Assessment ("EA"), in which it was concluded that up to 100 million tons of material should be put up for sale;

    c. The issuance by the BLM to CEMEX (then TMC) in 1990 of two Federal Contracts for the Sale of Units of Materials, Contract Numbers CA-20139 and

CA-22901 ("Federal Contracts"), authorizing the mining and production of 56.1 million tons over an estimated 20 years;

d. Publication of a Final Environmental Impact Statement ("FEIS") prepared by the BLM pursuant to the requirements of the National Environmental Policy Act ("NEPA").

e. The issuance of a Federal Record of Decision ("ROD") in August 2000, approving CEMEX's proposed mining project, and thereby approving the manner in which the mining at the Site is to occur; and

f. The issuance of a published decision by the U.S. Department of the Interior, Board of Land Appeals ("IBLA") on January 8, 2002, upholding the ROD and the validity of the FEIS.

4. The County acknowledges the Federal land use decisions establishing that mining is the appropriate use of the project site have a partially preemptive effect on the County. The Federal government has concluded that the mining and production of 56.1 million tons of material over an estimated twenty years by CEMEX is the appropriate land use of the United States' mineral estate at the project site. The County recognizes it is limited to the imposition of reasonable environmental conditions and resource protective regulations consistent therewith. Thus, as an overriding legal consideration, the County recognizes that its decision to approve the RNFSA Project, and to impose feasible environmental mitigation measures on the RNFSA Project, will be harmonized with the Federal land use decisions regarding the project site.

B. Federal Economic Benefits

1. The two Federal Contracts entered into between TMC and the Federal government provide for a total royalty payment to the Federal government of approximately $28 million over an estimated twenty years.

2. Portions of these royalties are allocated for regional wildlife habitats/preserves and recreation. Four percent is allocated directly to the State and County.

3.0 COUNTY CONSIDERATIONS AND BENEFITS

A. Compelling Aggregate Need Exists in the County

1. The RNFSA Project is an important source of construction aggregate material. This material is needed to help address the compelling need for aggregate within the County, particularly in light of projections by the State of California regarding dwindling available aggregate reserves within the County.

2. The County has, in part, based its assessment of aggregate need on the expertise of the State of California, Department of Conservation, Division of Mines and Geology ("DMG"), as reflected in its 1994 DMG Report 94-14, entitled *Update of Mineral*

Land Classification of Portland Cement Concrete Aggregate in Ventura, Los Angeles, and Orange Counties, California ("1994 DMG Report"), to conclude that new sources of aggregate materials are needed in the County to avoid future shortages.

The 1994 DMG Report identifies, and the County concurs with, the following factors concerning demand in the County:

- From 1980 through 1992, aggregate consumption in Los Angeles County ranged from 17 to 40 million tons per year, with an average rate for those years of 29 million tons per year.

- Over the period of 1980 through 1992, aggregate consumption for the San Fernando Valley Production-Consumption Area ranged from 4 to 16 million tons per year, with an average rate for those years of 9.4 million tons per year.

- Projected aggregate consumption can be estimated by multiplying the projected population by the historical per capita consumption rate. The average annual per capita consumption rate from 1966-1992 has been 3.4 tons per year for Los Angeles County.

- From 1994 to 2044, with projected increases in population and demand, the County could consume more than 2 billion tons of aggregate (741 million tons of which is projected to be consumed by 2014).

The DMG has estimated the following factors about the County supply of aggregate:

- In 1994 there were about 750 million tons of PCC-grade aggregate permitted reserves remaining in Los Angeles County.

- By the year 2016, permitted reserves throughout the County were estimated to be depleted unless new resources are permitted for mining, or alternative resources are utilized.

3. Based on these projections, a depletion of available aggregate in the County is likely within the next thirteen years if no new sources of material are permitted, or alternative resources are utilized. Even if demand were to increase or decrease, such variations would only shift the year of depletion by a relatively few years. Thus, even if current and future demand is 20 percent less than projected, current reserves would last until the year 2021. On the other hand, if current and future demand is 20 percent more than projected, current reserves would be depleted in 2013. The actual timing of such projected depletion dates is dependent on a number of factors that influence demand, such as economic conditions, population growth, urban renewal, earthquakes, and level of infrastructure investment.

4. Given that estimated permitting time for new aggregate mining operations historically has required approximately 6 to 9 years (5 to 6 years for permitting and 1 to 3 years for facility construction and startup) that the RNFSA Project represents an important

opportunity to help maintain the aggregate reserve base for the County by providing up to 35% of the combined aggregate needs of the Santa Clarita and San Fernando Valleys.

5. In general, the use of construction minerals, including aggregate, in the greater Los Angeles area, will continue at a high rate, and the need for sand and gravel for construction projects increases with increases in population and economic growth. Even without growth, there is a large base need for sand and gravel for maintenance, repair and replacement projects. This base need accounts for much of the demand for sand and gravel in the well established portions of the County, such as the San Fernando Valley.

6. Based on the permitting constraints in locations elsewhere in the County that are identified in this Statement, it will be difficult to permit sufficient new mines, or expansions of existing mines, at a rate necessary to keep pace with the County's aggregate needs, which rate would require permitting new reserves totaling approximately 741 million tons somewhere in the greater Los Angeles area over a 20 year period (approximately a new mine the size of the RNFSA Project permitted every 18.2 months).

7. It is important to maintain a sufficient supply of aggregate material within the County, rather than relying on material potentially available in other counties.

   - Permitting County reserves will avoid the necessity of the County being required to haul aggregate from areas outside the County (e.g., Riverside County or San Bernardino County) thereby incurring substantial increases in transportation costs and regional air emissions.

   - Permitting County reserves will avoid the political and economic risk of convincing other counties to permit mining in their counties, in order to satisfy Los Angeles County's need for aggregate.

8. It will be difficult for the rate of future mine permitting to occur at a pace equal to past permitting in the County, due to spreading urbanization and tightened environmental regulations that increase constraints on issuance of new permits. Similarly, it is difficult to achieve significant aggregate production capacity increases elsewhere in the County.

9. In light of diminishing aggregate supplies within the County and region, the RNFSA Project will contribute to alleviating potential "spot shortages" in aggregate supply that can occur long before reserves are depleted, thereby helping to avoid delays in public and private construction projects in the County.

10. Approving the RNFSA Project will benefit the County's long-term supply of aggregate beyond just the material from the RNFSA Project, by helping to protect the overall availability of mineral resources throughout the Soledad Canyon mineral resource area (Mineral Resource Sectors B and C), which contains approximately sixty-five percent

(65%) of the County's State-designated Regionally Significant Construction Aggregate Resources. If access to these resources is not protected, future urban encroachment could make future resource development more difficult, and could potentially prevent access to these resources altogether.

B. The Project Offers a Readily Available Supply of Materials to the County

1. The location of the resources at the project site are such that they are more readily available to be converted from unpermitted resources into permitted reserves than other resources in the County. Unpermitted aggregate resources generally are available in four areas of Los Angeles County, including: (1) San Gabriel Valley; (2) Palmdale; (3) San Fernando Valley; and (4) Saugus-Newhall. However, not all of these resources are "equally available."

   a. The San Gabriel Valley P-C Region has an estimated 12-year supply of aggregate reserves and has about a 16-million tons per year consumption rate. The aggregate resources in this region are surrounded by urbanization and additional permitting is likely to be difficult. Recent additions to reserves have come from allowing deeper mining in existing pits.

   b. Despite the potentially imminent depletion of aggregate reserves in the San Fernando Valley, converting additional resources into reserves in that area may prove difficult. The aggregate resources in the San Fernando Valley are located within three primary areas: (1) the Tujunga Wash east of Hansen Dam, (2) the alluvial area immediately behind Hansen Dam, and (3) the non-urbanized areas southwest of Hansen Dam.

      - The resources located within the Tujunga Wash and in the alluvial area behind Hansen Dam are located in an SEA, and therefore may be difficult to develop.

      - All of the active mining sites in the San Fernando Valley are located in the area southwest of Hansen Dam. The total unpermitted resources for this area were estimated at 80 million tons in the 1994 DMG Report. At a consumption rate of 9 million tons per year, even if all of these resources were permitted, they would only extend the life of reserves in the San Fernando Valley by 9 years.

   c. The Saugus-Newhall P-C region is recognized as having more opportunities for expansion and permitting of aggregates than other P-C regions, particularly those adjacent to the San Fernando Valley. However, the County further recognizes that not all resources within the Saugus-Newhall area are equally available. Many of the resources are located within State-Designated Mineral Resource Sector C:

      - Although theoretically developable, Sector C resources are subject to a number of constraints: (1) the resources are located in the Angeles

National Forest; (2) the resources are subject to competing land use values such as recreation and plant and wildlife habitat; and (3) there is limited accessibility from existing roads, which could constrain production rates.

- The California State Mining and Geology Board ("SMGB") has informed the County that, although possible to permit, competing land values may be problematic to mineral recovery.

d. In comparison to the Sector C resources in the Saugus-Newhall area, the Sector B resources (within which the project site is located) have been mined extensively for many years. For example:

- The project site has been mined for much of the past 30 years, with a previous operator having mined an estimated several million tons of sand and gravel material from the project site pursuant to a conditional use permit issued by the County.

- Other land uses in the vicinity of the project site currently include industrial uses and other mining and sand and gravel operations. Mining has been conducted along the Santa Clara River corridor by other operators for approximately 30 years.

- C.A. Rasmussen Company recently was issued a Surface Mining Permit (SMP 96-204-(5)) to authorize reclamation of a site located immediately south of Soledad Canyon Road across from the project site. In conjunction with this reclamation, almost 1 million cubic yards of excess material are estimated to be removed and marketed over approximately 10 years.

e. A significant amount of mineral resources are located within County-designated Significant Ecological Areas (SEAs), including many resources in the San Fernando Valley. Although mining can be permitted within SEAs, the County is disinclined to permit aggregate mining operations located within the County's SEAs due to the wildlife values of these areas.

2. Other mineral resources are located farther from the aggregate consumption areas. For example, the aggregate resources in the Palmdale P-C Region are located 25-35 miles farther away than the project site from the major market areas faced with impending depletion of reserves, such as the San Fernando Valley. This additional 25-35 miles significantly increases both the economic and environmental costs of transporting the aggregate material.

3. Because of the constraints on the above categories of resources, the project site offers a more readily available resource to the County as a source for meeting the County's aggregate need, because it is less threatened by urbanization, is not located in an SEA, is not located in the Angeles National Forest, is not subject to access constraints, and is located closer to the marketplace. Therefore, the RNFSA Project provides an

important benefit as an opportunity to help alleviate impending shortages of aggregate material.

C. The Project's Proximity to the Market Avoids Increased Transportation and Related Costs

1. Transporting aggregate material from the RNFSA Project to the marketplace will result in substantial cost-savings to the County relative to transporting material from other identified sources of aggregate resources.

   a. The project site is located closer to key depleting marketplaces such as the San Fernando Valley than other identified potential sources of aggregate resources, such as Palmdale, which is 25-35 miles farther away than the project site.

   b. Therefore, trucks carrying aggregates will need to travel fewer miles from the project site to the marketplace.

   c. Transporting material from more distant locations increases costs due to the expense of hauling the aggregate longer distances.

2. The RNFSA Project would avoid significant economic impacts on the County from increased upward pressure on aggregate prices, due to decreased supply and a concomitant increase in the competitiveness of the aggregate market.

3. Based on these market economic factors, the estimated economic impact of not approving the RNFSA Project could range from a low estimate of $274 million to a high estimate of $954 million, with a most likely scenario of $401 million in extra costs, over the approximately twenty-year life of the RNFSA Project. Converting the time flow of impacts into a present value, a likely economic scenario of not approving the RNFSA Project is equivalent to a $227 million cost realized on the day the RNFSA Project would have opened.

4. As much as 50 percent of all aggregate material produced in the County is utilized in public works projects, including airport extensions, school construction, highway maintenance and construction, seismic reinforcement of bridges, water supply projects and wastewater treatment facility expansions.

5. Although certain social costs typically can be associated with industrial uses such as mining operations, to the extent there are social costs (which have not been established in this instance) of mining in Soledad Canyon, such costs also would occur if mining is conducted elsewhere. It is likely that mining would, of necessity due to the need for aggregate, occur elsewhere, but likely in areas located closer to residential or other urbanized areas than the RNFSA Project, or farther from the market.

D. The Project Will Provide Other Benefits to the County and Adjacent Municipalities

1. With approval of the RNFSA Project, the applicant will contribute funds to various causes and programs of public concern, including:

   a. A contribution to an Open Space/Visual, Air Quality, and Traffic Fund administered by the County of Los Angeles for the improvement, enhancement, and replenishment of open space, parks, trails, and traffic improvements, in the communities proximate to the mining operation, and to assist in the improvement and enhancement of air quality; and

   b. A contribution to a local fund for use with a local or AQMD-coordinated clean schools bus program, for the possible purchase of alternative fuel buses, lower-emitting diesel buses, or particulate trap retrofits for existing buses in order to provide a community benefit for school children.

2. The RNFSA Project will employ between 400 and 500 local men and women and contribute $27,000,000 annually in wages and taxes to the local economy.

3. The RNFSA Project will provide an opportunity to reclaim 45 acres of mining area on the project site left in a severely disturbed and unreclaimed condition by the prior mining operator because the RNFSA Project will reclaim this area as part of its reclamation plan.

4. The RNFSA Project will include ongoing training sessions led by a County-approved qualified biologist for new well and pipeline personnel to educate them regarding the arroyo toad. The training sessions will be conducted prior to construction of project wells and pipelines. The qualified biologist shall also coordinate the preparation of a training video to be shown to all new employees as part of the new employee orientation process, providing information regarding sensitive species, their habitats, the provisions and penalties of the Endangered Species Act, and restrictions and guidelines to be followed by the personnel to reduce or avoid effects on the species during all project activities.

E. The Project Site is in an Area that is Designated by the State as Regionally Significant, that Has Historically Been Mined, and the Project is Consistent with the Air Quality Management Plan

1. Approval of the RNFSA Project will provide the opportunity to harvest much needed aggregate for consumption in a region identified by the State of California as having significant demand for such material without having to establish mining uses in areas of the County that previously have not been mined or subject to land use alteration. Because the project site has been subject to prior mining activities, and is in an historical mining area, the County is satisfying its need for aggregate material absent the need to impact greenfields or other less disturbed sites. Thus, the following benefits are realized:

a. Rather than changing the land use of the property, by requiring mining of previously unmined or undisturbed land, the RNFSA Project would essentially be re-opening a prior mining operation.

b. The RNFSA Project thus provides an opportunity to develop an important resource without exacerbating land use conflicts to the extent any would exist in the first place.

2. Through a comprehensive State classification and designation system under the California Surface Mining and Reclamation Act ("SMARA"), the State identifies regionally significant mineral deposits. Those deposits identified as regionally significant are of utmost importance to the State, and the State encourages protection and development of these deposits. In 1986, the project site and surrounding areas were classified by the Division of Mines and Geology as a Mineral Resource Zone 2 ("MRZ-2"), indicating the existence of a deposit of minerals that meets certain criteria for value and marketability. In 1987, the State Mining and Geology Board designated the area as a "Regionally Significant Construction Aggregate Resource Area" based upon the quality of material, and the need for and availability of aggregate in that particular region, which was codified into the California Code of Regulations, at Title 14, Section 3550.9. State designation requires that land use decisions involving designated areas balance mineral values against alternative land uses, and consideration of the importance of these minerals to their market region as a whole and not just their importance to the lead agency's area of jurisdiction. There are limited resources in Los Angeles County that are designated as regionally significant that are available for permitting and approval, either due to conflicting land uses, environmental limitations, or other hurdles. The project site, however, does not face such limitations to the extent other sites may, and thus approval of the RNFSA Project furthers the underlying goals of State designation by making available regionally significant deposits of construction aggregates previously identified as part of the State-wide program. Implementation of the RNFSA Project thus carries forward the process initiated by Designation to maximize use of the State's mineral resources identified as having particular value.

3. The Project provides the opportunity to develop a regionally important source of construction aggregates while at the same time being consistent with the South Coast Air Quality Management Plan ("SCAQMP"). Thus although the Project air emissions are considered significant under CEQA, the Project's emissions were contemplated in the planning for future development in the region, are consistent with the assumptions and objectives of the SCAQMP, and will not interfere with the region's ability to comply with Federal and state air quality standards.

F. Settlement of Litigation

1. On January 25, 2002, Project applicant CEMEX, Inc. filed an action in U.S. District Court, Central District of California, entitled CEMEX v. County of Los Angeles, CV-02-747 (DT), challenging the County's alleged abuses of the CEQA review process, incuding in the preparation of the FEIR, to delay and frustrate implementation of the Federally-Approved Project. The United States of America

intervened into the action on behalf of CEMEX based on the United States' ownership of the mineral that are mined as part of the Federally-Approved Project. The Litigation was resolved through Court-ordered third-party mediation, resulting in a negotiated settlement by the United States, the County, and CEMEX, embodied in a judicial Consent Decree which subsequently has been entered by the U.S. District Court as a final judgment in the Litigation. The County's certification and adoption of the Final EIR for the RNFSA Project, its Findings of CEQA compliance relating to the RNFSA Project, and its balancing of the economic, legal, social, technological and other benefits of the RNFSA Project against its potential, unavoidable significant environmental effects in arriving at this SOC, are made in the context of the requirements of the judicial Consent Decree. This Statement of Overriding Considerations and the CEQA Findings are, in part, an outgrowth of the settlement of the Litigation.

For these reasons, the County finds that there are specific overriding economic, legal, social technological, planning and other considerations associated with the RNFSA Project that outweigh the RNFSA Project's unavoidable significant environmental effects and thus, the adverse effects are considered acceptable.

January 2004

PROPOSED
MITIGATION MONITORING AND REPORTING PROGRAM
FOR THE SOLEDAD CANYON SAND AND GRAVEL MINING PROJECT

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared in accordance with the requirements of the California Environmental Quality Act ("CEQA"), Section 15097. The adoption of a mitigation monitoring or reporting program in accordance with CEQA serves to ensure that the mitigation measures identified in the Final Environmental Impact Report for the CEMEX Soledad Canyon Sand and Gravel Mining Project are implemented. This document lists each mitigation measure, describes the methods and timing for implementation of each measure, and identifies those agencies/parties that will be responsible for verifying compliance with each measure.

PROPOSED MITIGATION MONITORING AND REPORTING PROGRAM
SOLEDAD CANYON SAND AND GRAVEL MINING PROJECT

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
Geotechnical					
G1.[1]	No longer applicable due to elimination of the NFSA with implementation of Mitigation Measure VQ5, Mitigated Mining Cuts.				
G2.	Fill slope stability in the Cut 1 fill area will be obtained by constructing 2:1 (horizontal to vertical) slopes and by achieving 75 percent relative compaction. Benches will be constructed at 35-foot-wide and 90-foot vertical intervals. To mitigate the potential for surficial instability, the outer 10 feet of the proposed fill slopes will be constructed with a soil material having minimum strength characteristics of cohesion equal to 175 psf and angle of internal friction equal to 35 degrees or some other alternative soil strength combination that will result in the minimum factor of safety of 1.5.	During mining and slope construction in the Cut 1 fill area.	County of Los Angeles Department of Public Works.	Site Plan review by DPW. Periodic testing of fill materials to verify strength parameters of fill soil and relative compaction by CEMEX and reported to Agency.	At regular intervals throughout Project lifetime after Cut 1 filling begins.
G3.	Ultimately, the former gravel pit high walls will be altered to a 1.15:1 (horizontal to vertical) slope using 15-foot-wide benches at 100-foot vertical intervals. The bottom of the pit walls on the west, north, and northeast sides will be buttressed with fill to provide a buffer zone and increase slope stability.	During mining and slope construction in the former gravel pit.	County of Los Angeles Department of Public Works.	Site Plan review by DPW and periodic testing of fill materials to verify strength parameters of fill soil and relative compaction by CEMEX and reported to Agency.	At regular intervals throughout Project lifetime.
G4.	To achieve suitable factors of safety for cut slopes, the following mitigation is presented. For the cut slopes at the northeast portion of the mining area, overall inclinations of the slopes will be flattened from 1.15:1 to 1.25:1. For the cut slopes at the far northeast portion of the mining area, the overall inclinations of the slopes will be flattened from 1.15:1 to 1.30:1.	During mining and slope construction at the northeast portion of the mining area.	County of Los Angeles Department of Public Works.	A California-registered engineering geologist shall periodically monitor the cut slope process.	At regular intervals throughout Project lifetime.
G5.	Interim mining cuts will be constructed using 35-foot-wide benches over 35-foot elevational changes during the removal of the native material while controlling surface runoff and erosion.	During mining, but prior to slope contouring.	County of Los Angeles Department of Public Works.	A California-registered engineering geologist shall periodically monitor the process.	At regular intervals throughout Project lifetime.

[1] See CEQA Findings, Section 2.1.3.A.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
G6.	The mining activity will be regularly monitored throughout the life of the RNFSA Project by a California registered civil engineer or engineering geologist, and periodic testing of the fill materials will be performed to verify strength parameters of the fill soil and relative compaction. The mine operator will maintain all records of correspondence, reports, and designs provided by the registered professional.	During all mining activity.	County of Los Angeles Department of Public Works.	The following monitoring actions shall be performed under the direction of a California-registered civil engineer or engineering geologist: Periodic testing of fill materials to verify strength parameters of fill soil and relative compaction Verification of compliance with Mitigation Measures G1, G2, G3, G4, G5, and G7	At regular intervals throughout Project lifetime.
G7.	Proposed mining and reclamation specifications and procedures will be in accordance with the County of Los Angeles Planning and Zoning Code, Title 22, Part 9, Chapter 22.56 surface mining permits.	Project startup and during mining.	County of Los Angeles Department of Public Works.	Site Plan and Reclamation Plan review by DPW and approval and periodic testing of fill materials to verify strength parameters of fill soil and relative compaction by California-registered civil engineer or engineering geologist and reported to Agency.	Site Plan and Reclamation Plan review and approval are a condition of approval prior to construction. Periodic testing shall be carried out at regular intervals throughout Project lifetime.
Water Resources					
WR1.	CEMEX will conduct a monitoring program for water resources and sensitive ecological habitats in the immediate vicinity of the RNFSA Project. The Habitat Protection Plan has been prepared in cooperation with the BLM and the USFWS who have responsibility for Plan compliance, review and adjustments over the life of the RNFSA Project. The Plan includes the following components: a) Four existing monitoring wells, as shown on Figure 3.1.2-5 of the DEIR, will be maintained to monitor water levels of the Santa Clara River underflow during the life of the RNFSA Project. b) Surface flows of the Santa Clara River will be monitored during the life of the RNFSA Project at a location(s) to be determined in conjunction with Responsible Agencies prior to the start of mining. c) The riparian and aquatic habitat in the immediate vicinity of the site will be monitored as detailed in the	Throughout the life of the Project.	State Water Resources Control Board (SWRCB) and US Fish and Wildlife Service (USFWS).	Habitat Protection Plan review and approval by agencies. Annual report by CEMEX. Periodic site visits and review of annual report by Agencies.	Condition of Approval throughout Project lifetime.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	habitat protection plan presented in Appendix F6 of the DEIR. d) The Habitat Protection Plan contains action levels that will trigger adjustments to mining operations to reduce RNFSA Project water consumption to avoid significant degradation of the ecologically sensitive habitats attributable to the RNFSA Project. Operational adjustments will include one or more of the following: ➢ seasonal sand and gravel production adjustments through stockpiling materials, ➢ seasonal management of concrete production, ➢ stockpiling fines temporarily to eliminate water used in the compaction process, ➢ increased use of dust palliatives for dust control, ➢ temporary reduction or cessation of pumping of river underflows, and ➢ cessation of mining operations, if necessary.				
WR2.	The feasibility of importing commercially available water as a supplemental source of water for operations during dry periods will be investigated periodically during the course of the RNFSA Project. Any such water identified shall have appropriate water quality characteristics consistent with the Regional Water Quality Control Board Basin Plan Water Quality objectives. Any such feasible sources shall be discussed with the County Department of Regional Planning to determine how such source(s) shall be delivered to the site.	Prior to anticipated dry periods.	County of Los Angeles Department of Regional Planning.	Report submittal by CEMEX.	Prior to importation of water.
Flood					
F1.[2]	The RNFSA Project will include construction of four desilting/debris basins according to the specifications of the Drainage Concept Plan to control surface runoff and sedimentation. During final design, the Applicant shall submit detailed plans for the debris basins including a static and seismic slope study that analyzes all proposed debris basin slopes greater than 3:1 gradient. Plans shall be approved by the Department of Public Works (DPW) prior to the commencement of grading work on the RNFSA Project.	Before project work or mining commences in the catchment area above each watercourse.	County of Los Angeles Department of Public Works.	Plans shall be approved by the DPW prior to the commencement of grading work on the project.	Prior to grading and construction.
F2.	A 45-inch culvert will be installed under Soledad Canyon Road to accommodate existing runoff conditions as well as conditions for the RNFSA Project. Construction of desilting/debris Basin 2E and the addition of the 45-inch-	During preproduction phase of Project.	County of Los Angeles Department of Public Works.	Design review and approval of culverts and debris/basins by DPW.	Prior to initiation of construction.

[2] Revised from November 2001 Mitigation Monitoring and Reporting Program due to elimination of the NFSA. See CEQA Findings Section 2.3.3.A.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	diameter culvert under Soledad Canyon Road are RNFSA Project design features that result in beneficial impacts by correcting inadequate existing conditions.				
F3.	Proper maintenance and cleaning of erosion control facilities and desilting/debris basins will be conducted as part of the RNFSA Project operations. Inspection frequencies and maintenance procedures are required by the Stormwater Pollution Prevention Plan (SWPPP) (see Appendix B1 of the DEIR). These procedures are detailed in the Storm Water Management Practices section of that plan. In addition, the requirement that the stormwater desilting/debris basins will be inspected after every storm event and every 24 hours during prolonged storm events will be conducted and will be added to the SWPPP. Prevention of spills of hazardous materials, such as petroleum fuels and products, is addressed in the Spill Prevention Control and Countermeasures Plan (SPCCP) (see Appendix B2 of the DEIR).	During mining through life of Project.	County of Los Angeles Department of Public Works.	Monthly inspection of stormwater and erosion control facilities for compliance with SWPPP, by CEMEX and reported to DPW. Inspections of stormwater desilting/debris basins after every storm event and every 24 hours during prolonged storm events for compliance with SWPPP by CEMEX and reported to Agency.	Monthly, throughout Project lifetime. After every storm event and every 24 hours during prolonged storm events throughout Project lifetime.
Water Quality					
WQ1.	The proposed Drainage Concept Plan will be implemented by CEMEX. The drainage concept establishes a drainage plan and facility requirements for the RNFSA Project and provides the design parameters for the location, sizing, and scheduling of the erosion control facilities to handle the runoff, sedimentation, and debris flows generated by the RNFSA Project. The plan addresses drainage during the pre-mining road construction and grading phase, during the mining operation, and after completion of mining.	Plan approval prior to site activity. Plan implementation during preproduction phase, during mining, and during reclamation.	County of Los Angeles Department of Public Works - Hydraulic/Water Conservation Division.	Desilting/debris basin design review and approval by DPW.	Approval prior to construction, with plan implementation throughout Project lifetime.
WQ2.	CEMEX will implement provisions of the SWPPP. The SWPPP (1) identifies potential sources of pollutants that will adversely affect stormwater discharges from the site and (2) describes in detail specific best management practices to reduce the levels of pollutants in stormwater discharges. Key elements of the SWPPP include a preventive maintenance program for vehicles and the stormwater conveyance systems, a system of good housekeeping measures to control contamination of runoff, and a system of desilting/debris basins designed for settling out excess suspended sediments in the site runoff, thus controlling downstream sedimentation.	Plan approval prior to site activity. Plan implementation during life of Project.	County of Los Angeles Department of Public Works. CRWQCB - Los Angeles Region.	SWPPP review and comment by DPW. Monthly inspection of stormwater facilities for compliance with SWPPP by CEMEX and reported to DPW.	Approval prior to construction, with plan implementation throughout Project lifetime.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
WQ3.	CEMEX will implement provisions of the SPCCP. Use of secondarily contained aboveground storage tanks (ASTs) to hold dust palliative, diesel fuel, waste oil, fresh motor oil, and hydraulic fluid onsite will minimize exposure of these products to surface water and groundwater. The risk of undetected leaks is much smaller with ASTs than with underground storage tanks (USTs). Additionally, the SPCCP identifies procedures and controls that will be implemented over the life of the RNFSA Project to prevent and minimize the release of chemicals into the area's surface waters. The SPCCP's main focus is storage of diesel, hydraulic oil, motor oil, and waste oil in all ASTs having capacities of greater than 55 gallons (no USTs are planned for the facility). However, areas of the site designated for storage of smaller volumes of potentially hazardous materials (e.g., solvents and cleaners) are also covered in the SPCCP. General compliance requirements relating to facility operations that are addressed in the SPCCP include spill response, leaks and malfunctions, rainwater accumulation, inspection, changes, training, and recordkeeping.	Plan approval prior to site activity. Plan implementation during life of Project.	County of Los Angeles Department of Public Works. CRWQCB - Los Angeles Region.	SPCCP review and comment by DPW. Annual inspection of ASTs and spill containment facilities for compliance with SPCCP by CEMEX and reported to DPW.	Approval prior to construction, with plan implementation throughout Project lifetime.
WQ4.[3]	CEMEX will install a septic tank onsite that is designed for routine pump out.	During preproduction phase of Project.	County of Los Angeles Department of Health Services.	Site visit, review and approval by DHS.	At completion of tank installation, but prior to use.
WQ5.	Desilting/debris basins will not be removed until disturbed areas have been successfully revegetated.	During mining and following mine closure.	County of Los Angeles Department of Public Works.	Site visit and review following each reclamation phase/ prior to removal of associated sediment retention basin.	Prior to removal of sediment retention basins.
WQ6.	The use of chloride-based dust palliatives on-site will be prohibited as long as the Santa Clara River is listed as impaired for chlorides on the California 303(d) List, unless specifically agreed to by the Los Angeles County Sanitation District and the Regional Water Quality Control Board.	Prior to use of dust suppressants containing chloride.	CRWQCB - Los Angeles Region. County of Los Angeles Sanitation District.	Plan review and approval by Sanitation District.	Prior to use of dust suppressants containing chloride.

[3] Revised from AEDEIR in response to comments. See Revised FEIR Reponses to comments, p. 4-16 to 17.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
Noise					
N1.	The Applicant will conduct blasting operations in general conformance with the federal OSMRE regulations as stated in 30 CFR, Chapter VII, Sections 816.61 through 816.68 and other applicable regulations. Conformance shall be demonstrated through preparation of a detailed Blasting Plan identifying RNFSA Project compliance with the stated requirements (as minimum standards) and through monitoring of blasting activities. The Blasting Plan shall be reviewed and approved by the County prior to conducting any blasting onsite. The Blasting Plan shall provide for the following: a) Submission to and approval by the County of the specific blast design prior to blasting, where such blasting will occur within 1,000 feet of habitable buildings outside the permit area. b) Conducting a public awareness program, including notification of all residents within ½ mile of any part of the permit area of the opportunity to request a pre-blast survey. The notification is to be done at least 30 days prior to initiation of blasting. A CEMEX information officer who can be contacted by telephone for information will be designated. c) Publication of the anticipated blasting schedule at least 10 days prior to the beginning of the blasting program via a newspaper of general circulation in the RNFSA Project area and by direct mail to residents within ½ mile, and republication at least every 12 months or whenever substantive changes to the schedule are to be implemented. d) Placement of warning signs and access controls to blast areas. e) Incorporation of the provision that blasting shall be conducted to prevent injury to persons, damage to public or private property outside the permit area, adverse impacts on any underground mine, and change in course, channel, or availability of surface or groundwater outside of the permit area. f) Conducting blasting so that the maximum air overpressure shall not exceed 133 dB (2-Hz minimum) measured directly between the nearest occupied residence and the blast site (ref. U.S. Bureau of Mines Report of Investigations 8485 (1980) "Structure	Plan approval during preproduction phase of Project. Plan implementation during mining.	County of Los Angeles Department of Public Works. Office of Surface Mining Reclamation and Enforcement (OSMRE). Mine Safety and Health Administration (MSHA).	The Blasting Plan is subject to review and approval by the DPW, OSMRE, and MSHA. Specific blast designs are subject to DPW approval.	Prior to blasting operations.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	Response and Damage Produced by Airblast from Surface Mining").				
	g) Conducting blasting so that the peak particle velocity generated from any blast shall not exceed 0.5 in/sec for vibration frequencies below 40 Hz, and 2.0 in/sec for vibration frequencies of 40 Hz or more, measured directly between the nearest occupied residence and the blast site (U.S. Bureau of Mines 1980b). Other methods of determining acceptable particle vibration such as the use of scaled-distance equations shall be allowed subject to approval by the County.				
	h) Conducting periodic monitoring offsite to ensure compliance with airblast and vibration standards and providing a seismograph record of each blast. Monitoring shall be conducted at a representative residential receptor and at a representative location adjacent to the Santa Clara River riparian habitat.				
	i) Controlling flyrock at the blast site in accordance with OSMRE regulations. That is, flyrock traveling in the air or along the ground shall not be cast from the blasting site.				
	j) Maintain records as specified by the County of all blasts for a minimum 3-year period.				
	k) Identification of conditions when blasting will be curtailed, including atmospheric conditions that are conducive to transmission and amplification of noise offsite, and/or conditions conducive to the transport of high levels of fugitive dust emissions offsite. The Blasting Plan will identify such conditions where blasting is to be curtailed by the Applicant. The program shall also specify the candidate control measures specifically aimed at reducing blasting fugitive emissions.				
	l) Identification of other parameters affecting blasting such as the regulatory requirement that blasting be conducted during daylight hours. Blasting shall be prohibited on Sundays and specified holidays.				
	m) Implementing specific measures to prevent nitrate contamination of surface and groundwater due to use of ammonium nitrate/fuel oil ("ANFO").				

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
N2.	Depending on the proposed lot configurations of the proposed Bee Canyon project, homes located west of the westernmost boundary of the RNFSA Project may be subject to significant noise during Mining Cut 1 operations. If the Bee Canyon project is constructed, the noise impact from mining will be reduced to less than significant by constructing berms or cut slopes to shield lots from direct noise exposure as confirmed through acoustic evaluation (based on final grading contours of the Bee Canyon project). It is anticipated that these measures would be applicable only if the Bee Canyon project were actually constructed.	Prior to implementation of Cut 1 if Bee Canyon Project is constructed.	County of Los Angeles Departments of Public Works/Health.	Berm design review and approval by DHS.	Prior to implementation of Cut 1 if Bee Canyon Project is constructed.
N3.	At the River's End Trailer Park, and the proposed Bee Canyon project, if constructed, soundwalls or berms will be constructed adjacent to affected lots to mitigate offsite truck transportation noise. Prior to wall construction, a more thorough study will be conducted by qualified personnel in the fields of structural engineering, environmental noise assessment, and architectural acoustics to design for soundwall placement and consideration of overall dimension, materials used, height differential between the roadway and receptors, grade and curvature of the road next to the receptors and the position of the receptors at the bottom of the slope.	Prior to Project implementation, for the River's End Trailer Park. At the time of construction of the Bee Canyon project, if constructed.	County of Los Angeles Departments of Public Works/Health.	Berm design review and approval by DHS.	Prior to Project implementation.
N4.	The applicant will provide the residence located above Soledad Canyon Road at the intersection of Soledad Canyon Road and Aqua Dulce Canyon Road (the Easterly residence) with noise attenuation in the form of either a sound wall or the installation of noise reduction windows.	Prior to Project implementation.	County of Los Angeles Departments of Public Works/Health.	Wall design approval or window installation.	Prior to Project implementation.
Public Services					
PS1.	Fire prevention training for all employees will be conducted based on California Occupational Safety and Health Administration (Cal-OSHA) standards, and fire prevention equipment will be available onsite.	Throughout project.	Cal-OSHA. County of Los Angeles Fire Department (LACFD).	The Project site shall be subject to unscheduled visits by Cal-OSHA and/or LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during Project construction and mine operations.
PS2.	No explosives will be stored onsite.	At all times.	Cal-OSHA LACFD	The Project site shall be subject to unscheduled visits by Cal-OSHA and/or LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
PS3.	The water storage facilities onsite will be accessible to fire equipment by an all weather road capable of supporting 50,000 pounds. The road width should be a minimum of 26 feet within 25 feet of either side of the tank connection.	At all times.	LACFD	The Project site shall be subject to unscheduled visits by LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.
PS4.	The water storage tanks should have a 4 inch and 2.5 inch outlet with National Standard threads. These outlets should be no more than 6 feet from the road.	Prior to mining operations.	LACFD	LACFD review.	At completion of tank construction.
PS5.	The minimum road width shall be 26 feet throughout the mining operation and must reach to within 150 feet of all buildings and equipment. The fire department shall have access to site gates.	At all times.	LACFD	The Project site shall be subject to unscheduled visits by LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.
PS6.	Grades on gravel roads should not exceed 10 percent. If they are paved, then a 15 percent grade is acceptable.	At all times.	LACFD	The Project site shall be subject to unscheduled visits by LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.
PS7.	Turnarounds will be provided on any road that exceeds 300 feet or one every 0.25 mile to 0.5 mile. The minimum radius is 32 feet.	During mining.	LACFD	The Project site shall be subject to unscheduled visits by LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.
PS8.	A minimum 200-foot fuel break will be provided around any mining operation. Fire protection shall comply with all County code requirements.	Prior to mining operations.	LACFD	The Project site shall be subject to unscheduled visits by LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
Air Quality					
AQ1a.	Construction Exhaust Emissions. Mitigation for both heavy equipment and vehicle travel is limited. However, the following will reduce these emissions to the maximum extent feasible: a) maintain equipment in tune per manufacturer's specifications; b) use catalytic converters on gasoline-powered equipment; c) retard diesel engine timing by 4 degrees; d) install high-pressure fuel injectors; e) use reformulated, low-emission diesel fuel; f) substitute electric and gasoline-powered equipment for diesel-powered equipment where feasible; g) where applicable, do not leave equipment idling for prolonged periods; h) curtail (cease or reduce) construction during periods of high ambient pollutant concentrations (i.e., Stage II smog alerts). i) retard fuel injection timing, resulting in NOx reduction of 30 percent (>40 percent in AP-42); j) use high-pressure fuel injectors resulting in PM-10 reduction in excess of 80 percent with a reduction in hydrocarbons; and k) use low-emission fuels resulting in unquantified reductions in all emissions. Equipment built to meet EPA/CARB certified engine standards incorporates a number of combustion system improvements. Therefore mitigation measure AQ1a involving retarding diesel engine timing by 4 degrees and installing high-pressure fuel injectors would not be applicable to this equipment.	During mining.	County of Los Angeles Department of Regional Planning/BLM/ SCAQMD.	Applicant will maintain maintenance and operating logs of pertinent equipment for SCAQMD review.	At annual SMARA compliance inspection.
AQ1b.	Construction Fugitive Dust Emissions. Although dust impacts are not expected to be significant during the construction phase, standard measures will be implemented to control fugitive dust emissions during construction as required by SCAQMD Rules 402 and 403. These rules contain a nuisance provision that gives an SCAQMD inspector wide latitude to enforce dust abatement,	During all site activities.	SCAQMD.	Review and approval of Fugitive Dust Plan by SCAQMD. Investigation of complaints by SCAQMD.	Fugitive Dust Plan will be reviewed annually. As required throughout Project lifetime.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	particularly in the event of a nuisance complaint. Because of the extreme distances from sensitive receptors, no nuisance complaints are anticipated. Still, typical abatement measures, including daily watering of active construction areas and all traveled dirt roads to minimize dust lofting from vehicular disturbance, will be used. The RNFSA Project is subject to Rule 403 and will prepare a fugitive dust plan that will be reviewed and approved by the SCAQMD on an annual basis. The Plan will include Best Available Control Measures (BACM) and the regulation prohibits both visible dust and PM-10 concentrations in excess 50 µg/m3 at the RNFSA Project boundary. The Project will comply with the requirements of Rule 403.				
AQ1c.	Operations Exhaust Emissions. Because most of the trucks will be independently owned and operated, CEMEX has little control over these emissions. Still, CEMEX does have some control over these emissions while the trucks are onsite and in the selection of the owner-operators. Applicable mitigation then includes the following: 1. Trucking will be performed on a 24-hour-per-day basis. This will reduce emissions by allowing trucks to operate during non-peak hours, increasing truck speeds, and eliminating prolonged idling in traffic, thereby decreasing truck emissions. 2. When operating onsite, trucks will not be left idling for prolonged periods. 3. Applicant-operated trucks that are observed to emit excessive amounts of smoke (particulate matter) will either be tuned up or repaired, as applicable. Private owner-operators will be warned that, if their trucks emit excessive amounts of smoke, they will not be allowed future access to the facility. 4. Where applicable, high-pressure fuel injector nozzles will be used, and diesel engine timing will be retarded by 4 degrees, except as modified by mitigation measure AQ4. (This includes both trucks and heavy equipment.)	During operations.	County of Los Angeles Department of Regional Planning/BLM/ SCAQMD.	Applicant will maintain a log demonstrating compliance with this requirement.	At annual SMARA compliance inspection.
AQ2.	The RNFSA Project is subject to Rule 403 and will prepare a fugitive dust plan that will be reviewed and approved by the SCAQMD on an annual basis. The Plan will include Best Available Control Measures (BACM) and the regulation prohibits both visible dust and PM-10		SCAQMD	Review and approval of Fugitive Dust Plan by SCAQMD. Investigation of nuisance	Fugitive Dust Plan will be reviewed annually. As required throughout Project lifetime.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	concentrations in excess 50 µg/m3 at the RNFSA Project boundary. The RNFSA Project will comply with the requirements of Rule 403. Mitigation measures and control efficiencies for each dust-generating operation are presented. These measures will be incorporated into the Rule 403 Fugitive Dust Plan as follows: 1. The product conveyor systems include the use of covered transfer points controlled by negative pressure vented to a bag house augmented by water or surfactant spray in the main plant area. Resultant fugitive dust emissions are projected to be roughly equivalent to those produced by covered conveyors, and no further mitigation is warranted. 2. In accordance with the SCAQMD permitting for the site, all permitted dust-producing equipment involved in rock crushing and conveyance must be vented to filters kept moist using spray bars. 3. Mitigation includes twice-daily watering followed by immediate broom-truck sweeping with a high efficiency street sweeper (as per SCAQMD Rule 1186) of paved roads to control the fugitive dust kicked up by the vehicles' tires. The control efficiency is dependent on the ability to remove silt from the road, and application of the above measures is conservatively estimated to result in a 90-percent control efficiency. 4. In addition to travel over paved surfaces, onsite travel will include material movements over unpaved surfaces because of travel on unpaved roads situated between the paved access road and the aggregate facility. For these unpaved roads, mitigation includes regular application of a chemical dust suppressant with a demonstrated control efficiency in excess of 80 percent. 5. Mitigation for offsite truck travel on paved and unpaved roads includes using wet spray during truck loading of sand and broom-truck sweeping of the roadway as trucks leave the site. Furthermore, in accordance with Assembly Bill No. 3220, Clapton 1486, aggregate materials shall only be carried in the cargo area of a vehicle. The cargo area shall not contain any holes, cracks, or openings through which			complaints by SCAQMD.	

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	the materials may escape, regardless of the degree to which the vehicle is loaded. Additionally, all trucks shall be equipped with the following: a) properly functioning seals on any openings used to empty the load, including, but not limited to, bottom-dump release gates and tailgates; b) splash flaps behind every tire, or set of tires, regardless of position on the truck, truck tractor, or trailer; c) center flaps at a location on the rear of each bottom-dump release gate or trucks or trailers equipped with bottom-dump release gates. The top of the center flap shall not be lower than the adjacent tires or set of tires, and the bottom of the center flap shall extend to within 5 inches of the pavement surface; d) fenders that completely cover the tops of the tires not already covered by the truck, truck tractor, or trailer body; e) complete enclosures on all vertical sides of the cargo area, including, but not limited to, tailgates; f) shed boards designed to prevent aggregate materials from being deposited on the vehicle body during top loading; and g) covers to keep transported materials from blowing, where feasible, except that vehicles transporting aggregate materials shall not be required to cover their loads if the load where it contacts the sides, front, and back of the cargo container area remains 6 inches from the upper edge of the container area, and the load, at its peak, does not extend above any part of the upper edge of the cargo container area.				
	6. [4]Fugitive emissions from equipment activity in the fines backfill area will be controlled with water spray with a control efficiency in excess of 50 percent. Implementation of mitigation measure AQ3 will eliminate the use of scrapers in the fines backfill area.				

[4] Revised from November 2001 Mitigation Monitoring and Reporting Program due to elimination of the NFSA. See CEQA Findings Section 3.1.B.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	7. To control wind erosion, inactive areas will be controlled by dust suppressants with an efficiency in excess of 80 percent, and by RNFSA Project design, active areas will receive water spray with an efficiency of at least 50 percent. Because more area will be inactive than active at any one time, an assumed 75 percent control efficiency is applied to the site as a whole. 8. An anemometer shall be placed onsite to monitor wind speed. It shall be calibrated and maintained in accordance with Rule 403, for use with the Fugitive Dust Plan.				
AQ3.[5]	To further reduce PM-10 emissions, CEMEX shall use a semi-stationary "fines" conveyor system to move fines from the mobile crusher, located in the active fines backfill area. A mobile conveyor will tie in to this stationary fines conveyor thereby allowing fines to be distributed without the need for subsequent trucking of this material. The mobile crusher has the ability to remove almost all of the fines during the crushing procedure. This crusher shall be equipped with two separate mobile conveyor systems. One of these mobile conveyor systems will transport fines removed in the initial crushing process to the stationary fines conveyor and subsequently to the fines backfill area. The other mobile conveyor will transport excavation products to the main product conveyor which takes it to the rock plant for further processing. Not all of the fines are removed at the mobile crusher and the rock plant also produces a modicum of fines during the processing procedure. These fines will be hauled by dump truck from the rock plant back to the fines backfill area. Transfer points on the conveyor will be controlled by wet suppression.	During mining at about Year 15.	County of Los Angeles Department of Public Works/BLM/SCAQMD.	Permit Condition, incorporate into approved Plan of Operations. Review by DPW.	Review and approval of Plan of Operations and annual compliance review as part of the annual SMARA compliance inspection.
AQ4.	This mitigation measure incorporates the use of EPA/CARB certified engines where applicable for the RNFSA Project. For equipment falling in the appropriate horsepower ranges, the RNFSA Project will use equipment which meets EPA/CARB emission standards for non-road engines. For Phase 1, the minimum standards which would apply would be the 1996 standards for 175-750 hp engines and the 2000 standards for equipment rated >750 hp.	During mining.	County of Los Angeles Department of Public Works/BLM/SCAQMD.	Applicant will maintain a log of onsite equipment specifications that demonstrates compliance with this measure to SCAQMD and DPW.	At annual SMARA compliance inspection.

[5] Revised from November 2001 Mitigation Monitoring and Reporting Program due to elimination of the NFSA. See CEQA Findings, Section 3.1.B.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	Additional equipment purchased for Phase 2 of the RNFSA Project will meet the year 2001 standards for 175-750 hp. Equipment built to meet EPA/CARB certified engine standards incorporates a number of combustion system improvements. Therefore mitigation measure AQ1c involving retarding diesel engine timing by 4 degrees and installing high-pressure fuel injectors would not be applicable to this equipment. The applicant will maintain a log of on-site equipment specifications that demonstrates compliance with this measure. Verification will be made by the lead agency at the annual SMARA inspection.				
AQ5.[6]	The Project Applicant will incorporate the use of particulate filters or equivalent technology to ensure that diesel exhaust particulate emissions from mobile sources at the Project site will be less than 1,735 lbs/year for Phase 1 and Phase 2. At this level of annual emissions, the exposure risk for the Project related to diesel particulate emissions would be less than 1 in 100,000, for residential receptors, as shown in the analysis in Appendix C of the AEIDEIR. In order to achieve this level of diesel exhaust particulate emissions, CEMEX will install particulate filters that achieve 95 percent or greater reduction in diesel exhaust particulates on the following equipment: Phase 1: one 13 cubic yard pit loader; two 100-ton haul trucks; and one water truck Phase 2: two 13 cubic yard pit loaders; four 100-ton haul trucks; one water truck; two front end loaders; and one 35-ton dump truck. If particulate filters with a control efficiency of 95 percent or greater are not available, CEMEX will implement alternative or additional methods in combination with filters or in place of filters to reduce diesel exhaust particulate emissions to less than 1,735 lbs/year. Since diesel exhaust has recently begun to receive a high degree of attention, significant advances in control	During mining.	County of Los Angeles Department of Public Works/BLM/SCAQMD.	Applicant will maintain a monthly log of equipment operating hours and will implement control measures when annual emissions approach the required threshold.	At annual SMARA compliance inspection.

[6] Revised from November 2001 Mitigation Monitoring and Reporting Program to provide for clarification. See CEQA Findings, Section 2.7.3.B.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	technology for heavy equipment are anticipated in the future. As these advances take place, CEMEX will review new technologies for their feasibility and applicability. Alternative methods for achieving equivalent or better diesel particulate reductions may be implemented in place of or in combination with particulate filters. These alternatives may include: • Conversion of some equipment to alternative or dual-fuel technology, if this becomes feasible. • Purchasing lower emitting equipment, if it becomes available when new purchases are being considered. • Use of low sulfur diesel, if it becomes available.				
Air Conformity Stipulations (not included in AQ mitigation measures)					
	SCAQMD Permits for onsite stationary sources	Prior to operation at the site.	SCAQMD	Obtain valid Permit to Construct or Permit to Operate for all stationary equipment prior to operations.	Annual reporting required to and periodic inspections by SCAQMD.
Biota					
B1.	The Reclamation Plan provides for concurrent revegetation of the site with species presently found onsite. The Reclamation Plan outlines revegetation specifications and establishes performance criteria for success of revegetation of the site.	During mining operations and after mine closure.	County of Los Angeles Departments of Public Works and Regional Planning.	Onsite verification of completion of performance criteria for successful site revegetation as set forth in the reclamation plan (Section 2.2).	During concurrent mining reclamation processes and completion of the final reclamation plan.
B2.[7]	Potentially significant impacts on the sensitive plant species (Peirson's morning glory, slender mariposa lily, Plummer's mariposa lily, and club-haired mariposa lily), if they were to occur on the southwest edge of the site near the ridge, as determined by a qualified biologist, will be mitigated by the following actions. Seeds of these sensitive species shall be collected from impacted populations as fines storage proceeds, and the seeds shall be incorporated into the Revegetation Plan for the site. These plant species, especially Peirson's morning glory, are found in areas that have experienced disturbance such as fire or clearing. Therefore, incorporating the seed of these species into the revegetation plan for the site will provide a means to salvage the populations, and impacts on	During mining operations and after mine closure.	County of Los Angeles Departments of Public Works and Regional Planning.	Onsite verification of completion of successful sensitive plant species site revegetation as set forth in reclamation plan (Section 2.2).	As required following completion of mining operations and final reclamation (after 20 years).

[7] Revised from November 2001 Mitigation Monitoring and Reporting Program due to elimination of the NFSA. See CEQA Findings, Section 2.8.3.A.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	these species will be reduced to less-than-significant levels. As additional assurance to preserve the genetic diversity that these individuals represent through these species' representative ranges, the following specification shall be adhered to: A donation in the amount of $4,000 shall be given to the Rancho Santa Ana Botanical Gardens for the collection and preservation of seeds of both slender mariposa lily and Plummer's mariposa lily. Initial seed collection will be done prior to any ground disturbance, with subsequent seed collection during the life of the RNFSA Project.				
B3.	Potential significant impacts on the coastal western whiptail will be reduced to less than significant with the implementation of the Reclamation Plan which is set forth as part of the RNFSA Project actions. This species is often associated with disturbed sites, and implementation of the RNFSA Project would not represent a permanent loss of its habitat. Even though the Reclamation Plan is part of the RNFSA Project actions, the Applicant shall assure its implementation with oversight to be provided by the County.	Following mine closure (20 years).	County of Los Angeles Departments of Public Works and Regional Planning.	Onsite verification of presence of suitable coastal western whiptail habitat following reclamation.	Following completion of mining operations and final reclamation (after 20 years)
B4.	Impacts from stray lighting from facilities and equipment yards will be reduced to a level of less than significant with the use of low-intensity lighting and direction shields.	Project construction.	County of Los Angeles Departments of Public Works and Regional Planning.	Onsite visit and photic evaluation.	After lighting is installed during Project construction.
B5.[8]	Potential impacts on the Santa Clara River biological resources from uncontrolled surface runoff from the site will be mitigated through implementation of RNFSA Project design measures including construction and maintenance of four desilting/debris basins and implementation of the RNFSA Project SWPPP and SPCCP.	Project lifetime (20 years).	County of Los Angeles Departments of Public Works and Regional Planning. CRWQCB	SWPPP and SPCCP review and approval. Monthly inspection of stormwater facilities for compliance with SWPPP.	Condition of Approval prior to construction and throughout Project lifetime.
B6.	Potential impacts on riparian habitat and proposed critical habitat of the unarmored threespine stickleback and regionally sensitive riparian vegetation from uncontrolled pumping of underflows of the Santa Clara River will be mitigated through implementation of the Habitat Protection Plan. The monitoring plan will be a multifaceted program of water resource monitoring and habitat monitoring of the permanent flowing stickleback habitat downstream from the site, as well as seasonal habitat adjacent to and	Project lifetime.	U.S. Fish and Wildlife Service (USFWS) and Los Angeles County Department of Regional Planning	Approval of Habitat Protection Plan and unscheduled regulatory site inspections by USFWS.	Periodically, throughout Project lifetime in accordance with full text of Habitat Protection Program in Appendix F6 of DEIR.

[8] Revised from November 2001 Mitigation Monitoring and Reporting Program due to elimination of the NFSA. See CEQA Findings, Section 2.8.3.D.

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	downstream of the site. The habitat protection program is presented in detail in Appendix F6 of DEIR. The monitoring program will contain action levels based on habitat requirements for the unarmored threespine stickleback and riparian vegetation. These action levels will trigger adjustments to mining operations to reduce RNFSA Project water consumption, including the temporary cessation of pumping if necessary. In response to below-seasonal average rainfall, mining operations will be adjusted during the dry season to reduce water consumption. Operational adjustments will include one or more of the following: ➢ seasonal sand and gravel production adjustments, ➢ seasonal management of concrete production, ➢ temporary stockpiling of fines, ➢ increased use of dust palliatives, ➢ temporary reduction or cessation of pumping of river underflows, and ➢ cessation of mining operations, if necessary.				
B7.[9]	No longer applicable due to elimination of the NFSA with implementation of Mitigation Measure VQ5, Mitigated Mining Cuts.				
B8.	The following mitigation measures shall be implemented to ensure that there would be no significant impacts to nesting birds and no violation of the Migratory Bird Treaty Act as part of the RNFSA Project: ➢ Vegetation clearing shall be conducted during the non-breeding season (August 16 through January 31) to limit impacts to nesting birds. ➢ In the event that vegetation clearing is necessary during the breeding season (February 1 through August 15), then a biologist shall conduct a pre-construction survey to identify the locations of any breeding birds within the areas that will be affected by the clearing. If the biologist finds an active raptor nest within or adjacent to the areas requiring clearing, then the biologist shall	Before vegetation clearing.	County of Los Angeles Department of Regional Planning and USFWS.	Onsite verification during and following vegetation clearing/report submittal.	Periodically, throughout Project lifetime.

[9] See CEQA Findings, Section 2.8.3.A.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	delineate a 500-feet wide buffer zone. This zone shall be marked with flagging and construction or clearing shall not be conducted within this buffer zone until the biologist determines that the nest is no longer active. ➢ If the biologist identifies active nests of other bird species within or adjacent to the areas requiring clearing, then the biologist shall delineate a 250-feet wide buffer zone. This zone shall be marked with flagging and construction or clearing shall not be conducted within this buffer zone until the biologist determines that the nest is no longer active.				
B9.	Prior to each phase of vegetation removal within the proposed mining development envelope, the applicant shall perform general wildlife surveys for the presence of any sensitive species listed at the time of the survey by either California Fish & Game or U.S. Fish and Wildlife Service. In particular, the applicant shall undertake protocol surveys for the California gnatcatcher in areas of suitable habitat prior to each new phase of vegetation removal or until such time as this species is no longer listed under either the California or Federal Endangered Species Acts. The surveys shall be conducted by a biologist who is permitted by the USFWS to conduct surveys for this species and the surveys shall be conducted according to the accepted USFWS protocol. Reports of the results of these surveys also shall be submitted to the Department of Regional Planning and USFWS. If any sensitive species are present, the applicant shall contact the appropriate trustee agency for recommended recovery and relocation procedures.	Project lifetime prior to vegetation removal.	County of Los Angeles Department of Regional Planning/USFWS/ CDFG.	Onsite verification during and following vegetation clearing/report submittal.	Periodically, throughout Project lifetime.
B10.	Prior to the initiation of any water extraction for mining activities, the applicant shall incorporate baseline data of presence of sensitive riparian species into the Habitat Protection Plan. This baseline data shall consist of the mapping of all riparian vegetation habitats, both upstream and downstream from the production wells for a distance of no less than 1,000 feet. In addition, protocol surveys within this riparian habitat shall be conducted for the presence of least Bell's vireo, southwestern willow flycatcher, yellow-billed cuckoo and the southwestern arroyo toad as part of this baseline data. The surveys shall be conducted by a biologist who is permitted by the USFWS to conduct surveys for these species and the surveys shall be conducted according to the accepted USFWS protocol.	Prior to water extraction.	County of Los Angeles Department of Regional Planning/USFWS/ CDFG.	Report submittal/onsite verification.	Prior to water extraction.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
Biological Opinion Terms and Conditions					
BO1.	The measures proposed by CEMEX in the biological assessment and summarized in the Federal biological opinion are incorporated as terms and conditions of the biological opinion and shall be included by the BLM as conditions of the mining and reclamation plan for the proposed Project.	During preparation of the Mining and Reclamation Plan.	BLM/County of Los Angeles Department of Regional Planning.	Review of Mining and Reclamation Plan by Agencies to ensure that biological mitigation measures are included.	As required during preparation of the plan.
BO2a.	If the water quality and quantity parameters reach the action levels defined in the biological opinion (table titled Comparison of Unarmored Threespine Stickleback Habitat Requirements and Monitoring Plan Action Levels) the BLM shall require CEMEX to notify the appropriate BLM office and to cease pumping water from the alluvium of the Santa Clara River until the action levels defined in the table are again achieved.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS/CDFG	Review of Mining and Reclamation Plan by Agencies. Report of water quality and quantity monitoring data by CEMEX review and by Agency.	As required during Project lifetime.
BO2b.	If pumping has been suspended until at least the water quality and quantity standards defined by the action levels are once again achieved, the BLM shall limit the amount of water pumped from the alluvium of the Santa Clara River by CEMEX to a rate and amount that will not result in fluctuations of the water level, water temperature, or oxygen level. This limitation shall remain in effect until the onset of rains during the next wet season.	Project lifetime, after implementation of measure BO2a.	BLM/County of Los Angeles Department of Regional Planning.	Review of Mining and Reclamation Plan by Agencies. Report of water quality and quantity monitoring data by CEMEX. Site visits by Agency as required.	As required from the implementation of measure BO2a to the onset of rains during the next wet season.
BO3.	The BLM shall ensure that CEMEX uses only herbicides approved for spraying in and near aquatic sites, such as Rodeo, within 100 feet of the Santa Clara River when water flow is present in the river. Other herbicides may be used, according to their label restrictions, to control giant reed on upper floodplain terraces.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning.	Review of Mining and Reclamation Plan by Agencies. Site visits by Agency as required.	As required during the preparation of the plan. Site visits as required during Project lifetime.
BO4.	The BLM shall require CEMEX to prepare an annual report for its review by December 1 of each year the mine is in operation or reclamation phases. After BLM's review, the report shall be forwarded to USFWS by January 15. The report shall document the effectiveness of the monitoring plan proposed by CEMEX and the terms and conditions, a summary of the information that was collected regarding water quality and quantity from the previous year, a summary of the results obtained from the habitat monitoring, and the results of any work to remove exotic species. If appropriate, the report shall also recommend modifications to the monitoring plan and terms and conditions to enhance the protection on unarmored threespine stickleback while making them more workable for CEMEX and the BLM.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Monitoring Report by CEMEX. Review of Annual Monitoring Report by Agencies.	Annually by December 1 (BLM) and January 15 (USFWS).

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
BO5.	On locating dead unarmored threespine sticklebacks, initial notification must be made in writing to the USFWS Division of Law Enforcement and by telephone and writing to the Ventura Field Office within three working days of its finding. The report shall include the date, time, location of the carcass, a photograph, cause of death, if known, and any other pertinent information. Care shall be taken in handling dead specimens to preserve biological material in the best possible state for later analysis. The remains of unarmored threespine sticklebacks shall be placed with the Los Angeles County Museum of Natural History. Arrangements regarding proper disposition of potential specimens shall be made with the museum by the project monitor prior to implementation of the action.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Report by CEMEX. Review of report by Agencies.	Within 3 working days of location of dead unarmored threespine stickleback
BO6.	The BLM and CEMEX will remove other exotic species from the habitat of the unarmored threespine stickleback when possible. In particular, any individuals of the African clawed form that are encountered should be destroyed.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning USFWS	Report by CEMEX. Review of Report by Agencies.	Annually by December 1 (BLM) and January 15 (USFWS).
Biological Opinion Mitigation Measures and Terms and Conditions for the Arroyo Toad					
BO7.	Potential impacts to the Arroyo Toad shall incorporate the provisions of the Federal biological opinion as follows: <u>Construction of Wells and Pipeline.</u> a. A qualified biologist will conduct a training session for all well and pipeline installation personnel prior to construction of Project wells and pipelines. The training session will focus on information on the arroyo toad, indications of its activity, limits on project disturbance, keeping the site clear of trash and debris, and notifying monitors immediately if indicators of the toad are encountered. b. Access to well development sites will be limited to pre-existing access routes to the greatest extent possible; vehicle travel related to well development will be limited to daylight hours (Lorentzen pers. comm.). c. The footprint of new disturbance areas will be minimized to the maximum extent feasible; new disturbance will be monitored by an onsite biologist responsible for overseeing construction monitoring activities. d. A water pollution control plan will be developed for	During well and pipeline construction.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Report by CEMEX. Review of Report by Agencies.	As required during construction of wells and pipeline.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	pipeline installation and well development prior to site disturbance. The plan will be developed to the satisfaction of the qualified biologist. e. The limits of project disturbance for well and pipeline installation will be clearly defined and marked in the field and reviewed by a monitoring biologist prior to initiation of work (Lorentzen pers. com). f. The well development will be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars. g. If well development cannot be conducted without placing equipment or personnel in sensitive habitats, the development will be timed to avoid the breeding season, or be timed so that work within or near the stream channel is conducted during the dry season. h. Silt fencing or other sediment trapping materials will be installed around the well construction sites to minimize the transport of sediment and debris. Care will be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream. An onsite biological monitor will oversee such activities. i. Equipment storage, fueling, and staging areas will be located on upland sites and a spill prevention control and countermeasures plan specific to the well and pipeline installation will be used. j. No fill material will be deposited into watercourses. k. The project biologist will visit the work site periodically throughout the duration of the well and pipeline installation to ensure that all practicable measures are being employed to avoid incidental disturbance of habitat and species. l. The removal of native vegetation will be minimized, and overseen by the onsite biological monitor. m. To avoid attracting predators of arroyo toad, the site will be kept as clean of debris as possible. n. Exclusionary fencing will be placed around well development sites at the direction of the onsite biological monitor. For a period of seven days, three times each day, prior to well installation, the qualified biologist will inspect the exclusionary fence lines and				

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	remove any amphibians (including arroyo toads) and reptiles collected in capture pits. [(The "capture pits" are pitfall traps that would be located inside the fencing (Lorentzen pers. com.).] Removed animals will be relocated to suitable habitat adjacent to, and outside of, the area of disturbance. o. If it is to be installed above ground, the pipeline will be elevated to allow arroyo toads and other amphibians to cross underneath.				
BO8.	Water Withdrawal. a. Three additional monitoring wells will be installed and will be designated MW4, MW5, and MW6. b. Two of the monitoring wells (MW4 and MW5) will be installed up gradient of the easternmost production well for the operation. c. Monitoring well MW6 will be installed in the vicinity of permanent monitoring stations P2 and P3 as described in section 3.2.4.3 of the biological assessment (Bureau 1996). d. These three wells will be equipped and operated to provide for continuous monitoring of groundwater elevations at each well. In addition, the static groundwater elevation for each well will be recorded weekly. Static groundwater elevation is assumed to be the elevation of the groundwater 24 hours after all pumping has ceased (recovered head). e. Data generated from these wells will be reviewed weekly by CEMEX. (i) Data from monitoring well MW4, the farthest upstream well, will be monitored to ensure that the pumping at any of the production wells does not have an effect on the surface water flowing to the bedrock channel, as described in section 6.2 of the supplemental biological assessment (Bureau 2001a). (ii) The groundwater elevation in MW5 will be monitored to ensure that the groundwater elevations of MW4 are not influenced by any of the production wells. (iii) The relationship between the static groundwater elevation in MW4 and MW6 will be determined.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Monitoring Report by CEMEX. Review of Annual Monitoring Report by Agencies.	Annually by January 31 (see No. 8 below).

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	This relationship will be used to quantify effects of project pumping on groundwater elevations at MW6. Data from MW4 and MW6 will be compared to ensure that project water extractions do not reduce surface flows downstream of Pole Canyon Fault near P2 to an extent that it would be detrimental to the riparian and aquatic habitat of the arroyo toad and other sensitive species. f. Pumping of the easternmost production well will be regulated so that water diversions from the underflow do not affect surface water flowing into the bedrock channel. Pumping will be curtailed if water levels in MW4 and MW5 indicate that pumping effects are detrimental to the maintenance of surface flows through the bedrock channel.				
BO9.	The Bureau shall ensure that the education program includes information on all relevant aspects of the protective program for the arroyo toad (reasonable and prudent measure 1): A Service-approved biologist shall conduct a training session for all project personnel prior to the onset of any ground-disturbing activities within the action area. At a minimum, the training shall include a description of the arroyo toad and its habitat; the general provisions of the Endangered Species Act; the necessity for adhering to the provisions of the Act; the penalties associated with violating the provisions of the Act; the specific measures that are being implemented to conserve the arroyo toad during mining and associated operations; and the boundaries within which the specific actions may be accomplished. The program shall also cover the restrictions and guidelines that must be followed by all construction personnel to reduce or avoid effects on these species during project implementation.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Report by CEMEX. Review of Annual Report by Agencies.	Prior to the onset of any ground-disturbing activities.
BO10.	The Bureau shall ensure that only qualified personnel handle arroyo toads and only in an appropriate manner and for the minimal amount of time required (reasonable and prudent measure 2): a. Only qualified personnel authorized under the auspices of this biological opinion shall handle arroyo toads. The Bureau or CEMEX shall submit the credentials of biologists who they wish to handle arroyo toads to the Service, for its review and approval, at least 15 days prior to the	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS Annual Report by CEMEX.	Review of Annual Report by Agencies.	a. 15 days prior to the onset of activities by biologists.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	onset of the activities which they may be authorized to conduct. b. When capturing and removing arroyo toads from work sites, the Service-approved biologist shall minimize the amount of time that animals are held in captivity. During this time, they shall be maintained in a manner that does not expose them to temperatures or any other environmental conditions that could cause injury or undue stress. c. To avoid transferring disease or pathogens between aquatic habitats during the course of surveys and handling of arroyo toads, the Service-approved biologist shall follow the Declining Amphibian Population Task Force's Code of Practice. You may substitute a bleach solution (0.5 to 1.0 cup of bleach to 1.0 gallon of water) for the ethanol solution. Care shall be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat. d. When conducting pitfall trapping, the Service-approved biologist shall ensure that all open traps are checked in the morning before temperatures or other environmental factors become stressful to trapped arroyo toads. If pitfall traps will be inactive, they shall either be removed from the ground and the hole backfilled or the lid shall be securely closed.				b. When capturing and removing arroyo toads. c. When handling arroyo toads. d. When conducting pitfall trapping.
BO11.	The Bureau shall require CEMEX to remove arroyo toads from the areas where monitoring wells are to be installed (reasonable and prudent measure 3): Arroyo toads shall be removed from the area of temporary disturbance around all monitoring wells to be installed in potential habitat. The procedures proposed by the Bureau and CEMEX, as modified by these terms and conditions, shall be implemented during the installation of the monitoring wells.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Report by CEMEX. Review of Annual Report by Agencies.	During installation of monitoring wells.
BO12.	The Bureau shall require that the water pipeline be elevated through habitat of the arroyo toad and be maintained in a manner that does not impede the movement of arroyo toads (reasonable and prudent measure 4): a. The water pipeline shall be elevated above the surface of the ground when in arroyo toad	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Report by CEMEX. Review of Annual Report by Agencies.	a. During construction of water pipeline.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	habitat. The pipeline need not be elevated when crossing extensive disturbed areas that, in the opinion of the Service-approved biologist, are unlikely to support arroyo toads; the pipeline may be buried on either side of a road when it crosses a road within arroyo toad habitat.				of water pipeline.
	b. When determining the height to which the pipeline should be elevated, the Bureau shall ensure that arroyo toads would have free unimpeded passage and consider whether vegetation or debris flows could block movement of individuals.				b. During construction of water pipeline.
	c. At least once per year, the Service-approved biologist shall inspect the water line where it traverses habitat of the arroyo toad to determine whether debris or vegetation along the pipeline could impede movement of arroyo toads. In making this determination, the Service-approved biologist shall consider whether arroyo toads could be expected easily to cross or move around any obstructions.				c. At least once per year.
	d. If the Service-approved biologist determines that the movement of arroyo toads past the pipeline is substantially impeded, the Bureau shall ensure that CEMEX removes the blockage as soon as possible. The Service-approved biologist shall oversee the removal, using the same precautions when handling and moving arroyo toads as described elsewhere in these terms and conditions.				d. At least once per year.
	e. The Service-approved biologist shall ensure that any maintenance activity along the pipeline in habitat of the arroyo toad is conducted in a manner that minimizes the potential for injury or mortality. The Service-approved biologist shall define work areas in conjunction with the project manager, remove arroyo toads from harm's way (if necessary), and implement other protective measures, as described in these terms and conditions to protect arroyo toads during maintenance activities.				e. Prior to any maintenance activity.
BO13.	The Bureau shall ensure plans relating to the inadvertent release of hazardous materials are in place prior to the onset of ground-disturbing activities (reasonable and	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning.	Annual Report by CEMEX. Review of Annual Report	Prior to the onset of any ground-disturbing activity.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	prudent measure 5): Prior to the onset of any ground-disturbing activity within or adjacent to arroyo toad habitat, the Bureau shall review CEMEX plans to prevent the inadvertent spills of hazardous materials and to remediate any such spill that may occur. These plans shall specifically discuss the implications of spills in habitat of the arroyo toad and include methods to remediate these spills in the least damaging manner.		USFWS	by Agencies.	
BO14.	The Bureau shall ensure that effects to arroyo toads that may occur during monitoring activities are avoided or reduced (reasonable and prudent measure 6): a. The Service-approved biologist shall inspect areas to be used for biological, hydrological, and other monitoring prior to their use by workers. b. Biological (other than that directed at arroyo toads), hydrological, and other monitoring shall not be conducted within or adjacent to arroyo toad breeding pools or in areas where metamorph arroyo toads are abundant. The determination of abundance of metamorphs shall be made by the Service-approved biologist. The primary criterion to be used in determining if work in a given area must be delayed is whether the monitoring activities are likely to result in mortality of several metamorphs. If the Service-approved biologist makes this determination and mortality cannot be avoided through the implementation of site- and instance-specific measures, the monitoring activity shall be delayed until such time when metamorphs are no longer abundant; alternatively, the monitoring shall be moved to another site. When in doubt regarding whether metamorphs should be considered abundant or site- and instance-specific protective measures, the Service-approved biologist shall contact the Service and Bureau for guidance; telephone contact may be used to expedite resolution of the issue.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Report by CEMEX. Review of Annual Report by Agencies.	a. Prior to the use of areas for biological, hydrological, and other monitoring. b. Prior to the use of areas for biological, hydrological, and other monitoring.
BO15.	The Bureau shall require CEMEX to reduce the level of take of arroyo toads associated with the removal of giant reed (reasonable and prudent measure 7):	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning.	Annual Report by CEMEX. Review of Annual Report	Prior to removal of giant reed.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	a. The Service-approved biologist shall inspect areas where removal of giant reed is proposed prior to the onset of removal activities. b. If arroyo toads or suitable habitat is present, the Service-approved biologist shall define where trails, staging areas, and other general sites of disturbance may occur. Sensitive areas, such as breeding pools and sites where numerous animals may be in burrows, shall be marked and avoided. c. If avoidance of arroyo toads outside of breeding pools is not possible, the Service-approved biologist shall move these individuals to a nearby safe location. d. Breeding pools that contain tadpoles or eggs of arroyo toads shall be avoided until all individuals have left the water. e. These procedures may be used to remove salt cedar (Tamarix ssp.) and other non-native species.		USFWS	by Agencies.	
BO16.	The Bureau shall ensure that protective measures for the arroyo toad are consistently implemented (reasonable and prudent measure 8): a. The Service-approved biologist(s) shall have the authority to stop specific work activities until appropriate corrective measures are taken when unintended effects to arroyo toads occur. If an arroyo toad is observed within a designated work area and cannot be avoided, all work shall stop until the animal leaves the work area or until it is captured and relocated by a Service-approved biologist to outside of the work area to avoid injury or mortality. b. If CEMEX does not implement the protective measures for the arroyo toad, the Bureau shall suspend work on the mining operation until such time that CEMEX is again in full compliance.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Report by CEMEX. Review of Annual Report by Agencies.	a. When unintended effects to arroyo toads occur, or if an arroyo toad is observed within a designated work area. b. During review of Annual Report.
Cultural Resources					
CR1.	Under current construction plans, the historic archaeological site (LAN 1847H) will be avoided. However, to ensure that the site is not disturbed by	Project design and prior to construction.	California Office of Historic Preservation/BLM/	Representative archaeological monitor shall review site plan and	As required during Project construction.

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	construction activities, the site will be fenced under the direction of an archaeological monitor. With this measure, the site will be avoided and protected, which is a preferred mitigation measure under CEQA.		County of Los Angeles Department of Regional Planning.	direct the manner in which the archaeological site LAN-1847 shall be fenced and avoided.	
CR2.	If future construction plans cannot avoid and protect the site, all construction will cease and an archaeological test program that includes archival research will be necessary to determine the site's importance. If the site is found to be important, a data recovery program will be implemented to mitigate impacts to a less-than-significant level.	Prior to disturbance of the site.	California Office of Historic Preservation/BLM/ County of Los Angeles Department of Regional Planning.	Representative archaeological monitor shall conduct an archaeological test program including archival research to determine significance of site and need for excavation.	Report to Department of Regional Planning prior to clearance of vegetation.
CR3.	A walk-over survey shall be conducted prior to grading new mining areas. If during the walk-over survey, pre-construction or construction phases of the Project, historic properties are discovered, CEMEX will consult with the BLM to make reasonable efforts to avoid, minimize, or mitigate potential adverse effects to such properties. To aid in the resolution of any adverse effects, CEMEX would notify the BLM within 48 hours of the discovery of the site. The BLM will consult with the State Historic Preservation Officer (SHPO) and any Indian tribe that might attach religious or cultural significance to the affected property. CEMEX will be guided in its approach to any discovered sites by the provisions in 36 CFR Part 800 and appropriate consultation with the BLM.	Prior to disturbance of the site.	California Office of Historic Preservation, BLM/County of Los Angeles Department of Regional Planning.	Representative archaeological monitor shall conduct an archaeological test program including archival research to determine significance of site and need for excavation.	At such time that avoidance of historic archaeological site LAN-1874H becomes infeasible.
	If any sites are found that might contain human remains, associated or unassociated funerary objects, sacred objects, or items of cultural patrimony as those terms are defined by the Native American Graves Protection and Repatriation Act (25 U.S.C. Section 3001), CEMEX will cease the activity in the area of discovery, make a reasonable effort to protect the items discovered before resuming such activity, and provide notice, pursuant to U.S.C. Section 3002(d).				
	Following the notification under this subsection, and upon certification by the Secretary of the department or the head of any agency or instrumentality of the United States or the appropriate Indian Tribe that notification has been received, CEMEX will resume activities in the area of discovery after 30 days of such certification. In addition, CEMEX will notify the Los Angeles County Coroner. If the Coroner determines that the burials are Native American, a Most Likely Descendant designated by the California Native American Heritage Commission will be				

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	notified and a reburial plan will be formulated, following procedures required by Public Resources Code, Sections 5097.94, 5097.98, 5097.99, and Health And Safety Code, Section 7050.5.				
Visual Qualities					
VQ1.	Reclamation and revegetation will occur starting every growing season after mining activity has ceased in particular areas.	Project lifetime and following mine closure.	County of Los Angeles Departments of Public Works/Regional Planning.	Onsite verification of completion of performance criteria for successful site revegetation as set forth in the reclamation plan (Section 2.2).	During concurrent mining reclamation processes and upon completion of the final reclamation plan.
VQ2.	During the final phase of reclamation, the roads will be resloped to conform with the surrounding topography.	Final phase of reclamation (after 20 years).	Los Angeles County Departments of Public Works/Regional Planning.	County Landscape Engineer and DRP shall monitor resloping practices.	Following mine closure during final phase of reclamation.
VQ3.[10]	No longer applicable due to elimination of NFSA with implementation of Mitigation Measure VQ5, Mitigated Mining Cuts.				
VQ4.	The RNFSA Project will incorporate modern lighting systems that direct lights to specific areas and will prevent stray lighting from spilling over into surrounding areas. No lighting will be directed upward.	Project design and stage 4 of construction (1-2 years).	Los Angeles County Departments of Public Works/Regional Planning.	County Engineer shall review the project site plan and inspect lighting following installation.	During project design and stage 4 of construction.
VQ5.	A modified approach to Mining Cuts 3 and 4 would reduce visual impacts. Mine Cut 3 would be modified so that there would be no access road construction or cut slopes visible on the north side of the northeast-southwest trending ridge (as shown on Figure 2.1-8 of the AEIDEIR). Mine Cuts 3 and 4 would still occur, but excavation activities would commence from the south side of the ridge generally out of the direct line of sight from the Antelope Valley Freeway. In order to minimize the reduction in ridgeline elevation, access roads which were to be left in place at the end of mining (as shown on Figure 2.1-11 of the AEIDEIR) will be mined out instead. This will leave a smooth overall serrated slope on the south side of the ridge. Additional excess fines would be backfilled into the quarry floor at elevation 1925. Implementation of this modified approach would eliminate the need for the NFSA.	As part of Final Project approvals.	Los Angeles County Departments of Regional Planning/ Public Works.	Approved by County, BLM, of Final Plan of Mining Cuts.	Prior to Project implementation.
Traffic					
T1.	Mitigation measures are required for the Soledad Canyon	Project lifetime if	County of Los Angeles	Traffic volumes shall be	Traffic volumes will be

[10] See CEQA Findings Section 3.2.1.A.

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	Road/Antelope Valley Freeway NB and SB ramps intersections, and the east approach of Soledad Canyon Road to the Bee Canyon Project's most easterly access road that were determined to have significant cumulative impacts. The roadway improvements and traffic signal controls required to achieve an acceptable LOS are presented in Table 3.1.11-15 of the AEIDEIR. These improvements will be required with or without the Project if the other related projects are developed as currently proposed. It is recommended that the intersection traffic volumes be monitored by County DPW and Caltrans to determine if and when the mitigations are required.	required.	Department of Public Works - Traffic Division. California Department of Transportation (Caltrans).	periodically monitored throughout Project lifetime to determine need for roadway improvements. If improvements are required, CEMEX will pay its pro-rata share of the improvements as stated in Mitigation Measure T1.	measured throughout Project lifetime. If and when improvements are required CEMEX shall pay its pro rata share.
	Pursuant to Los Angeles County Traffic Impact Analysis Guidelines (DPW 1997), the Project's pro-rata percent share of the improvements is 9.1 percent to widen and modify the east approach of Soledad Canyon Road to provide two through lanes and one exclusive right-turn lane (add one westbound through lane). CEMEX's pro-rata shares of the traffic signal installation costs will be 6.5 percent of the cost for the intersection at SR-14 SB ramp/Soledad Canyon Road, and 9.1 percent of the cost at SR-14 NB ramp/Soledad Canyon Road. This share was determined based on the average of the a.m. and p.m. peak hour traffic volumes entering the interchange.				
T2.	Access to the site will be relocated from its existing location on Soledad Canyon Road to a point opposite of the existing access road for the C.A. Rasmussen mining operations on the south side of Soledad Canyon Road. This would create a conventional four-way intersection on Soledad Canyon Road. The RNFSA Project will provide one shared left-turn/through lane and one exclusive right-turn lane on the north approach and aligned with the existing access road for the C.A. Rasmussen facility. A left-turn lane and one shared through/right-turn lane on both the east and west approaches on Soledad Canyon Road will be provided. The westbound merging lane will be designed with adequate sight distance to the satisfaction of the County Department of Public Works Traffic and Lighting Division. All striping improvements will also be approved by the Department. Project proposed access improvements are shown on Figure 3.1.11-4 of the DEIR. Some trees and shrubs to the east and west of the access road will be cleared, as necessary, to afford an unimpeded view of oncoming traffic. In computing the required slope easements along Soledad	Project lifetime.	County of Los Angeles Department of Public Works - Traffic Division.	County Engineers shall: Review and approve planned access roadway improvements. Monitor traffic volumes to determine need for traffic signal installation. If improvements are required, CEMEX will pay its pro-rata share of the improvements as stated in Mitigation Measure T2.	During project design phase and construction for planned access roadway improvements. Traffic volumes shall be measured throughout the Project lifetime. If and when traffic signal installation becomes necessary, CEMEX shall pay its pro-rata share.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	Canyon Road, the applicant will include that area which may be required for line of sight to the satisfaction of the County DPW. Additionally, the applicant will submit a geotechnical report for the DPW review and approval addressing the stability of any proposed side slope gradients greater than 2:1. If and when actual traffic conditions would warrant a traffic signal, CEMEX's pro-rata shares of the traffic signal installation costs for the Project access road/Soledad Canyon Road intersection will be 100 percent.				
T3.	The Applicant will contribute its fair share of costs to resurface the specific section(s) of pavement on Soledad Canyon Road. Paving shall be accomplished prior to the start of Phase 2 or at a later date as substantiated with a revised traffic index analysis, which includes trucks generated by other projects.	Prior to Phase 2 mining operations (within 10 years).	County of Los Angeles Department of Public Works - Traffic Division.	The LA County Department of Public Works - Traffic Division will monitor road quality and determine when repaving is necessary.	Prior to Phase 2 mining operations (within 10 years).
T4.[11]	This mitigation has been superceded by Project Condition 13.				
Land Use					
LU1.	The County will review and approve the proposed Reclamation Plan to reclaim mined lands to a usable condition. Under the proposed Reclamation Plan, at the conclusion of the Federal Contracts, CEMEX will reclaim the RNFSA Project processing site and/or all inactive disturbed areas. Any areas not used for continued mining will be reclaimed and revegetated for use as open space. Upon approval of all applicable permits and plans, the Project will be deemed consistent with state, regional, and local land use policies and designations.	During project design phase.	County of Los Angeles Departments of Public Works/Regional Planning.	The LA County Department of Public Works shall review and approve the proposed Reclamation Plan.	During project design phase, prior to construction.
Public Health and Safety					
PHS1.	Detailed emergency response plans are presented in the SPCCP and will be strictly followed.	Project lifetime.	CRWQCB Occupational Safety and Health Administration (OSHA)	Review and comment. The Project site shall also be subject to unscheduled site visits by CRWQCB and OSHA inspectors.	During development of SPCCP and throughout Project lifetime.
PHS2.	All Mine Safety and Health Administration (MSHA) and other applicable regulations will be strictly enforced.	Project lifetime.	MSHA	Project site shall be subject to unscheduled visits by MSHA inspectors to ensure compliance with MSHA	Throughout Project lifetime.

[11] See CEQA Findings, Section 2.11.2.A.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
				regulations.	
PHS3.	Public access will be restricted to reduce the potential for accidents. Active mining areas will be fenced, and signs will be posted restricting access to Project site.	Project lifetime.	MSHA	MSHA inspectors shall verify proper public access restriction measures are in place during unscheduled site visits.	Throughout Project lifetime.
PHS4.	The facility will be gated to control public access.	Project lifetime.	MSHA	MSHA inspectors shall verify proper public access restriction measures are in place during unscheduled site visits.	Throughout Project lifetime.
PHS5.	Compliance with all regulations and requirements of OSHA, MSHA, and all applicable County 1994 Uniform Fire Codes will be observed.	Project lifetime.	MSHA OSHA LACFD	Unscheduled site visits by OSHA, MSHA, and LACFD to ensure compliance with all applicable safety regulations and fire codes.	Throughout Project lifetime.
PHS6.	CEMEX will not remove topsoil on high wind days.	Project lifetime.	SCAQMD	Periodic review and approval of Fugitive Dust Plan by Agency.	At regular intervals throughout Project lifetime.

Abbreviations
DHS = Department of Health Services
DPW = Department of Public Works
DRP = Department of Regional Planning
CEMEX = Transit Mixed Concrete, CEMEX
San. Dist. = County Sanitation District
LACFD = Los Angeles County Fire Department
BLM = Bureau of Land Management
SCAQMD = South Coast Air Quality Management District

FINDINGS OF THE BOARD OF SUPERVISORS AND ORDER
SURFACE MINING PERMIT NUMBER 91-165(5)

INTRODUCTION AND FACTUAL BACKGROUND

1. The Soledad Canyon Sand and Gravel Mining Project ("project") proposed by CEMEX, Inc. ("CEMEX") consists of 500 acres, located at 12101 Soledad Canyon Road ("project site"). The project site lies within Soledad Canyon, in the County of Los Angeles ("County") unincorporated area generally north of Soledad Canyon Road, south of the Antelope Valley (14) Freeway, and west of Agua Dulce Canyon Road, and is located in Soledad Canyon in sections 9 and 16 of Township 4 North, Range 14 West; San Bernardino Base and Meridian. The project site consists of a northeast-southwest trending ridge that rises 700 feet above Soledad Canyon Road. Access to the project site is from Soledad Canyon Road to the south.

2. Surrounding land uses consist of vacant land, other mining operations, and very low-density rural residential uses. To the north there is vacant land, to the south there is surface mining, a ranch and vacant land, to the east there is surface mining and vacant land, and to the west there is vacant land and a 39-space trailer park.

3. The Lang Station area is located near the Santa Clara River further west of the project site and is primarily composed of mining and other industrial operations, including existing quarries operated by Curtis Sand and Gravel and Vulcan Materials Company near Lang Station. The River's End Trailer Park is located east of Lang and provides affordable alternative housing consisting of 39 spaces rented on a monthly basis.

4. The closest city to the project site is the City of Santa Clarita, which at its closest point lies one and one-half miles northwest of the project site (the residential community of Pinetree). The City of Santa Clarita is separated from the project site by the Antelope Valley Freeway and rugged terrain. Additionally, two other mining operations are located closer to the City of Santa Clarita than the project.

5. The nearest existing residential development, Stonecrest, lies in unincorporated Los Angeles County approximately 1.1 miles from the project site boundary. Stonecrest is a single family residential housing tract situated on the north side of the Antelope Valley (14) Freeway adjacent to and outside of the City of Santa Clarita's northeastern corporate boundary. The nearest portion of the development of Stonecrest is separated from the project's operations area by approximately 1.6 miles, the Antelope Valley Freeway, and the ridgeline bisecting the project site.

6. The project site is located within an area officially designated by the California State Mining and Geology Board as a "Regionally Significant Construction Aggregate Resource Area" pursuant to the Surface Mining and Reclamation Act ("SMARA"), Public Resources Code §§ 2710 et seq. Such areas are defined as land "which is known to contain a deposit of minerals, the extraction of which is judged to be of prime importance in meeting future needs for minerals in a particular region of the state within which the minerals are located and which, if prematurely developed for alternative incompatible land uses could result in the permanent loss of minerals that are of more than local significance." (Public Resources Code § 2726.)

7. The project site is located within the Soledad Canyon Zoned District. The existing zoning is M-2 (Heavy Manufacturing). Surrounding zoning consists of M-2, A-2-1 (Heavy Agriculture), and A-1-1 (Light Agriculture) to the north; M-2 and A-2-1 to the east; M-2, A-2-1, A-2-5, and R-R-1 (Resort and Recreation) to the south; and A-2-1 to the west.

8. Approximately 45 acres of the Project site north of Soledad Canyon Road were mined for sand and gravel over the past 30 years. From 1968 to approximately 1986, a previous operator mined several million tons of sand and gravel from the site. This portion remains disturbed and unreclaimed from the previous mining operations. An abandoned surface mine remains on the Project site including an aggregate crushing mill, stockpile areas, and access roads. Conditional Use Permit ("CUP") No. 122 (5) was granted by the County in 1972 and authorized a rock quarry (sand and gravel pit) on a portion of the Project site. CUP 122 (5) expired on May 23, 1992.

9. The project site consists of predominantly vacant, undisturbed land. The majority of the project site is a "split estate" with the surface estate held in private ownership by Canyon Country Enterprises, Inc., while the mineral estate is owned by the United States of America and managed by the Federal Bureau of Land Management ("BLM").

10. In 1989, the BLM published a Notice of Sand and Gravel Sale to be held by public competitive bid. The successful bidder was determined to be Transmix Corporation ("TMC"), CEMEX's predecessor-in-interest. As a result, the BLM awarded TMC two 10-year Contracts for the Sale of Units of Material Nos. CA-20139 and CA-22901 ("Federal Contracts") authorizing the mining and production of 56.1 million tons of federal mineral material at the project site in March of 1990. To implement these Federal Contracts, the applicant proposed the project. Both the BLM and the County have responsibilities relating to the project.

11. The BLM is the Federal lead agency with jurisdiction and permitting authority over the RNFSA Project pursuant to the National Environmental

Policy Act ("NEPA"). The project implements U.S. Department of the Interior, Bureau of Land Management (BLM) Contracts for the Sale of Units of Material Nos. CA-20139 and CA-22901 (Federal Contracts), authorizing the mining and production of 56.1 million tons of Federally-owned sand and gravel on approximately 460 acres in an unincorporated area of the County of Los Angeles. The BLM reviewed the Project pursuant to NEPA and issued a Record of Decision (ROD) on August 1, 2000, authorizing the specific manner in which the Federal Contracts are to be implemented. The ROD was appealed by various parties, but was upheld by the U.S. Department of the Interior, Board of Land Appeals (IBLA) in a published decision issued on January 8, 2002.

12. The County is the local Lead Agency for the project, with the County Department of Regional Planning administering the state-level environmental review process under the California Environmental Quality Act ("CEQA") for the issuance of a Surface Mining Permit and approval of a reclamation plan and financial assurances. The County originally analyzed a version of the project known as the Original DEIR Project. However, during the course of its review, and in light of the BLM's approval of an alternative to the Original DEIR Project known as the Reduced North Fines Storage Area Alternative ("RNFSA Alternative"), and in light of County Staff's recommendation for approval of the RNFSA Alternative, the County determine to analyze the RNFSA Alternative as the proposed project (subsequently known as the RNFSA Project). The County prepared a Final Environmental Impact Report ("FEIR"), and various other documents, in accordance with CEQA, the State CEQA Guidelines and County Guidelines relating thereto. The FEIR contains a description of the RNFSA Project, documents the RNFSA Project's potential impacts, and identifies mitigation measures which will be implemented as a part of the RNFSA Project or in the conditions of grant .

13. TMC applied to the County to issue a Surface Mining Permit for the mining of PCC aggregates (sand and gravel) and the construction and operation of appurtenant facilities including a concrete batch plant, in accordance with the terms of the Federal Contracts. TMC also submitted a draft Mining and Reclamation Plan[1] for review and approval in accordance with Section 22.56.1250 of Title 22 of the Los Angeles County Code ("County Code").

14. A Draft Environmental Impact Report and technical appendices ("DEIR") for the project as proposed at that time, known as the Original DEIR Project, were prepared and circulated for public review commencing February 26, 1999, and was considered by the Commission during the

[1] The Surface Mining and Reclamation Act and the County Code require the County to approve a reclamation plan for the RNFSA Project. However, because the RNFSA Project is subject to the jurisdiction of the Bureau of Land Management, it is required to include a Mining Plan. Thus, the County's reclamation plan is included in the Mining and Reclamation Plan.

hearings. The DEIR considered significant geotechnical, water resources, flood, water quality, noise, public services, air quality, biota, cultural resources, visual quality, traffic, land use, public health and safety, and cumulative impacts for the proposed mine and ancillary plant facilities as contemplated by the applicant at that time. The DEIR concluded that the mining and plant operations would have adverse air quality, visual, and cumulative air quality and biota impacts that could not be reduced to less than significant levels through implementation of feasible mitigation measures and would, therefore, result in unavoidable adverse effects upon the environment.

15. The DEIR identified several alternatives to the Original DEIR Project, including the No Project Alternative and the Reduced North Fines Storage Area ("RNFSA Alternative") that were both considered to be environmentally superior alternatives to the Original DEIR Project.

16. Under CEQA, if the Environmentally Superior Alternative is the No Project Alternative, then another alternative must be deemed the Environmentally Superior Alternative. (State CEQA Guidelines, 15126 [d][4].) Accordingly, the DEIR described the RNFSA Alternative as the "Environmentally Superior Alternative". The RNFSA Alternative would reduce air quality and visual quality impacts due to an optional approach to mining cuts. The optional approach to mining cuts would reduce the total area affected by mining cuts from 130 acres to 108 acres and would also reduce the storage area needed in the NFSA from 54 acres to 36 acres. The total area to be disturbed by the mining operation would be reduced from 187 acres to 147 acres. The amount of fines to be stored within the NFSA would be reduced from 12.9 million tons to 6 million tons. However, according to the DEIR, implementation of the RNFSA Alternative would still result in residual impacts to air quality and visual quality which would remain significant after mitigation. Accordingly, although the environmental documentation indicated that the RNFSA Alternative would result in decreased overall environmental impacts than the originally proposed project, those remaining significant impacts to air quality, visual quality, cumulative visual quality and cumulative biota would remain significant.

17. The County of Los Angeles Regional Planning Commission ("Regional Planning Commission") conducted a series of public hearing sessions on the proposed surface mining permit and the proposed mining operations. The Commission received testimony on April 21, 1999, July 14, 1999, September 22, 1999, and December 1, 1999. The Commission also took a field trip to the proposed mining site on June 14, 1999.

18. On December 1, 1999, following public hearings in April, July, and September of 1999, the Regional Planning Commission, by a unanimous vote, directed County staff to prepare findings denying TMC's application

for a surface mining permit. On February 16, 2000, the Regional Planning Commission formally adopted findings denying TMC's application for a surface mining permit, again by a unanimous vote. The Regional Planning Commission did not take any action on the DEIR. On March 13, 2000, TMC appealed the Regional Planning Commission's action to the County Board of Supervisors.

19. The project is also a Federal project and is subject to Federal jurisdiction and approval under the Federal Mineral Materials Act, Federal Land Policy and Management Act and NEPA. The BLM was the federal lead agency primarily responsible for considering and approving the proposed mining of federal resources and for issuing the ROD for the Project.

20. The BLM advised the public of its intent to prepare a Draft Environmental Impact Statement ("DEIS") in October of 1995. The DEIS was released and circulated by the BLM for review on May 6, 1999. The DEIS also described the applicant's original proposal as delineated above. The BLM elected to prepare and circulate for public review a Supplement to the DEIS. This Supplement to the DEIS was released on November 17, 1999, and identified the RNFSA Alternative as the "Agency Preferred Alternative" under NEPA. The RNFSA Alternative then became the version of the project that the applicant and BLM pursued in the federal approval process from that point forward. This revision was undertaken to further analyze issues raised by the public, particularly relating to air quality impacts, and to analyze a new mitigation measure. Following public and agency review and BLM's consideration of the mining permit at the federal level, the BLM prepared a Final Environmental Impact Statement ("FEIS") in June of 2000. The BLM authorized the specific manner of mining and production to implement the Federal Contracts at the federal level through its issuance of a Record of Decision ("ROD") on August 1, 2000. The BLM specifically approved the RNFSA Alternative along with additional mitigation measures proposed by the applicant including three additional mitigation measures to further reduce air quality impacts: (1) installation of a fines conveyor to the NFSA, (2) a requirement to use EPA/CARB certified engines in off-road diesel powered mining equipment, and (3) diesel exhaust particulate controls. The ROD was appealed by various parties, but was upheld by the U.S. Department of the Interior, Board of Land Appeals ("IBLA") in a published decision issued on January 8, 2002. This version of the project is known as the Federally-Approved Project.

21. On January 14, 1998, following formal consultation with the BLM pursuant to the Endangered Species Act ("ESA", 16 U.S.C. §§ 1531 et seq.), the U.S. Fish and Wildlife Service ("Service") released its "Biological Opinion for Transit Mixed Concrete's Application to Mine Sand and Gravel in Soledad Canyon" ("1998 Biological Opinion"). The 1998 Biological Opinion addressed possible impacts of the project on the unarmored threespine

stickleback fish (*Gasterosteus aculeatus williamsoni*) ("UTS"), and found that the project was not likely to jeopardize the continued existence of the UTS. The 1998 Biological Opinion included a statement allowing for "incidental take" of this species.

22. The BLM's approval of the ROD and the publication of the FEIS, as well as its compliance with the federal Endangered Species Act and the National Historic Preservation Act, were challenged by a number of organizations and individuals before the IBLA in August 2000. The IBLA appeal was resolved on January 8, 2002, at which time the IBLA ruled in favor of the BLM.

23. In light of the BLM's selection of the RNFSA Alternative in the Supplement to the DEIS, the BLM's approval of the RNFSA Alternative in the ROD, and the pending appeal of the Regional Planning Commission's denial of the proposed surface mining permit to the Board of Supervisors ("Board"), the County prepared and circulated additional environmental documentation clearly identifying the RNFSA Alternative as the proposed project and expanded and amplified the environmental discussion regarding the RNFSA Alternative.

24. As a result, the County prepared the "Additional Environmental Information to the Draft Environmental Impact Report" ("AEIDEIR"). The purposes of the AEIDEIR were to:

    a. re-define the RNFSA Alternative as the proposed project ("RNFSA Project");

    b. expand the description and impact analysis of the RNFSA Project along with the proposed mitigation measures;

    c. re-define the Original DEIR Project as identified in the February 1999 DEIR as an alternative to the RNFSA Project;

    d. propose additional mitigation measures for incorporation into the RNFSA Project; and

    e. fully analyze these additional mitigation measures in relation to potential environmental impacts identified for the RNFSA Project.

25. The decision to revise the environmental documentation for the RNFSA Project was made after the Commission had denied the application for the surface mining permit and an appeal had been filed with the Board. However, the Commission had considered the RNFSA Project during the course of its hearing on the Surface Mining Permit application because it was then discussed as an alternative in the DEIR.

26. The AEIDEIR was circulated for public review from August 17, 2000, through December 26, 2000. The AEIDEIR indicated that environmental comments would also be considered during the appeal hearing that was to be conducted by the Board. Substantial written comments were received on the AEIDEIR during the public review period.

27. The Board commenced its hearing on the applicant's appeal of the denial of the surface mining permit on January 23, 2001.

28. At the hearing, the Board received written and oral testimony both in favor of, and in opposition to, the RNFSA Project.

29. Oral comments were received regarding potential RNFSA Project impacts, primarily those relating to air quality, health impacts, impacts on the Santa Clara River, including its associated biotic resources, water quality, water resources, visual impacts, aggregate need and impacts to area schools and their students. Much of the testimony regarding impacts to air quality and public health risks had been received by the Commission during its earlier consideration of the RNFSA Project. During the hearing, the Board requested that, and CEMEX demonstrated a willingness for, discussion of possible further project alternatives and mitigation measures consistent with the federal approval of the Federally-Approved Project.

30. The Board closed the public hearing with respect to the receipt of environmental comments on the RNFSA Project, continued the public hearing to April 24, 2001, and instructed County staff to oversee the preparation of a proposed FEIR, environmental findings and a proposed Statement of Overriding Considerations. The Board also requested County staff, the applicant, the City of Santa Clarita, and representatives of the Agua Dulce Town Council to convene a meeting to discuss project alternatives and mitigations.

31. Following the January 23, 2001 hearing, representatives of the applicant met with representatives of the City of Santa Clarita and the Acton and Agua Dulce Town Councils on three separate occasions to discuss community concerns with the project.

32. For purposes of the continued April 24, 2001 hearing, a proposed FEIR was prepared as directed by the Board. The proposed FEIR consisted of the DEIR, AEIDEIR, and FEIR, including Responses to Comments, dated April, 2001 (collectively, the "April 2001 FEIR"). At its April 24, 2001, hearing, the Board received additional written and oral testimony regarding the RNFSA Project which centered around the proposed additional alternatives and project conditions that had been discussed by the applicant, the City of Santa Clarita and other community representatives, as well as draft conditions that had been prepared by County staff.

33. The Board concluded the April 24, 2001 hearing session by adopting a motion indicating its intent to deny (not approve) the surface mining permit application as it was then proposed with the mitigation measures identified and recommended by staff to that date, and continued the hearing to June 26, 2001. County staff was directed to report back at the continued hearing with more details on the range of various additional alternatives and mitigation measures that had been raised by community representatives, including the City of Santa Clarita, and to make further recommendations regarding these measures.

34. Shortly following the April 24, 2001 hearing, specimens of the southwestern arroyo toad (*Bufo californicus*) ("toad"), a federally endangered species, were discovered on a portion of the project site by a biologist retained by the City of Santa Clarita. The toad is not listed as endangered under State law. The presence of the toad on the subject property was confirmed by County staff and others in a subsequent site visit in June 2001. Although the Santa Clara River had been earlier acknowledged in the proposed federal and state environmental documentation prepared for the project as potential habitat for the toad, the actual presence of the toad on the subject property had not been detected.

35. County staff was advised in June 2001 that the BLM would be formally addressing the discovery of the toad on the subject property to determine what revisions or supplements, if any, would be required to the environmental analysis at the federal level and that this process would take several months. Due to the potential impact the discovery of the toad might have on the federal mining approval process and upon the County's environmental review process for the proposed surface mining permit, County staff determined, and the applicant concurred, that the June 2001 public hearing before the Board should be continued pending federal review of the issue. As a result, the Board ultimately continued the public hearing to November 27, 2001, on the condition that the results of the federal review of the discovery of the toad be made available to County staff and other interested parties at least 30 days prior to November 27, 2001.

36. The BLM, as the federal lead agency in the federal mining approval process, prepared a Supplement to the Biological Assessment for the project ("Supplemental Biological Assessment") to address potential impacts of the project on the toad and its habitat. The Supplemental Biological Assessment was completed in August 2001. The BLM determined that there was a need to reinitiate formal consultation with the Service on the project to address potential project effects on the toad that were not considered in the previous formal and informal consultations between the two agencies regarding sensitive biological resources on, or in the vicinity of, the project site.

37. As a result of the Supplemental Biological Assessment prepared by BLM, the Service responded to the request for consultation by preparing a formal Supplemental Biological Opinion regarding the discovery of the toad at the proposed mining location. The Supplemental Biological Opinion was completed on October 25, 2001.

38. The Supplemental Biological Opinion concluded that with the addition of feasible mitigation measures (including new monitoring and protection parameters) to the previously approved project Habitat Protection Plan ("HPP"), the project was unlikely to affect more than a few toad individuals, appreciably reduce the ability of the toad to survive and recover in the wild, or jeopardize the continued existence of the species. The Service issued a "no jeopardy" opinion with regard to potential project impacts on the toad, and other than requiring that the HPP include the recommended additional monitoring and protection parameters, determined that the previously issued federal approvals for the proposed mining operation remained valid.

39. Copies of the BLM's Supplemental Biological Assessment and Service's Supplemental Biological Opinion were made available to interested parties by County staff 30 days in advance of the Board's continued November 27, 2001, hearing date. County staff recommended that the new monitoring and protection parameters of the HPP required by the federal agencies be incorporated into the proposed County RNFSA Project conditions and proposed two additional County staff recommended conditions. County staff also determined that it was necessary to further revise the proposed "April 2001 FEIR" that had been prepared for the RNFSA Project, to address the discovery of the toad, to describe the likely RNFSA Project impacts on the toad, to include written comments and responses that the County had received regarding discovery of the toad at the project site, and to identify the mitigation measures which the federal agencies and County staff were recommending in light of the toad's discovery. The applicant and its environmental consultants cooperated in the preparation of the necessary additional environmental analysis that County staff determined were warranted. Changes necessary to meet the concerns of County staff were made by the environmental consultants.

40. As a result, County staff prepared a further revised proposed Final Environmental Impact Report which consisted of the proposed "April 2001 FEIR" with a revised Response to Comments, Volume 1, that added Topical Response BIO-4 "Toad Analysis and Mitigation," an additional appendices Volume 7 containing the previously described Supplemental Biological Assessment and Supplemental Biological Opinion and a formal letter from the City of Santa Clarita regarding the discovery of the toad and other issues relating to biologic resources, and Volume 8 with previous attachments (collectively the "November 2001 FEIR"). The November

2001 FEIR was made available to agencies and the public at least ten days prior to the Board's continued November 27, 2001, hearing date.

41. Further, in response to the April 2001 directive of the Board, County staff also prepared and distributed a detailed report analyzing the feasibility and appropriateness of the 28 additional mitigation measures and alternatives that had been identified by the City of Santa Clarita and others during the January and April 2001 public hearing sessions, and provided recommendations regarding the feasible inclusion and exclusion of those measures.

42. The applicant submitted written responses in advance of the November 27, 2001 hearing, contesting the appropriateness of a number of the additional project conditions that County staff had recommended the Board consider, including proposed limitations on operating hours for aggregate trucks and rock crushing equipment, annual production restrictions, detailed reporting requirements, full time project monitoring, exhaust particulate filter truck retrofit, the covering of truck loads, the requirement to wash trucks, the requirement to provide public notification of the discovery of cultural resources, open space dedication, and participation in partial funding of a clean school bus program. The applicant asserted that such proposed conditions would either frustrate or render infeasible the Federally-Approved Project, would deprive the applicant of due process or were illegal because they bore no reasonable nexus to the RNFSA Project's identified impacts.

43. On November 27, 2001, the Board held a public hearing session on the RNFSA Project. During this public hearing session, the County Department of Public Works (DPW) staff testified that they had certain concerns relating to the traffic methodology used to analyze the RNFSA Project ("EIR Traffic Methodology"). At the public hearing, CEMEX and its traffic consultants testified that these traffic concerns were unfounded. The Board voted to continue the RNFSA Project hearing based on these concerns. On or about December 20, 2001, DPW submitted a letter to CEMEX requesting a revised traffic analysis for the RNFSA Project. The revised traffic analysis requested by DPW differed from the EIR Traffic Methodology that had been included in the FEIR.

RELATIONSHIP BETWEEN FINDINGS AND APPROVAL AND THE JUDICIAL CONSENT DECREE RESOLVING LITIGATION BETWEEN THE UNITED STATES OF AMERICA, LOS ANGELES COUNTY, AND CEMEX

44. On January 25, 2002, Project applicant CEMEX, Inc. (CEMEX) filed an action in U.S. District Court, Central District of California, entitled CEMEX, Inc. v. County of Los Angeles, CV-02-747 DT ("the Litigation"), challenging the County's alleged abuses of the CEQA review process, including in the preparation of the Final EIR, to delay and frustrate implementation of the

Project. In particular, the Litigation challenged among other things the actions taken by DPW relating to the varying traffic methodologies and other traffic issues. The United States of America intervened into the action on behalf of CEMEX, based on the United States' ownership of the minerals that are to be mined as part of the Project. The Litigation was resolved through nine months of Court-ordered third-party mediation before a retired U.S. District Court Judge, resulting in a negotiated settlement by the United States, the County, and CEMEX, embodied in a judicial Consent Decree which subsequently has been entered by the U.S. District Court as a final judgment in the Litigation.

45. The Board recognizes that the controversy surrounding varying traffic methodologies was a primary focus of the CEMEX complaint in the Litigation, was referenced in detail in the United States' complaint-in-intervention, and was a key factor in the nine months of mediation negotiations leading to settlement of the Litigation.

46. Therefore, as part of the Consent Decree, the parties addressed the issue of traffic which had been raised by DPW during the County's review of the RNFSA Project in late 2001. During the settlement negotiations, the County concluded that utilizing the EIR Traffic Methodology, and implementing the resulting mitigation measures identified by the County would reduce residual significant impacts under CEQA to a level of less than significant, and that the EIR Traffic Methodology adequately addresses all RNFSA Project traffic impacts. However, to further minimize traffic-related impacts, the parties negotiated additional conditions (*see* Project Conditions 12 through 14).

47. The BLM's ROD and the IBLA's January 8, 2002 Order upholding the ROD, as well as other Federal approvals, Federal laws and regulations, comprise the scope of Federal law and decision-making that affects and limits the scope of the Board's authority over the Federally-Approved Project. The Board conducted its review of the Project in the context of the Federal Contracts, the BLM's Final Environmental Impact Statement (FEIS), the ROD issued pursuant to NEPA, the IBLA's decision upholding the ROD, as well as various other federal laws and approvals relating to the Project.

48. The Board's Approval of the project (as well as its other actions and determinations relating to the project), and its issuance of these Findings on compliance with State and County Regulations are made in the context of the Federally-Approved Project and the requirements of the judicial Consent Decree. Accordingly, proposed CEQA Findings, proposed Statement of Overriding Considerations, as well as proposed Project Findings and Approval were incorporated by reference into the judicial Consent Decree. These documents are predicated on the determinations, stipulations and agreements made in the Consent Decree, and as entered

by the U.S. District Court, and provide support, in part, for the determinations made herein.

49. In making these Findings and Approval, the Board recognizes that they are, in part, an outgrowth of the settlement of the Litigation which involves claims by the United States and CEMEX of Federal preemption. The Board hereby incorporates into these Findings and Approval all of the findings of the U.S. District Court set forth in the judicial Consent Decree entered as a final judgment in the Litigation, and acknowledges all of the claims, reservations and representations made by the parties therein.

50. The Board hereby further finds and concludes that these Findings and Approval, independent of the judicial Consent Decree, comply in full with the requirements of SMARA and the County of Los Angeles' Zoning Code,irrespective of the fact that these Findings and Approval are issued in the context of, and proposed Findings and Approval were included as an exhibits to, the judicial Consent Decree.

DESCRIPTION OF THE PROJECT

51. As indicated, CEMEX proposes to mine the project site for a period of approximately 20 years. The Original DEIR Project, as described in the Draft Environmental Impact Report prepared in February 1999, proposed the mining of up to 82.7 million tons of materials to produce 56.1 million tons of marketable sand and gravel. The Original DEIR Project proposed mining on the south side of the ridge, with excess natural fines to be placed on the north side of the ridge in the North Fines Storage Area ("NFSA").

52. The RNFSA Project, including all applicable Mitigation Measures, would still result in the production of 56.1 million tons of aggregate. However, the following reductions in impacts would be achieved:

    a. The amount of material mined will be reduced from the original proposed amount of 82.7 million tons to 69.2 million tons (a reduction of 13.5 million tons). The amount of material produced for sale will remain the same while the amount of fines to be backfilled will be reduced from 26.1 million tons to 12.6 million tons.

    b. The NFSA has been eliminated from the RNFSA Project. Excess fines will be stored in mined out areas on the south side of the ridgeline. Elimination of the NFSA will reduce associated visual impacts such as access roads and the engineered earthen fill area which would otherwise have been visible from the Antelope Valley Freeway.

    c. The ridgeline will be lowered by approximately 45 feet as compared

to the Original DEIR Project which would have lowered the ridgeline by approximately 200 feet, further reducing visual impacts from the Antelope Valley Freeway.

d. The area to be disturbed by the RNFSA Project will be reduced from 187 acres to 119 acres (a reduction of 36%), reducing potential impacts to onsite biological resources. The amount of water used for dust suppression will be reduced due to decreased disturbed area and reduced fines storage. Air quality impacts will be reduced due to decreased mining and reduced fines storage activities.

e. Additional air quality mitigation measures have been included in the RNFSA Project which will reduce air quality impacts related to onsite heavy equipment operations. These mitigation measures include using new lower emitting equipment and implementing diesel particulate emissions control for selected heavy equipment. Overall, implementation of the additional air quality mitigation measures and the Mitigated Mining Cuts reduces PM-10 emissions from fugitive dust by more than 35 percent, and diesel exhaust particulate emissions from onsite equipment by 80 percent.

f. Even though traffic impacts were not found to be significant, the applicant has agreed to an additional traffic condition which will limit total truck trips during the a.m. and p.m. peak hours, and outbound truck trips during the hours preceding and following the a.m. peak hour.

g. Other improvements include limitations on the use of chloride containing dust palliatives and installation of a pump out septic system.

APPLICABLE PROJECT BURDENS OF PROOF

53. Under the Los Angeles County Code, an applicant has the burden to establish the following in connection with its request for a surface mining permit (Section 22.56.1300 of the County Code):

-- That the requested surface mining operation conducted at the location proposed will not adversely affect the health, safety, or welfare of persons residing in the surrounding area or otherwise endanger or constitute a menace to the public health, safety, or general welfare;

-- That adverse ecological effects resulting from surface mining operations will be prevented or minimized;

-- That the proposed site is adequately served by streets or highways of sufficient width and improved as necessary to facilitate the kind and quantity of traffic surface mining operations will or could generate; and

-- That the proposed site for surface mining operations is consistent with the General Plan for Los Angeles County.

To the extent applicable, in light of all of the facts surrounding CEMEX's application, including the effect of the Federal ownership of the aggregate material in question, the Federal Contracts, the Federally-Approved Project, and the Litigation and Consent Decree on the County's review of the RNFSA Project, the County determines that the RNFSA Project meets, and CEMEX has satisfied, the requirements of Chapter 22.56 of the County Code.

54. Approval of a reclamation plan requires the following additional findings, as set forth in Section 22.56.1410 of the County Code:

-- That the reclamation plan conforms to the requirements of SMARA, the State regulations adopted pursuant to SMARA, and the County Code; and

-- That the mined lands will be reclaimed so that they are readily adaptable for uses consistent with the (County) general plan.

55. In light of all of the facts surrounding CEMEX's application, including the effect of the Federal ownership of the aggregate material in question, the Federal Contracts, the Federally-Approved Project, and the Litigation and Consent Decree on the County's review of the RNFSA Project, the County determines that the RNFSA Project meets the requirements of SMARA contained in Public Resources Code Sections 2772, 2773 and 2773.1, and Section 3501 and 3503 of Title 14 of the Code of Regulations, as implemented by Part 9 of Chapter 22.56 of the County Code.

THE RNFSA PROJECT WILL NOT ADVERSELY AFFECT THE HEALTH, SAFETY, OR WELFARE OF PERSONS RESIDING IN THE SURROUNDING AREA OR OTHERWISE ENDANGER OR CONSTITUTE A MENACE TO THE PUBLIC HEALTH, SAFETY, OR GENERAL WELFARE

56. The RNFSA Project will not adversely affect the health, safety or welfare of persons residing in the surrounding area, or otherwise endanger or constitute a menace to the public health, safety or general welfare, due in part to the fact that the RNFSA Project is distant from residential or other populated areas. The project site is characterized by rugged mountainous

terrain with mixed coastal sage scrub and semidesert chaparral vegetation, and it is surrounded by mountains that essentially shield it from developed areas or residents. Additionally, current access to the project site is limited due to the terrain.

57. The surrounding land uses include surface mining/reclamation and open space, with the nearest residence located ¼ mile south of the project site. Beyond this, the nearest residential development is located across the Antelope Valley Freeway.

58. The RNFSA Project will not adversely affect the health, safety or welfare of persons residing in the surrounding area or otherwise endanger or constitute a menace to the public health, safety, or general welfare, based in part on the following measures that will be implemented:

-- RNFSA Project activities will limit the removal of top soil to normal or low wind days to minimize the potential for Valley Fever spores to become wind borne.

-- Storage of onsite fuel is required to comply with state and federal regulations, including implementation of a Spill Prevention, Control, and Countermeasures Plan ("SPCCP").

-- The mining operations will require periodic blasting. However, no explosives will be stored onsite, and blasting will be conducted by a California-licensed independent contractor.

-- Removal of vegetation in the active mining area will reduce fire hazards.

-- Traffic safety is addressed through intersection improvements and the applicant's company-wide safety program.

-- The development and operation of the RNFSA Project will be in full compliance with all Occupational Safety and Health ("OSHA"), MSHA and applicable County codes and standards and inspections, including the applicable County Uniform Fire Codes. This will include stabilizing of the existing high mine wall on the site.

-- All mining cuts and slopes will be constructed and graded for stability and erosion control. Fill slopes will be properly stabilized through compaction and use of specific soils materials.

-- Safety risks to recreationists from potential contact with mine operations will be minimized because public access will be restricted through fencing, gating and signage to reduce potential for accidents.

-- Mining areas will be effectively fenced and signs will be posted

restricting access to RNFSA Project roads and mining sites. The Project site will also be gated to control public access.

--The Project Conditions require that a Community Advisory Committee be created made up of seven members of the community who will be appointed by the Directory of Planning or his designee. The Community Advisory Committee will help encourage communication between the applicant and the community and serve as a means for the community to communicate with the County and other regulatory agencies about any concerns, including concerns relating to public health, safety and welfare. In addition, the applicant is required to provide a toll-free telephone number to the community and to publish a quarterly newsletter.

-- Mining activity will be regularly monitored throughout the life of the RNFSA Project by a California registered civil engineer or engineering geologist, and periodic testing will be performed to verify actual slope safety parameters.

--Mining and reclamation will be conducted in accordance with the County of Los Angeles Planning and Zoning Code.

— Control measures will be implemented to minimize equipment exhaust and fugitive dust emissions during the construction and operational phases of the RNFSA Project.

— Fines will be conveyed to the fines backfill areas instead of hauling by scraper to further reduce fugitive dust emissions.

— EPA/CARB certified engines will be used on specified off road heavy equipment to reduce CO, NOx, ROC and diesel exhaust PM10 emissions.

--The RNFSA Project will not contribute to cancer risks from mobile source diesel ideling emissions in the area in excess of interim guidance issued by the South Coast Air Quality Management District.

THE ADVERSE ECOLOGICAL EFFECTS RESULTING FROM SURFACE MINING OPERATIONS WILL BE PREVENTED OR MINIMIZED

59. The Final EIR has been prepared for the RNFSA Project, which provides additional factual support for the conclusion that the adverse ecological effects from the RNFSA Project will be prevented or minimized.

60. Adverse ecological effects on water resources and water quality will be prevented or minimized with implementation of the following measures:

— The RNFSA Project includes a Habitat Protection Program that provides for monitoring of riparian and aquatic habitat in the vicinity of the project site and implementation of protective measures as

warranted by monitoring results.

— Chloride containing dust palliatives will not be used on the site unless certain conditions are met, to protect stormwater runoff water quality.

— A pump out septic tank will be installed on the site instead of a septic system with leach lines.

— Installation of desilting/debris basins will protect against excess sediment discharge during storm events.

— Stormwater pollution prevention and spill containment, control and countermeausure programs will be implemented and maintained.

— Desilting/debris basins will not be removed until disturbed areas have been successfully revegetated.

61. Adverse ecological effects due to flood will be prevented or minimized with implementation of the following measures:

— Desilting/debris basins will be installed to control surface runoff and sedimentation.

— A culvert will be installed under Soledad Canyon Road to accommodate existing runoff conditions as well as conditions RNFSA Project conditions.

— Proper maintenance and cleaning erosion control facilities and desilting/debris basins will be conducted as part of project operations and according to stormwater pollution prevention regulations.

62. Adverse ecological effects on biological resources will be prevented or minimized by the following:

— The Reclamation Plan includes a Revegetation Plan that provides for concurrent revegetation of the project site with species presently found on site to minimize adverse effects to natural vegetation and wildlife habitat on the Project site.

— Seeds of sensitive plant species will be collected from affected populations as the RNFSA Project proceeds and will be incorporated into the Revegetation Plan for the project site.

— The RNFSA Project includes a Habitat Protection Program that provides for monitoring of riparian and aquatic habitat to protect the unarmored threespine stickleback (UTS) habitat. Prior to initiation of water extraction, baseline data of the presence of sensitive riparian species shall be incorporated into the Habitat Protection Plan.

— Measures shall be implemented to minimize RNFSA Project effects on nesting birds and to ensure that no violation of the Migratory Bird

Treaty Act occurs.

— Prior to each phase of vegetation removal, general wildlife surveys will be conducted for the presence of any sensitive species listed at the time of the survey by either the California Department of Fish and Game or the U.S. Fish and Wildlife Service.

— The Terms and Conditions of the 1998 and 2001 Biological Opinions for the protection of UTS and arroyo toad habitat have been incorporated into the RNFSA Project.

— The measures and terms and conditions of the 2001 Biological Opinion will be implemented to protect the arroyo toad.

— The site will be revegetated as mining progresses and will be fully reclaimed at the end of the project.

— Effects from stray lighting will be minimized with the use of low-intensity lighting and directional shields.

63. Adverse effects on air quality will be prevented or minimized by the following:

— Control measures will be implemented to minimize equipment exhaust and fugitive dust emissions during the construction and operational phases of the RNFSA Project.

— Fines will be conveyed to the fines backfill areas instead of hauling by scraper to further reduce fugitive dust emissions.

— EPA/CARB certified engines will be used on specified off road heavy equipment to reduce CO, NOx, ROC and diesel exhaust PM10 emissions.

THE PROJECT SITE IS ADEQUATELY SERVED BY STREETS OR HIGHWAYS

64. The existing road circulation system with required improvements will be adequate to support the RNFSA Project and the traffic it will generate. The project site is located 2.9 miles from the nearest access to the six-lane Antelope Valley Freeway directly off of Soledad Canyon Road. Soledad Canyon Road is a two-lane east/west-oriented road that is classified as a Major Highway in the County Master Plan, and serves to provide access to property along Soledad Canyon Road. The Project site will be accessed most frequently from the Antelope Valley Freeway by the Soledad Canyon Road interchange. The existing site access road onto Soledad Canyon Road will be improved, with access to the site relocated to a point opposite the existing access road for the C.A. Rasmussen mining/reclamation operations, creating a conventional four-way intersection on Soledad Canyon Road. A traffic signal will be added at

that intersection when conditions warrant. The approaches along Soledad Canyon Road to the Antelope Valley Freeway/Soledad Canyon Road interchange will be widened and modified, with the RNFSA Project contributing its pro-rata share of the cost.

65. The structural integrity of Soledad Canyon Road has been analyzed and is sufficient under present conditions to accommodate the truck traffic generated by the RNFSA Project through the year 2008. The applicant will contribute its fair share of costs to resurface specific portions of pavement on Soledad Canyon Road, as determined to be necessary.

66. A Final EIR required by CEQA has been prepared in connection with this RNFSA Project which provides additional factual support for this burden of proof. CEQA Findings and a Statement of Overriding Considerations have also been prepared pursuant to CEQA and are incorporated herein by reference.

THE PROJECT IS CONSISTENT WITH THE GENERAL PLAN

67. The RNFSA Project proposes mining of sand and gravel on a project site that has been mined for much of the past 30 years. From 1968 to approximately 1986, the previous operator mined several million tons of sand and gravel from the site. A significant portion of mining by the previous operator was conducted in accordance with a conditional use permit (CUP) issued by the County in 1972 for sand and gravel mining purposes, which expired in 1992. The project site is zoned M-2 for Heavy Manufacturing, in which mineral extraction with a surface mining permit is allowed. The predominant land uses in the RNFSA Project vicinity include industrial uses and other mining and sand and gravel operations. There are several existing mining operations in the vicinity of the RNFSA Project.

68. The County General Plan includes policies to protect and conserve important mineral resource areas, and implements the State's Mineral Resource Classification and Designation Guidelines under SMARA. The RNFSA Project is consistent with these policies and statements. The General Plan defines "mineral resource areas" as areas "identified or to be identified as containing significant mineral resources by the State Mining and Geology Board." (Land Use Element, Appendix A, Conditions and Standards No. 16, p. LU-A20.) Additional General Plan policies include: "Protect and conserve existing mineral resources, evaluate the extent and value of additional deposits, and require future reclamation of depleted sites." (Conservation, Open Space and Recreation Element, p. OS-10.) The General Plan further states: "Sand and gravel reserves have declined in the past due to the encroachment of incompatible development. These resources need to be protected and conserved." (Conservation, Open Space and Recreation Element, p. S-4.) The Santa Clarita Valley Area Plan (Area Plan) component of the General Pan encourages the

protection of "important mineral resources by a long-range approach toward mineral resource production." (Area Plan, Environmental Resource Element, Policy 3.3.) The Area Plan also provides that mineral extraction uses such as quarries are "typical" uses allowed for, and appropriate to, remote locations or rural areas designated HM (Hillside Management) under the General Plan. (Area Plan, Land Use Classifications, pp. 35-36.)

69. The RNFSA Project is consistent with these policies as it is proposed on an M-2 zoned, HM designated, site previously mined for sand and gravel pursuant to a prior County-issued CUP, in a remote area surrounded by other existing mining projects that is designated by the state as "regionally significant." Upon completion of the RNFSA Project, the Mining and Reclamation Plan calls for final reclamation to create an open space environment, consistent with the County General Plan.

70. The California Department of Conservation has classified the project site, and surrounding areas, pursuant to SMARA, as a Mineral Resource Zone-2 (MRZ-2) having aggregate resource deposits that meet necessary criteria for value and marketability. Following public hearings and preparation of an EIR under CEQA, the State Mining and Geology Board has designated the project site, and surrounding areas, pursuant to SMARA, as a "Regionally Significant Construction Aggregate Resource Area" based upon the quality of material, and the need for and availability of aggregate in that particular region. The formal designation of the area, known as "Sector B-2", is codified in Section 3550.9 of Title 14 of the California Code of Regulations.

71. The 1980 County General Plan Conservation and Open Space Element contains the following statements regarding the need to protect and conserve mineral resources (sand and gravel):

"A continuous and assumed supply of minerals for industrial production, construction, transportation, and chemical processing is essential to Southern California's economic well-being. Major local mineral resources consist of oil and deposits of rock, sand and gravel."

"California is the largest producer of sand and gravel in the nation, and the greater Los Angeles area (an area within a 60-mile radius of the downtown Los Angeles Civic Center) is the nation's leading producer for its geographic size."

"The County has several deposits of high quality sand and gravel which are located close to the market and available at low costs. The main uses of these products are: portland cement concrete aggregate; asphaltic concrete aggregate; base and sub-base aggregate; and clean fill. Sand and gravel are basic materials for the construction of homes,

commercial and industrial buildings, sewers, dams, bridges, and highways."

"Major sand and gravel extraction sites are found in the alluvial fans of the Big Tujunga Wash in the San Fernando Valley and in the San Gabriel River (Irwindale and adjacent areas). Other sites are in the Santa Clara River and Little Rock and Big Rock washes in the north County. The average annual production for the period 1971-75 for the greater Los Angeles area was 44.5 million tons. Known sand and gravel reserves, defined as commercially recoverable deposits, in the Los Angeles area were estimated at 1,315 million tons in 1976. These reserves will reach depletion shortly after the turn of the century if current patterns of consumption continue."

"In the past, valuable sand and gravel reserves have been lost when incompatible urban uses have encroached upon productive areas. To ensure adequate supplies for future production, these resources must be protected and conserved. On the other hand, mineral operations should not be abandoned and left as a scar on the environment. Depleted excavations and drilling sites should be reclaimed for beneficial uses or restored to a natural condition. It is also important to evaluate the extent and commercial potential of additional rock, sand, and gravel deposits in the County. The State of California is now conducting such an investigation, the results of which will permit better identification of sites for preservation and production."

72. The Environmental Resources Management Element of the Santa Clarita Valley Areawide Plan contains the following statement regarding the need to protect and conserve minerals:

"*Protect important mineral resources by a long-range approach toward mineral resource utilization.*"

73. The RNFSA Project is an important source of construction aggregate material. This material is needed to help address the compelling need for aggregate within the County, particularly in light of projections by the State of California regarding dwindling available aggregate reserves within the County. The County has, in part, based its assessment of aggregate need on the expertise of the State of California, Department of Conservation, Division of Mines and Geology ("DMG"), as reflected in its 1994 DMG Report 94-14, entitled *Update of Mineral Land Classification of Portland Cement Concrete Aggregate in Ventura, Los Angeles, and Orange Counties, California* ("1994 DMG Report") which concludes that new sources of aggregate materials are needed in the County to avoid future shortages.

74. Because the RNFSA Project will provide much needed aggregate to the greater Los Angeles region, it thus meets both the State and County policies acknowledging the importance of such regionally-significant resources. Approval of the RNFSA Project will benefit the County's long-term supply of aggregate beyond just the material from the RNFSA Project, by helping to protect the overall availability of mineral resources throughout the Soledad Canyon mineral resource area (Mineral Resource Sectors B and C), which contains approximately sixty-five percent (65%) of the County's State-designated Regionally Significant Construction Aggregate Resources. If access to these resources is not protected, future urban encroachment could make future resource development more difficult, and could potentially prevent access to these resources altogether. The Project site offers a more readily available resource to the County as a source for meeting the County's aggregate need, because it is less threatened by urbanization, is not located in an Significant Ecological Area, is not located in the Angeles National Forest, is not subject to access constraints, and is located closer to the marketplace. Therefore, the RNFSA Project provides an important opportunity to help alleviate impending shortages of aggregate material.

75. The Streamlined General Plan Land Use Element contains the following policies for mineral resource areas. As discussed elsewhere in these Findings and Approval, the RNFSA Project meets these policies:

"Mineral resource areas include existing surface mining activities, areas identified or to be identified as containing significant mineral resources by the State Mining and Geology Board, and areas suitable for the production of energy resources, including crude oil and natural gas."

"Extractive Uses: All extractive surface mining facilities shall be subject to the following conditions:

1. *Control of slope excavations;*
2. *Control of erosion and sedimentation;*
3. *Control of water quality, runoff, and flooding;*
4. *Protection of fish and wildlife;*
5. *Provision of adequate setbacks from adjacent uses;*
6. *Control of noise, dust, vibration, smoke, dirt, odors, and lighting; and*
7. *Salvage of topsoil."*

"In addition to the above conditions, pursuant to the provisions of the California Surface Mining and Reclamation Act, all mining activities in operation as of January 1976 and those placed in operation after that date shall be required to submit a reclamation plan which shall provide for appropriate measures to rehabilitate the site prior to its abandonment. Those placed in operation after that date shall be

required to submit a reclamation plan which shall provide for appropriate measures to rehabilitate the site prior to its abandonment."

76. While the Countywide General Plan contains policies which encourage the protection and conservation of mineral resources (sand and gravel) and the protection of such resources from encroachment by incompatible development, the Santa Clarita Valley Areawide Plan also includes additional policies to balance the protection and conservation of mineral resources against the need to protect environmental resources including, but not limited to, air quality, water quality, and visual quality.

77. The Santa Clarita Valley Areawide Plan (as updated on December 6, 1990) designates the portion of the subject property north of Soledad Canyon Road, where the mining operation is proposed, as Hillside Management (HM). The portion of the subject property south of Soledad Canyon Road is designated as Floodway/Floodplain (W) along the Santa Clara River which bisects the southeasterly corner of Area B. The Santa Clara River parallels the road on the south side. This area around the river is also designated as Significant Ecological Area ("SEA") #23 (Santa Clara River). Within the floodway, or watercourse itself, the Area Plan recommends that only certain extractive industrial (such as sand and gravel), agricultural, open space, light recreational, and groundwater recharge uses be facilitated. The mining area is located outside of the SEA north of Soledad Canyon Road and in proximity to the Santa Clara River.

78. The Environmental Resources Management Element contains the following policy regarding air quality. As discussed above, the RNFSA Project is consistent with this policy:

"Promote air quality that is compatible with health, well-being, and enjoyment of life. The public nuisance, property and vegetative damage, and deterioration of aesthetic qualities that result from air pollution contaminants should be prevented to the greatest degree possible."

79. Although the RNFSA Project will generate air emissions resulting in certain significant impacts under CEQA, the RNFSA Project has been found to be consistent with the Los Angeles County General Plan, the South Coast Air Quality Management Plan and the Southern California Association of Government's Growth Management Plan.

80. The General Conditions For Development contained in the Areawide Plan include the following policies that pertain to non-residential uses in Non-Urban Areas. As discussed above, the RNFSA Project is consistent with these policies:

"The proposed use should be located and designed so as not to conflict with established or planned community land use and circulation patterns. Whenever necessary, the proposed use should be located and designed so as to provide an appropriate land buffer between potentially disruptive, polluting, and/or hazardous uses, and surrounding lands."

"The proposed use shall be located in areas deemed suitable from an ecologic, geologic, and topographic standpoint. The design must minimize the environmental and geologic impacts of the project and preclude groundwater contamination. "

"The design and location of the project should ensure that the transport of toxic, explosive or otherwise hazardous substances will avoid existing or planned (as shown on the adopted Santa Clarita Valley Plan) residential communities. Building and site design of any potentially volatile or otherwise hazardous land use should consider as its prime objective the health, safety, and welfare of the community in which it is situated or to which it is proximate."

"Where appropriate, structures in hillside areas should be designed to preserve scenic value. . . Major ridgelines should be preserved wherever possible. . ."

81. The County also concludes that the RNFSA Project would avoid adverse economic impacts on the County from increased upward pressure on aggregate prices, due to decreased supply and a concomitant increase in the competitiveness of the aggregate market.

THE MINING AND RECLAMATION PLAN CONFORMS TO APPLICABLE LAW AND MINED LANDS WILL BE READILY ADAPTABLE FOR USES CONSISTENT WITH THE GENERAL PLAN

82. The RNFSA Project includes a Mining and Reclamation Plan which provides for concurrent reclamation of disturbed areas produced by the RNFSA Project as well as reclamation of existing disturbed area from previous mining operations on the project site. Final reclamation will be completed after mining operations have ceased, so that the entire RNFSA Project site has been reclaimed at the end of the mining operations. Desilting/debris basins will be reclaimed when they are no longer required. The disturbed areas will be reclaimed so that they are readily adaptable for uses consistent with the General Plan after reclamation.

83. The Mining and Reclamation Plan conforms to the requirements of Sections 2772, 2773, and 2773.1 of the Public Resources Code, Sections 3501 and 3503 of Title 14 of the California Code of Regulations and the provisions of Title 22 of the County Code. Upon completion, the project site will be readily adaptable to be used as open space.

84. The Mining and Reclamation Plan is included in the environmental documents and a stand alone version was prepared for review by the County Department of Public Works and the State of California, Office of Mine Reclamation. (*See* DEIR pp. S-2, 1-47; AEIDEIR p. 2-26.) Comments from both agencies were incorporated and the Mining and Mining and Reclamation Plan for the Soledad Canyon Project ("Draft Mining and Reclamation Plan") was issued in June of 1997 and made available for public review concurrently with the Draft EIR. An addendum to the Draft Mining and Reclamation Plan was prepared in June of 2000 in response to the changes described in the AEIDEIR and was also concurrently available for public review.

85. In accordance with Project Condition 9a and County Code Section 22.56.1410(B)(1) a Mining and Reclamation Plan has been prepared that is a composite of the project description, the Mining and Reclamation Plan, mitigations and mitigation monitoring contained in the FEIR and the additional provisions of the project conditions.

86. The Mining and Reclamation Plan provides a schedule for concurrent and final reclamation of the site. (Mining and Reclamation Plan p. 36). Various Project Conditions also address County Code requirements relating to reclamation, including for example items such as a schedule for reclamation (Condition 5), annual inspections (Condition 10a), financial assurances (Condition 10b), and property restrictions (Condition 10e).

87. As part of the consent decree process, it was agreed by all parties that 22.56.1410(B)(4) requiring periodic review of the Mining and Reclamation Plan was not applicable to the project.

88. SMARA Section 2772 requires that a reclamation plan be filed with the lead agency and specifies the information required in the reclamation plan, The Mining and Reclamation Plan has been submitted to the County and includes the information required by Section 2772 and 2773 (*See* Mining and Reclamation Plan p.1 and Section 4).

89. SMARA Section 2773.1 requires financial assurances for each surface mining operation. Financial assurances have been estimated at $1,144,308 (AEIDEIR p 2-41) and are also required by the Project Conditions (Project Condition 10b). An updated Financial Assurance Cost Estimate has been provided with the Mining and Reclamation Plan.

90. The Mining and Reclamation Plan also complies with SMARA Sections 3501 and 3503 which specify Surface Mining Reclamation Practice. The Mining and Reclamation Plan includes provisions for soil erosion control and drainage utilizing desilting and debris basins (Mining and Reclamation Plan p. 17), water quality and watershed control by implementation of SWPPP and SPCCP (Mining and Reclamation Plan p. 22), protection of

fish wildlife and habitat by monitoring, invasive plant removal and other measures (Mining and Reclamation Plan Section 4.3), and includes specifications for resoiling and revegetation (Mining and Reclamation Plan Section 4.2).

BASED ON THE FOREGOING, THE BOARD OF SUPERVISORS CONCLUDES THAT:

a. The RNFSA Project will not adversely affect the health, safety, or welfare of persons residing in the surrounding area or otherwise endanger or constitute a menace to the public health, safety, or general welfare;

b. Adverse ecological effects resulting from the RNFSA Project will be prevented or minimized;

c. The project site is adequately served by streets or highways of sufficient width and improved as necessary to facilitate the kind and quantity of traffic surface mining operations will or could generate;

d. The proposed site for surface mining operations is consistent with the Countywide General Plan;

e. The Mining and Reclamation Plan conforms to the requirements of SMARA, specifically Public Resources Code Sections 2772, 2773 and 2773.1, the State regulations adopted pursuant to SMARA, including Section 3501 and 3503 of Title 14 of the California Code of Regulations, and the County Code; and

f. The mined lands will be reclaimed so that they are readily adaptable for uses consistent with the Countywide General Plan.

THEREFORE, THE BOARD OF SUPERVISORS:

1. Rescinds Findings of the Board of Supervisors and Order, Surface Mining Permit Number 91-165(5), adopted on April 22, 2002;

2. Certifies that the County was presented with the Final EIR (SCH No. 91111066) prepared for the RNFSA Project and it has reviewed and considered the information contained in that report prior to approval of the RNFSA Project;

3. Certifies that the Final EIR has been completed in compliance with CEQA, the State CEQA Guidelines and the County's Environmental Document Reporting Procedures and Guidelines;

4. Certifies that the Final EIR reflects the independent judgment and analysis of the County;

5. Adopts the CEQA Findings of Fact for the RNFSA Project and finds that the conditions of approval and mitigation measures for the RNFSA Project which are feasible, and the unavoidable significant effects of the RNFSA Project, after adoption of the mitigation measures, are as described in the Final EIR;

6. Finds that the remaining, unavoidable adverse effects of the RNFSA Project, as described in the Final EIR and the CEQA Findings of Fact, are outweighed by the specific economic, legal, social, technological, and other benefits of the RNFSA Project as stated in the CEQA Findings and Statement of Overriding Considerations for the RNFSA Project;

7. Adopts the Statement of Overriding Considerations prepared for the RNFSA Project;

8. Approves and adopts the Mitigation Monitoring and Reporting Plan for the RNFSA Project submitted herewith, and pursuant to Section 21081.6 of the Public Resources Code, finds that the Mitigation Monitoring and Reporting Plan is adequately designed to ensure compliance with the mitigation measures during RNFSA Project implementation;

9. Approves the Surface Mining Permit No. 91-165(5), subject to the attached Project Conditions, and approves the Project Conditions.

10. Approves the Mining and Reclamation Plan and Financial Assurance Cost Estimate prepared for the RNFSA Project as presented herewith.

CEMEX Soledad Canyon Project Conditions

1. Unless otherwise apparent from the context, the term "permittee" shall include the applicant and any other person, corporation, or other entity making use of this grant.

2. This grant shall not be effective for any purpose until the permittee has filed at the office of the Department of Regional Planning its affidavit stating that it is aware of, and agrees to accept, all of the conditions of this grant.

3. The permittee shall defend and indemnify the County, its agents, officers, and employees from any writ of mandate action, claim or cause of action, including but not limited to, any action brought pursuant to 42 U.S.C. §1983 against the County or its agents, officers, or employees other than an action by the permittee or the United States, to attack, set aside, void or annul this permit approval, or any settlement agreement and/or judicial consent decree entered in the case entitled CEMEX, Inc. v. County of Los Angeles, U.S.D.C. Case No. CV-02-747-DT (FMOx) ("CEMEX v. County"), which action is brought within one year of the adoption by the United States District Court of a consent decree in the CEMEX v. County case. The County shall within fifteen working days notify the permittee of any such action and the County shall cooperate fully in the defense.

   The permittee's obligations to defend and indemnify the County shall consist exclusively of the following:

   (i) payment for all legal costs of permittee-designated litigation counsel, which counsel shall defend permittee and the County, to the extent requested by the County, in any such action;

   (ii) indemnification for the costs of reasonable County staff time incurred in the defense of said action, exclusive of any County Counsel or County-retained outside counsel fees and costs; and

   (iii) payment of plaintiffs' attorneys fees to the extent awarded in any action challenging this permit, settlement agreement, or judicial consent decree in the CEMEX v. County case, although permittee shall not be obligated to indemnify the County for any damages awarded in any such action, unless said damages award is based on the adequacy of the process (i.e., settlement or consent decree) in resolving CEMEX, Inc. v. County of Los Angeles, U.S.D.C. Case No. CV-02-747-DT (FMOx), in which case the permittee shall be obligated to indemnify the County. To the extent the parties have any dispute over whether a damages award

falls within this exception, they agree to submit the issue to Judge Layn R. Phillips, for binding determination.

Notwithstanding any other provision in this Project Condition 3 or any other provision in these Project Conditions generally, if the County fails to notify the permittee of any claim, action or proceeding within fifteen working days of notice or service thereof, or if the County knowingly and materially facilitates, induces, or assists in the bringing or prosecution of said claim, or if the County fails to cooperate fully in the defense, the permittee shall not thereafter be responsible to defend or indemnify the County. To the extent the parties have any dispute over whether a particular claim triggers the above referenced indemnity obligation, the parties agree to submit the issue to Judge Layn R. Phillips for binding determination. Notwithstanding any other provision in these Project Conditions, permittee shall not be obligated to commence any payments towards any of the funds, fees, exactions or other Project Conditions as otherwise required by Project Conditions 36 and 37 herein, until such time as permittee and the County prevail in any action described in this Project Condition 3, including prevailing on appeal, and, Project implementation commences. With respect to Project Condition 12(c), the parties agree that in the event litigation is pending, and the Director of Public works has made the necessary determinations as required by Project Condition 12(c), the payments will be made incrementally as follows: (a) $300,000 upon commencement of Project implementation; and (b) the balance upon commencement of exportation of products from the Project.

4. In the event that any claim, action, or proceeding as described in Project Condition 3 above is filed against the County, the permittee shall within ten days of the filing pay the Department of Regional Planning an initial deposit of $5,000, from which actual costs shall be billed and deducted for the purpose of defraying the expenses involved in the Department's cooperation in the defense, including but not limited to, depositions, testimony, and other assistance to permittee or permittee's counsel. The permittee shall also pay the following supplemental deposits, from which actual costs shall be billed and deducted:

   a. If during the litigation process, actual costs incurred reach 80 percent of the amount on deposit, the permittee shall deposit additional funds sufficient to bring the balance up to the amount of the initial deposit. There is no limit to the number of supplemental deposits that may be required prior to completion of the litigation.

   b. At the sole discretion of the permittee, the amount of an initial or supplemental deposit may exceed the minimum amounts defined herein.

Permittee shall pay the cost for collection and duplication of records and other related documents according to Los Angeles County Code Section 2.170.010.

5. This grant will terminate upon termination of the permittee's mineral extraction and completion of the reclamation of the site pursuant to authorization by the Bureau of Land Management under Federal Contracts CA 20139 and CA 22901, unless the right to mine is earlier terminated by abandonment or a change of use.

6. If any provision of this grant is held or declared to be invalid by a challenge brought by a party other than the permittee or the United States of America, the remaining provisions of this permit and the privileges granted hereunder shall remain in effect.

7. The subject mine shall be maintained and operated in full compliance with the conditions of this grant, and with any law, statute, ordinance or other regulation determined to be legally applicable to the subject property. Nothing in this Project Condition 7, or in any other Project Condition herein, shall in any way be deemed to be a waiver by permittee of federal preemption.

8. Pursuant to Los Angeles County Code Section 22.56.1460, the permittee shall pay to the County of Los Angeles Department of Public Works such sums as are necessary to compensate said department for expenses incurred while reviewing and inspecting the premises to determine the permittee's compliance with the permit conditions and applicable laws.

   If any inspection discloses that the subject property is being used in violation of any one of the conditions of this grant, the permittee shall be financially responsible and shall reimburse the Department of Public Works and the Department of Regional Planning for all additional enforcement efforts necessary to bring the subject property into compliance.

   If the subject property is being used in violation of any of the conditions of this grant, or any provisions of the Surface Mining and Reclamation Act, the County may institute enforcement proceedings and seek administrative penalties pursuant to Public Resources Code Section 2774.1.

9. The grant allows surface mining for sand and gravel, aggregate processing, a ready-mixed concrete batching plant, and ancillary uses as described in the Project Revised Final Environmental Impact Report, November 2001 ("Project FEIR"), subject to the following restrictions as to use:

   a. The permittee shall submit to the Director of Planning four (4) copies of a Final Mining and Reclamation Plan, which shall be a composite of the project description, the Mining and Reclamation Plan (including the revegetation plan), mitigations and mitigation monitoring contained in the FEIR and the additional provisions of these conditions. If the Director

finds the plan to be conforming, the Director shall forward copies to the Department of Public Works and the Office of Mine Reclamation. No work shall commence under this grant until the Director transmits a conforming copy of the Final Mining and Reclamation Plan to the Department of Public Works and the Office of Mine Reclamation. All mining and reclamation shall comply with the provisions of the final plan. Any revisions to the plan shall be submitted to the Director for a finding of conformance.

b. No product shall be delivered from the subject property (except for product delivered to install road improvements as required by the FEIR) until the road improvement requirements of Project Condition 11 have been completed to the satisfaction of the County Department of Public Works. The permittee shall place evidence of such completion on file with the Director of Planning.

c. The permittee shall comply with all geotechnical mitigation measures listed in the Project FEIR.

d. Temporary slopes shall not be created that will interfere with the construction of finished slopes conforming to the requirements of the Mining and Reclamation Plan.

e. Unless otherwise specified in the Mining and Reclamation Plan temporary slopes affecting off-site property shall meet the requirements of Chapter 70 of Title 26 of the County Code.

f. The permittee shall implement measures to prevent erosion of adjacent lands by waters discharged from the site of mining operations and the off-site discharge of sediment. The permittee shall comply with all flood control and water quality mitigation measures listed in the Project FEIR including the Stormwater Pollution Prevention Plan (SWPPP).

g. Sediment shall not be discharged into off-site water bodies that will result in higher concentrations of silt than existed in such water prior to surface mining operations. The permittee shall comply with all flood control and water quality mitigation measures listed in the Project FEIR including the Stormwater Pollution Prevention Plan (SWPPP).

h. Stockpiles of overburden and minerals shall be managed to minimize water and wind erosion.

i. The removal of vegetation and overburden in advance of surface mining shall be kept to a minimum.

j. In addition to the air and water quality mitigation measures listed in the Project FEIR, the permittee shall comply with applicable rules and regulations of the Regional Water Quality Control Board and the Air Quality Management District.

k. The permittee shall implement reasonable and practicable measures to protect the habitats of fish and wildlife during surface mining operations. The permittee shall comply with all water resource and biological resource mitigation measures listed in the Project FEIR including the Habitat Protection Plan.

l. Surface mining operations and related structures shall not be located within 50 feet of any public street or highway or any lot or parcel of land other than the project site as defined in the Project FEIR unless the written consent of the owner of such property is first secured and recorded in the Los Angeles County Recorder's Office, and except where the contiguous property is currently or intermittently being mined in the same manner.

m. All mining operations, including aggregate processing and stockpiling, shall occur within the portion of the subject site which is north of Soledad Canyon Road. The development of water facilities, including water wells, pumping and pipeline facilities to provide water to the mining project, is permitted near the Santa Clara River as depicted in and as subject to the mitigation measures described in the Project FEIR.

n. The permittee shall comply with all air quality, noise control, and visual quality mitigation measures listed in the Project FEIR. The sound walls required by the Project FEIR near River's End Trailer Park shall be constructed by the permittee within one year of the effective date of this grant to the satisfaction of the Department of Public Works, and shall be continuously maintained by the permittee for the life of this grant. The sound walls near the proposed Bee Canyon Mobile Home Park shall be constructed within one year of the effective date of the approval of that project (if it is approved and constructed) to the satisfaction of the Department of Public Works, and shall be continuously maintained by the permittee for the life of this grant.

o. The boundaries of all property used or intended to be used for surface mining operations shall be posted within 90 days following the effective date of this mining permit, and permanently thereafter, with signs displaying the message "SURFACE MINING' in letters not less than four inches in height, and in letters not less than one inch in width, the message "This property may be used at any time for the extracting and

processing of sand and gravel and similar materials by Ordinance No. 1494, County of Los Angeles." Such signs shall be posted not more than 500 feet apart and displayed in such a manner as to give reasonable notice to nearby persons of the message contained thereon. Signs shall be promptly replaced as needed. The permittee shall cause such signs to be removed upon completion of all on-site mining and reclamation activities.

p. Except in cases of declared public emergencies, as directed by public agencies, the hours of operations shall be;

1. On Sunday of each week, the operations shall be closed for all blasting, aggregate excavation, crushing, screening, and processing operations;

2. Monday through Saturday of each week, the hours of operations shall be 5:00 a.m. to 10:00 p.m. for all aggregate mining, excavation, transporting and conveying, crushing, screening, processing; and stockpiling activities;

3. Blasting operations are prohibited between the hours of 7:00 p.m. and 7:00 a.m weekdays and Saturdays and precluded at any time on Sundays or holidays in conformance with provisions of the County Noise Ordinance; and

4. Project Conditions 9.p.1, 9.p.2, and 9.p.3 notwithstanding, 24 hours per day, seven days per week shall be the hours for all supply deliveries, all mobile equipment, aggregate plant, and batch plant maintenance activities, all batch plant operations, and all aggregate and concrete product loading and transportation shipment activities.

q. The permittee shall provide benches to control drainage on slopes or to provide access, or for public safety in conformance with the approved Mining and Reclamation Plan.

r. Unless otherwise specified in the approved Mining and Reclamation Plan, topsoil removed in surface mining operations shall be stored by the permittee at the site of mining operations and shall be used in future reclamation of the site.

s. Before commencement of any surface mining activity, the area to be used for such operations shall be enclosed with a fence as required by Chapter

11.48 of the County Code, where feasible and necessary as reasonably determined by the Director of Public Works.

t. The overnight storage of explosives on-site for use in mining operations is prohibited.

u. The permittee shall comply with the cultural resource mitigation measures contained in the Project FEIR and the November 2001 Project FEIR Mitigation Monitoring and Reporting Program.

v. The applicant shall post a sign at the facility entrance at a location visible to the public that provides the agency names and telephone numbers for their enforcement agents of the Regional Water Quality Control Board, the Air Quality Management District, and the County Department of Public Works.

w. The permittee shall be responsible for assuring that exiting trucks are legally covered and/or loaded. Allowing illegally loaded or covered vehicles to exit shall be a violation of these conditions.

x. The permittee shall complete reclamation of land affected by surface mining operations within one year of the completion of mining operations or as otherwise specified in the approved Mining and Reclamation Plan.

y. Final slopes shall be engineered and contoured so as to be geologically stable, to control drainage therefrom, and to blend with the surrounding topography where practical, in accordance with the approved Mining and Reclamation Plan.

z. The permittee shall revegetate all exposed lands that have been denuded by mining operations to provide sufficient ground cover and to control erosion from such lands. Revegetation shall occur in accordance with the revegetation specifications and monitoring schedule contained in the approved Mining and Reclamation Plan.

aa. The facility is authorized to mine up to 69.2 million tons of material to produce 56.1 million tons of total product (sand and gravel). Since actual annual production will vary with market demand and market demand can fluctuate by 20%, no more than 5.0 million tons of product per year may be produced and shipped during the life of the permit except in emergency situations as declared by a public agency. Compliance with the November 2001 Project FEIR Mitigation Monitoring and Reporting Program will ensure that the impacts analyzed in the Project FEIR are adequately mitigated.

ab. This grant prohibits the storage of fines material and other mining wastes on the north side of the ridgeline in the area identified as the North Fines Storage Area (NFSA).

ac. The permittee shall contract with a qualified biologist acceptable to the Department of Regional Planning to conduct a training session for all well and pipeline installation personnel prior to construction of Project wells and pipelines. The training session shall focus on information on the arroyo toad, what to look for in terms of indications of toad activity, limits on project disturbance, keeping the site clear of trash and debris, and that monitors should be immediately notified if indicators of the toad are encountered. Training of personnel shall be an ongoing process for the period of the permit and shall address all of the potential endangered/ threatened species for the area. The qualified biologist shall coordinate the preparation of a training video and a field-use pamphlet. The training video shall be shown to all new employees as part of the new employee orientation process. At a minimum, the training video shall describe the sensitive species and the habitat; provide the general provisions of the Endangered Species Act and penalties associated with Act violations; provide indicators for signs of presence of each of the species; and provide the restrictions and guidelines that must be followed by all personnel to reduce or avoid effects on the species during all project activities.

10. The submitted Mining and Reclamation Plan is approved, subject to the following modifications and conditions:

a. The permittee shall make the site available for inspection by the Department of Public Works upon request by an authorized representative of said Department. The permittee shall upon request by the County, make the site available for inspection by the Department of Regional Planning. Use of the subject property during the term of this grant as a Class1, 2 or 3 Waste Disposal Site (landfill), as those terms are used in the California Code of regulations is prohibited. Only marketable products: aggregate materials, including sand, gravel, and rock products, construction base, ready-mixed concrete and natural fines shall be exported from the site. Other excavated material shall be retained on site and used, as available, to backfill the mine cut areas in accordance with the Federal approvals for the Project. Permanent side slopes shall be backfilled consistent with the approved Mining and Reclamation Plan and pursuant to the geotechnical mitigations in the Project FEIR.

b. The permittee shall provide financial assurances for the completion of reclamation as required by Section 2770 and 2773.1 of the California Public Resources Code and Title 22 of the Los Angeles County Code and shall provide to the Department of Public Works such information as the Department deems necessary to set the amount of the assurances.

c. Should the mine become "idle" as defined in Section 2727.1 of the California Public Resources Code, the permittee shall comply with all requirements for submission of an interim management plan as set forth in Section 2770 of said Code and Title 22 of the Los Angeles County Code.

d. The permittee shall, within one year of any of the following events, unless otherwise specified in the approved Mining and Reclamation Plan, remove all machinery and other facilities not permitted by applicable zoning regulations and reclaim all mined areas not already reclaimed:

- Upon abandonment of the mine without intent to reopen;

- Upon revocation or expiration of the permittee's right to mine;

- If the mine becomes "idle", as defined in Section 2727.1 of the California Public Resources Code, and the permittee is required to reclaim because the mine is considered abandoned pursuant to the provisions of Section 2770 of said Code.

The permittee shall notify in writing the Director of Planning of any of the above occurrences within 30 days of any such occurrence.

e. The permittee shall file a covenant with the County Recorder containing the following statement within 30 days following the effective date of this grant:

"This property is subject to Mining and Reclamation Plan 91165-(5), requiring, together with other conditions, the completion of a reclamation program before use of the property for a purpose other than surface mining, except as otherwise provided in said plan. Agents of the County of Los Angeles and the State of California may enter upon such land to enforce the Mining and Reclamation Plan and to effect reclamation, subject to compliance with applicable provisions of law."

f. The permittee shall demonstrate at the building permit stage that the proposed structures are adequately protected from flood hazards.

g. The permittee shall submit final plans for sedimentation control facilities and on-site/off-site drainage improvements to the Department of Public Works for review and approval.

11. The permittee shall provide the following dedications and improvements prior to the commencement of any commercial mining or batch plant operation on the site except if an earlier trigger is stated. Said dedications and improvements shall be provided to the satisfaction of the Department of Public Works:

a. Dedicate 50-feet of right of way and slope easements from the latest IEC-approved centerline of Soledad Canyon Road to the satisfaction of the Department of Public Works. This shall occur prior to building permit issuance.

b. Provide one shared left-turn/through lane and one exclusive right-turn lane on the north approach and align with the existing access road for the C.A. Rasmussen mining facility.

c. Provide sufficient pavement on Soledad Canyon Road to provide a left-turn lane and one shared through/right-turn lane on both the east and west approaches.

d. Provide adequate sight distance and westbound merging lane to the satisfaction of the Department of Public Works.

e. Submit a detailed signing and striping plan to the Department of Public Works for review and approval.

f. Provide detailed road construction plans, including a grading plan, to the Department of Public Works for review and approval prior to any construction of road improvements.

g. The permittee shall demonstrate at the building permit stage that the proposed structures are adequately protected from flood hazards.

h. The permittee shall submit final plans for sedimentation control facilities and on-site/offsite drainage improvements to the Department of Public Works for review and approval.

12. The permittee shall provide funding to the Department of Public Works for the following future improvements in the vicinity of Soledad Canyon Road:

a. <u>State Route 14 Northbound Ramps/Soledad Canyon Road</u>

Prior to issuance of a building permit, the permittee shall provide its proportionate share of funding to the Department of Public Works to widen and modify the east approach of Soledad Canyon Road to provide two through lanes and one exclusive right-turn lane (add one westbound through lane). The project's share for this improvement is 9.1 percent. The permittee shall submit engineering cost estimates of the improvements to the Department of Public Works for approval and determination of the permittee's proportionate share of the funding, unless such determination has previously been made and approved by the Department of Public Works.

b. State Route 14 Southbound Ramps/Soledad Canyon Road

Prior to issuance of a building permit, the permittee shall provide its proportionate share of funding to the Department of Public Works to modify the westbound approach of Soledad Canyon Road to provide two left-turn lanes and one through lane, and modify the eastbound approach of Soledad Canyon Road and the State Route 14 southbound on-ramp to accommodate the two westbound left-turn lanes and one through lane. The project's share for this improvement is 6.5 percent. The permittee shall submit engineering cost estimates of the improvements to the Department of Public Works for approval and determination of the permittee's proportionate share of the funding, unless such determination has previously been made and approved by the Department of Public Works.

c. Soledad Canyon Road from State Route 14 to Bee Canyon Wash

CEMEX shall contribute its proportionate share towards the design, construction engineering, right of way acquisition, incidental costs, and construction costs, to widen Soledad Canyon Road between SR-14 northbound ramps to Bee Canyon Wash with a third lane which can serve as an alternative passing lane for the eastbound and westbound upgrade portions of the roadway. The current estimated amount is $600,000 (which is based on DPW's pro rata estimate of 30.7 percent for Phase II, which is inclusive of Phase I pro rata share) for construction costs of the widening and said estimate does not include the permittee's fair share for the proportionate costs of design, construction engineering, right of way and other incidental costs. The permittee shall be required to make such fair share payment upon a reasonable and good faith determination by the Director of Public Works that the roadway improvements are required based on the cumulative projects' actual implementation.

13. In lieu of Mitigation Measure T4 of the November 2001 Project FEIR Mitigation Monitoring and Reporting Program, which will not be implemented, the permittee will limit the Project's total (both inbound and outbound) truck trips to eight in the a.m. peak hour (6:00 a.m. to 7:00 a.m.) and twenty total (both inbound and outbound) truck trips in the p.m. peak hour (5:00 p.m. to 6:00 p.m.) for Phases I and II. The Transportation Management Plan ("TMP"), attached hereto as Exhibit A, shall limit outbound truck trips to 57 during the hour prior to the a.m. peak hour (5:00 a.m. to 6:00 a.m.) and 57 outbound truck trips during the hour following the a.m. peak hour (7:00 a.m. to 8:00 a.m.) The permittee will implement the following measures to limit the above-noted inbound truck trip limits: (i) the provision of a recorded telephone message delineating the truck limits; (ii) signage at the Project entrance; (iii) provision of flyers delineating these limits to truck drivers; and (iv) company literature indicating these truck limits. The failure of these measures to achieve the inbound limits shall not constitute a violation of the permit. This mitigation is subject to exception in cases of emergency as declared by a public agency. In the event of special projects, which may involve the need for aggregate or ready-mixed concrete for a continuous placement of ready-mixed concrete, this mitigation measure is subject to exception as reasonably determined by the Director of Public Works.

14. The permittee shall enter into a secured agreement with the Department of Public Works to pay for its pro-rata share of the traffic signal installation costs at the following intersections:

    a. Project Access Road/Soledad Canyon Road
    The permittee shall pay the entire cost.

    b. SR 14 Southbound Ramps/Soledad Canyon Road
    The permittee shall pay its share, estimated to be 6.5 percent.

    c. SR 14 Northbound Ramps/Soledad Canyon Road
    The permittee shall pay its share, estimated to be 9.1 percent.

    Traffic signals shall only be installed when actual traffic conditions warrant the signals.

15. Consistent with all other conditions of this permit, provisions shall be made for all natural drainage to the satisfaction of the Department of Public Works.

16. The permittee shall implement in a timely manner all mitigation measures in the Project FEIR in accordance with the attached Proposed January 2004 Project FEIR Mitigation Monitoring and Reporting Program. As a means of ensuring the effectiveness of the mitigation measures, which are conditions of approval, the permittee shall submit mitigation monitoring reports to the Department of Regional Planning as follows:

a. At the time of building permit issuance, including verification of payment of applicable fees;

b. Annually;

At the time of submittal for the first report noted above, the permittee shall make an initial deposit of the sum of $5,000.00 with the Department of Regional Planning to defray the cost of reviewing and verifying the information contained in the reports required by this condition. These funds shall be replenished to a balance of $5,000.00, if at any time the funds balance drops to less than $1,000.00.

17. All mining, batch plant operation, and product transportation shall not be commenced during any second stage smog alert declared by the South Coast Air Quality Management District that is applicable to the Project area.

18. The project will require the filing of a Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code. The Notice of Determination will not be filed until the appropriate fees required by the California Department of Fish and Game are paid. The fees are based on the type of environmental document approved for this project; the current maximum amount is $875.00.

19. The subject property shall be developed and maintained in substantial compliance with the FEIR and the approved Mining and Reclamation Plan. In the event that subsequent revised plans are submitted they must be accompanied by the written authorization of the mineral estate owner.

20. The permittee shall provide three (3) copies of a sign plan, which may be incorporated into a revised plot plan, submitted to and approved by the Director of Planning before issuance of a building permit. The sign plan shall show the size, type, and location of all signs on the subject property.

21. The permittee shall provide three (3) copies of a landscape plan, which may be incorporated into a revised plot plan, submitted to and approved by the Director of Planning before issuance of a building permit. The landscape plan shall be in conformance with the requirements of the Biological Resources section of the Project FEIR. The permittee shall provide landscaping along the Soledad Canyon Road north street frontage, to the satisfaction of the Director of Planning, consisting of attractive native vegetation (drought tolerant species). The landscape plan shall show the size, type, and location of all plants, trees, and watering facilities. All landscaping shall be maintained in a neat, clean and

healthy condition, including proper pruning, weeding, removal of litter, fertilizing and replacement of plants when necessary.

22. All structures shall conform with the applicable requirements of the Division of Building and Safety of the Department of Public Works.

23. The subject facility shall be developed and maintained in compliance with the applicable requirements of the Los Angeles County Department of Health Services. Adequate water and sewage disposal facilities shall be provided to the satisfaction of said Department, however, commercially available water may be imported pursuant to Project FEIR Mitigation Measure WR2, and a septic tank that is designed for routine pumpout may be installed pursuant to Project FEIR Mitigation Measure WQ4.

24. Upon receipt of this letter, the permittee shall contact the Fire Prevention Bureau of the Los Angeles County Fire Department to determine what measures, if any, may be necessary to protect the property from fire hazard and as reasonably determined by the Fire Department shall be implemented.

25. The permittee shall secure any necessary permits from the South Coast Air Quality Management District and shall fully comply with the terms of said permits.

26. All structures, walls, and fences open to public view shall remain free of extraneous markings, drawings, or signage. These shall include any of the above that do not directly relate to the business being operated on the premises or that do not provide pertinent information about said premises.

27. In the event such extraneous markings occur, the permittee shall remove or cover said markings, drawings, or signage within 24 hours of such occurrence, weather permitting. Paint utilized in covering such markings shall be of a color that matches, as closely as possible, the color of the adjacent surfaces. The only exceptions shall be seasonal decorations or signage provided under the auspices of a civic or non-profit organization.

28. The permittee shall submit quarterly compliance reports to the County and shall keep and maintain accurate records and logs and provide them to the County Compliance Monitor, Department of Public Works personnel, and Department of Regional Planning personnel within a 72-hour notice. Such records and/or logs shall include the following:

    a. An accounting of total aggregate product shipped off-site on a monthly basis, and the total amount of material mined on a yearly basis.

b. The number of daily truck trips inbound and outbound from the project site. These records shall be kept on an hourly basis.

29. The permittee shall insure that all loads leaving the site shall have their loads covered, or have free board as required by state law, to minimize fugitive air-borne particulate matter.

30. **County Compliance Monitor.** The permittee shall provide site access to, and shall fund certain costs annually during the term of this grant of, a compliance monitor. The compliance monitor shall be an independent contractor, not otherwise employed by the County, and shall be selected jointly by the County and permittee. The engagement of the compliance monitor shall be for a term of one year, with said engagement to be reviewed annually by the County and permittee, and subject to renewal by consensus or to termination by either County or permittee. If terminated, a new compliance monitor shall be selected under the same terms described above. The compliance monitor's duties shall consist of the following: (i) on-site monitoring one day per month, for up to eight hours that day, to be funded by permittee; (ii) off-site reporting for up to four hours per month, to be funded by permittee; and (iii) on-site monitoring for one additional day per month, for up to eight hours that day, to be funded by the County and said determination for the necessity for said monitoring shall be at the County's sole discretion.. The permittee shall be responsible for providing advance notice to the compliance monitor of any extra-ordinary or unusual maintenance activities that occur on Sundays. The compliance monitor shall be assigned to the project site to monitor the operator's compliance with the approved surface mining permit and the approved Mining and Reclamation Plan and with all the project conditions and mitigation measures approved for this project, including those conditions/mitigation measures addressing site reclamation. The compliance monitor shall report jointly to the County (DPW and DRP), the United States Bureau of Land Management ("BLM"), and permittee. The compliance monitor shall prepare and submit monthly written compliance reports jointly to the County, the BLM, and permittee that shall include, but not be limited to, the status of the permittee's compliance with the conditions of approval and conformance with the Project FEIR Mitigation Monitoring and Reporting Program, and a summary of non-compliance incidents and specific actions taken by the permittee to correct any non-compliance. The compliance monitor shall notify the permittee's on site manager of any non-compliance, and if corrective action is not timely taken, shall notify the Director of Planning, the BLM, and permittee. Nothing in this Project Condition 31 shall in any way abridge or waive permittee's due process or other rights, protections, or obligations relating to asserted non-compliance, as set forth in the Surface Mining and Reclamation Act (SMARA), federal law, or County Codes.

31. **Permit Compliance Inspection Deposit.** The permittee shall deposit with the Department of Regional Planning the sum of $6000.00. The fee shall be placed in a performance fund that shall be used exclusively to compensate the Department of Regional Planning for all expenses incurred while inspecting the premises and meeting with the County Compliance Monitor to determine the permittee's compliance with the conditions of approval. The fee provides for twenty (20) annual inspections and a maximum of forty (40) unannounced inspections (which may be conducted twice yearly or more frequently if necessary).

32. A **Community Advisory Committee (Committee)** shall be created which will serve as a liaison between the permittee and the community and as a means for the community to communicate with the County and other regulatory agencies regarding the operation of the mine. This Committee shall consist of seven (7) members who will be appointed by the Director of Planning or his designee and whose appointments shall be subject to confirmation by the Supervisor of the Fifth Supervisorial District. The Committee shall be comprised of representatives of the following organizations in the numbers specified:

- Stonecrest Homeowner's Association (1)
- Sand Canyon Homeowner's Association (1)
- Sulfur Springs School District (1)
- River's End Trailer Park (1)
- Agua Dulce Town Council (1)
- Acton Town Council (1)
- City of Santa Clarita (1)

The Committee shall be composed of persons who reside or represent businesses (not including construction materials businesses) and public agencies in the vicinity of the project. The governing board of each represented organization shall annually provide written notice to the permittee and the Department of Regional Planning of the names of its designated representative. Failure of the governing boards to annually report the names of their representative shall not be construed as a violation of this grant.

Upon appointment of the Committee, the permittee shall do the following: provide up to six times per year qualified personnel to attend the Committee meetings; provide funding for the County's cost of coordinating the Committee meetings, not to exceed $1,000 for the year's operating costs, for the life of the permit; and provide up to four times per year accommodations for Committee meetings. Meetings shall be open to the general public and conducted in accordance with generally accepted meeting protocol.

The Committee procedures shall be determined by the membership. The activities of the Committee may include but are not limited to the following: discussion of issues related to project operations at the Soledad Canyon Mine, discussion of reclamation activities, review of compliance reports, and the preparation and submission of written reports to the Regional Planning Commission or the Director of Planning. The Director of Planning shall designate a representative to serve as coordinator for the Committee.

Throughout the term of this permit, the Committee shall meet at least on a semi-annual basis but the frequency of meetings shall be determined by the membership and shall not conflict with the permittee's minimum notification requirements contained herein. In addition to the meetings of the Committee, the permittee shall also meet with the community at large at least annually. The meeting time, location and agenda shall be coordinated with the Director of Planning, and the permittee shall provide adequate written notice by posting at the project site, on the permittee's Internet Website and publication in a newspaper of general circulation a minimum of 15 calendar days prior to the meeting. The permittee shall also be responsible for providing the same written notice to the members of the Committee.

33. The permittee shall post a changeable-copy sign, both in English and Spanish, on the subject property at a location visible to motorists traveling in both directions on Soledad Canyon Road, providing advance-notice to the public of the days and approximate hours during which blasting events may be conducted on the site. The sign shall be at least 4 square feet in size but shall not exceed 9 square feet. In addition the permittee shall provide the same information on blasting events, in advance of occurrence, on the operator's Internet Website.

34. The permittee shall provide a toll-free telephone number to the community to facilitate communication twenty-four hours each day the facility is in operation regarding any issues arising from operation of the facility. This telephone number shall be conspicuously posted, along with the operator's Internet Website address in conjunction with the following sign requirements. The permittee shall post a minimum of one exterior sign at the entrance to the subject site in English and Spanish, displaying the name of the facility operator, the contact telephone numbers for the facility site manager, the Department of Regional Planning Zoning Enforcement Section and the County Compliance Monitor and the Air Quality Management District. The sign shall be at least 4 square feet in size but shall not exceed 9 square feet. The sign shall include the toll-free "hotline" telephone number to facilitate complaint resolution and the operator's Internet Website address. The sign shall be conspicuously posted throughout the term of the grant at the main entrance and shall be visible and accessible to the public traveling in both directions along Soledad Canyon Road. The permittee shall implement a program to address and promptly resolve problems should they

occur. The permittee shall take reasonable and necessary actions to mitigate complaints should they occur.

35. The permittee shall publish a quarterly newsletter (in English and Spanish) to be distributed to neighboring property owners and residents within a one-mile radius of the subject property, and to Committee members, the Departments of Regional Planning and Public Works, and the County Compliance Monitor. Said newsletter shall include the names and telephone numbers of emergency and community liaison personnel, a summary of recent mitigation monitoring reports, solicitation of community input, information regarding employment opportunities, the "hotline" telephone number, and the mine operator's Internet Website address. The operator shall post and make available the quarterly newsletter at their Internet Website.

36. **Open Space/Visual, Air Quality, and Traffic Fund.** In order to address environmental concerns raised by members of the public in the surrounding communities, the permittee shall deposit funds into an interest bearing Open Space/Visual, Air Quality, and Traffic Fund, established for the express purpose of improvement, enhancement and replenishment of open space, parks, trails, and traffic improvements, in the communities proximate to the mining operation and to assist in the improvement and enhancement of air quality. Monies in the Fund shall primarily be used to benefit the surrounding communities in closest proximity to the Project and no monies shall be spent on projects or programs outside jurisdictional boundaries of the greater Santa Clarita Valley. The Director of Planning shall seek authority from the Board of Supervisors before making expenditures from the Fund.

Payment by CEMEX to the Fund will be as follows:

A.	Initial payment due at commencement of operations:	$350,000;
B.	Yearly installments for the next ten years:	$100,000;
C.	Payment at the end of Year Eleven:	$200,000.
	Total payments:	$1,550,000.

Yearly installments in paragraph B., above, to be paid on or before the anniversary of the Initial Payment set forth in paragraph A., above (i.e., every twelve months). The payments required in paragraphs B and C above shall be made with interest such that the net present value of this component of the settlement (i.e., paragraphs A, B, and C) at the time of the Initial Payment is $1,550,000 (net present value interest rate of 7%).

37. **Clean School Bus Program.** In order to provide additional benefit to the community, the permittee agrees to the following: The permittee shall contribute $275,000.00 which may be used by the following local school districts in

connection with a local or AQMD-coordinated clean school bus program. The school districts include: William S. Hart Union High School District; Sulphur Springs Union School District; Saugus Union School District; and Acton-Agua Dulce Unified School District. These monies may be utilized towards the purchase of alternative fuel buses, lower-emitting diesel buses, or particulate trap retrofits for existing buses in order to provide a benefit to school children. The permittee shall remit the lump sum payment to the Director of Regional Planning following successful completion of any action as described in Project Condition 3 herein, and, following start-up of Project operations.

38. **Liability Insurance.** The permittee shall maintain liability insurance in a minimum amount of $50,000,000. To the extent that the Federal Contracts stipulate higher amounts for coverage, then the required amounts shall be consistent with those required by the Federal Contracts.

39. **Exhaust Particulate Filter Truck Retrofit.** The permittee shall install, maintain and operate particulate filters that achieve 95 percent or greater reduction in diesel exhaust particulates, within five years from the effective date of this grant, on the following equipment operating on the Soledad Canyon project site, based on currently available technology:13 cu. yd. pit loaders, 100-ton haul trucks, front end loaders, 35-ton dump trucks, and water trucks. All trucks within the applicant's fleet stationed and/or operating from the Soledad Canyon project site, including cement trucks, shall be required to meet the emissions standards of the Environmental Protection Agency and California Air Resources Board.

    Since significant advances in emission-control technology for heavy equipment are anticipated in the future, the permittee may review new technologies for their feasibility and effectiveness and may implement alternative methods for achieving equivalent or better diesel particulate reductions in place of particulate filters subject to the prior written authorization of the Director of Planning. Such alternative methods may include, but are not limited to, conversion of some equipment to alternative or dual-fuel technology, purchase of lower emitting equipment, and use of low sulfur diesel.

40. **Cultural Resource.** The permittee shall immediately cease activity in the area of a newly discovered cultural resource item, as listed in paragraph 2 of Project FEIR Mitigation Measure CR3, on the subject property, and, within 72 hours of the discovery, report such finding to the Department of Regional Planning.

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FINAL MINING AND RECLAMATION PLAN

SOLEDAD CANYON
SAND AND GRAVEL MINING PROJECT

Prepared for:

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS

CALIFORNIA DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY

BUREAU OF LAND MANAGEMENT
PALM SPRINGS-SOUTH COAST RESOURCE AREA

Prepared by:

CEMEX, Inc.
(FORMERLY TRANSIT MIXED CONCRETE COMPANY)

JANUARY 2004

EXHIBIT I

FINAL MINING AND RECLAMATION PLAN
CEMEX, Inc.
(FORMERLY TRANSIT MIXED CONCRETE COMPANY)
SOLEDAD CANYON SAND AND GRAVEL MINING PROJECT

Location:	Soledad Canyon, County of Los Angeles, CA
Reference:	United States Department of Interior Bureau of Land Management
	Contract Number: Ca-20139 Contract Number: Ca-22901
	County of Los Angeles
	Project Number 91-165(5)
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January 2004

FINAL MINING AND RECLAMATION PLAN
SOLEDAD CANYON
SAND AND GRAVEL MINING PROJECT

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TAB A

REVISED FINAL
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VOLUME 1 - RESPONSES TO COMMENTS

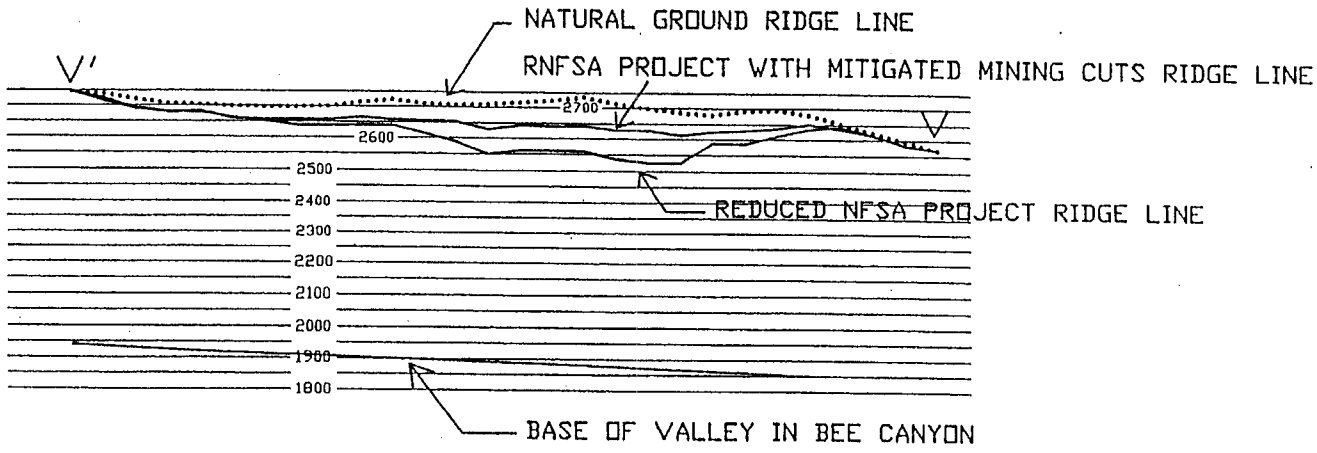
SOLEDAD CANYON

SAND AND GRAVEL MINING PROJECT

STATE CLEARINGHOUSE NO. 91111066

PROJECT NO. 91165
LOS ANGELES COUNTY
DEPARTMENT OF REGIONAL PLANNING

NOVEMBER 2001



Scale: 1"=600'
Source: DANIEL J. PELLOW CONSULTING, MARCH 2001

PROFILE VIEW V'-V REDUCED NFSA PROJECT COMPARED TO RNFSA PROJECT WITH MITIGATED MINING CUTS

FIGURE 2.3.13-2

2.3.13 Visual Quality

TOPICAL RESPONSE VQ-1: MITIGATED MINING CUTS FOR THE REDUCED NORTH FINES STORAGE AREA PROJECT

Background Information

During the development of the DEIR, mitigation measures were identified to minimize potential impacts associated with the Project. All impacts were reduced to below a level of significance with the exception of unavoidable significant adverse impacts to air quality and visual quality. In response to concerns raised during the public review process, additional mitigation measures were identified to reduce impacts, especially to air quality, and were incorporated into the AEIDEIR. On January 23, 2001, the Board conducted the hearing on TMC's appeal. In the hearing, the Board directed the applicant (TMC) and certain Project opponents to further identify additional mitigation measures to address public concerns. Subsequent to meetings and exchanges of proposals by the parties, additional mitigation measures were identified for incorporation into this FEIR. One of those mitigation measures, was primarily designed to further reduce impacts to visual qualities, and was identified as the Mitigated Mining Cuts for the RNFSA Project (Mitigated Mining Cuts).

Under the Mitigated Mining Cuts, the North Fines Storage Area (NFSA) would be eliminated, and impacts to the visual quality of the ridgeline would be reduced as explained below. Additionally, the overall scale of mining is reduced from 77.7 million tons as identified in the RNFSA Project, to 69.2 million tons of mining, which reduces certain other impacts. This mitigation measure essentially would amount to an 11 percent reduction in overall quantity of mining, as compared to the RNFSA Project.

Mine cuts would be modified with this mitigation measure to mine more of the Tv1 geologic unit (which has lower quantities of excess fines), and less of the Tv2 geologic unit (which has higher quantities of excess fines). The increased mining of the Tv1 geologic unit, combined with the decreased mining of the Tv2 unit, would generate less excess fines, thereby reducing the overall quantity of material mined. Accordingly, because there would be fewer overall excess fines generated from mining, the need to store fines in the NFSA can be eliminated. Elimination of the NFSA would reduce associated visual impacts such as desilting/debris basins, access roads, and the engineered earthen fill area that would otherwise be visible from the Antelope Valley Freeway.

Under the Mitigated Mining Cuts, the lowering of the ridgeline that was originally shown in Figures 1.4-3 and 1.4-4 of the DEIR and in the AEIDEIR would be lessened. Under the RNFSA Project, the average amount of ridgeline lowering was proposed to be approximately 80 feet of elevation loss. With the Mitigated Mining Cuts, the average amount of ridgeline lowering would be reduced to approximately 45 feet of elevation. Thus, with the Mitigated Mining Cuts, the amount of ridgeline lowering would be reduced by nearly 44 as compared to the RNFSA Project. This equates to about a 6 percent reduction of the total elevation of the ridgeline, which rises 800 feet above Bee Canyon. The profiles of the existing ridgeline, the ridgeline of the RNFSA Project, and the ridgeline under the Mitigated Mining Cuts (all as compared to the base of the ridgeline in Bee Canyon) are shown in Figures 2.3.13-1, and 2.3.13-2. The viewshed of the proposed final ridgeline from the Antelope Valley Freeway is as shown in Figure 2.3.13-3.

Also under the Mitigated Mining Cuts, a further reduction of visual impacts to the ridgeline would occur as a result of the elimination of the Cut 3 northerly high elevation access road, and elimination of the northerly exposure of ridgeline cuts related to initiation of Cut 3 (as was originally shown in the AEIDEIR Figure 2.1-8). Under the Mitigated Mining Cuts, as shown on Figure 2.1-8R, all excavation for mining cuts would commence from the south side of the ridge (in order to minimize visual impacts to the ridge that might otherwise be visible from the Antelope Valley Freeway). (Note: Figures and tables herein denoted with an "R" are AEIDEIR revised figures and tables).
Visual impacts to the south side of the ridge would remain similar, with the exception that at the end of mining, the access roads that were to be left in place as shown in AEIDEIR Figure 2.1-11 would now be mined out, leaving a smooth overall serrated slope, without access roads to the higher elevations.[4] Reclaimed contours of the earthen backfill areas on the south side of the ridge, as shown in AEIDEIR Figure 2.1-11, could remain the same under the Mitigated Mining Cuts mitigation as is explained in detail below.

The Original DEIR Project was designed, and the environmental impacts assessed, using a worst-case fines storage requirement of approximately 30 percent of the total material mined, while at the same time planning for the sale of 0.5 million tons of excess fines (DEIR p. 1-27). Those excess fines would have been sold by TMC to the market place as mineral material product in lieu of some of the 56.1 million tons of PCC grade sand and gravel that otherwise would be sold by TMC as mineral material product under the terms of the Federal Contracts. It was previously noted that based on the amount of

[4] Mining a higher volume of material at the lower elevations, by mining out the access roads, would allow for mining less material at the higher elevations. This, in turn, would cause less need for ridgeline elevation reduction (and less mining of the higher waste factor Tv2 geologic unit, which would otherwise be encountered at the higher elevations near the top of the ridgeline.

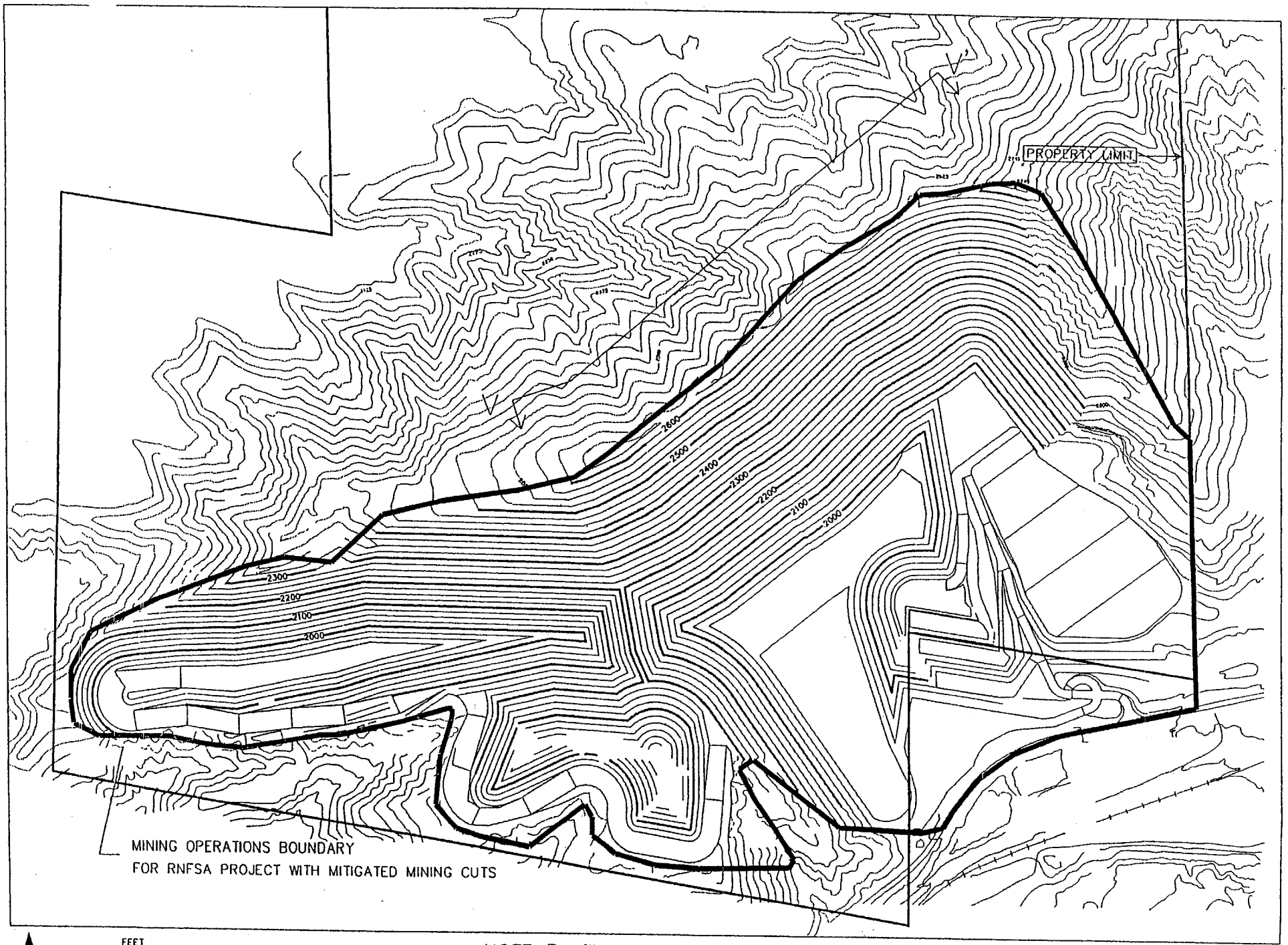
excess fines that would be sold, and the amount of excess fines actually encountered during mining operations, the need for permanent fines storage may be decreased, and/or the NFSA may be reduced in size (DEIR p. 1-27, AEIDEIR p. 2-8). The RNFSA Project assumed a slightly lower waste factor than was assumed in the Original DEIR Project, and therefore also assumed that less total material would be mined. The Mitigated Mining Cuts mitigation measure assumes an even lower (less conservative) waste factor. Each of the assumed waste factors and assumed mined quantities are shown in Table 2.3.13-1. The assumption of a less conservative waste factor may increase the likelihood that TMC would need to sell a larger quantity of excess fines (as mineral material product) in lieu of PCC grade sand and gravel. It may also increase the likelihood that more excess fines would need to be backfilled onto the south side of the ridge. Additional backfilling of excess fines on the south side of the ridge has the potential to encroach upon TMC's planned operational areas.

In summary, the assumption of a reduced (and less conservative) waste factor would not cause changes to the reclaimed contours to the backfilled areas on the south side of the ridge but would remain in the same overall mining envelope. However, should unexpected geologic conditions be encountered, the mining and reclamation plan contours could be modified in compensation, to allow for more backfilling into TMC's operational area on the south side of the ridge (DEIR Section 1.4, p. 1-21, and AEIDEIR Section 2.1, p. 2-1). If necessary, more excess fines might be sold in lieu of PCC Grade sand and gravel aggregates.

Table 2.3.13-1
MITIGATED MINING CUTS MITIGATION -
PRODUCTION, FINES AND DISTURBED AREA ESTIMATES

Production and Fines (millions of tons)	Original DEIR Project	RNFSA Project	RNFSA W/Mitigated Mining Cuts
Produced	56.1	56.1	56.1
Backfilled to Mine	13.2	15.1	12.6
NFSA	12.9	6	0
Fines Exported	0.5	0.5	0.5
Mined Material	82.7	77.7	69.2
Percent Fines	32%	28%	19%

Disturbed Areas (acres)	Original DEIR Project	RNFSA Project	RNFSA W/Mitigated Mining Cuts
Cut Face	130	108	108
NFSA Fill	54	36	0
Processing Plant	3	3	3
Total Disturbed Acres	187	147	111
* Does not include 45 acres of disturbed area from previous operations.			



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Source: NIEL J. PELLOW CONSULTING, MARCH 2001

NOTE: Profile view direction V–V' pertain. figure 1.0–1.5

MAXIMUM EXTENT OF MINING CUT 4
RNFSA PROJECT WITH MITIGATED MINING CUTS
FIGURE 2.3.13-1

Description of Proposed Mining and Facilities with the Mitigated Mining Cuts

This section provides an expanded description of the RNFSA Project if the Mitigated Mining Cuts mitigation is implemented in terms of the premining operations/construction and mining operations and phases. This description is based on a Mining and Reclamation Plan that is subject to changes due to a varying market demand, actual geologic conditions encountered, and changing regulations. The Mining and Reclamation Plan is subject to modification by the mine operator to compensate for unexpected conditions, provided that applicable regulations are met and an increase in the mining envelope is not required.

General Mining Plan with Mitigated Mining Cuts

General Layout and Project Plan

The site consists of a northeast-southwest-trending ridge that rises about 700 feet in elevation above Soledad Canyon Road and 800 feet above Bee Canyon. Figure 2.1-1 of the AEIDEIR shows the ridge looking toward the east. Previous mining operations have left a large excavation on the south side of the ridge. Figure 2.1-2 of the AEIDEIR shows the south side of the ridge and the previous mining operation. Extensive geologic mapping has identified distinct geologic units in the Vasquez Conglomerate of the ridge. The general mining plan is to mine on the south side of the ridge to minimize surface disturbance and visual impacts. Figures 2.1-3R and 2.1-3.5R show the Mitigated Mine Cuts parcel and areas of operation. A series of four excavation cuts are planned on the south side of the ridge at angles up to 45 degrees (1:1). Fill areas for excess natural fines would be established within areas of the mine cuts on the south side of the ridge. Figure 2.1-4R presents the Mitigated Mining Cuts Project Plan, including the mining operations boundary, and other facilities to be used. Setbacks for all aspects of the mining operation have been designed to comply with the Los Angeles County (County) codes. The setbacks would be at least 50 feet for mining operations adjacent to public roads or other parcels.
A total of 56.1 million tons of product is available to be mined within the parameters of the Mitigated Mining Cuts. TMC currently holds Federal Contracts with the U.S. Department of Interior, Bureau of Land Management (BLM) to produce 56.1 million tons of product. To produce 56.1 million tons of product, excavation of 69.2 million tons of material would be required, as would the backfilling of up to 12.6 million tons of fines into the excavated mining cuts. In addition, 0.5 million tons of fines would be either sold or taken offsite to another TMC facility in the early stages of mining operations.

Mining cuts, further described below under the heading "Mitigated Mining Cuts Plan", begin with Cut 1 and proceed through Cut 4 as described for the RNFSA Project in the AEIDEIR. The Mitigated Mining Cuts mitigation is a modified approach to mining that would provide more visual mitigation, and would be modified slightly from the approach presented for the RNFSA Project.

Upon completion of mining production (56.1 million tons) at the end of the Federal Contracts term, and with implementation of the Mitigated Mining Cuts, the resultant modification to the landform would result in lowering the peak ridge elevation from approximately 800 to about 750 feet (for example elevation 2,675 would be lowered to 2,625) above Bee Canyon. TMC would revegetate disturbed ground surfaces, returning the site to an open space condition. Reclamation of the site for TMC's mining impacts has already been guaranteed by TMC through posting a bond with the BLM and state and County governments (see Section 2.2.4 of the AEIDEIR).

The principal material to be mined will be the Vasquez Conglomerate, which can be divided into the "lower unit" Tv1 and the "middle unit" Tv2. Figure 2.1-5 of the AEIDEIR shows a cross section of

the site and the principal material to be mined. A higher proportion of good-quality sand and gravel is located in the geologic unit identified as Tv1, which is overlain by unit Tv2. It is estimated that 70 percent (or more) of the Tv1 material and (at least) 45 percent of the Tv2 material can be sold as product. Therefore, to produce 56.1 million tons of aggregate product, it is estimated that 69.2 million tons of materials would be mined, and up to 0.5 million ton of fines would either be sold or taken offsite to another TMC facility in the early stages of the mining operation. Up to 12.6 million tons of fines would be backfilled into the mined-out areas of the quarry. Based on the amount of fines that may be sold as product and the amount of fines actually encountered during operations, the need for permanent fines storage may need to be increased or decreased.

Mine Preproduction Activities with The Mitigated Mining Cuts

Slope Stability - Existing Site

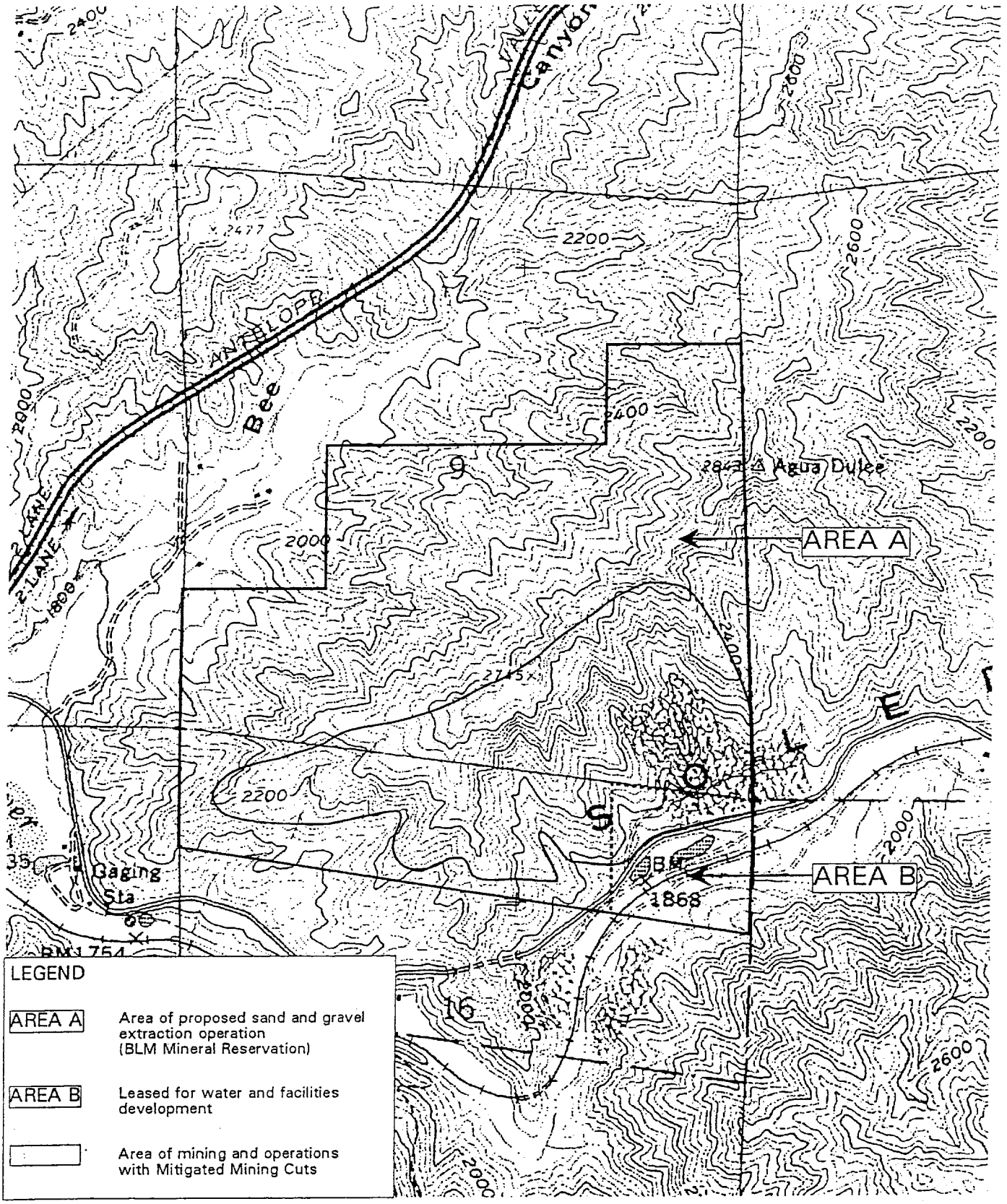
Preproduction operations include stabilizing the steep slopes of the existing quarry at the southeast corner of the site by using fill to buttress the slopes. The area would then be used to stockpile the products of the mining operation. In addition, protective berms would be used where rockfall potential is high such as on the northwest corner of the existing cut slope.

Drainage Concept and Erosion Control

No portion of the operations area is subject to floodplain inundation, and no permanent watercourses are in the area of mining activities; however, steep canyons are located in Area A. The storm runoff watercourses in these canyons on the south side of the ridge would have four dikes constructed to form desilting/debris basins before the water is allowed to leave the property. The basins shown on Figure 2.1-9 of the AEIDEIR on the north side of the ridge would not be constructed with implementation of the Mitigated Mining Cuts, because there would be no filling activity on the north side of the ridge. The basins on the south side would be constructed before subsequent project work or mining commences in the catchment area above each watercourse. Overflow ditches around each dike would be riprapped to minimize erosion. The desilting/debris basins have been designed to perform both during a 50-year storm event and the more frequent storm events to reduce sediment loading in downstream waters. It is
anticipated that the final design of the sediment basins would be reviewed and approved by the County of Los Angeles Department of Public Works (DPW) after Project approval but prior to construction, and would be based on applicable County standards. The Drainage Concept Plan described herein is based on the current DPW hydrology/sedimentation manual. A Storm Water Pollution Prevention Plan (SWPPP) has been prepared for the Project that describes the stormwater management practices for all phases of operation (West Coast Environmental 1997a; DEIR, Appendix B1).

Prestripping

Observations of Area A show that little to no topsoil is present in the areas that would be disturbed during the mining excavation operations. However, where practical, topsoil would be salvaged and stored onsite. Clearing vegetation would occur as necessary as mining proceeds; therefore, the potential for erosion would be minimized. As mining and/or backfilling of fines storage proceeds, areas would be seeded with a plant mix designed to reduce erosion (see Section 2.2.1, Reclamation Plan of the AEIDEIR).



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Feet (Approximate)
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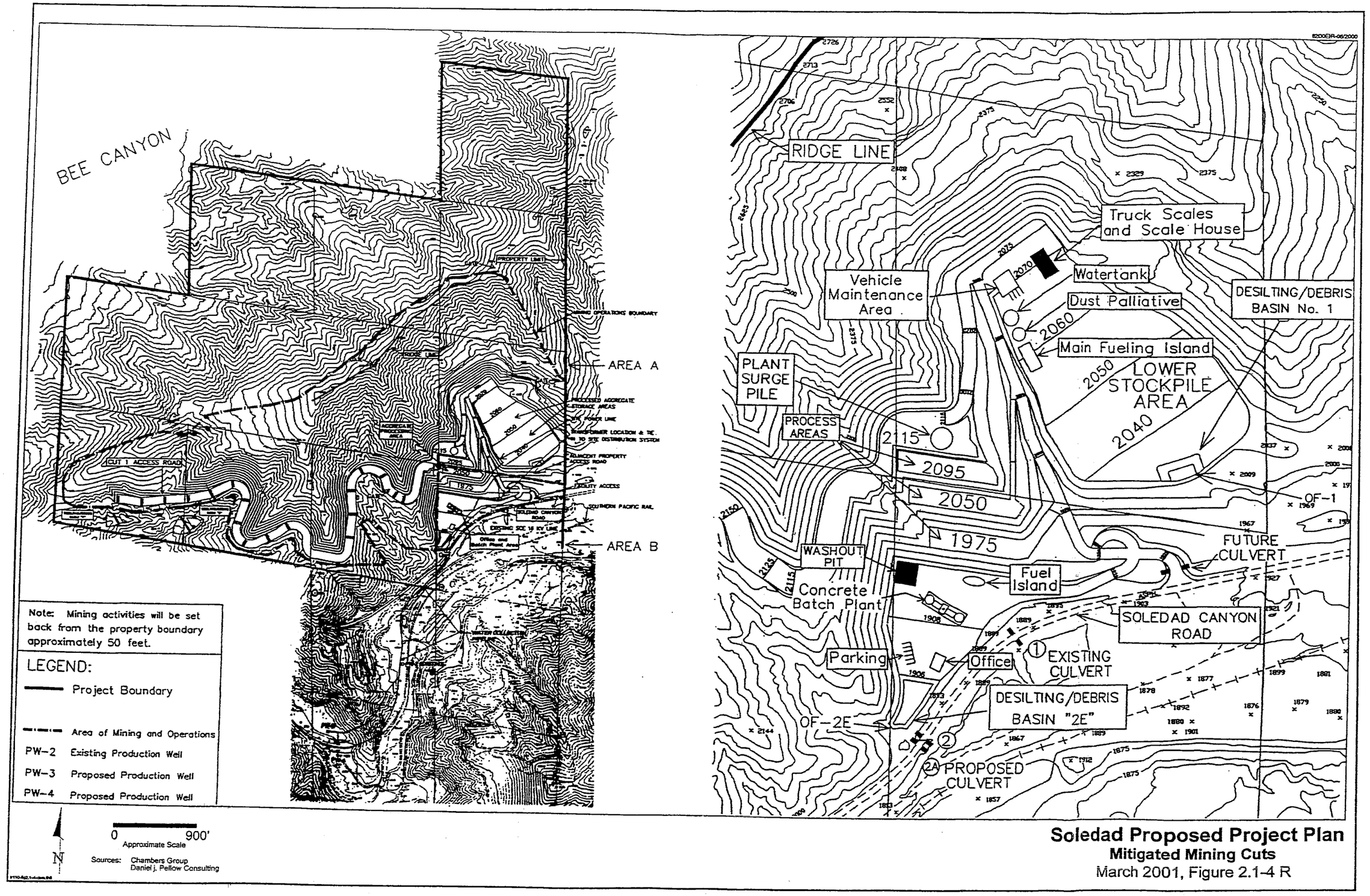
SOURCE: USGS 1:24,000 series
Agua Dulce, CA

SITE MAP SHOWING PROJECT BOUNDARY AND SUBAREAS
Figure 2.1-3.5 R

(REVISED FOR RNFSA WITH MITIGATED MINING CUTS)

AERIAL PHOTO OF THE PROJECT SITE SHOWING BOUNDARIES AND SUBAREAS
Figure 2.1-3 R

(REVISED FOR RNFSA WITH MITIGATED MINING CUTS)



Soledad Proposed Project Plan
Mitigated Mining Cuts
March 2001, Figure 2.1-4 R

Conveyor Way and Haul Road Construction

After the necessary desilting/debris basins and ditches have been constructed for erosion control, mine preproduction work would continue with the construction of roads for the mobile mine equipment and a right-of-way for the product conveyor system. The preproduction construction work is shown on Figure 2.1-6R.

The required product conveyors and mobile crushing plant would begin operation in Cut 1 at elevation 2,000 feet near the west end of the mining area. During preproduction work, a temporary 90-foot-wide haul road would be constructed between this area and the plant production site. The road would have a maximum grade of 10 percent (ascending to the 2,250-foot elevation) and is sized to accommodate a 15-foot-wide berm and a running surface equal to 3.5 times the width of an 85-ton haulage truck and a conveyor system. The road would be used throughout the life of Cut 1 and would be available if necessary during the Cut 2 mining period.

Facilities Construction

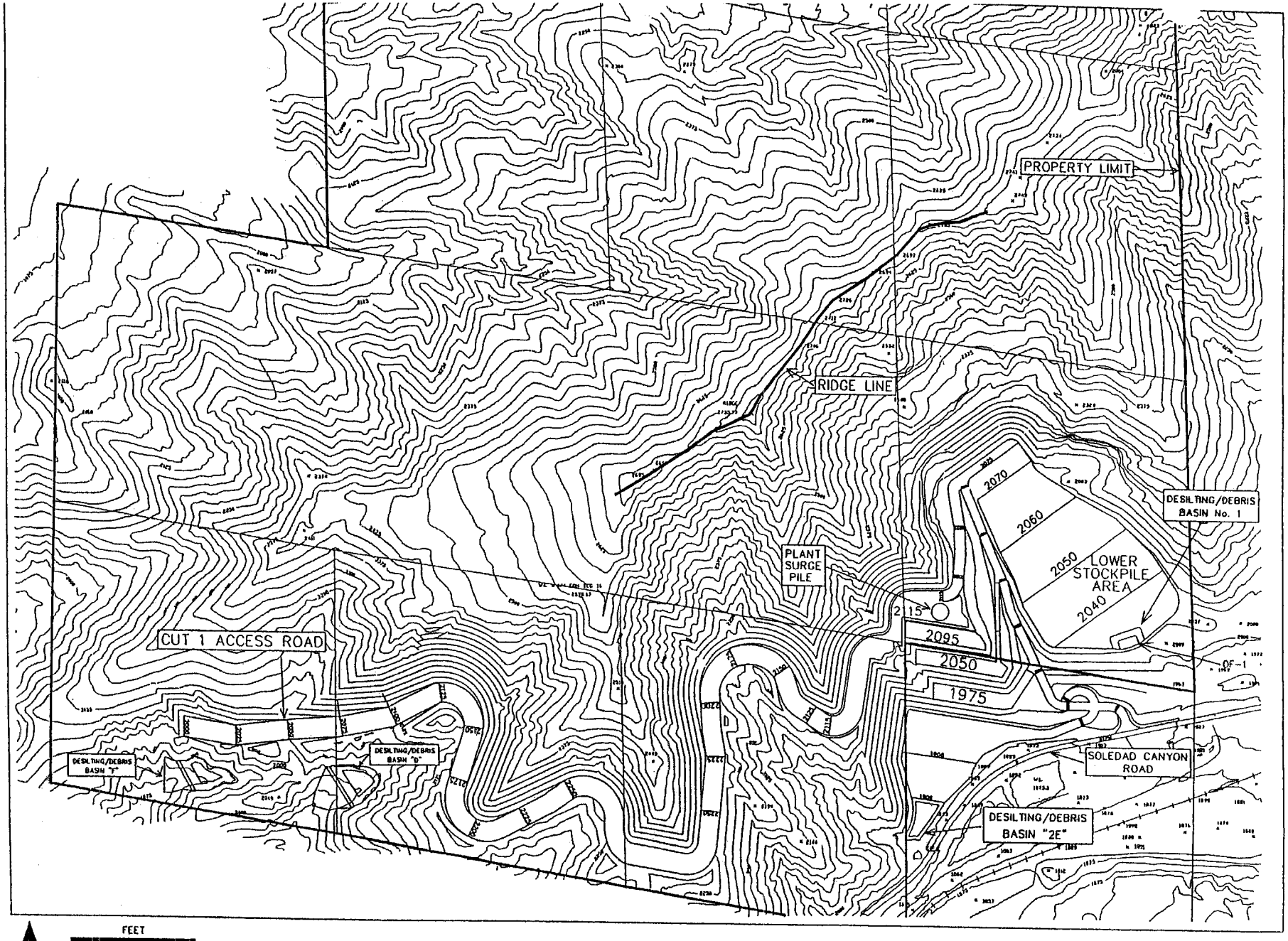
Facilities are proposed to be located in Areas A and B north of Soledad Canyon Road. The facilities include the following:

- aggregate processing plant,
- concrete batch plant,
- fuel island,
- truck washout,
- truck scale and scale house,
- service and maintenance building,
- stockpile areas,
- water tanks,
- dust palliative storage tank,
- office, and
- facility parking area.

Construction of the facilities would proceed after appropriate site grading and access road construction are completed in accordance with standard construction practices and zoning and grading ordinances of the County.

A significant amount of grading would be required to prepare the site for the permanent aggregate processing facilities, the processed aggregate material stockpiling and shipping area, and the ready-mixed concrete manufacturing facilities (concrete batch plant). Initially, a temporary aggregate processing plant would be used to process material as the relatively flat area of the site is leveled and widened. Leveling and widening the relatively flat area of the site are necessary to provide adequate area for processed aggregate stockpiles. Stockpile areas are necessary for consistent shipping operations and typically take up the largest amount of area within aggregate production and shipping operational areas.

Initially, ready-mixed concrete may be produced at the site for shipment to local markets using a temporary portable plant. The portable plant may operate until facilities grading and construction are completed. The components of the portable plant are arranged on skids and would be brought to the site by truck for assembly. Upon completion of permanent batch plant facilities, the portable unit would be disassembled and removed from the site by truck.



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Source: Daniel J. Pellow Consulting, March 2001

PREPRODUCTION
RNFSA PROJECT WITH MITIGATED MINING CUTS
Figure 2.1-6R

Construction of the fuel island would include two 6,000- to 10,000-gallon aboveground diesel storage tanks, as well as a propane storage tank. Additional tanks include a 1,000-gallon waste oil tank, three 250- to 1,000-gallon fresh motor oil tanks, and a 1,000-gallon hydraulic fluid tank. The construction and installation of these tanks are designed to meet the requirements of the South Coast Air Quality Management District (SCAQMD) standards and the County fire codes. Two 600,000-gallon water storage tanks are proposed for the facilities area. All tanks are addressed in the Spill Prevention, Control, and Countermeasures Plan (SPCCP) (West Coast Environmental 1997b; DEIR Appendix B2). A chemical storage tank to hold dust palliatives would be located onsite. All oil wastes collected onsite would be disposed of at a certified oil recycling center offsite.

Mitigated Mining Cuts Plan

The Mitigated Mining Cuts mitigation includes excavation of the deposit in four successive cuts to produce 56.1 million tons of aggregate product. The total mine production tonnage, including estimated quantity of fines and product, is provided in Table 2.1-2R. The mining operation would be designed to minimize onsite production transportation distances and provide adequate storage of natural fines.

The Mitigated Mining Cuts' first cut would start from a point near the west property line in the Cut 1 area. Cut 1 would be mined from west to east for a distance of approximately 2,500 feet. Cut 1 would be mined to the 1,925-foot elevation as shown in Figure 2.1-7R. The excess fines screened out at the crusher feed would be filled into the western end of the cut, and reclamation of the area would proceed from west to east as the area is filled. Fines would continue to be stored in the Cut 1 area until it reaches capacity.

The plus 1/4-inch aggregate material would be crushed to minus 6 inches and transferred to a horizontal movable conveyor. Then this material would be transferred to the semipermanent, sloped conveyor leading to the plant stockpile. The fines screened at the crusher feed would be temporarily stacked on the operating bench and then loaded into 100-ton haul trucks, or conveyors, and moved to the western end of Cut 1. The storage area would be constructed from the bottom up in 4- to 5-foot lifts. Each successive lift would be set back 8 to 10 feet to produce the overall slope of 2 horizontal feet for every 1-foot rise in elevation.

The second mining cut (Cut 2) would start at approximately the 2,350-foot elevation three-quarters of the way up the south side of the ridge and proceed downslope in 25- to 35-foot benches. Figure 2.1-8R shows the configuration of the maximum extent of Cuts 2 and 3.

The third cut (Cut 3) would start at the 2,600-foot elevation near the top of the south side of the ridge and continue to the east end of the property. A portion of Cut 3 would be excavated to the 1,925 elevation. This elevation has been chosen because drainage from this elevation would still be able to flow to Desilting/Debris Basin "2E" at elevation 1900. Throughout the excavation area, if the material meets the quality requirements for Portland Cement Concrete (PCC) aggregate, mining may continue until the excavation is restricted by the south property limit or the Soledad Canyon Fault.

The eastern portion of Cut 1 would be mined concurrently with Cut 3. Fines from Cut 2 and Cut 3 would be sent to the Cut 1 area until it reaches capacity.

Cut 4 is an extension of the quarry to the north, which now includes mining out the access roads that were previously shown in Figure 2.1-11 of the AEIDEIR. Cut 4 is the last cut required to obtain the contracted 56.1 million tons of aggregate product. This cut extends to the north to the top of the ridge.

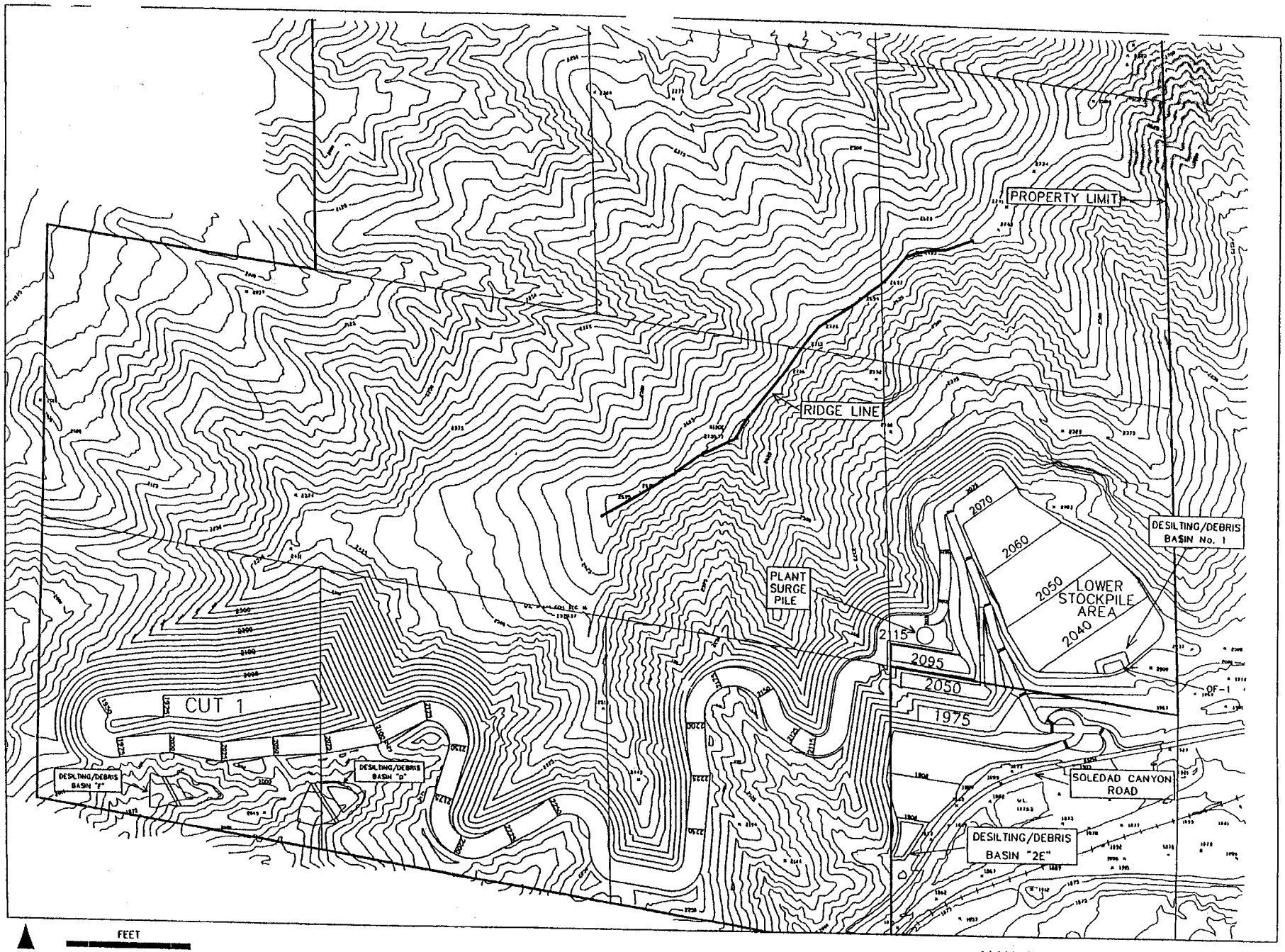
Table 2.1-2R
PROPOSED MINE SCHEDULE
(tons X 1,000) [1]

Phase	Year	Feed	Fines	Cumulative Fines [3]	Product	Cumulative Product [3]
1	1	370	70	70	300	300
1	2	617	117	187	500	800
1	3	987	187	375	800	1600
1	4	1234	234	609	1000	2600
1	5	1543	293	902	1250	3850
1	6	2160	410	1312	1750	5600
1	7	2407	457	1769	1950	7550
1	8	2654	504	2273	2150	9700
1	9	2654	504	2776	2150	11850
1	10	2654	504	3280	2150	14000
2	11	5184	984	4264	4200	18200
2	12	5184	984	5248	4200	22400
2	13	5184	984	6232	4200	26600
2	14	5184	984	7216	4200	30800
2	15	5184	984	8200	4200	35000
2	16	5184	984	9184	4200	39200
2	17	5184	984	10168	4200	43400
2	18	5184	984	11152	4200	47600
2	19	5184	984	12136	4200	51800
2	20	5184	984	13120	4200	56000
Totals			**13,120**		**56,000**	
Operating Days/Year [2]			Phase 1		270	
			Phase 2		290	
Plant Operating Hours/Day [2]			Phase 1		14	
			Phase 2		16	
Plant tons/hour [2]			Phase 1		575	
			Phase 2		905	
Mine tons/hour [2]			Phase 1		821	
			Phase 2		1241	

[1] Anticipated mining and production volumes are estimates only and could change on an annual basis because of market conditions and other factors.

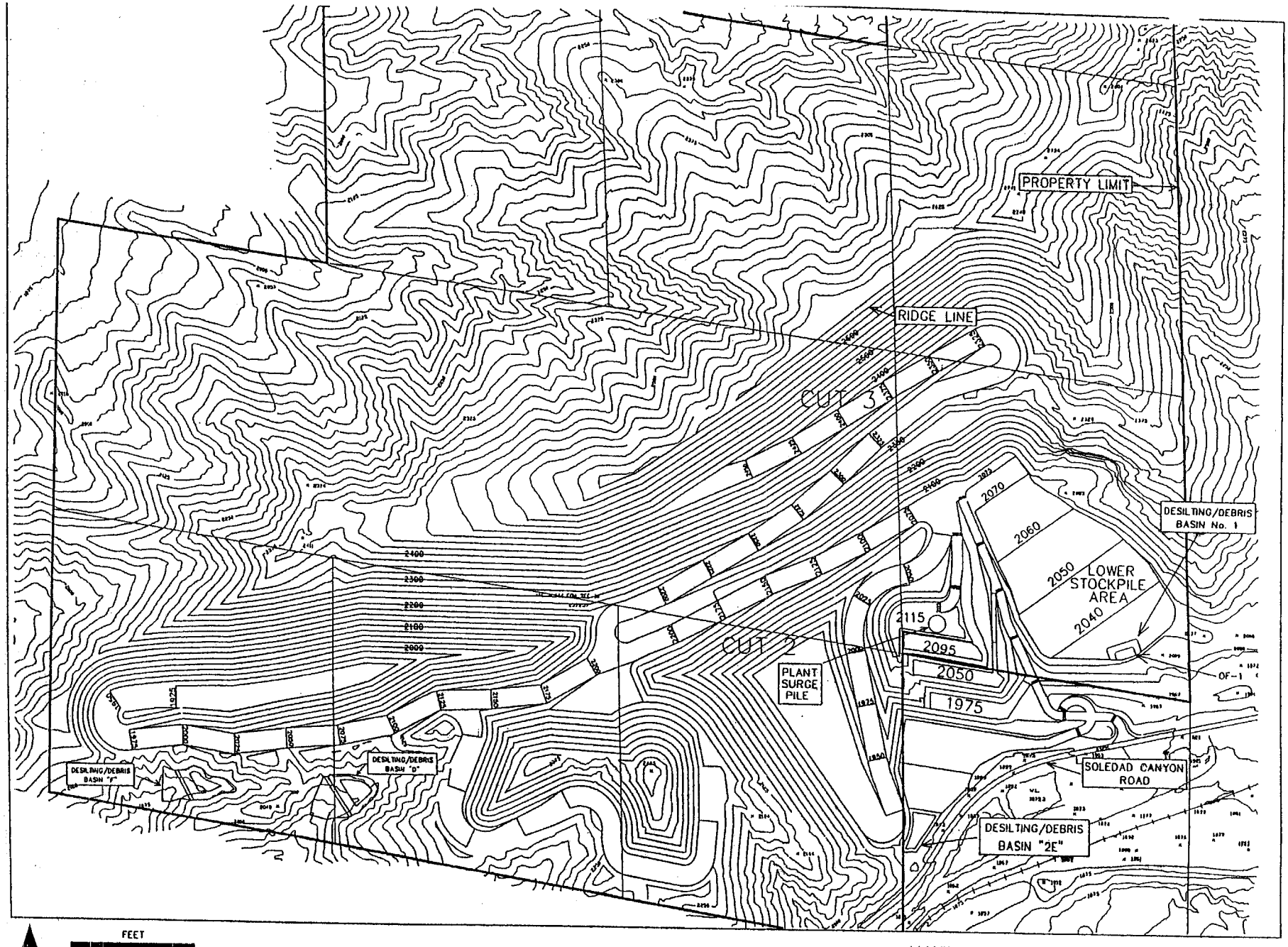
[2] These figures have not been updated for the Mitigated Mining Cuts because they still represent reasonable daily or annual operating parameters.

[3] These columns are not sum totals; they are cumulative totals.



Source: Daniel J. Pellow Consulting, March 2001

MAXIMUM EXTENT OF MINING CUT 1
RNFSA PROJECT WITH MITIGATED MINING CUTS
Figure 2.1–7R



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Source: Daniel J. Pellow Consulting, March 2001

MAXIMUM EXTENT OF MINING CUTS 2 AND 3
RNFSA PROJECT WITH MITIGATED MINING CUTS
Figure 2.1–8R

Figure 2.1-9R shows the maximum extent of mining at the completion of Cut 4. The upper elevations of Cut 4 consist of material that may not be of the quality required for aggregate; therefore, the unmarketable material would be removed and backfilled into the lower elevations of the mining cut areas. The mobile crusher would begin operation at the 2,650-foot elevation, and a conveying system would transport the crushed product down to the plant stockpile.

Cross section C-C' on Figure 2.1-9R and the corresponding Figure 2.1-10R, show the maximum extent of mining with the Mitigated Mining Cuts mitigation. Cross section D-D' shows a profile of the mining fill through the main mine area. Figure 2.1-11R shows the reclaimed contours at the end of mining and backfilling. It is the position of TMC and BLM (as manager of the mineral rights) that the site would be reclaimed to create an open space environment. The debris basins are not permanent structures and would be removed after reclamation.

Mine Production Phasing and Schedule

As shown in Table 2.1-2R, the proposed mining schedule is divided into two phases in accordance with TMC's Federal Contracts with the BLM. Phase 1 would last 10 years with a gross mine production rate averaging about 1.4 million tons of product per year but ranging up to 2.15 million tons per year. Phase 2 would begin near the 11th year, and mining would proceed at a rate resulting in approximately 4.2 million tons of product per year. The mine is scheduled to continue at this rate for 10 years. It should be noted that the anticipated mining and production volumes are estimates only and could change on an annual basis because of market conditions or other factors.

Impact Analysis of Mitigated Mining Cuts

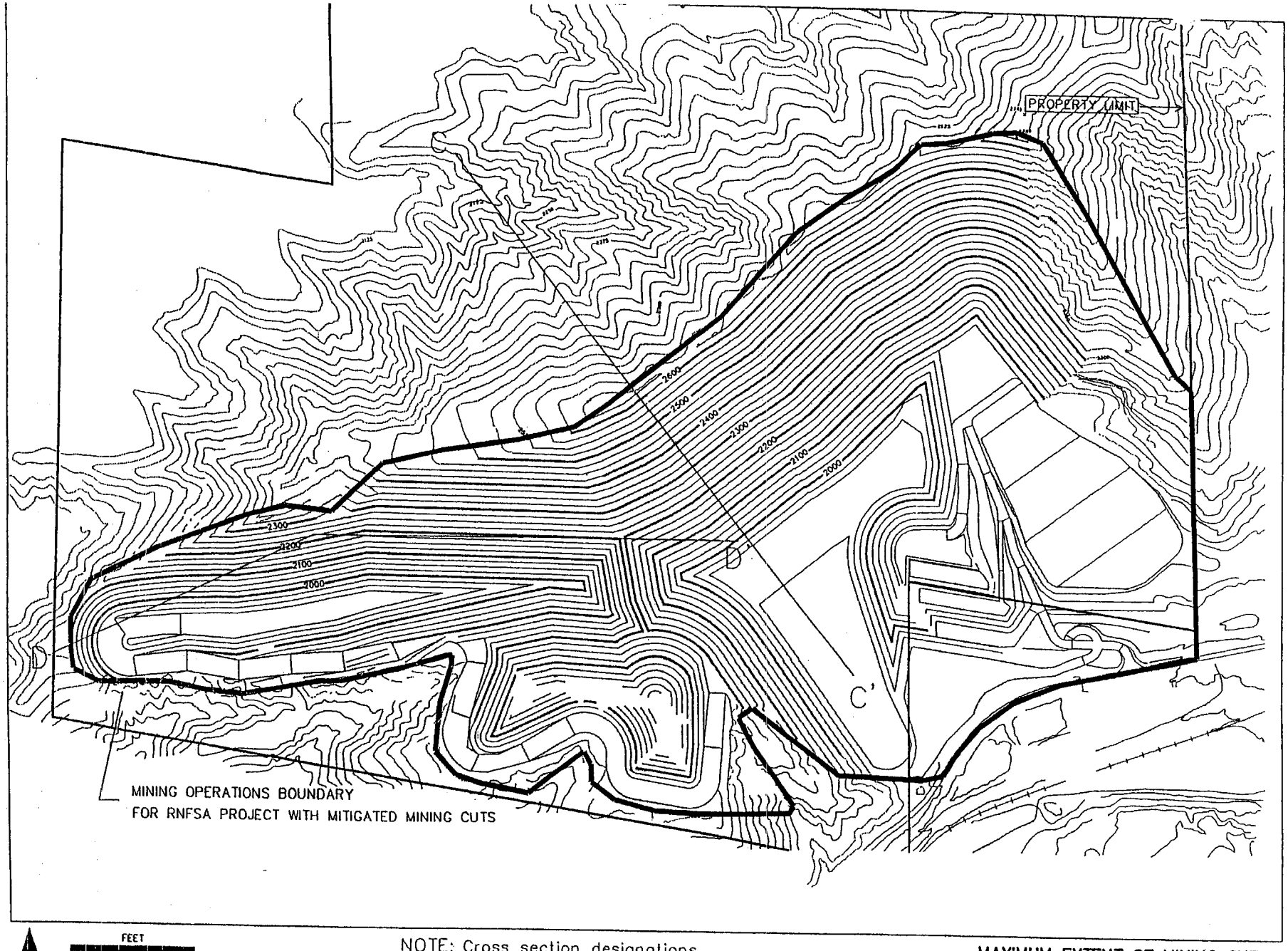
This section analyzes the effects of implementation of the Mitigated Mining Cuts mitigation into the RNFSA Project. This analysis is based on a comparison of the new mitigation to the RNFSA Project as described in the AEIDEIR. The primary differences resulting from implementation of the Mitigated Mining Cuts would be:

- Elimination of the NFSA. This would result in no Project activities on the north side of the Project site, except at the top of the ridge.
- Reduction in the overall quantity of material to be mined such that a total of 69.2 million tons of material would be mined (reduced from 77.7) to produce 56.1 million tons of product over the 20 year life of the Project.

Geotechnical

Implementation of the Mitigated Mining Cuts mitigation would result in the following:

- Elimination of the NFSA would result in elimination of potential Project impacts on the north side of the ridge. Mitigation G1 (addressing slope stability of the NFSA) would not need to be implemented.
- The desilting/debris basins that would have been constructed below the NFSA to control storm water run off from the north side of the ridge would not be constructed. The Project would need four desilting/debris basins, rather than seven (see further discussion under Flood below).
- Storm water run off, and natural erosion patterns, north of the ridge would not be impacted, and would follow existing natural drainage pathways.



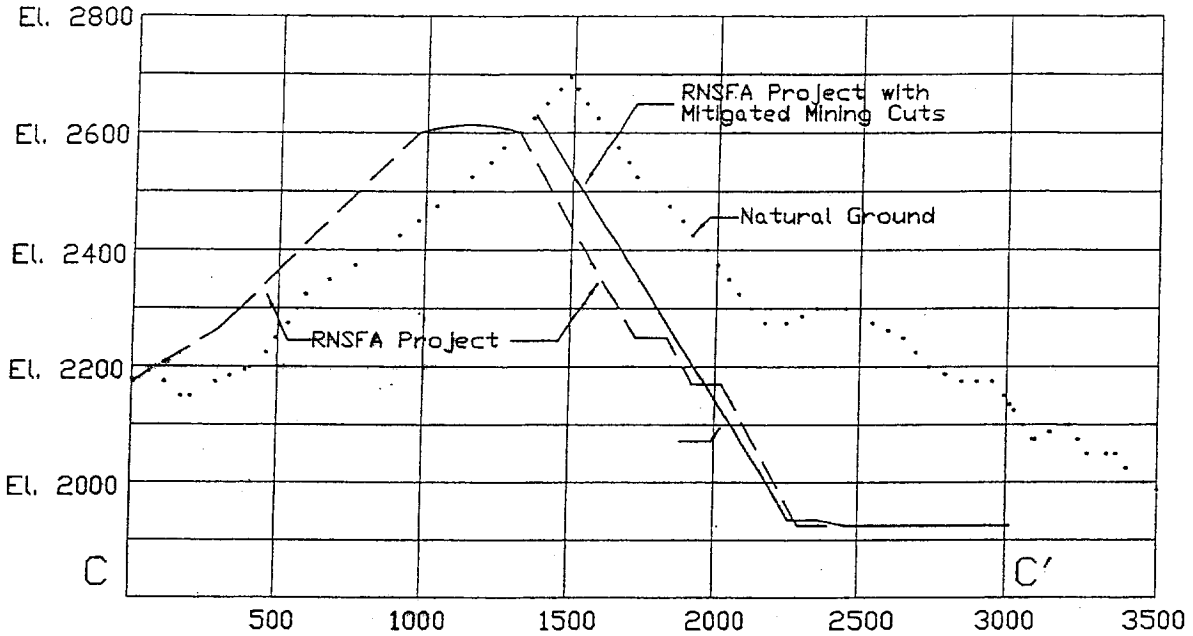
N

FEET
0 600

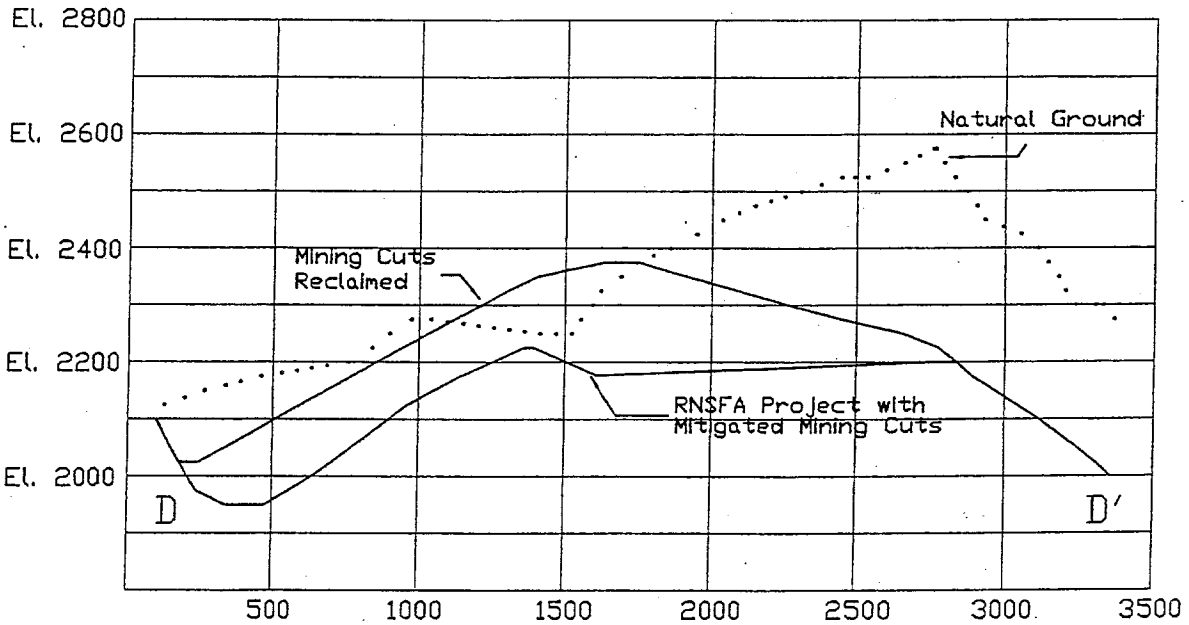
Source: DANIEL J. PELLOW CONSULTING, MARCH 2001

NOTE: Cross section designations pertain to figure 2.1-10R

MAXIMUM EXTENT OF MINING CUT 4
RNFSA PROJECT WITH MITIGATED MINING CUTS
FIGURE 2.1-9R



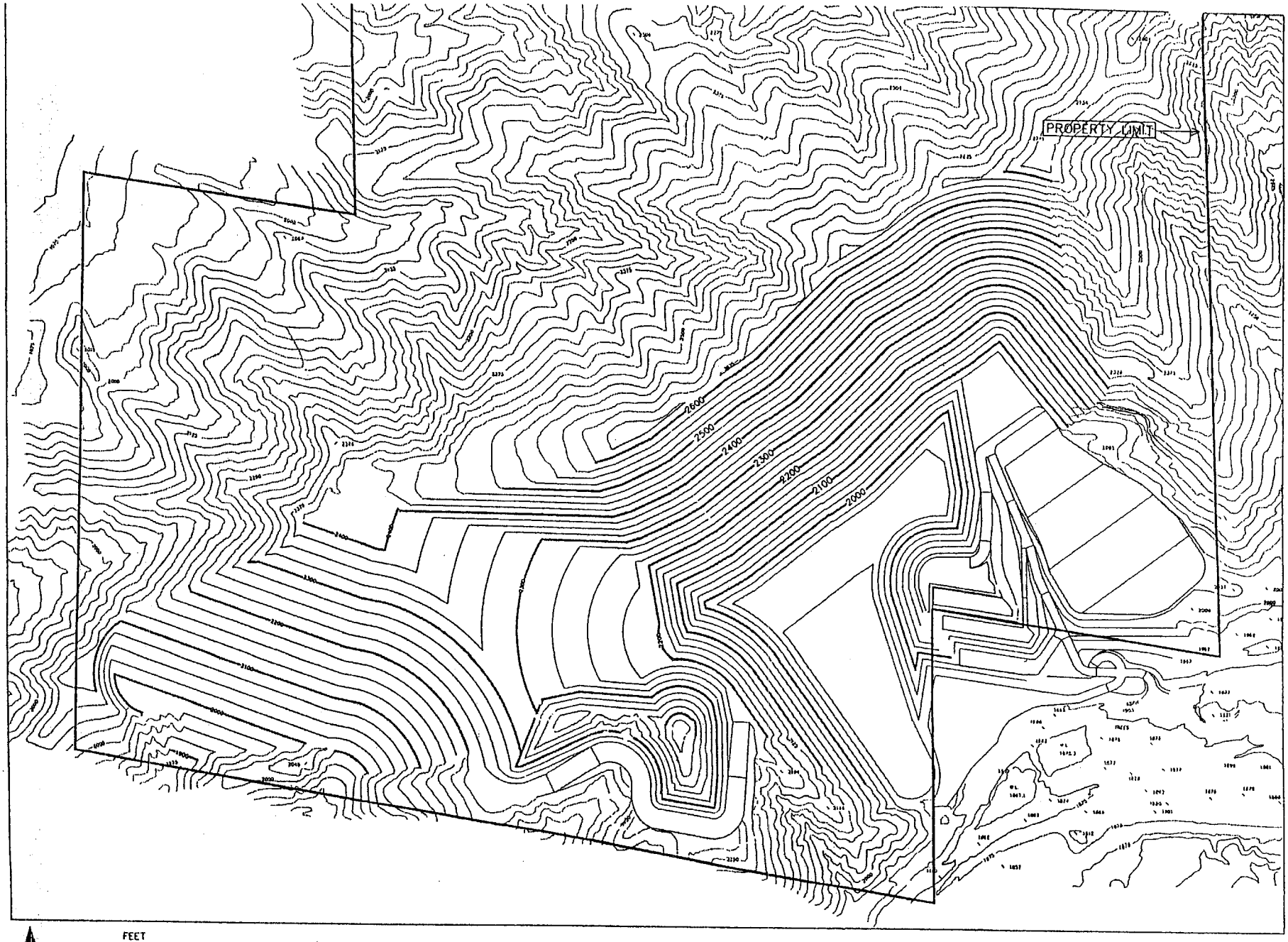
CROSS-SECTION C-C′



CROSS-SECTION D-D′

Source: DANIEL J. PELLOW CONSULTING
March 2001

CROSS SECTIONS
RNFSA PROJECT WITH MITIGATED MINING CUTS
Figure 2.1-10R



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Source: Daniel J. Pellow Consulting, March 2001

RECLAIMED CONTOURS AT END OF MINING
RNFSA PROJECT WITH MITIGATED MINING CUTS
Figure 2.1–11R

- Modifications to the mining cuts on the south side of the ridge would not have an impact on slope stability. A supporting geotechnical report is contained in Appendix L.

The potential for geotechnical impacts would be reduced with the Mitigated Mining Cuts mitigation and would remain less than significant.

Water Resources

Implementation of the Mitigated Mining Cuts mitigation would result in the following:

- The quantity of excess fines produced would be reduced as shown in Table 2.1-2R. The total quantity of fines to be stored on site would be reduced, which would result in a corresponding reduction in the quantity of water resources being used for compaction of fines.

- Elimination of the NFSA would reduce the length of the fines storage conveyor by roughly 50 percent in Phase 2, and therefore, would reduce the water resource requirements for spray control for the conveyor by approximately 50 percent.

- Elimination of the NFSA would reduce the length of the onsite haul road by roughly 50 percent in Phase 2 of the Project. Accordingly, water used for dust suppression on that road would also be reduced by approximately 50 percent.

- The acreage of active area on the south side of the ridge for mining and fines storage would remain approximately the same. Therefore water resource usage for dust control in these areas would not change.

- Water usage for aggregate, and ready-mixed concrete processing, would remain the same.

Overall water usage would slightly decrease with implementation of the Mitigated Mining Cuts mitigation, thereby reducing the potential for water resource impacts, that would remain less than significant.

Flood

Implementation of the Mitigated Mining Cuts mitigation would result in the following:

- Elimination of the NFSA by the Mitigated Mining Cuts mitigation would result in no Project impacts to the naturally occurring flood water drainage patterns that are present on the north side of the ridge. Therefore, desilting/debris Basins A, B and C on the north side of the ridge would no longer be required. Stormwater sampling would also no longer be required on the north side of the ridge. Outfalls A, B and C would be removed from the Stormwater Pollution Prevention Program.

- Drainage patterns on the south side of the ridge would remain the same. (See letter addressing revisions to the Drainage Concept Plan, dated March 23, 2001 in Appendix L).

The potential for flood impacts would be reduced with the Mitigated Mining Cuts mitigation, and would remain less than significant.

Water Quality

Implementation of the Mitigated Mining Cuts mitigation would result in the following:

- Elimination of the NFSA by the Mitigated Mining Cuts mitigation would eliminate stormwater runoff from disturbed surface areas on the north side of the ridge. This would eliminate potential water quality impacts from activities on the north side of the ridge.

- The total area disturbed by the Project would be reduced by 24 percent resulting in reduced stormwater runoff from disturbed surface areas.

The potential impacts to water quality would be reduced with the Mitigated Mining Cuts mitigation, and would remain less than significant.

Noise and Vibration

Implementation of the Mitigated Mining Cuts mitigation would result in the following:

- Elimination of the NFSA by the Mitigated Mining Cuts mitigation would mean that no noise would be generated on the north slope from sources that were formerly located north of the ridge. With this mitigation, noise from the sources within the active mining area located on the south side of the ridge essentially remain as presented for the RNFSA Project. Other mitigation measures for noise remain as presented in the AEIDEIR.

The potential for noise impacts would be slightly less with the Mitigated Mining Cuts mitigation, and would remain less than significant.

Public Services

Implementation of the Mitigated Mining Cuts mitigation would result in no changes to impacts to Public Services, that would remain less than significant.

Air Quality

Implementation of the Mitigated Mining Cuts mitigation would result in several reductions in air quality impacts:

- The amount of material mined would be reduced from 77.7 million tons to 69.2 million tons (11 percent). This would reduce combustion emissions from the pit loader and the onsite 100-ton haul trucks by 11 percent as well. NOx emission reductions associated with this change are estimated to be approximately 19 lb/day in Phase 1, and 37 lb/day in Phase 2. In addition, fugitive dust emissions from material handling by these units would decrease by 11 percent from the AEDEIR values, resulting in PM10 emission reductions of 9.3 lb/day in Phase 1 and 15.5 lb/day in Phase 2.

- The amount of fines to be stored onsite would be reduced by 40 percent (from 21.1 to 12.6 million tons). Combustion and fugitive dust emissions from fines storage area activities would be reduced by a similar amount. Reductions in fugitive dust emissions from fines placement (storage area activities) would be reduced as estimated in Tables 3.1.7-6R and 3.1.7-7R.

Table 3.1.7-6R
PHASE 1 PM-10 DUST EMISSIONS, ANTICIPATED CONTROL EFFICIENCY, AND RESIDUAL LEVELS

Emission Source	PM-10 Particulates Generated per Day (pounds)	Control Efficiency (percent)	Original DEIR Project Residual PM-10 Particulates Generated per Day (pounds)[6]	RFSA Project Residual PM-10 Particulates Generated per Day (pounds)[7]	RFSA Project with Mitigated Mining Cuts Residual PM-10 Particulates Generated per Day (pounds)
Heavy Equipment Pit Operations	84.6	0	84.6	84.6	75.3
Conveyor Losses	2.0	NA[1]	2.0	2.0	2.0
Rock Plant Processing[2]	21.9	NA	62.5	21.9	21.9
Aggregate and Fines Loading	11.0	NA	11.0	11.0	11.0
Concrete Plant Processing (incl. Cement Unloading, Aggregate and Material Movement, and TMC Truck Loading)	6.2	NA	6.2	6.2	6.2
Onsite Truck Movement Over Paved Surfaces	407.9	90	40.8	40.8	40.8
Onsite Truck Movement Over Unpaved Surfaces[3]	33.7	80	3.5	6.7	6.7
Scraper Loading, Hauling and Unloading[4]	—	—	152.3	—	—
Conveyor System to FSA[5]	2.8	NA	—	2.8	1.7
Fines Placement Activity	9.4	50	4.7	4.7	2.9
Wind Erosion of Excavation	43.2	75	10.8	10.8	10.8
Wind Erosion of FSA	12.8	75	3.2	3.2	3.2
Wind Erosion of Stockpiles	11.6	75	2.9	2.9	2.9
Blasting	1.7	0	62.0	1.7	1.7
Totals (No Blasting)	647.1	—	384.5	197.6	185.4
Totals (With Blasting)	648.8	—	446.5	199.3	187.1

1 NA - Not applicable; the control efficiency is already included within this value by Project design as specified in the prior SCAQMD Permit to Construct.
2 Rock Plant Processing emissions revised per AP-42, Section 11.19.2.
3 Emissions increased for process fines hauling with implementation of FSA conveyor mitigation AQ3.
4 Scraper emissions removed with implementation of FSA conveyor mitigation AQ3.
5 Accounts for conveyor system emissions which will occur with implementation of FSA conveyor mitigation AQ3.
6 Original DEIR Project with original mitigations, AQ1 and AQ2.
7 RFSA Project with original and new mitigations, AQ1-AQ5.

Table 3.1.7-7R
PHASE 2 PM-10 DUST EMISSIONS,
ANTICIPATED CONTROL EFFICIENCY, AND RESIDUAL LEVELS

Emission Source	PM-10 Particulates Generated per Day (pounds)	Control Efficiency (percent)	Original DEIR Project Residual PM-10 Particulates Generated per Day (pounds)[6]	RFSA Project Residual PM-10 Particulates Generated per Day (pounds)[7]	RFSA Project with Mitigated Mining Cuts Residual PM-10 Particulates Generated per Day (pounds)
Heavy Equipment Pit Operations	153.9	0	153.9	141.1	125.6
Conveyor Losses	3.0	NA[1]	3.0	3.0	3.0
Rock Plant Processing[2]	40.4	NA	114.1	40.4	40.4
Aggregate and Fines Loading	20.0	NA	20.0	20.0	20.0
Concrete Plant Processing (incl. Cement Unloading, Aggregate and Materials Movement, and TMC Truck Loading)	6.2	NA	6.2	6.2	6.2
Onsite Truck Movement Over Paved Surfaces	703.1	90	70.3	70.3	70.3
Onsite Truck Movement Over Unpaved Surfaces[3]	62.6	80	6.6	12.5	12.5
Scraper Loading, Hauling and Unloading[4]	---	---	211.2	---	---
Conveyor System to FSA[5]	5.1	NA	---	5.1	3.1
Fines Placement Activity	15.0	50	7.5	4.0	2.4
Wind Erosion of Excavation	43.2	75	10.8	10.8	10.8
Wind Erosion of FSA	12.8	75	3.2	2.3	2.3
Wind Erosion of Stockpiles	11.6	75	2.9	2.9	2.9
Blasting	1.7	0	62.0	1.7	1.7
Totals (No Blasting)	1,076.9	---	609.7	318.1	299.5
Totals (With Blasting)	1,078.6	---	671.7	319.8	301.2

1 NA - Not applicable; the control efficiency is already included within this value by Project design as specified in the prior SCAQMD Permit to Construct.
2 Rock Plant Processing emissions revised per AP-42, Section 11.19.2.
3 Emissions increased for process fines hauling with implementation of FSA conveyor mitigation AQ3.
4 Scraper emissions removed with implementation of FSA conveyor mitigation AQ3.
5 Accounts for conveyor system emissions which will occur with implementation of FSA conveyor mitigation AQ3.
6 Original DEIR Project with original mitigations, AQ1 and AQ2.
7 RFSA Project with original and new mitigations, AQ1-AQ5.

- The fines material to be transported by conveyor would be reduced by 40 percent resulting in a corresponding decrease in fugitive dust emissions from conveyor operations. PM10 emissions from fines conveyor operations would be reduced as estimated in Tables 3.1.7-6R and 3.1.7-7R.

Overall, fugitive dust emissions and combustion emissions would be slightly reduced with implementation of the Mitigated Mining Cuts mitigation. Despite these reductions, residual impacts to air quality remain significant.

Biota

Implementation of the Mitigated Mining Cuts mitigation would result in the following:

- Implementation of the Mitigated Mining Cuts mitigation would reduce the total affected acreage to be disturbed. Potential for any adverse impacts to biota in Area A of the Project is reduced. No changes within Area B would result. For each of the Project site's vegetation communities, the reduction in acreage with the Mitigated Mining Cut mitigation is shown below.

- With implementation of the Mitigated Mining Cuts mitigation, the requirements for reclamation in the NFSA, as presented in Section 2.2.1.3 and in part in Section 2.2.2.3 of the AEIDEIR, would no longer apply. Mitigation Measure B7 (avoidance of the western- and eastern-most ephemeral drainages) in the NFSA would no longer be required under the Mitigated Mining Cuts mitigation.

Table 3.1.8-2R
VEGETATION COMMUNITIES AFFECTED BY THE RNFSA PROJECT WITH MITIGATED MINING CUTS MITIGATION

Project Areas	Coastal Sage Scrub	Coastal Sage Scrub/Semidesert Chaparral	Coastal Sage Scrub/Mixed Chaparral	Mixed Chaparral	Total
Original DEIR project	4	128	20	35	187
RNFSA Project	3	114	13	25	155*
RNFSA Project with MMC	1	103	5	10	119*
* Includes 8 acres of disturbed area from previous mining operations.					

- Potential impacts on the onsite sensitive plant species (Pierson's morning glory, slender mariposa lilly, Plummer's mariposa lilly, and club-haired mariposa lilly) were previously identified on the northwestern region of the Project site (DEIR Section 3.1.8.3). Individuals of these species on the north side of the Project would not be impacted, but there is potential that they could occur on the southwest edge of the site near the ridge. The difference is that the plants near the debris Basins B and C would not be impacted with the incorporation of the Mitigated Mining Cuts mitigation. Mitigation Measure B2 to protect these plants still applies, but would be modified to take out the reference to the debris basins on the north side of the ridge.

- The potential for adjacent offsite impacts to the federally listed endangered slender-horned spineflower in Bee Canyon were discussed in the DEIR and AEIDEIR (Sections 3.1.8). The

spineflower is over ½ mile northwest from the edge of the NFSA. The documents concluded that this population would not be significantly affected by mining activities. With the elimination of the NFSA, there would be even less potential for any adverse effects.

- With the Mitigated Mining Cuts mitigation, portions of the Project's Reclamation Plan (included as Section 2.2 of the AEIDEIR) that pertain to reclamation of the NFSA would not apply. These include AEIDEIR Sections 2.2.1.3 (Reclamation of North Fines Storage Area) and Table 2.2-3 (Seed Mix for North Fines Storage Area Reclamation).

All other biological analyses, potential impacts and mitigations still would apply. In addition, in response to comments contained in the FEIR, new mitigation measures have been included to protect against impacts to nesting birds, to conduct protocol surveys for California gnatcatcher, and any listed sensitive species surveys prior to each new phase of vegetation removal. Also, riparian habitat baseline surveys and wildlife protocol baseline surveys in the riparian corridor would occur prior to water extraction.

Overall, the potential for impacts to biological resources would be reduced with implementation of the Mitigated Mining Cuts mitigation, and would remain less than significant.

Cultural and Paleontological Resources

Implementation of the Mitigated Mining Cuts mitigation would result in the following:

- The DEIR discusses historic archaeological site LAN-1847H. That archaeological site lies within a portion of the north slope of the site where no ground disturbance was planned either by the Original DEIR Project, or by the RNFSA Project. With the Mitigated Mining Cuts mitigation, there would be even less potential for disturbance as activity on the north slope would be substantially reduced and limited to the ridge. Still, since the archaeological site is within the Project boundary, mitigation measures CR1 and CR2 would still apply. Those mitigation measures address avoidance and measures to be applied in case avoidance is not possible.

The cultural resources otherwise remain as presented for the RNFSA Project. In addition, mitigation (Mitigation measure CR3) has been added to provide for a walkover survey prior to grading of each new area of mining, and to halt construction and consult with the agencies regarding appropriate steps if suspected cultural resources are encountered.

The potential for impacts to cultural and paleontological resources would be reduced with implementation of the Mitigated Mining Cuts mitigation, and would remain less than significant.

Visual Quality

Implementation of the Mitigated Mining Cuts mitigation would result in the following:

- The Mitigated Mining Cuts mitigation would eliminate the NFSA thus substantially reducing the visual impacts to viewers of the north slope of the Project site, including viewers from the Antelope Valley Freeway. The views from the west and south (for travelers eastbound along the Antelope Valley Freeway and Soledad Canyon Road and from locations along Soledad Canyon Road in both directions would remain as described for the Project (see DEIR Section 3.1.10) except for the final slope cuts. Rather than leave in-place the on-site access roads that were to be left at

the end of mining (as shown on Figure 2.1-11 of the AEIDEIR), these roads would be mined out instead. The final result would leave a smooth overall serrated slope on the south side of the ridge as shown in Figures 2.3.13-4, and 2.3.13-5. As shown in Figures 2.3.13-1, 2.3.13-2 and 2.3.13-3 (Profile View V'-V) this Mitigated Mining Cuts mitigation would reduce the ridgeline by an average of approximately 45 feet as compared to the RNFSA Project without this mitigation, which would reduce the ridgeline by an average of approximately 80 feet.

Overall, implementation of the Mitigated Mining Cuts mitigation would result in a substantial reduction in overall visual impacts. Nonetheless, the impact would remain significant.

Traffic

Implementation of the Mitigated Mining Cuts mitigation would result in no changes to traffic impacts. Project traffic remains as presented for the RNFSA Project and would be less than significant.

Land Use

Implementation of the Mitigated Mining Cuts mitigation would result in the following:

- No changes to land use impacts. One potential benefit of the Mitigated Mining Cuts mitigation is that if development occurs in Bee Canyon, the elimination of the NFSA would provide for substantial separation between a project located there, and the RNFSA Project operations.

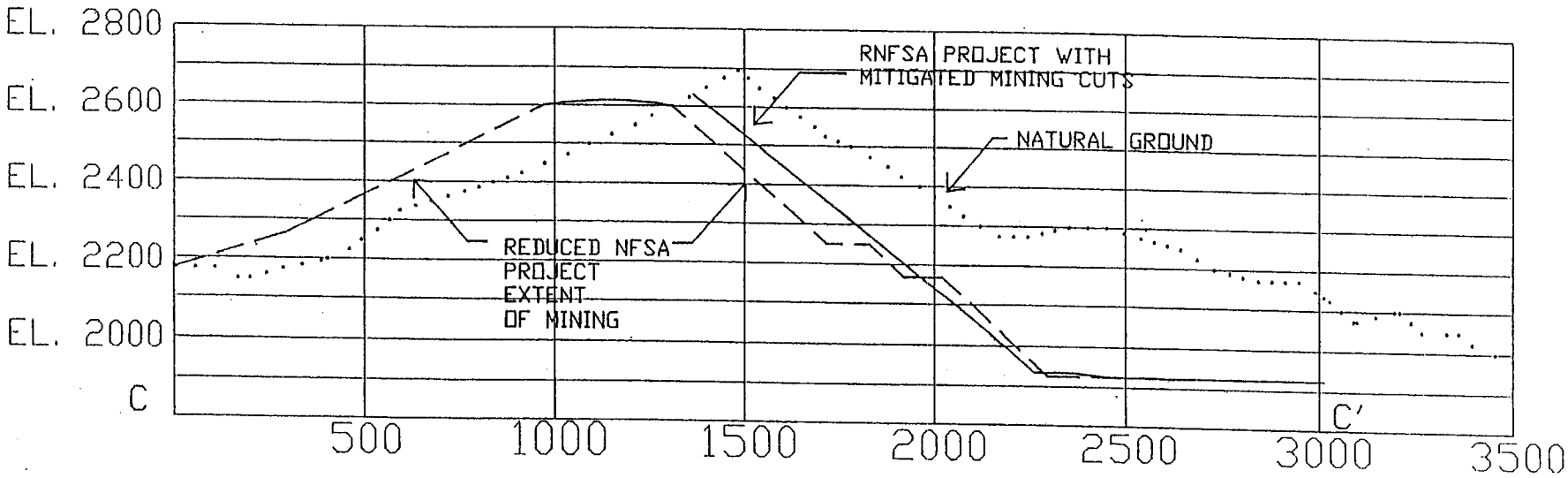
The potential for land use impacts would remain as presented for the RNFSA Project and would be less than significant.

Public Health and Safety

Implementation of the Mitigated Mining Cuts mitigation would result in the following:

- The surface area to be disturbed by the Project would be reduced by 24 percent. This would result in the disturbance of less top soil.

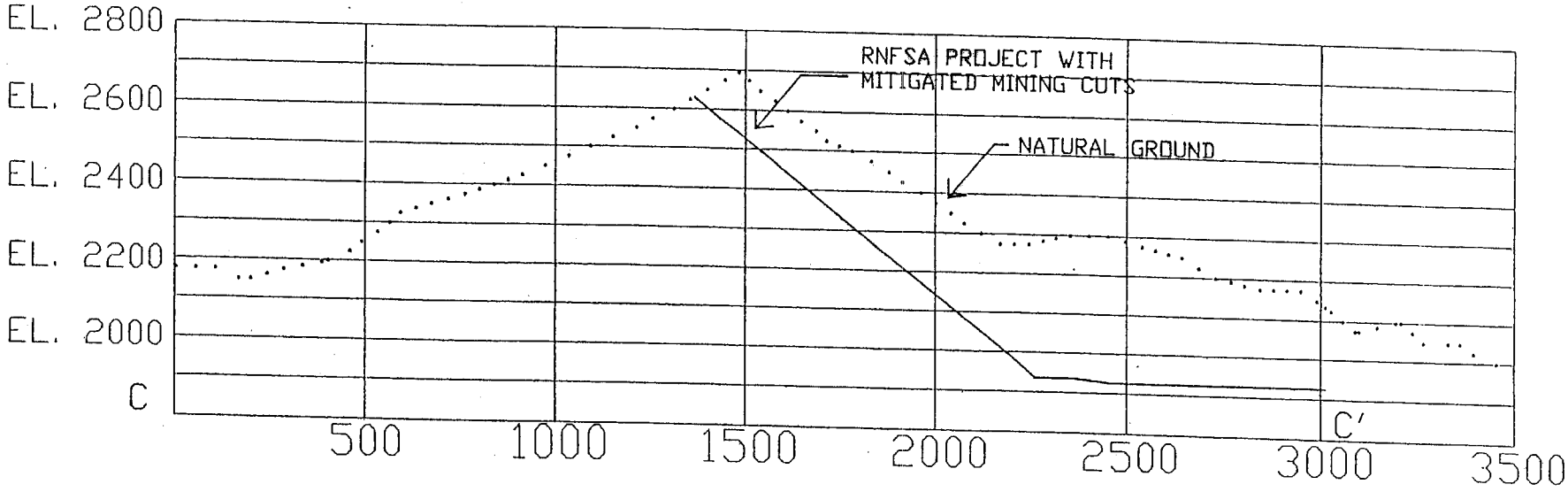
Public health and safety impacts may be reduced slightly, and would remain less than significant.



Note: The scales of the vertical axis and the horizontal axis are the same. This differs from Figure 2.1-10R where vertical axis distances are shown twice as large as horizontal axis distances.

Source: DANIEL J. PELLOW CONSULTING, MARCH 2001

CROSS-SECTION C-C' REDUCED NFSA PROJECT
COMPARED TO RNFSA PROJECT WITH MITIGATED MINING CUTS
FIGURE 2.3.13-4



Note: The scales of the vertical axis and the horizontal axis are the same. This differs from Figure 2.1-10R where vertical axis distances are shown twice as large as horizontal axis distances.

Source: DANIEL J. PELLOW CONSULTING, MARCH 2001

CROSS-SECTION C-C'
RNFSA PROJECT WITH MITIGATED MINING CUTS
FIGURE 2.3.13-5

TAB B

ADDITIONAL ENVIRONMENTAL
INFORMATION TO THE DRAFT
ENVIRONMENTAL IMPACT REPORT

SOLEDAD CANYON
SAND AND GRAVEL MINING PROJECT

STATE CLEARINGHOUSE NO. 91111066

PROJECT NO. 91165
LOS ANGELES COUNTY
DEPARTMENT OF REGIONAL PLANNING

AUGUST 2000

2.2.2 Revegetation Specifications

Revegetation is defined as establishing vegetation on disturbed land (Newton 1992). The goals of revegetation include erosion control, visual reintegration, return of ecological functions to a site, and mitigation as required by law.

Approximately 108 acres would be disturbed by mining cut faces and 36 acres disturbed by filling the NFSA. An additional 3 acres at the aggregate processing site would be disturbed by the location of the processing plant, and approximately 45 acres are presently disturbed from the existing quarry site. The total area to be reclaimed would be approximately 192 acres, 156 of which would be on the south side of the ridge. When nothing further is planned for the disturbed areas, these areas will be revegetated consistent with the preexisting density of egetation. This planting will occur during the first wet season after the areas are abandoned.

Because TMC's contract with the BLM expires after 20 years, mining may be discontinued and TMC will revegetate all of the disturbed areas that are not already revegetated.

Revegetation plans and species lists have been developed from onsite baseline vegetation studies (see DEIR Section 3.1.8). Because the site will be mined and revegetated concurrently over a period of 20 years, there will be an opportunity to evaluate the success of the revegetation effort over time not only for species compatibility but also vegetative cover and degree of erosion control provided, slope stability, and so forth. As appropriate, TMC reserves the right to modify the proposed revegetation effort to maximize its success. However, no significant modifications to the Revegetation Plan will be made without obtaining necessary agency concurrence prior to initiating the change.

2.2.2.1 Collection and Propagation of Plant Materials

Wherever possible, plant material for seeding and container planting will be collected from the site before mining proceeds or from areas near the site. Collection of plant material will begin 2 years in advance of any revegetation to ensure that adequate seed and plants are available. The preliminary seed collections for the main species in the plant palette will be tested to determine the purity and germination rates of the specific material collected. The final application rates to be used in seeding will be determined based on the actual amounts and quality of seeds collected.

Seed collection will be supervised by a qualified commercial seed collector/supplier with experience in native seed collections. To ensure natural genetic diversity in the planting and protect the viability of the donor plants, several distinct areas will be used for seed collection of each species. Collected seed will be cleaned to a commercially acceptable grade, tested, and labeled with species name, weight, purity, and germination rate. Seeds will be stored in a cool, dry environment until delivery for hydroseeding or to the nursery for sowing of container plants. In areas where sensitive plant species are found, seed and topsoil will be collected and stored separately for reapplication.

Seed propagation of container plant materials will be conducted by persons with experience in native plant propagation. All container plant materials that support mycorrhizal fungi will be inoculated with mycorrhizae during propagation. Container plants will be grown either onsite or at a nursery in proximity to the site. Container plants will be grown in deep pots or tubes ranging in size from D-40 pots for subshrubs to 24-inch-deep tubes for chaparral species. Cactus plants will be planted as pads or from 1-gallon pots. Based on the species, initiation of container plant propagation will be within 6 months to 1 year from the expected onsite planting date to avoid container plants becoming root bound.

2.2.2.2 Site Preparation

Topsoil will be salvaged as mining operations proceed where areas are accessible by equipment. Salvaged topsoil shall be stored in elongated piles no taller, nor wider, than six feet (2 meters). A study of topsoil stockpiles demonstrated that significant biological, chemical, and physical changes occur below two meters depth for soils of sandy texture (Abdul-Kareem and McRae, 1984). Topsoil stockpiles shall be clearly identified and protected from disturbance. Topsoil shall be reapplied in the concurrent (and final) reclamation process in the shortest time possible. Weed growth on or near the topsoil stockpiles shall not be allowed to prevent weed seed contamination. Erosion of the topsoil stockpiles from wind and rain shall be controlled by hydromulching the stockpiles immediately after salvage operations are complete.

If the topsoil stockpiles will be stored through one rainy season (as may be the case in some mining areas), hydromulching with a seed mix is specified to provide erosion control as well as host plants for topsoil microorganism survival. Hydromulching shall consist of a homogenous slurry mixture consisting of water, organic soil stabilizer, and cellulose wood fiber. The following materials will be applied in a one-step hydromulch operation:

- 2,000 pounds per acre of virgin cellulose wood fiber
- 160 pounds per acre organic soil stabilizer, and
- 46 pounds per acre of seed mix consisting of 40 pounds of *Plantago ovata*, 3 pounds of *Eriophyllum confertifolium*, and 3 pounds of *Hemizonia fasciculata*.

If the topsoil will not be stored through a rainy season, it will be adequate to hydromulch with only the wood fiber and soil stabilizer to control wind erosion.

Depth of topsoil application will be determined based on test plots, but it is anticipated that topsoil depth will be between 2 to 6 inches. The following methods will be used to incorporate the topsoil. On fill slopes in the NFSA and reclaimed mined areas, the final layer of soil shall be the salvaged topsoil. The re-soiled areas shall be rolled with a sheepsfoot or tracked with a bulldozer with one pass to meld the topsoil to the surface of the slopes. Prior to seeding, the soil surface will be roughed up before revegetation.

Prior to revegetation, the disturbed areas will be cleared of invasive, noxious weeds. It is not anticipated that weeds will be problematic because immediate revegetation is planned for areas after mining abandonment as mining proceeds over the site. However, if weeds become a problem weed removal will be accomplished through mechanical means. Limited use of selected herbicides is specified when no other effective alternative is available to remove and control certain noxious weed species. Herbicide treatment is specified for weed species that may re-sprout from roots or rhizomes. Only EPA approved, glyphosate base, systemic herbicides (e.g. Round-up Pro or Rodeo) shall be used for prescribed foliar application or cut stump treatment. Rodeo must be used when applying herbicides within 100 feet of the natural waterway. Herbicide preparation shall be allowed only in approved staging areas more than 100 feet from any wetlands or drainages. No pre-emergent herbicides will be used.

A brightly colored dye shall be used in all herbicide applications to aid the applicator in achieving good coverage of the target species. The material shall be a non-toxic material such as Blazon, Turfmark or equivalent. Herbicide treatment shall be conducted only when weather conditions are conducive to effective uptake of the herbicide by the target species (e.g. sunny, dry with ambient temperatures 65 degrees Fahrenheit or greater, and when plants are actively growing), and when wind conditions are such that herbicide drift is minimized (five m.p.h. or less). Treated plants or stumps shall not be disturbed until the glyphosate has had time to take effect per the manufactuer's instruction, approximately two or three weeks after application.

2.2.2.3 Seed and Container Palettes for Revegetation

Species mixes for seed and container planting for revegetation are presented in Tables 2.2-1 through 2.2-5. The species proportions were obtained from the relative cover values determined during the baseline vegetation study (see DEIR Section 3.1.8), plus adjustments upward to account for mortality of at least 50 percent (60 percent on xeric exposures). The tables cover all phases (concurrent and final) of site reclamation and all areas. If experience shows that revegetation success or lower mortality rates reduce the requirement for planting density, then seed and container mixes will be adjusted accordingly. Ultimately, revegetation performance standards will be met as detailed in Section 2.2.2.7.

Seeding Methods

Tables 2.2-1 and 2.2-2 list species to be used for seeding in the mined areas that have mainly xeric exposure. Table 2.2-3 lists species to be used in seeding the NFSA, which has a mesic exposure. Mesic exposures include habitats represented by the coastal sage scrub/mixed chaparral, mixed chaparral, and northwest- to east-facing slopes of the coastal sage scrub/semidesert chaparral measured in the baseline vegetation study. Xeric exposures include habitats represented by southeast- to west-facing slopes of coastal sage scrub/semidesert chaparral. Estimates of species proportions in these different seed mixtures are also provided, but the exact amount used in revegetation will depend on availability.

The overall goal of the species mix is to provide adequate representation of species richness, density, and cover on the reclaimed sites.

The seed mix will be planted in the fall from October to December using an imprinter where possible and/or hydroseeding. Imprinting is useful for pressing seeds into the soil in "safe" pockets for germination. Hydroseeding provides the advantages of holding seed in place on steep and smooth slopes, while covering the seed minimally with mulch. It is effective both in short- and long-term revegetation. Although hydroseeding is considered a suitable method for revegetating the site, other seeding techniques may be evaluated during the initial reclamation period. Imprinting is a successful seeding method that could be used on the site if a mechanism can be designed to negotiate the slopes. The most successful techniques will be used on the site.

Table 2.2-1
Concurrent Reclamation Seed Mix for Mine Areas

Common Name	Scientific Name	Pounds per Acre
Xeric Exposures		
Yarrow*	*Achillea millefolium*	2.0
Crested needlegrass	*Achnatherum coronata*	3.0
California sagebrush	*Artemisia californica*	2.0
Evening primrose*	*Camissonia californica*	3.0
Turkish rugging	*Chorizanthe staticoides*	1.0
Hairy yerba santa	*Eriodictyon trichocalyx*	3.0
California buckwheat	*Eriogonum fasciculatum* ssp. *fasciculatum*	5.0
Golden yarrow	*Eriophyllum confertiflorum*	2.0
Tanweed	*Hemizonia fasciculata*	2.0
Deerweed	*Lotus scoparius*	8.0
Miniature	*Lupinus bicolor*	4.0
Desert dandelion	*Malacothrix glabrata*	1.0
Monkeyflower	*Mimulus longiflorus*	3.0
Chia	*Salvia columbariae*	1.0
Small fescue	*Vulpia microstachys*	4.0
Six-weeks fescue	*Vulpia octoflora*	4.0
Total		**48.0**

* For soil stabilization purposes only - not found onsite.

Table 2.2-2
Final Reclamation
Seed Mix for Mine and Facilities Areas

Common Name	Scientific Name	Minimum/Maximum Pounds per Acre
Xeric Exposures		
Crested needlegrass	*Achnatherum coranatum*	2.0 / 3.0
Chamise	*Adenostoma fasciulatum*	2.0 / 3.0
California sagebrush	*Artemisia californica*	2.0 / 3.0
Turkish rugging	*Chorizanthe staticoides*	1.0 / 1.5
Coreopsis	*Coreopsis bigelovii*	2.5 / 3.0
Brittlebush	*Encelia actoni*	6.0 / 8.0
Hairy yerba santa	*Eriodictyon trichocalyx*	1.5 / 3.0
California buckwheat	*Eriogonum fasciculatum* ssp. *fasciculatum*	5.0 / 6.0
California buckwheat	*Eriogonum fasciculatum* ssp. *foliosum*	3.5 / 4.5
Golden yarrow	*Eriophyllum confertiflorum*	1.0 / 2.0
Tanweed	*Hemizonia fasciculata*	1.5 / 2.5
Lupine	*Lupinus bicolor*	2.0 / 3.0
Desert dandelion	*Malacothrix glabrata*	1.0 / 1.5
California melic	*Melica californica*	2.0 / 4.0
Wild canterbury bell	*Phacelia minor*	3.0 / 5.0
Chia	*Salvia columbariae*	1.0 / 1.5
Black sage	*Salvia mellifera.*	1.5 / 2.5
Small fescue	*Vulpia microstachys*	4.0 / 5.0
Our Lord's candle	*Yucca whipplei*	6.0 / 8.0
Total		**48.5 / 70.0**

Table 2.2-3
Seed Mix for North Fines Storage Area Reclamation

Common Name	Scientific Name	Minimum/Maximum Pounds per Acre
Mesic Exposures		
Crested needlegrass	*Achnatherum coronata*	1.0 / 2.0
California sagebrush	*Artemisia californica*	2.0 / 3.0
Turkish rugging	*Chorizanthe staticoides*	1.0 / 1.5
Coreopsis	*Coreopsis bigelovii*	2.0 / 3.0
Whispering bells	*Emmenanthe penduliflora*	1.0 / 2.0
Brittlebush	*Encelia actoni*	5.0 / 7.0
Thick-leaf yerba santa	*Eriodictyon crassifolium*	2.0 / 3.0
California buckwheat	*Eriogonum fasciculatum* ssp. *fasciculatum*	5.0 / 6.0
California buckwheat	*Eriogonum fasciculatum* ssp. *foliolosum*	2.0 / 3.0
Golden yarrow	*Eriophyllum confertiflorum*	1.5 / 2.5
Cudweed aster	*Lessingia filaginifolia*	1.0 / 1.5
Deerweed	*Lotus scoparius*	4.0 / 6.0
Lupine	*Lupinus bicolor*	1.0 / 2.0
Desert dandelion	*Malacothrix glabrata*	1.0 / 1.5
California melic	*Melica californica*	5.0 / 8.0
Chia	*Salvia columbariae*	1.5 / 2.5
Black sage	*Salvia mellifera*	1.5 / 2.5
Small fescue	*Vulpia microstachys*	4.0 / 5.0
Total		**41.5 / 62.0**

Table 2.2-4
Container Plant Materials
For North Fines Storage Area Reclamation

Common Name	Scientific Name	Approximate Density per Acre
Mesic Exposures		
Big berry manzanita	*Arctostaphylos glauca*	30 - 40
Hoary-leaf ceanothus	*Ceanothus crassifolius*	30 - 35
Chaparral whitehorn	*Ceanothus leucodermis*	35 - 40
Beavertail cactus	*Opuntia basilaris* var. *basilaris*	20 - 25
Scrub oak	*Quercus berberidifolia*	40 - 50
Holly-leaf redberry	*Rhamnus ilicifolia*	30 - 40
Total Density per Acre		**185 - 230**

Table 2.2-5
Final Reclamation
Container Plant Materials for Mine and Facilities Areas

Common Name	Scientific Name	Approximate Density per Acre
Xeric Exposures		
Chamise	*Adenostoma fasciculatum*	50 - 60
Mountain mahogany	*Cercocarpus betuloides*	20 - 30
California juniper	*Juniperus californica*	25 - 30
Our Lord's candle	*Yucca whipplei*	30 - 40
Total Density per Acre		**125 - 160**

Hydroseeding will consist of hydraulic application of a slurry mixture containing water, organic soil stabilizer, cellulose wood fiber, and seed. It is not anticipated that fertilizer will be added to the mix because native plants have low nutrient requirements and fertilizer application favors the establishment of noxious, weedy species.

The following materials will be applied in a one-step hydromulch operation:

- 2,000 pounds per acre virgin cellulose wood fiber,
- 160 pounds per acre organic soil stabilizer, and
- seed mix as developed for each phase of reclamation and area based on Tables 2.2-1, 2.2-2, and 2.2-3.

Container Planting Methods

Container plantings will be placed in natural-looking patterns to suggest the contouring of the original site. Table 2.2-4 lists species to be used for container planting in the NFSA. Table 2.2-5 lists the species to be used for container planting in the final reclamation of the mine and facilities areas.

Container planting is necessary to maximize the chances of successfully achieving the revegetation standards for plant cover and density, provide soil stabilization early in the revegetation process, and obtain reproduction of the dominant shrub species as early as possible for contributions to the seed bank. The total number of container plants per acre represents approximately 25 percent of the total density of plants per acre observed during the baseline vegetation study, plus an adjustment upward to accommodate mortality. The species selected for container planting are primarily those that grow relatively slowly and are not expected to perform well in competition with species that are hydroseeded. However, some species that grow more quickly and are necessary for early stabilization of subsurface soils are included in the container planting.

Container plants will be set out on the site in the fall under the supervision of a native plant revegetation specialist. Planting holes will be twice as deep and wide as the rootball of the container plant. Prior to planting, the holes will be filled with water, backfilled halfway with soil, and filled again with water. If a temporary irrigation system is used (i.e., "clay pots"), it should be installed at planting.

Plants will be planted with minimal root disturbance in the premoistened holes with the root crown between grade and 0.5 inch above ground level. Soil will be backfilled in the hole and tamped gently around the plant. A watering basin will be constructed around each plant, and the basins will be filled with water.

2.2.2.4 Irrigation

No permanent irrigation system will be maintained at the revegetation sites. Any temporary irrigation requirements will be determined by the horticultural monitor. A temporary irrigation system using the "clay pots" or "deep pipe" irrigation techniques may be used.

2.2.2.5 Maintenance

All plantings and seeding will be maintained for a period of 5 years or until the revegetation standards have been met. The horticultural monitor will assess the site for health and vigor, and prescribe specific replanting or reseeding requirements if needed. If noxious weeds threaten the success of the revegetation sites, they will be removed using mechanical means and/or EPA- labeled herbicides.

2.2.2.6 Monitoring

Monitoring the revegetated site consists of two phases:

1. maintenance monitoring, including installation and establishment monitoring, and
2. performance monitoring.

The following section describes each monitoring phase and the parties responsible for each phase.

Installation and Establishment

The success of the revegetation installation is the responsibility of TMC. In order to assure that the revegetation performance standards are met, TMC will monitor the installation process from the beginning of the collection of seeds and plant cuttings through completion of its contractual maintenance period. The monitoring will include verification of plant propagule collection and planting quality, site preparation, and planting techniques.

Horticultural monitoring during establishment is necessary to evaluate the health of the planted material and identify any problems that require remedial action to ensure that revegetation performance standards are met. TMC is responsible for horticultural monitoring. The monitoring should be conducted by a trained professional with expertise in native plant horticulture. Monitoring reports will describe the survival, function, and appearance of the community. The horticultural monitor will provide specific recommendations regarding irrigation, weed control, replanting or reseeding, erosion control, site protection, and pest control. Necessary remedial action will be undertaken at the appropriate time in accordance with the recommendations of the horticultural monitor. All recommendations should be submitted in writing to TMC.

The monitoring schedule is outlined as follows:

- frequent (ranging from weekly to monthly) during critical periods through the first year of planting, and

- semiannual monitoring during the spring and summer for the second through fifth years of planting or until performance standards are met.

Additional monitoring will be required for any areas that have not met the performance standards at the end of the 5-year performance monitoring period.

A summary of maintenance recommendations and remedial actions will be documented in annual reports and submitted to TMC. The annual report shall include overall site observations, a qualitative evaluation of the plant community (i.e., performance of seedlings and container plants), and whether the revegetation sites require further significant maintenance measures.

Performance Monitoring

The performance monitoring, which is the responsibility of TMC, will quantify development of the revegetation to evaluate whether the sites have met the performance standards. The performance monitoring will begin during the spring after the first year of planting the revegetation sites and continue until performance standards are met.

Monitoring will consist of fixed transects at each revegetation site. The number of transects necessary will be evaluated to ensure statistical confidence based on variation at each site. Data collected will consist of, at a minimum, percentage of cover and frequency of each species encountered along the transect. Photodocumentation of the sites will be conducted. In addition, an aerial photograph will be taken each year to further document restoration progress. Data will be compared to reference data collected from the site prior to mining and existing adjacent communities.

An annual report will be submitted to TMC and the County Department of Regional Planning. The report will include an introduction to the RNFSA Project, survey methodology, data analysis, and comparison to the reference data, as well as a discussion of the survey results in relation to the performance standards. The annual summary of the maintenance recommendations and remedial actions, specified in the previous section, will be included as an appendix to this monitoring report.

2.2.2.7 Performance Standards

Concurrent Reclamation

The goal of the concurrent Revegetation Plan is to provide erosion control during the life of the mining operation. Revegetation will be considered successful when seeded areas do not require significant maintenance measures. Significant maintenance measures include planting seeds, irrigation, erosion control, or weed control. Average cover of vegetation shall be 80 percent with no bare areas greater than 10 feet by 10 feet.

Final Reclamation

The goals of the revegetation program are to provide erosion control and approach the patterns of cover and dominant species distribution in the existing community. Performance standards will be based on the progress of the revegetation toward achieving the target vegetation percentage of cover and frequency of distribution. Revegetation sites will be considered successful when the following performance standards are met:

- The revegetation site does not require significant maintenance measures during the last 2 years of the establishment period as documented in the horticultural monitor's annual reports. Significant maintenance measures include planting seeds or containers, irrigation, erosion control, and weed control.

- The revegetation site is developing a trend in percent cover, species diversity, and frequency that is comparable to the existing scrub community. After 5 years, there will be a minimum of 70 percent vegetation cover as compared to an existing adjacent reference community. Species diversity will be at least 45 percent of the existing community. The density of the dominant species in the plant palettes (*Encelia actoni*, *Artemisia californica*, *Adenostoma fasciculatum*, *Eriogonum fasciculatum*, and *Salvia mellifera*) conform to the baseline survey as presented in Table F3-4 of Appendix F of the DEIR.

TAB C

ADDENDUM TO THE MINING AND RECLAMATION PLAN FOR SOLEDAD CANYON SAND AND GRAVEL MINING PROJECT

INTRODUCTION TO THE ADDENDUM

Purpose of the Addendum

This addendum to the Mining and Reclamation Plan for the Soledad Canyon Sand and Gravel Mining Project has been prepared to address two aspects of the proposed mining activity that are not included in the current mining plan documentation dated June 1997. The two aspects are 1) the Reduced North Fines Storage Area (RNFSA) Project approach to mining at Soledad Canyon, and 2) quantification of the requirements for blasting.

Additional information has been prepared for the Draft Environmental Impact Report (DEIR) in a document titled, Additional Environmental Information to the Draft Environmental Impact Report (AEIDEIR). This addendum provides the information necessary to make the Mining and Reclamation Plan consistent with the AEIDEIR.

The present draft of the Mining and Reclamation Plan (1997) presents the original Plan of Mining Cuts describing the process of site excavation including disposal of excess fines. TMC has developed the RNFSA approach to mine the site by modifying the excavation process and reducing the size of the North Fines Storage Area (NFSA). For purposes of this addendum, the modified excavation process will be noted as the RNFSA Project, whereas the original Plan of Mining, as described in the Mining and Reclamation Plan, will be called the Original DEIR Project. The potential modifications to the Project mining plan and required changes in slope stability criteria and design are provided herein.

The RNFSA Project would allow more and earlier storage of fines in the mined out areas and would reduce the amount of excess fines deposited in the NFSA. This would be accomplished by creating more fines storage capacity in Cut 3 and by decreasing the amount of excess fines generated by mining less Tv2 material. The total product shipped would remain at 56.1 million tons over the 20-year Federal Contracts period.

Conducting periodic low-yield blasting will facilitate excavation of mining cuts. While blasting is anticipated in the existing mining plan, recent mineral analysis allows better quantification of the frequency and type of blasting that will be conducted. It is anticipated that blasting may be required up to two times per week during Phase 1 of the project, and up to four times per week during Phase 2. The potential vibration, noise, and air quality effects of this activity and recommendations for alleviating potential adverse effects are provided herein.

Relationship to the Existing Mining and Reclamation Plan

This addendum has been prepared to amend specific sections of the existing Mining and Reclamation Plan (reference draft dated June 1997). Most aspects of the Mining and Reclamation Plan would not substantially change as a result of implementing the RNFSA Project or establishing the blasting program. The rate of mineral production, duration of mining activity, hours of operation, and required supporting facilities would not be affected by the RNFSA Project. Also, the site reclamation process would not substantially change, except that reclamation requirements for the NFSA would be reduced by about 33 percent.

This addendum includes all of the primary section headings from the existing Mining and Reclamation Plan. However, only those subsections that contain new or modification information are provided in the text. It is anticipated that the proposed modifications will be reviewed by relevant county, state, and federal agencies whose comments along with the proposed modifications will be consolidated into a revised Mining and Reclamation Plan prior to Project startup.

SECTION 1 - INTRODUCTION

1.1 GENERAL INFORMATION

No changes are required in this section.

SECTION 2 - GEOLOGIC DESCRIPTION

2.1 INTRODUCTION

Additional geotechnical reports have been prepared to assess various aspects of the Project and provide the basis for determining project feasibility. The additional relevant geotechnical reports are summarized below and submitted under separate cover, with the exception that Hilltop 1998, which is relevant to the RNFSA Project, is incorporated herein as Attachment 1.

8. Supplemental Slope Stability Evaluations, Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California, *Project No. 97018, Report No. 5 (Hilltop, September 1997)* - This study was prepared to augment the prior stability analyses conducted for the project. All previous slope stability work was reevaluated utilizing newly adopted California Fault Parameter information and supercedes the previous work. The report concludes that the planned reclaimed contours and proposed slope configurations are more stable than the results of the prior STE and Hilltop Geotechnical, Inc. analyses. The final configuration of slopes meet the Los Angeles County Department of Public Works standard for safety factors under static loading conditions (minimum factor of safety of 1.5), with the exception of two areas, 1) the slopes in the northeast portion of the mining area (reference sections A-A' and C-C'), and 2) the reclaimed fill slope in the

southwestern portion of the site (section B_{alt}-B'). Recommendations are presented that will allow these slopes to meet Los Angeles County Department of Public Works accepted factors of safety.

9. Surficial Slope Stability Evaluations, Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California, *Project No. 97018, Report No. 6 (Hilltop, October 1997a)* - This report includes an evaluation of the surficial slope stability for the finished reclamation slopes. The report recommends that the outer 10 feet of the proposed fill slopes be constructed with a soil material having minimum strength characteristics of cohesion equal to 175 psf and angle of internal friction equal to 35 degrees to achieve the minimum factor of safety of 1.5. It also recommends that the performance of the fill slopes at the southwestern portion of the site and the NFSA be monitored, with additional recommendations to improve performance of the slopes provided as necessary.

10. Slope Stability Evaluation Update, Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California, *Project No. 97018, Report No. 7 (Hilltop, October 1997b)* - This study was prepared to augment the prior stability analyses conducted for the North Fines Storage Area (NFSA). All previous slope stability work was reevaluated utilizing newly adopted California Fault Parameter information and supercedes the previous NFSA slope stability analyses work. The report concludes that the planned NFSA reclamation process of compacting the fill to 75 percent relative compaction and providing a 30-foot soil cap compacted to 80 percent relative compaction, will provide stable slopes under both static and seismic loading based upon Los Angeles County Department of Public Works and geotechnical industry standards. The report further concluded that the deformation analysis presented previously in Hilltop 1995b is not necessary and should be considered invalid. Acceptable factors of safety were also obtained for surficial stability under saturated conditions (minimum factor of safety of 1.5).

11. Slope Stability Evaluation Update for the Revised Mining and Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California, *Project No. 97018, Report No. 8 (Hilltop, January 1998)* - Supplemental slope stability evaluations were done to augment the prior general stability analysis and evaluate temporary cut slopes during mining and the final slope configurations anticipated under the RNFSA Project to mining cuts. Los Angeles County Department of Public Works criteria for factors of safety are applicable. The report concludes that the temporary cut slopes and final reclamation cut and fill slopes are considered stable if recommended slope configurations are modified as recommended. Specifically, the report recommends that the permanent cut slope above the upper haul road, which exceeds 350 feet in vertical height be flattened to a 1.25:1 overall slope (1.10:1 with 15-foot benches every 100 feet in vertical height). In addition, the temporary cut slope (north wall of Cut 3) that exceeds 440 feet in vertical height should be flattened to a 1.05:1 slope.

SECTION 3 - MINE PLAN

A new Section 3.1.4 is added to this section to describe aspects of the RNFSA Project to mine the site, including a description of the mining process, slope stability considerations, and drainage considerations. A new Section 3.1.5 is added to this section to describe the plan for blasting, including relevant ground vibration and noise criteria.

3.1.4 RNFSA Project Approach to Mining Cuts

Description

TMC has developed the RNFSA Project approach to mining the site that would substantially reduce the size of the NFSA and decrease the total amount of material needed to be excavated in order to produce the 56.1 million tons of product as provided in the Federal Contracts with BLM.

Mining cuts are described beginning with Cut 1 and proceeding through Cut 4. The RNFSA Project involves a deeper first cut allowing for storage of fines materials in the cut, thus postponing the need for fines placement in the NFSA. The cuts as they were described in the Original DEIR Project have been renamed in this addendum for clarification purposes. This is because the previously denoted Cut 3 for the Original DEIR Project is now Cut 1 for the RNFSA Project. The approximate correlation between the cuts described for the Original DEIR Project and the RNFSA Project is as follows:

Original DEIR Project	RNSFA Project
Cut 1	Cut 2
Cut 2	Cut 3
Cut 3	Cut 1
Cut 4	Cut 4

The total mine production tonnage, including estimated quantity of fines and product, is provided in Table 3.1.4-1. The mining operation would be designed to minimize onsite production transportation distances and provide adequate storage of natural fines.

The RNFSA Project's first cut would start from a point near the west property line in the Cut 1 area. Cut 1 would be mined from west to east for a distance of approximately 2,500 feet. Cut 1 would be mined to the 1,925-foot elevation as shown in Figure 3.1-15. The excess fines screened out at the crusher feed would be filled into the western end of the cut, and reclamation of the area would proceed from west to east as the area is filled. Fines would continue to be stored in the Cut 1 area until it reaches capacity.

Table 3.1.4-1
Cuts 1 to 4 Mine Total Tonnages[1]
(tons x 1,000)

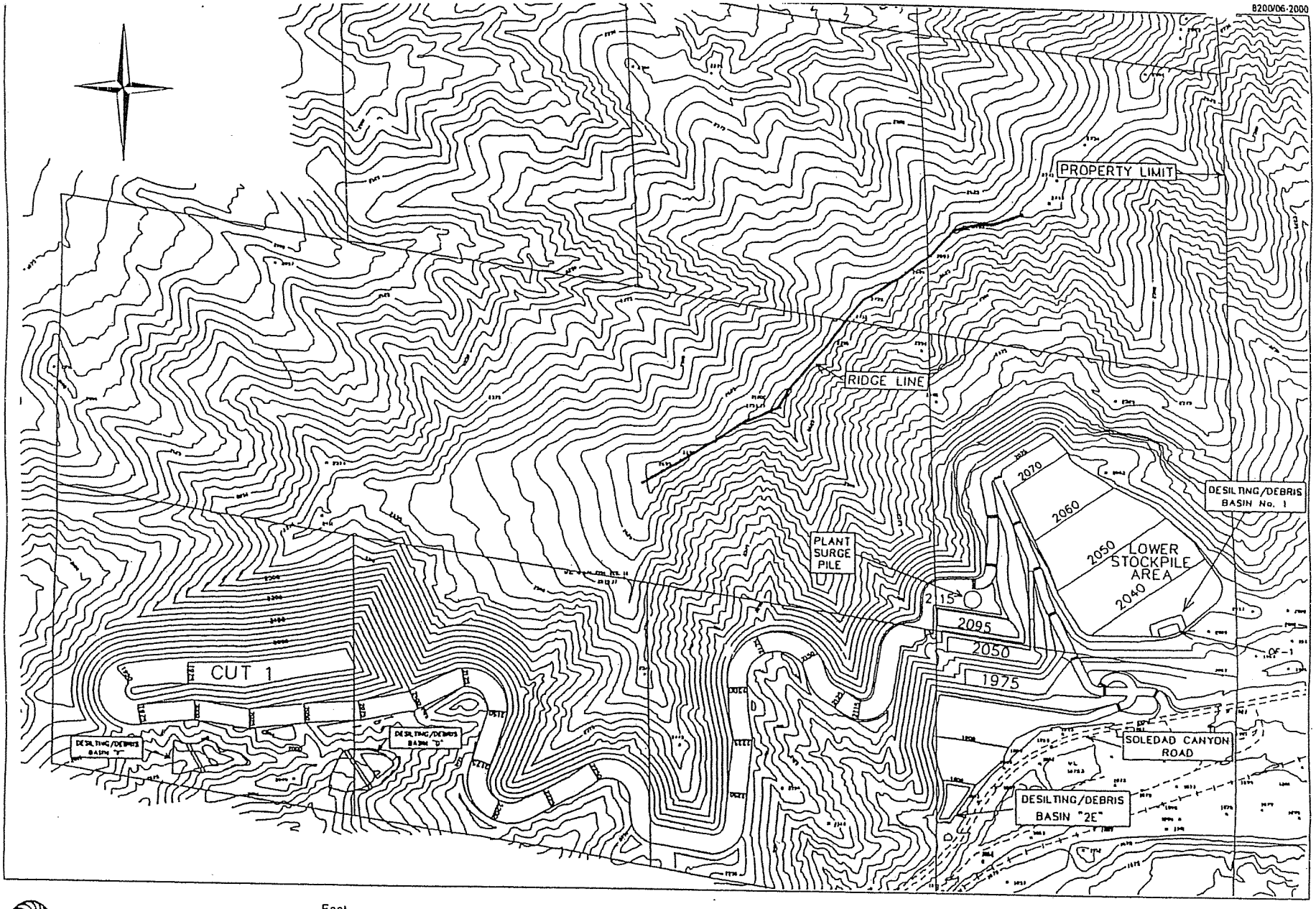
Elevation (feet)	Total Mined	Fines	Product	Cumulative Fines	Cumulative Product[2]
2,700	66	36	30	36	30
2,675	261	144	117	180	147
2,650	600	279	321	459	468
2,625	827	351	476	811	943
2,600	992	405	587	1,215	1,531
2,575	1,104	433	671	1,648	2,202
2,550	1,257	490	767	2,138	2,969
2,525	1,350	500	851	2,638	3,819
2,500	1,373	494	879	3,132	4,698
2,475	2,303	772	1,531	3,904	6,229
2,450	2,649	829	1,820	4,733	8,049
2,425	2,862	821	2,041	5,554	10,090
2,400	3,088	806	2,282	6,360	12,372
2,375	3,413	884	2,529	7,244	14,901
2,350	3,734	967	2,767	8,211	17,668
2,325	3,929	1,018	2,911	9,229	20,579
2,300	4,029	1,044	2,985	10,272	23,565
2,275	4,182	1,083	3,099	11,355	26,664
2,250	4,292	1,112	3,180	12,467	29,844
2,225	4,291	1,111	3,180	13,578	33,024
2,200	4,317	1,118	3,199	14,696	36,223
2,175	4,114	1,066	3,048	15,762	39,271
2,150	4,118	1,067	3,051	16,829	42,322
2,125	4,076	1,056	3,020	17,884	45,343
2,100	3,638	942	2,696	18,826	48,039
2,075	3,974	1,029	2,945	19,856	50,983
2,050	3,668	950	2,718	20,806	53,701
2,025	3,247	841	2,406	21,647	56,107[2]
2,000	2,873	744	2,129	22,391	58,236
1,975	2,471	640	1,831	23,031	60,067
1,950	1,966	509	1,457	23,540	61,524
1,925	1,481	384	1,097	23,924	62,621
Total[3]	**86,545**	**23,924**	**62,621**	**23,924**	**62,621**

Notes:

[1] Anticipated mining and production volumes are estimates only and could change on an annual basis because of market conditions or other factors.

[2] To produce 56.1 million tons of product will require excavation of 77.7 million tons, backfilling of up to 15.1million tons of fines into excavated mining cuts, and placement of 6.0 million tons of fines in the NFSA. In addition, 0.5 million tons of fines would be either sold or taken offsite.

[3] The last columns are not sum totals; they are cumulative totals.



Chambers Group

Feet
0 600

Source: Daniel J. Pellow Consulting

MAXIMUM EXTENT OF MINING CUT 1
Figure 3.1-15

The plus 1/4-inch aggregate material would be crushed to minus 6 inches and transferred to a horizontal movable conveyor. Then this material would be transferred to the semipermanent, sloped conveyor leading to the plant stockpile. The fines screened at the crusher feed would be temporarily stacked on the operating bench and then loaded into 85-ton haul trucks or 44-cubic-yard scrapers and moved to the western end of Cut 1. The storage area would be constructed from the bottom up in 4- to 5-foot lifts. Each successive lift would be set back 8 to 10 feet to produce the overall slope of 2 horizontal feet for every 1-foot rise in elevation.

The second mining cut (Cut 2) would start at approximately the 2,350-foot elevation three-quarters of the way up the south side of the ridge and proceed downslope in 25- to 35-foot benches to approximately the 2,075-foot elevation. Figure 3.1-16 shows the configuration of the maximum extent of Cuts 2 and 3.

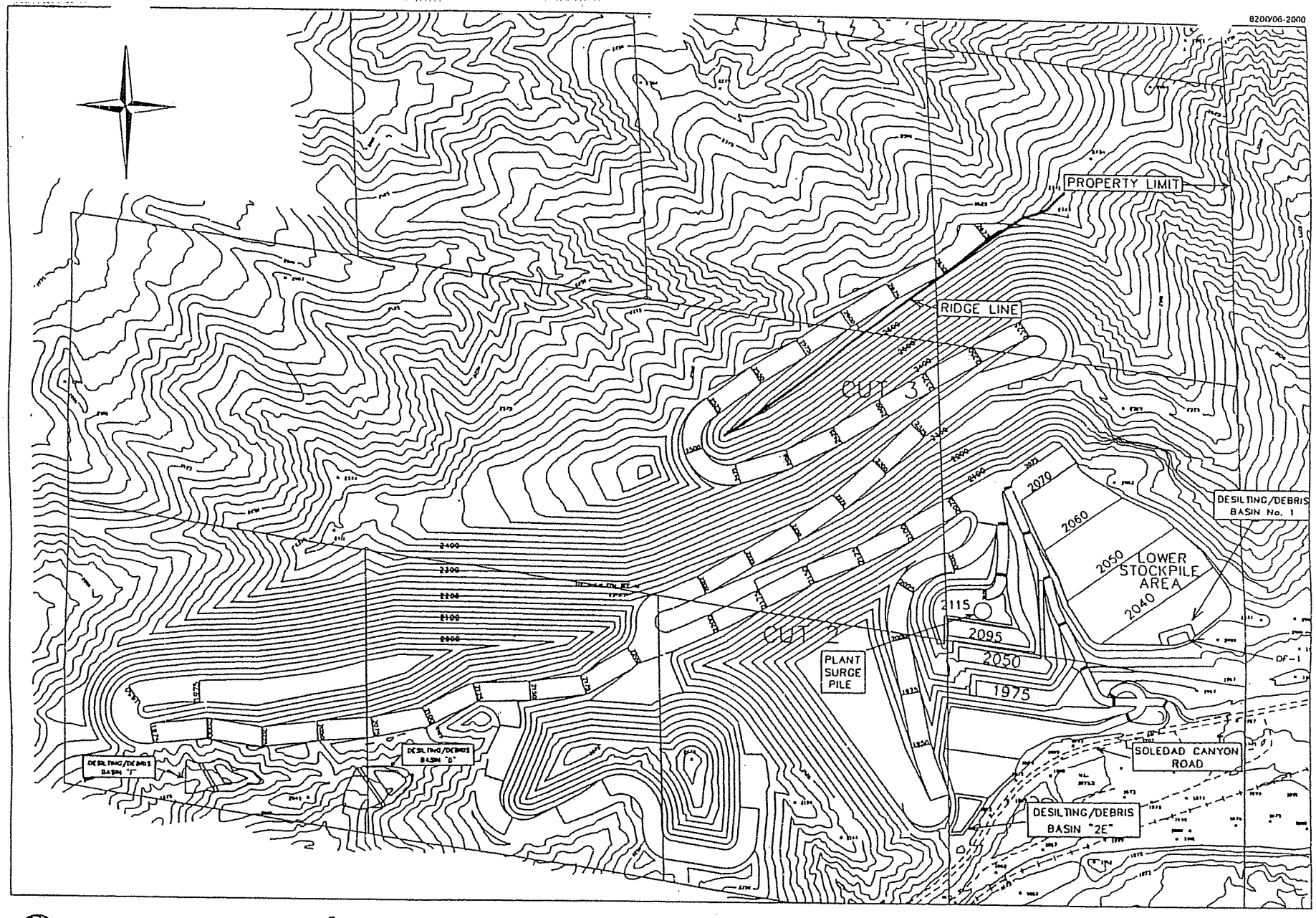
The third cut (Cut 3) would start at the 2,600-foot elevation near the top of the south side of the ridge and continue to the east end of the property. A portion of Cut 3 would be excavated to the 1,925 elevation. This elevation has been chosen because drainage from this elevation would still be able to flow to Desilting/Debris Basin "2E". Throughout the excavation area, if the material meets the quality requirements for Portland Cement Concrete (PCC) aggregate, mining may continue until the excavation is restricted by the south property limit or the Soledad Canyon Fault.

The eastern portion of Cut 1 would be mined concurrently with Cut 3. Fines from Cut 2 and Cut 3 would be sent to the Cut 1 area until it reaches capacity. It is anticipated that Cut 3 would be completed near the 15th year of mining operations.

Cut 4 is an extension of the quarry to the north and would be the last cut required to obtain the contracted 56.1 million tons of aggregate product. This cut extends to the north side at the top of the ridge, and the natural fines would be stored in the NFSA.

Figure 3.1-17 shows the maximum extent of mining at the completion of Cut 4. Cut 4 would be put into production near the 15th year of operation when mining in Cuts 2 and 3 would be completed. The upper elevations of Cut 4 consist of material that may not be of the quality required for aggregate; therefore, the unmarketable material would be removed and backfilled into the NFSA. The mobile crusher would begin operation at the 2,650-foot elevation, and a conveying system would transport the crushed product down to the plant stockpile.

The mining concept for this RNFSA Project would increase the storage of fines by approximately 1.9 million tons in Cut 1, and reduce the amount of excess fines generated from Tv2 by approximately 5 million tons. This should allow the excess fines from approximately the first 15 years of mining to be placed in Cut 1. When the maximum volume of the produced fines exceeds the amount of storage in the western end of Cut 1, fines would be stored in the lower elevations of Cut 3 and/or in the NFSA. In this concept, the NFSA would have approximately 50 percent of the fill estimated in the Original DEIR Project Concept Plan of mining cuts.

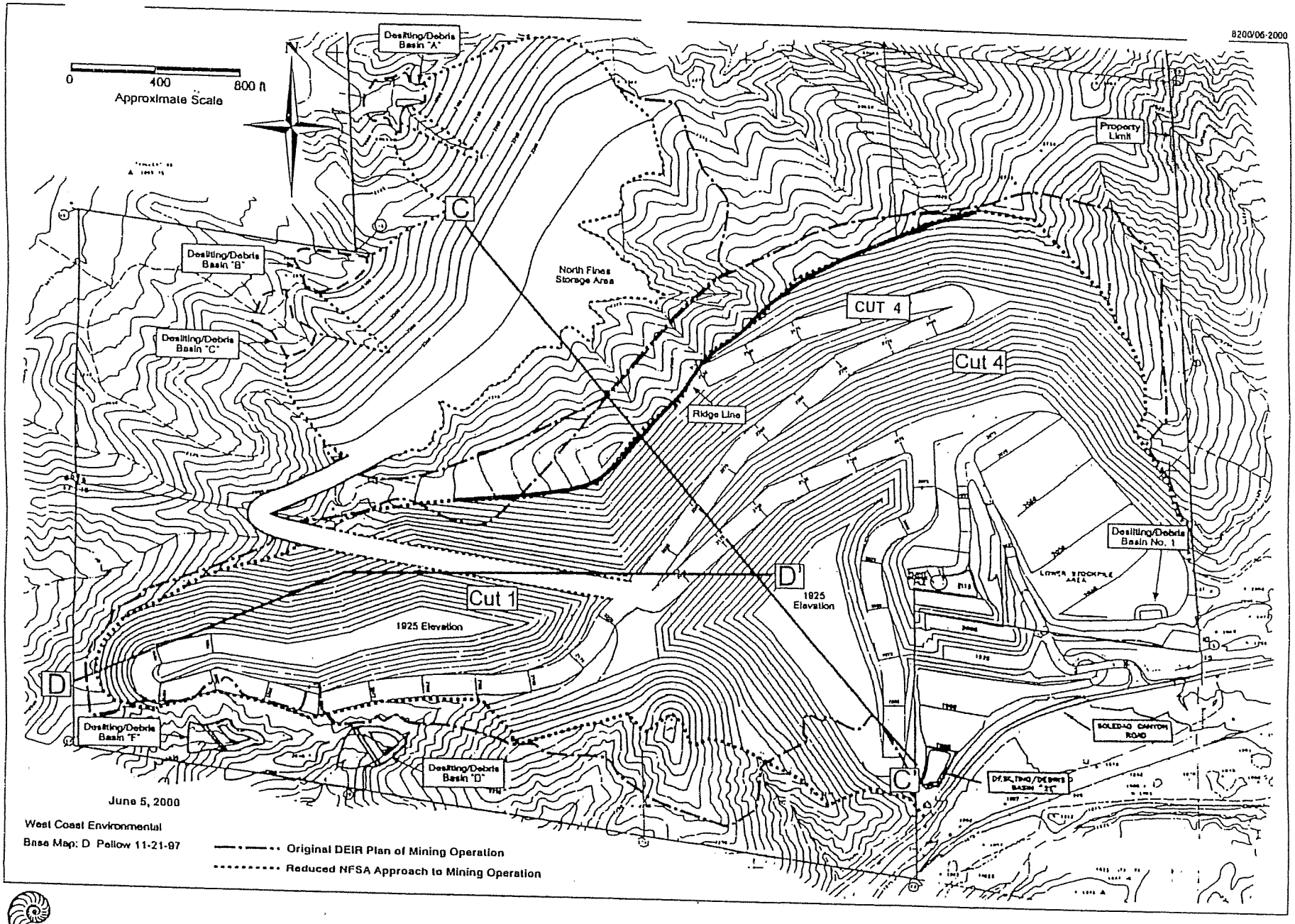


Chambers Group

Feet
0 600

Source: Daniel J. Pellow Consulting

MAXIMUM EXTENT OF MINING CUTS 2 AND 3
Figure 3.1-16



Chambers Group

MAXIMUM EXTENT OF MINING CUT 4

Figure 3.1-17

Cross section C-C on Figure 3.1-17 and the corresponding Figure 3.1-18, show the maximum extent of mining and the fill of the NFSA for the Reduced NFSA Project. Cross section D-D shows a profile of the mining fill through the main mine area.

TMC's current Federal Contracts with the BLM would expire at the end of the 20th year of operation when mining would be on the 2,375-foot elevation of Cut 4. The reclaimed contours for the site at the end of mining are shown on Figure 3.1-19. Mitigation has been proposed to reduce impacts to the NFSA as Mitigation Measure B7. Mitigation Measure B7 avoids the western-most and eatern-most ephemeral drainages in the NFSA by limiting the lateral placement of fines. The vertical extent of the NFSA would be higher than without the mitigation, but the overall contour would approximate the vertical extent of the original NFSA under the Original DEIR Project.

Other aspects of the RNFSA Project, including mineral production, site operations, and site reclamation, would not substantially change as a result of implementing the RNFSA Project. The rate of mineral production, the duration of mining activity, hours of operation, and required supporting facilities would not be changed. Also, the overall site reclamation process would not substantially change, with the exception noted previously that the area requiring reclamation at the NFSA would be approximately 33 percent smaller.

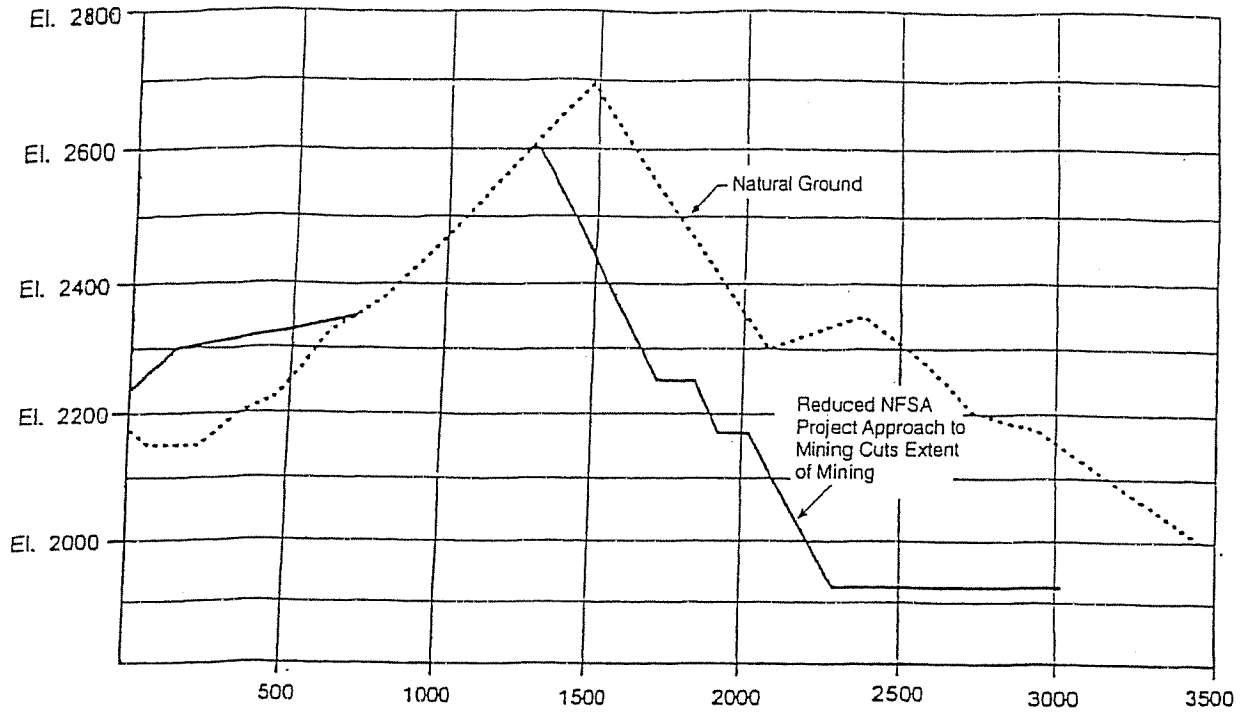
Slope Stability

Under the RNFSA Project, Cut 1 will be excavated to the 1,925-foot elevation, which is about 150 feet deeper than under the Original DEIR Project. Mining to this depth should encounter additional Tv1 material that could be excavated using the same mining methods as used at higher elevations. The interim pit slopes under this approach would be the same as under the Original DEIR Project (i.e., 1:1 [horizontal to vertical] with benches excavated at regular intervals), with the exception of the recommended interim slope configurations proposed by Hilltop Geotechnical (1998). Final slope configurations have not changed since publication of the Original DEIR Project. Please note that the referenced technical report described the Original DEIR Project as the "Concept Plan" and the RNFSA Project as the "Optional Approach". All mitigation of the Original DEIR Project relative to final slope configuration after reclamation is applicable to the RNFSA Project.

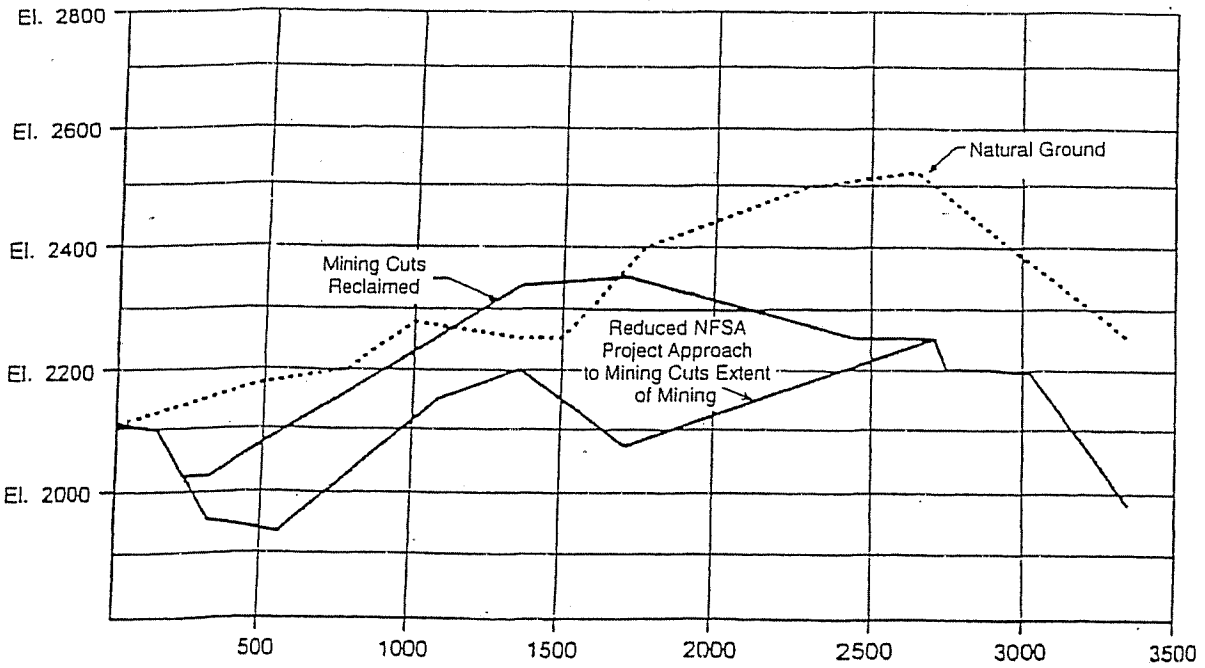
The RNFSA Project will decrease the amount of excess fines that would be placed in the NFSA by reducing the amount of Tv2 to be mined and by increasing the fines to be backfilled into Cut 1 by approximately 8 percent; an increase of approximately 1 million tons. Fill slope and compaction requirements that achieve appropriate factors of safety are required and adequately mitigate potential impacts due to stability of the additional fill.

Drainage Concept

Two changes to the Drainage Concept are provided for in this addendum. One change has to do with potential removal of the existing aggregate mill on the property and the other with the RNFSA Project approach to mining. (It is noted that the effects of removing the existing Mill apply to both the RNFSA Project and the Original DEIR Project).



CROSS-SECTION C-C'



CROSS-SECTION D-D'

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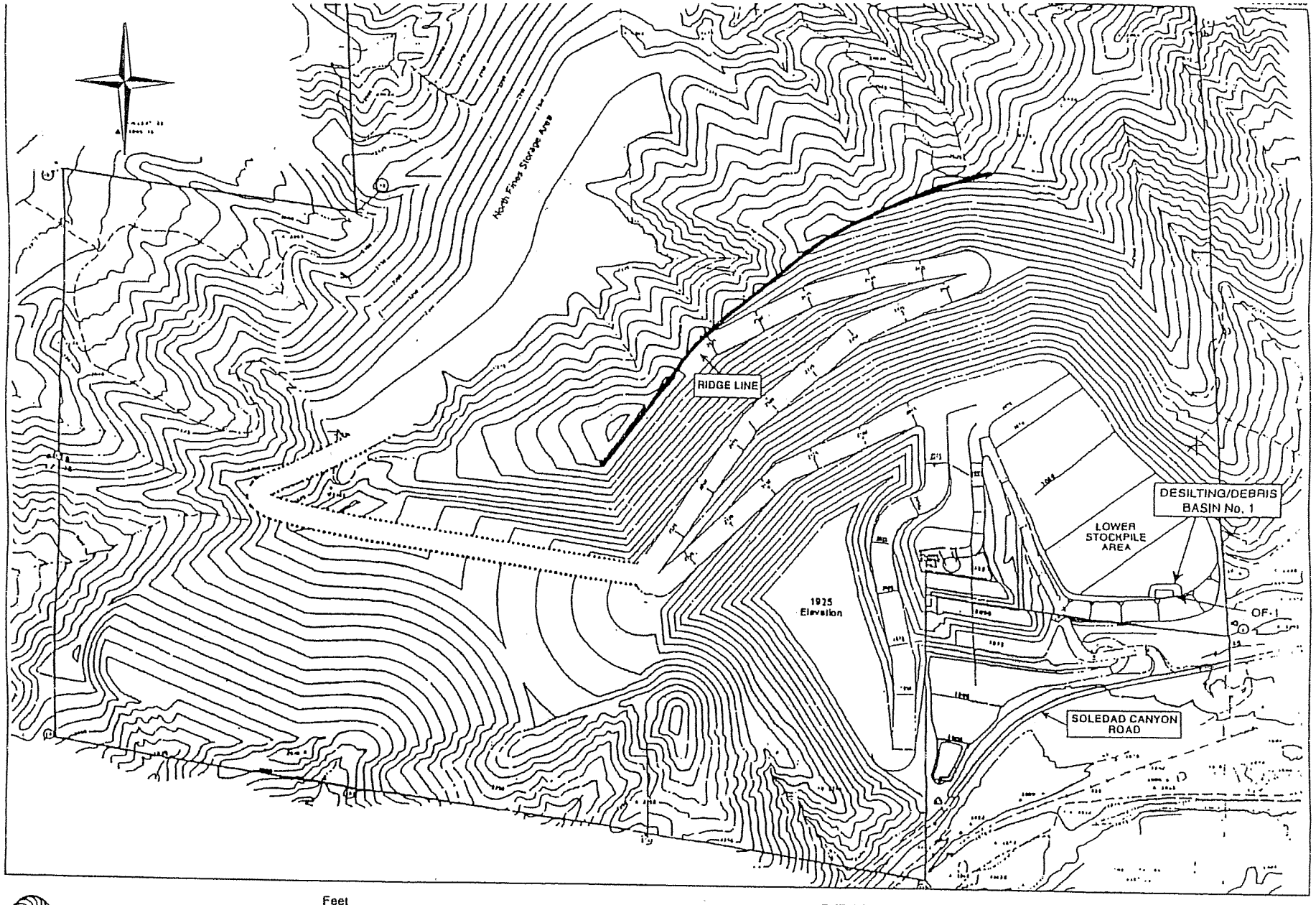
CROSS SECTIONS
REDUCED NFSA PROJECT TO MINING CUTS
Figure 3.1-18



Chambers Group

Feet
0 600 Approximate Scale

Source: West Coast Environmental, December 15, 1997

RECLAIMED CONTOURS AT END OF MINING WITH REDUCED NFSA PROJECT WITHOUT MITIGATION

Figure 3.1-19

Drainage Concept Modifications Due to Removal of the Aggregate Mill - West Coast Environmental (1998) conducted an engineering evaluation of the changes in site drainage involved with removal of the existing aggregate plant and the effect that this action would have on the size of the drainage basins and culverts. Please note that the referenced technical report described the Original DEIR Project as the "Concept Plan" and the RNFSA Project as the "Optional Approach". The analysis (included herein as Attachment 2), shows that the drainage area for Basin 1 (Drainage Concept) will increase in size from approximately 15 acres to 22 acres. No other site drainage areas increase due to the action of removing the existing aggregate plant. The report recommends increasing the size of drainage Basin 1 by approximately 47 percent. This change to Basin 1 is minor in terms of total acreage and will not affect the sizing of the culverts that are shown in the Drainage Concept. The discussion of Basic Function during Lessor Storm Events and Design Criteria Requirements Summary of the Drainage Concept remain valid as well.

Potential Drainage Plan Effects from the RNFSA Project - Under the RNFSA Project, mining would occur below the 2,075-foot elevation. Because the area of disturbance by mining activity under this approach would be reduced by approximately 15 percent compared to the Original DEIR Project, there would be a slightly reduced potential for erosion and sedimentation in debris basins below Cut 1 and the NFSA. Relative to Cut 1, the mining excavation will be lower in elevation than debris basins (Basins D and F) toward the end of mining activity in this cut. During this time, runoff will flow into the Cut 1 rather than the basins. No impact will occur since the runoff will be retained within the mine area of Cut 1. As fines are placed in Cut 1 and the area increases in elevation, the debris basins will once again perform their drainage control function.

Relevant Environmental Issues and Analysis

Water Quality

The impact of RNFSA Project on surface water quality would be essentially the same as for Original DEIR Project. However, all runoff from within the general area to be mined, including some natural areas, will be collected in silt and debris basins prior to discharge to natural drainages. No significant impacts will occur.

The potential for impacts on groundwater quality due to the RNFSA Project were evaluated due to the increased depth of excavation. The final elevations of Cut 1 for the RNFSA Project would be 150 feet higher and 1,500 feet away from the nearest point on the Santa Clara River. In comparison, the Original DEIR Project in Cut 3 (now Cut 1) would be 300 feet higher and 1,500 away from the nearest point on the Santa Clara River. This deeper cut would not be in the boundary of a groundwater basin, and the material to be excavated is a conglomerate, which is a sedimentary rock formation. No additional impact compared to the Original DEIR Project is anticipated.

Noise and Vibration

Under the RNFSA Project, the differences in noise generation would primarily occur at the NFSA and the western end of the mining excavation area (Cut 1). It is anticipated that NFSA utilization may not begin until approximately the 15th year of mining, and operations may only occur for approximately 5 years, thus reducing the length of time that potential sensitive receptors in the Bee Canyon Mobile Home Park (if that project is constructed) would be exposed to operations on the face of the north slope. Under the Original DEIR Project, NFSA utilization may begin in the first year of production.

Under the RNFSA Project, the timing of mining would change in comparison to the Original DEIR Project. Mining operations would begin at the western end of the site in Year 1 and continue through approximately Year 15. During this period, the equipment would be operating at distances between 1,000 to 3,000 feet from the River's End Trailer Park. Under the Original DEIR Project, operations in the western portion of the site would be expected to occur from approximately Year 11 through Year 20 of operations. Operations in terms of number of pieces of equipment operating simultaneously would be similar for the RNFSA Project and Original DEIR Project; thus, operational noise would remain at approximately 67 dBA at 1,000 feet. Impacts and mitigation for the RNFSA Project would be the same as discussed in the Environmental Impact Report for the Original DEIR Project.

Biota

The mining area footprint and NFSA footprint would be reduced in size under the RNFSA Project as compared to the Original DEIR Project. Overall, the area disturbed by activity on the site would be decreased by approximately 40 acres (a 15 percent reduction in area affected). The estimated habitat impacts of this approach compared to the Original DEIR Project are listed in Table 3-4A.

Table 3-4A
APPROXIMATE ACREAGES OF VEGETATION
COMMUNITIES AFFECTED BY THE RNFSA PROJECT

Project Areas	Vegetation Communities				
	Coastal Sage Scrub	Coastal Sage Scrub/ Semidesert Chaparral	Coastal Sage Scrub/ Mixed Chaparral	Mixed Chaparral	Total
Original DEIR Project	4	128	20	35	187
Reduced NFSA	3	114	13	25	155*

* Includes 8 acres of disturbed land from previous mining operations.

The RNFSA Project would slightly reduce the habitat effects relative to the Original DEIR Project. Consequently, the impact of the RNFSA Project on sensitive wildlife and plants, both onsite and adjacent offsite areas, as well as the potential effects on the endangered unarmored threespine stickleback, would be slightly less than those stated for the Original DEIR Project.

Summary of RNFSA Project

Overall, the RNFSA Project would result in less environmental impact compared to the Original DEIR Project. It would have less impact on biota and the associated visual disturbance in the NFSA due to less acreage needed for fines storage. Also, because of the deeper excavation of Cut 1, not only does it allow for fines disposal, it also reduces the timeframe of the NFSA activity to the last 5 years of the mining operation, instead of the entire 20 years. The plan of mining is also less impacting to the ridgeline which would be retained at an elevation of between 50 and 80 feet higher than the Original DEIR Project.

3.1.5 Requirements for Blasting

The subsection discusses the project requirements for blasting that apply to the Original DEIR Project and the RNFSA Project. The quantification of blasting parameters is a refinement to the overall Mining and Reclamation Plan.

Characteristics and Measurement of Vibration Due to Blasting

Blasting is often performed in aggregate mines as the only practical method to fracture and loosen rock that is too hard or consolidated to excavate with conventional mechanical equipment. Various researchers and governmental agencies have studied the effects and characteristics of such blasting, and standards have been established to limit the effects that blasting may have on surrounding areas. These standards, which are identified below, consider factors related to damage potential and those related to human perception and response.

The three main effects that potentially result from blasting include ground vibration, air overpressure (or airblast), and flyrock (rock flying away from the blast). The Department of the Interior, Office of Surface Mining Reclamation and Enforcement (OSMRE), addresses these aspects in its regulations implementing the Federal Surface Mining Control and Reclamation Act of 1977, Pub. L. 95-87 (30 U.S.C. "1201 et seq.), found in 30 CFR, Chapter VII.

Ground Vibration

The commonly measured physical effects of blasting relating to ground vibration are particle displacement, velocity, and acceleration. Of these, particle velocity, measured in inches per second (in/sec), has been shown to be the most closely correlated to damage in the frequency range of typical blasting vibrations. OSMRE regulations stipulate that the maximum ground vibration due to blasting shall not exceed the limits listed in Table 3-4B at the location of any

dwelling, public building, school, church, or community or institutional building outside of the permit area.

Table 3-4B
OSMRE MAXIMUM ALLOWABLE PARTICLE VELOCITY

Distance From Blast Site (feet)	Maximum Allowable Peak Particle Velocity (in/sec)	Scaled-Distance Factor
0 to 300	1.25	50
301 to 5,000	1.00	55
5,001 and beyond	0.75	65
Source: OSMRE, 30 CFR, Section 816.67(d)		

The effects of blasting depend on frequency as well as velocity. In the frequency range from approximately 3 to 15 hertz (Hz), a recommended a safe peak particle velocity of 0.75 in/sec for drywall in houses and 0.50 in/sec for plaster (U.S. Department of the Interior, 1980b). Above 15 Hz, the recommended safe vibration levels increase linearly from 0.75 in/sec to 2 in/sec at 40 Hz. Above 40 Hz, 2 in/sec is the recommended safe level of vibration for houses. Five to 60 Hz are typical frequencies that result from blasting.

For the Soledad Canyon Sand and Gravel Mining Project, the impact significance criterion for ground vibration is set at 0.5 in/sec, which is below the OSMRE maximum limits shown in Table 3-4B, but is consistent with the regulatory limits established for other projects involving blasting in California.

Although structural damage from blasting does not normally occur unless ground vibrations are greater than 2 in/sec, humans respond to vibrations accompanied by noise at much lower levels. Based on experience from monitoring in residential areas around numerous quarry, mine, and construction blasts, it has been reported that the average individual has the response to blast vibration and airblast levels, as presented in Table 3-4C (Bender 1991). The scale assumes that the individual is at rest in a quiet location.

Table 3-4C
HUMAN RESPONSE TO BLASTING

Average Human Response	Vibration (in/sec)	Sound Level (dB)
Barely perceptible	0.02-0.10	50-70
Distinctly to strongly perceptible	0.10-0.50	70-90
Strongly perceptible to mildly unpleasant	0.50-1.00	90-120
Mildly to distinctly unpleasant	1.00-2.00	120-140
Distinctly unpleasant to intolerable	2.00-10.00	140-170
Source: Bender 1991		

As to the threshold of perceptibility, persons cannot detect blast vibration levels lower than 0.01 inches/second. In the absence of blast noise, many people are unable to detect blast vibration levels in the range of 0.03 to 0.06 inches/second, even when they are anticipating the event (Bender 1991).

Airblast

When energy from an explosion is released directly into the air, it forms a propagating wave commonly referred to as an airblast. Airblast waves are referred to as noise (frequencies between 20 and 20,000 Hz) and concussion (frequencies below 20 Hz). The airblast waves are measured in terms of overpressure in either dBL or pounds per square inch (psi).

Airblasts have not been as thoroughly investigated as ground vibration. The U.S. Bureau of Mines (1980a) and OSMRE give airblast damage criteria for nongovernment structures such as residential buildings as presented in Table 3-4D.

Factors normally affecting airblast include weather, time, product, depth of individual changes, time delay of individual changes, and physical barriers. Consequently, prediction of actual airblast overpressure is somewhat more difficult than predicting ground vibration. The appropriate regulatory limit for airblast is the limit recommended by both the Bureau of Mines and the OSMRE is 133 dBL for airblast.

An additional factor to consider is the perceived noise level resulting from the airblast. Some of the sound pressure frequencies of the airblast are not within the range of human hearing. A blast with an air overpressure of 115 dBL, for instance, might be virtually unnoticeable if the predominant frequencies are low (less than 5 Hz). A similar blast with predominant frequencies within the range of human hearing could be quite annoying. With respect to airblast, the magnitude of the blast expressed as overpressure in dB has little to do with whether or not damage could occur. These factors are indicative of the difficulty in developing a relationship between airblast overpressure and audible noise level. The audible noise component of blasting is best quantified by monitoring during actual blast conditions. However, OSMRE air blast standards have been established in consideration of the human response to airblast.

Table 3-4D
CRITERIA FOR DAMAGE FROM AIRBLAST OVERPRESSURE

Occurrence	Sound Level
"No Damage" threshold of blasting	128 dBL
OSMRE limits (above 2 Hz)	133 dBL
USBR interim limit of allowable airblast	136 dBL
Some large plate glass windows may break	141 dBL
Some windows break	151 dBL
Most windows break	171 dBL
Structural damage	181 dBL

Source: U.S. Bureau of Mines and Geology, 1980a

Human Response to Blasting

Bender (1991) summarizes human response to blast vibration as follows. "Human response to blast vibration and airblast is difficult to quantify. Vibration and airblast levels can be felt that are well below those required to produce any damage. Duration of the event has an effect on human response as does the frequency. Events are of relatively short duration, on the order of one or two seconds for millisecond-delayed blasts. Typically, the longer the event and the higher the frequency, the more adverse effect there is on human response. Factors such as frequency of occurrence, fright or the startle factor, level of activity at the time of the event, health of the individual, time of day, the perceived importance of the blasting operation and other political and economic considerations also have an effect on human response."

In addition, considerable attention has been given in the literature to the inherent problems of determining cause and effect relative to perceived damage from blasting. Many forces are associated with the typical use of residential structures, such as closing doors, walking on structural floors, and normal settlement, that can exert far greater structural strains than properly conducted blasting operations. Though OSMRE regulations do not specifically address criteria for human perception and subjectivity of response, they do in fact provide a considerable measure of protection against adverse reaction. The recommended maximum peak airblast for protection from structural damage is also low enough to meet the most strict criteria for public health promulgated by the Committee on Hearing, Bioacoustics, and Biomechanics (CHABA).

The vibration limit of 0.5 in/sec and the airblast limit of 133 dBL (within the range of 1 to 100 Hz) are more than sufficient to protect typical residential structures from damage. However, a ground vibration of 0.5 in/sec will be strongly perceptible to most people and possibly annoying to some.

Vibration Effects Due to Blasting

When blasting is to be performed, the single-event noise level may temporarily exceed the long-term excavation activity noise levels and thus create a brief noise intrusion. The site is composed mainly of conglomerate materials, consisting of tightly compacted sand and gravel. In order to efficiently excavate the conglomerate, a program of low-yield blasting will be implemented to loosen the material. The actual blasting is a rapid event, typically lasting only seconds. Due to the placement of charges underground, this blasting typically produces less noise than the heavy equipment used in the mining operation. Furthermore, because the occurrence is so brief, it does not significantly raise the CNEL but could be more of a nuisance impact due to potential ground vibrations. Rock drills used to create holes for blasting charges are another noise source. The use of these drills, however, is not projected to create a greater noise level than that predicted for pit operations and will not raise the offsite CNEL above predicted levels.

A typical blast may involve approximately 17,600 cubic yards of conglomerate sand and gravel material. Approximately 0.5 pound per cubic yard of the explosive agent ammonium nitrate/fuel oil (ANFO) will be required to loosen the material. Charges of 200 pounds each

will be detonated per delay period, with a typical blast event of 44 charges or 8,800 total pounds of ANFO. The purpose of the delay period is to minimize the sound and vibrational impact of the blast event. The impacts of the blast event are then characterized using the size of the individual charge (Calder & Workman, Inc. 1996).

As noted above, an impact may be significant if it creates vibration in excess of 0.5 in/sec at the perimeter of any of the proximate residential structures. Vibration created from subsurface blasting is approximated using data prepared for the military (Gould and Tempo 1981), as follows:

$$V_{max} = 2{,}700\ (D/W^{1/3})^{-1.4}$$

where

V_{max} = resultant peak particle velocity (centimeters per second [cm/sec])
D = distance (m)
W = TNT-equivalent weight (tons)

For proximate receptor locations,

D = 1,320 ft / 3.28 ft/m = 402.4 m
W = 200 lbs. / 2,000 lb./ton = 0.1 tons

(The referenced document notes that, with respect to ground cratering, ANFO has a TNT equivalent weight of 1.00).

$$V_{max} = 2{,}700\ (402.4/0.1^{1/3})^{-1.4}$$

$$V_{max} = 0.21 \text{ cm/sec} / 2.54 \text{ in/cm} = 0.08 \text{ in/sec}$$

This value (0.08 in/sec), applicable to the residence on Capra Road, is below the vibration significance criteria and is considered less than significant. This level of vibration could be characterized as "barely perceptible" by humans and would not damage residential structures. By using the same methodology, the motion velocity of blasting vibration projected to River's End Trailer Park would be 0.12 in/sec, which is also less than significant. If the Bee Canyon Mobile Home Park is constructed, vibration levels during Cut 1 blasting would be 0.32 in/sec (at a distance of 500 feet). The impact would not be significant.

For those proximate residents located in the Agua Dulce area (2.8 miles from the Project site), the calculated vibration is 0.0028 in/sec, which is not significant and is also below the perception thresholds of humans. Finally, the vibration at the Agua Dulce Town Center located at about 4 miles from the Project site is calculated at 0.0017 in/sec, which is not significant.

Airblast Effects Due to Blasting

Precise prediction of the impact due to airblast is difficult due to the number of variables that can affect the propagation of air overpressure. For purposes of this impact analysis, the impacts are considered potentially significant. However, airblast can be effectively modified by altering the blast design, and it can be monitored for compliance. The Applicant has agreed to conduct blasting operations in compliance with OSMRE standards including a blasting monitoring program. As previously discussed, OSMRE standards have been developed to provide adequate protection to receptors from both ground vibration and air overpressure. In addition, airblast impacts will be substantially attenuated at most receptor locations by the intervening ridgeline.

Blasting Plan

The Applicant will conduct blasting operations in general conformance with the federal OSMRE regulations as stated in 30 CFR, Chapter VII, Sections 816.61 through 816.68. Conformance shall be demonstrated by preparing a detailed Blasting Plan identifying project compliance with the stated requirements (as minimum standards) and monitoring of blasting activities. The Blasting Plan shall be reviewed and approved by the County prior to conducting any blasting onsite. The Blasting Plan shall establish requirements for:

1. Submitting to and gaining approval by the County of the specific blast design prior to blasting, where such blasting will occur within 1,000 feet of habitable buildings outside of the permit area.

2. Conducting a public awareness program including notification of all residents within one-half mile of any part of the permit area of the opportunity to request a preblast survey. The notification is to be done at least 30 days prior to initiation of blasting. A TMC information officer who can be contacted by telephone for information will be designated.

3. Publishing the anticipated blasting schedule at least 10 days prior to the beginning of the blasting program via a newspaper of general circulation in the Project area and by direct mail to residents within one-half mile, and republishing at least every 12 months or whenever substantive changes to the schedule are to be implemented.

4. Placing warning signs and access controls at blast areas.

5. Incorporating the provision that blasting shall be conducted to prevent injury to persons, damage to public or private property outside the permit area, adverse impacts on any underground mine, and change in course, channel, or availability of surface or groundwater outside of the permit area.

6. Conducting blasting so that the maximum air overpressure shall not exceed 133 dB (2-Hz minimum) measured directly between the nearest occupied residence and the blast site (U.S. Bureau of Mines 1980a).

7. Conducting blasting so that the peak particle velocity generated from any blast shall not exceed 0.5 in/sec for vibration frequencies below 40 Hz and 2.0 in/sec for vibration frequencies of 40 Hz or more, measured directly between the nearest residence and the blast site (U.S. Bureau of Mines 1980b). The County shall allow other methods of determining acceptable particle vibration, such as the use of scaled-distance equations, subject to approval.

8. Conducting periodic monitoring offsite to ensure compliance with airblast and vibration standards and providing a seismograph record of each blast. Monitoring shall be conducted at a representative residential receptor and at a representative location adjacent to the Santa Clara River riparian habitat.

9. Controlling flyrock at the blast site in accordance with OSMRE regulations. Flyrock traveling in the air or along the ground shall not be cast from the blasting site.

10. Maintain records as specified by the County of all blasts for a minimum 3-year period.

11. Identifying conditions when blasting will be curtailed including atmospheric conditions that are conducive to transmission and amplification of noise offsite, and/or conditions conducive to the transport of high levels of fugitive dust emissions offsite. The Blasting Plan will identify such conditions where blasting is to be curtailed by the Applicant. The program shall also specify the candidate control measures specifically aimed at reducing blasting fugitive emissions.

12. Identifying other parameters affecting blasting such as the regulatory requirement that blasting be conducted during daylight hours. Blasting shall be prohibited on Sundays and specified holidays.

13. Implementing specific measures to prevent nitrate contamination of surface and groundwater due to use of ANFO.

SECTION 4 - RECLAMATION PLAN AND SPECIFICATIONS

No changes are required in this section.

SECTION 5 - REFERENCES

Citations for the additional geotechnical reports referenced above in Section 2 are incorporated in this section. Additional references include the following:

Bender, Wesley L., 1991, *Blasting Vibration and Airblast.* Bender Blasting Consultant, Nevada City, California.

Calder & Workman, Inc., 1996, *Pit and Quarry Handbook*, Article by Lyall Workman.

Gould, K.E. and K.Tempo, 1981, *High-Explosive Field Tests, Explosion Phenomenea and Environmental Impacts*, October 1, 1981.

Hilltop Geotechnical, September 1997, *Supplemental Slope Stability Evaluations, Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California*, Project No. 97018, Report No. 5.

Hilltop Geotechnical, October 1997a, *Surficial Slope Stability Evaluations, Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California*, Project No. 97018, Report No. 6.

Hilltop Geotechnical, October 1997b, *Slope Stability Evaluation Update, Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California*, Project No. 97018, Report No. 7.

Hilltop Geotechnical, January 1998, *Slope Stability Evaluation Update for the Revised Mining and Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California*, Project No. 97018, Report No. 8.

Hilltop Geotechnical, January 1998, *Slope Stability Evaluation for the "Optional Approach" to Mining, Temporary and Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California*, Project No. 97018, Report No. 8.

U.S. Department of the Interior, Bureau of Mines, 1980a, *Structure Response and Damage Produced by Airblast for Surface Mining*. Report of Investigations No. 8485.

U.S. Department of the Interior, Bureau of Mines, 1980b, *Structure Response and Damage Produced by Ground Vibration from Surface Mine Blasting*, by Siskind, Stagg, Knopp, and Dowding. Report of Investigations No. 8507.

West Coast Environmental. 1998. Addendum to the Drainage Concept for the Optional Approach to Mining Cuts.

APPENDICES

No changes are required in this section. However, a revised Stormwater Pollution Prevention Plan (Appendix D) and Spill Prevention Control and Countermeasure Plan (Appendix E) have been prepared and submitted separately to Los Angeles County Department of Public Works. The revised reports will appear in the revised Mining and Reclamation Plan.

ATTACHMENT 1

TO THE

ADDENDUM TO THE
MINING AND RECLAMATION PLAN
FOR SOLEDAD CANYON
SAND AND GRAVEL MINING PROJECT

Project No. 91165
Los Angeles County
Department of Regional Planning

SLOPE STABILITY EVALUATION FOR THE "OPTIONAL APPROACH" TO MINING, TEMPORARY AND RECLAIMED CONTOUR CONFIGURATIONS, PROPOSED SOLEDAD CANYON AGGREGATE FACILITY, SOLEDAD CANYON AREA, LOS ANGELES, CALIFORNIA

PROJECT NO. 97018
REPORT NO. 8

JANUARY 28, 1998

SUBMITTED TO:

TRANSIT MIXED CONCRETE COMPANY
1201 WEST GLADSTONE STREET
AZUSA, CALIFORNIA 91702

PREPARED BY:

HILLTOP GEOTECHNICAL, INC.
27210 E. THIRD STREET
HIGHLAND, CA. 92346

Hilltop Geotechnical, Inc.

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RUNNING SPRINGS OFFICE - *P.O. Box 663, Running Springs, CA 92382 (909) 867-5593*

January 28, 1998

Transit Mixed Concrete Company
1201 West Gladstone Street
Azusa, California 91702

Project No. 97018
Report No. 8

Attention: Mr. Brian Mastin

Subject: Slope Stability Evaluation for the "Optional Approach"
To Mining, Temporary and Reclaimed Contour Configurations
Proposed Soledad Canyon Aggregate Facility
Soledad Canyon Area
Los Angeles County, California

References:

1. **Hilltop Geotechnical, Inc.** September 30,1997, *Supplemental Slope Stability Evaluations, Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California,* Project No. 97018, Report No. 5.

2. **Hilltop Geotechnical, Inc.** October 14,1997, *Surficial Slope Stability Evaluations, Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California,* Project No. 97018, Report No. 6.

3. **Dan Pellow**, November 21, 1997, *Maximum Extent of Mining Plan* ("Optional Approach").

4. **Dan Pellow**, December 1, 1997, *Reclaimed Contours at End of Mining Plan* ("Optional Approach").

Gentlemen:

In accordance with your request, we have completed slope stability evaluations of the Reference Nos. 3 and 4 plans for the contour configurations for the maximum extent of mining and the reclaimed contours at the end of mining for the Optional Approach at **Transit Mixed Concrete Company's (TMCC)** proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California.

PURPOSE AND SCOPE OF SERVICES

The purpose of the slope stability evaluations was to augment the prior general stability analysis and evaluate the temporary cut slopes during mining and the final slope configurations planned for the reclamation of the site using the "Optional Approach" to mining plan in order to comply with the Los Angeles County Department of Public Works stipulations regarding factors of safety. This included pseudo-static (seismic) slope evaluations using fault magnitude information obtained from the "California Fault Parameter" data obtained from the newly adopted report by the Division of Mines and Geology and U.S.G.S. entitled "Probabilistic Seismic Hazard Assessment for the State of California, 1996 (OFR 96-08).

This study consisted of the following: Review previously conducted geotechnical analyses for the project site, conduct additional slope stability evaluations of the most critical areas within the project area using the newly adopted fault parameter data, engineering analyses of the "Optional Approach", and preparation of this report.

"OPTIONAL APPROACH" SLOPE STABILITY EVALUATION

SEISMIC HAZARD PARAMETER

Updated fault parameter information was obtained from the recently published data by **California Division of Mines and Geology** and was utilized in their development of Open File Report 96-08. This report was co-authored with the U.S. Geological Survey (Open File Report

96-706) for the primary purpose of assessing seismic hazards in the State of California. Information published in this report is intended to be utilized by engineers, geologists and public policymakers for the purpose of mitigating the effects of seismic hazards in structural design and land use planning. Based upon the fault information presented in this report, the Mojave segment of the San Andreas Fault is the closest and most applicable segment of the San Andreas Fault that would affect the Soledad Canyon site. A Maximum Moment Magnitude of 7.1M is listed for this segment.

Based on a maximum probable earthquake of 7.1M along the Mojave segment of the San Andreas Fault Zone, the maximum probable peak horizontal bedrock acceleration of 0.25g could be expected. Considering that repeatable accelerations are generally 65 percent of the maximum probable acceleration, an acceleration of 0.16g is judged to be the applicable horizontal acceleration used for the psuedostatic slope stability analysis presented below.

SOIL PROPERTIES

Geotechnical parameters utilized for the initial slope stability evaluations were reviewed and adopted for these stability evaluations conducted herein. These parameters are summarized in Table 1 below.

TABLE 1

GEOTECHNICAL PARAMETERS USED FOR Analyses

Geologic Unit / Soil Unit	Angle of Internal Friction (°)	Cohesion (psf)	Moist Unit Weight (pcf)
Vasquez Formation (Cross Bedding) (Tv1)	42	1000	140

Geologic Unit / Soil Unit	Angle of Internal Friction (°)	Cohesion (psf)	Moist Unit Weight (pcf)
Vasquez Formation (With Bedding) (Tv1)	39	600	140
Anothorsite (pEAn)	45	1000	145
Production Waste Fines (Fill) (75% Relative Compaction)	35	0	111
Production Waste Fines (Fill) (80% Relative Compaction)	37	50	119.5
Production Waste Fines (Fill) (Minimum Strength Values for Outer 10' of Slopes)	35	175	127*

- Saturated Unit Weight.

STABILITY EVALUATION

The stability evaluation was initiated by reviewing the Reference Nos 3 and 4 Plans. Slope stability analyses were conducted for the geometries represented along Cross-Sections NA-NA', NB-NB', NC-NC', ND-ND', NE-NE', NF-NF', and NG-NG' which were considered to be the most critical as shown on the attached Slope Stability Cross-Sections, Plate Nos. 1A and 1B.

The computer program used to compute the safety factors for the gross slope stability under static and pseudo-static (seismic) conditions was PCSTABL5M by **Purdue University**. The program method used was the simplified Janbu's method of slices for computing the factor of

safety for circular failure surfaces. The PCSTABL5M program features unique random techniques for generation of potential failure surfaces and for subsequent determination of the more critical surfaces and the corresponding factors of safety. If the pattern of the ten (10) most critical failure surfaces (lowest factors of safety) is compact and the range of factors of safety is small, a more refined search was not considered necessary.

The analyses were conducted utilizing anisotropic soil conditions to evaluate failure modes with favorable into slope bedding plane and unfavorable out of slope bedding plane orientations of the Vasquez formation, where appropriate. The computer program PCSTABL5M was also utilized to evaluate the pseudo-static (seismic) stability of these slopes using an acceleration of 0.16 g. The results of the stability evaluations are attached for reference. A summary of the stability evaluation results is presented in Table 2.

TABLE 2

SUMMARY OF SUPPLEMENTAL SLOPE STABILITY EVALUATIONS

Cross-Section Evaluated	Slope Criteria (H:V)	Static Factor of Safety	Pseudo-Static Factor of Safety (a=0.16g)
NA-NA'	Temporary Cut Slope	1.25	N/A
NA-NA'	Temporary Cut / Reclaim Slope	1.5	1.2
NB-NB'	Temporary Cut / Reclaim Slope	**1.4**	**1.08**
NC-NC'	Temporary Cut / Reclaim Slope	1.7	1.3
ND-ND'	Temporary Cut / Reclaim Slope	1.5	1.1
NE-NE'	Temporary Cut / Reclaim Slope	1.8	1.2
NF-NF'	Temporary Cut / Reclaim Slope	1.8	1.2
NG-NG'	Temporary Cut Slope	**1.23**	N/A

N/A Not Applicable

Los Angeles County Department of Public Works and generally accepted geotechnical industry standards for minimum factors of safety for permanent slopes are 1.5 and 1.1 for static and pseudo-static (seismic) loading conditions, respectively, and 1.25 under static conditions for temporary cut slopes. As shown above, suitable factors of safety were determined on Cross-Sections NA-NA', NC-NC', ND-ND', NE-NE', and NF-NF'. Factors of safety below the minimum standards were calculated for Cross Sections NB-NB' and NG-NG'.

Additional slope stability analyses were performed to evaluate the maximum slope heights and inclinations for static conditions for temporary cut slopes for the final design of the mining plan. The results of the generic slope stability analyses are presented in Table 3.

TABLE 3

SUMMARY OF GENERIC SLOPE STABILITY EVALUATIONS

Slope Inclination (Horizontal to Vertical)	Maximum Slope Height (ft.)	Static Factor of Safety
1:1 Temporary Cut	440	1.25
1.05:1 Temporary Cut	475	1.28

As indicated in Table 3, the maximum height of temporary cut slopes at a 1:1 (Horizontal to Vertical) inclination is 440 vertical feet to comply with the Los Angeles County Department of Public Works minimum factors of safety for temporary cut slopes of 1.25 for static loading conditions.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the stability evaluation performed for the "Optional Approach" to mining, it is recommended that the permanent cut slope in the area above the upper haul road in the area of Section NB-NB' which exceeds 350 feet in vertical height be flattened to a 1.25:1 (Horizontal to Vertical) overall slope (1.10:1 with 15 foot benches every 100 feet in vertical height) as per the recommendations presented in the Reference No. 2 report.

In addition, the temporary cut slope in the area of Section NG-NG' which exceeds 440 feet in vertical height should be flattened to a 1.05:1 (Horizontal to Vertical) slope.

Based upon the results of the stability evaluation conducted and the implementation of the recommendations presented in this report and the Reference Nos. 1 and 2 reports, it is our opinion that the proposed temporary cut slopes and the final reclamation cut and fill slopes are considered stable under both static and seismic loading and surficial saturation based upon Los Angeles County Department of Public Works and geotechnical industry accepted standards.

CLOSURE

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical engineers practicing in this or similar localities. No other warranty, express or implied, is made. The scope of our services did not include any environmental assessment or study for the presence or absence of hazardous or toxic materials in structures, soil, surface water, groundwater or air, below or around this site. This report was prepared for the use of the **Transit Mixed Concrete Company** and their designates in cooperation with our office to be used as an aid in the design of the proposed project. We cannot be responsible for the use of this report by others without observation of the grading operation by our personnel. This report is not a bidding document, and any contractor

reviewing this report must draw his/her own conclusion regarding specific construction techniques to be used on this project.

The analyses and recommendations in this report are based in part upon data obtained from prior laboratory tests and geotechnical analyses performed by others. The nature and extent of variations of the native materials and fill soils beyond those present in the laboratory samples may not become evident until construction. If conditions are encountered during construction that appear to be different than those indicated by this report, this office should be notified since it may be necessary to reevaluate the recommendations of this report.

This office should be advised of any changes in the project scope or proposed mining. In the event that any changes of the project are planned, the conclusions and recommendations contained in this report shall be reviewed and the report should be modified or supplemented as necessary.

If you have any questions after reviewing the findings and recommendations contained in this report, please do not hesitate to contact this office. This opportunity to be of professional service is sincerely appreciated.

Respectfully submitted,
HILLTOP GEOTECHNICAL, INC.

Mark Hulett, CEG 1623
President

REGISTERED GEOLOGIST
MARK EDWARD HULETT
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ENGINEERING
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Donald L. Curran, GE 254
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No. GE254
EXP 3-31-03
GEOTECHNICAL
STATE OF CALIFORNIA

DLC/MH/mr

Attachments: Slope Stability Plots

Section NA-NA' Static Analyses - Temporary Slope
Section NA-NA' Static Analyses - Reclaim Slope
Section NA-NA' Seismic Analyses - Reclaim Slope
Section NB-NB' Static Analyses - Temporary / Reclaim Slope
Section NB-NB' Seismic Analyses - Temporary / Reclaim Slope
Section NB-NB' Static Analyses - Revised Reclaim Slope
Section NB-NB' Seismic Analyses - Revised Reclaim Slope
Section NC-NC' Static Analyses - Temporary / Reclaim Slope
Section NC-NC' Seismic Analyses - Temporary / Reclaim Slope
Section ND-ND' Static Analyses - Temporary / Reclaim Slope
Section ND-ND' Seismic Analyses - Temporary / Reclaim Slope
Section NE-NE' Static Analyses - Reclaim Slope
Section NE-NE' Seismic Analyses - Reclaim Slope
Section NF-NF' Static Analyses - Reclaim Slope
Section NF-NF' Seismic Analyses - Reclaim Slope
Section NG-NG' Static Analyses - Temporary Slope
Section NG-NG' Static Analyses - Generic Temporary Slope

Slope Stability Cross-Sections Plate Nos. 1A and 1B

Distribution: (6) Addressee

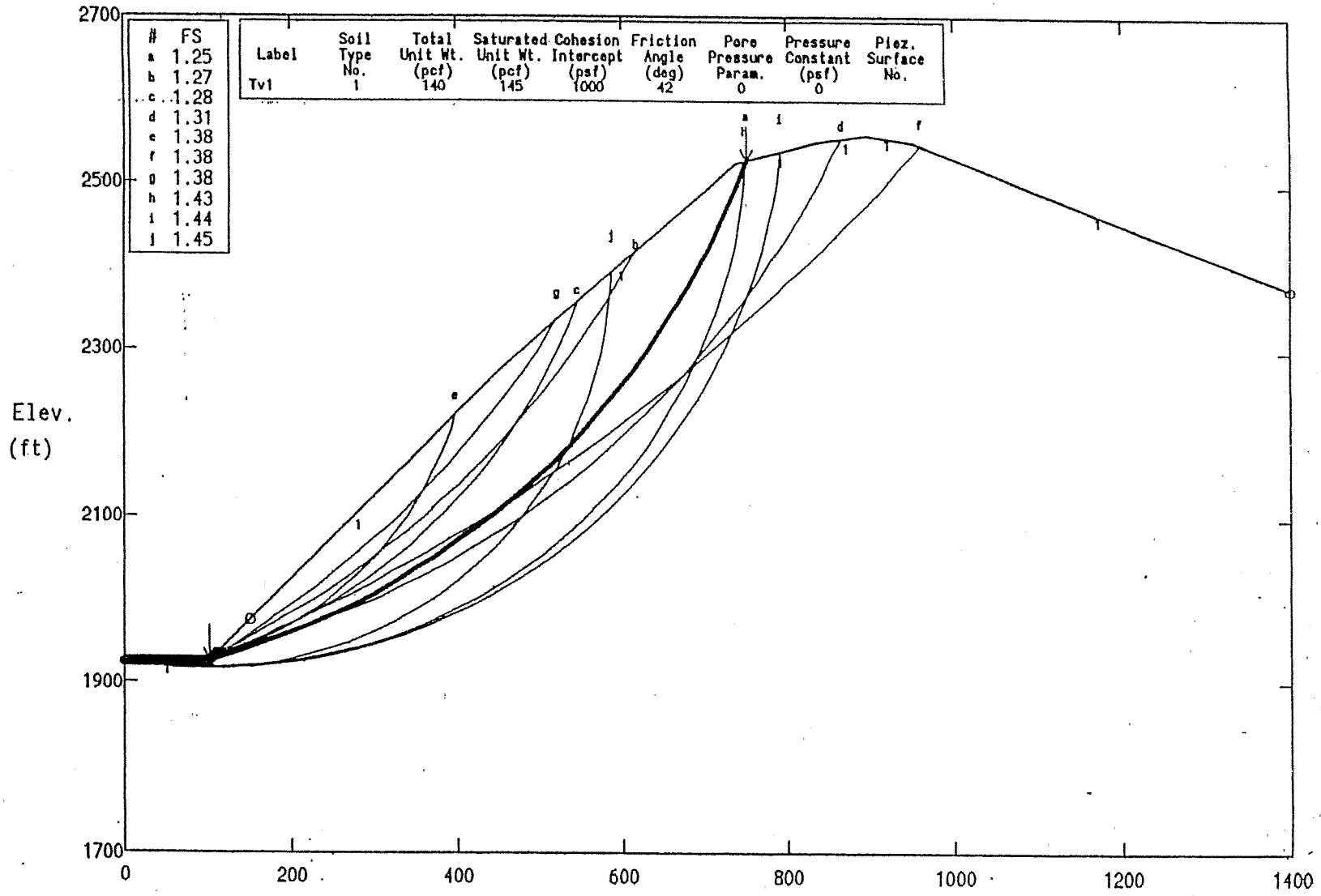
97018.8

Section NA-NA' Static Analyzes
Temporary Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NA-NA'- STATIC TEMPORARY SLOPE CUT

Ten Most Critical. C:9718NAT1.PLT By: DLC 01-13-98 12:29pm



PCSTABL5M FSmin=1.25 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NA-NA'- STATIC TEMPORARY SLOPE CUT

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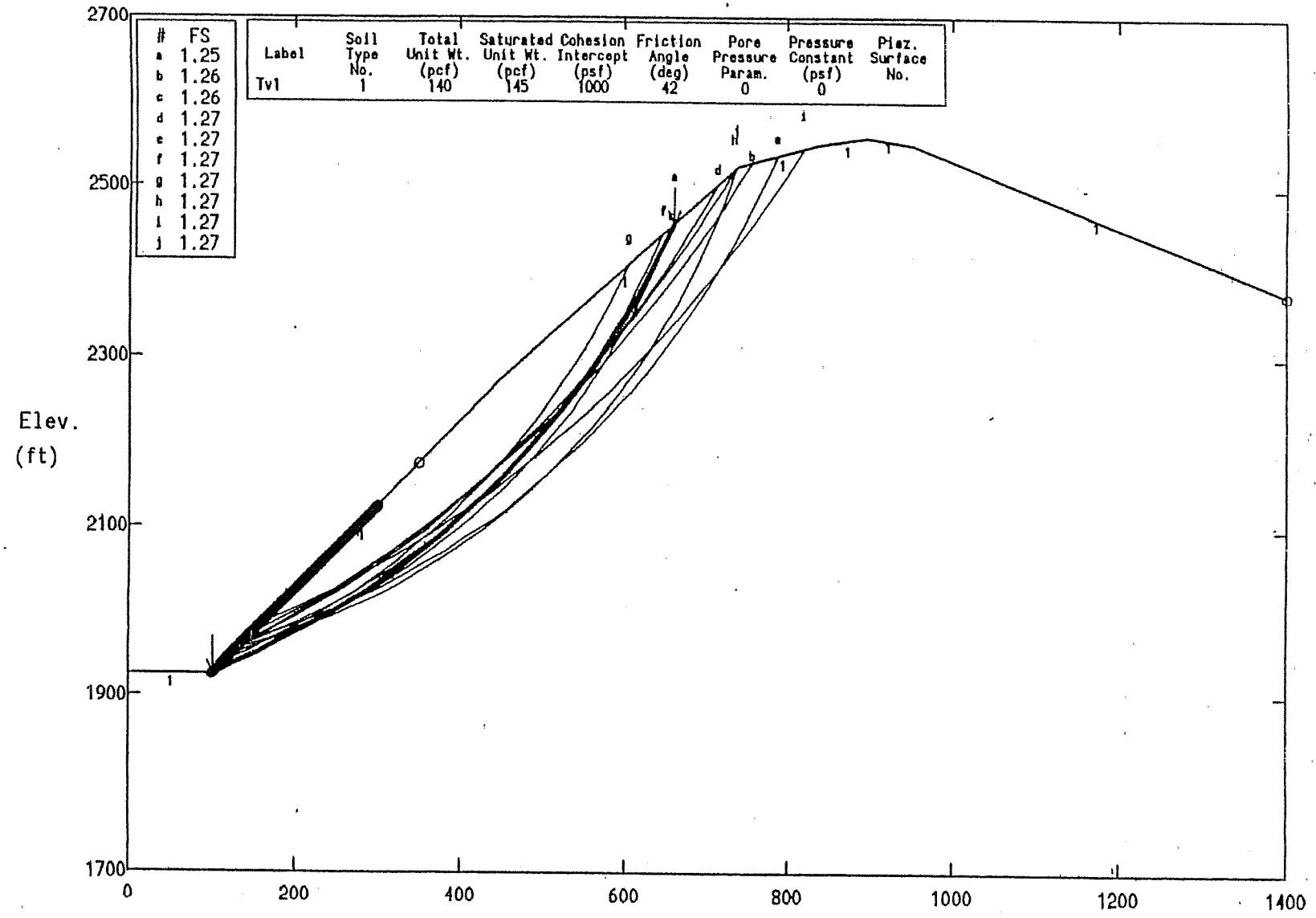

PCSTABL5M FSmin=1.25 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

97018.8

Section NA-NA' Static Analyzes
Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NA-NA'- STATIC

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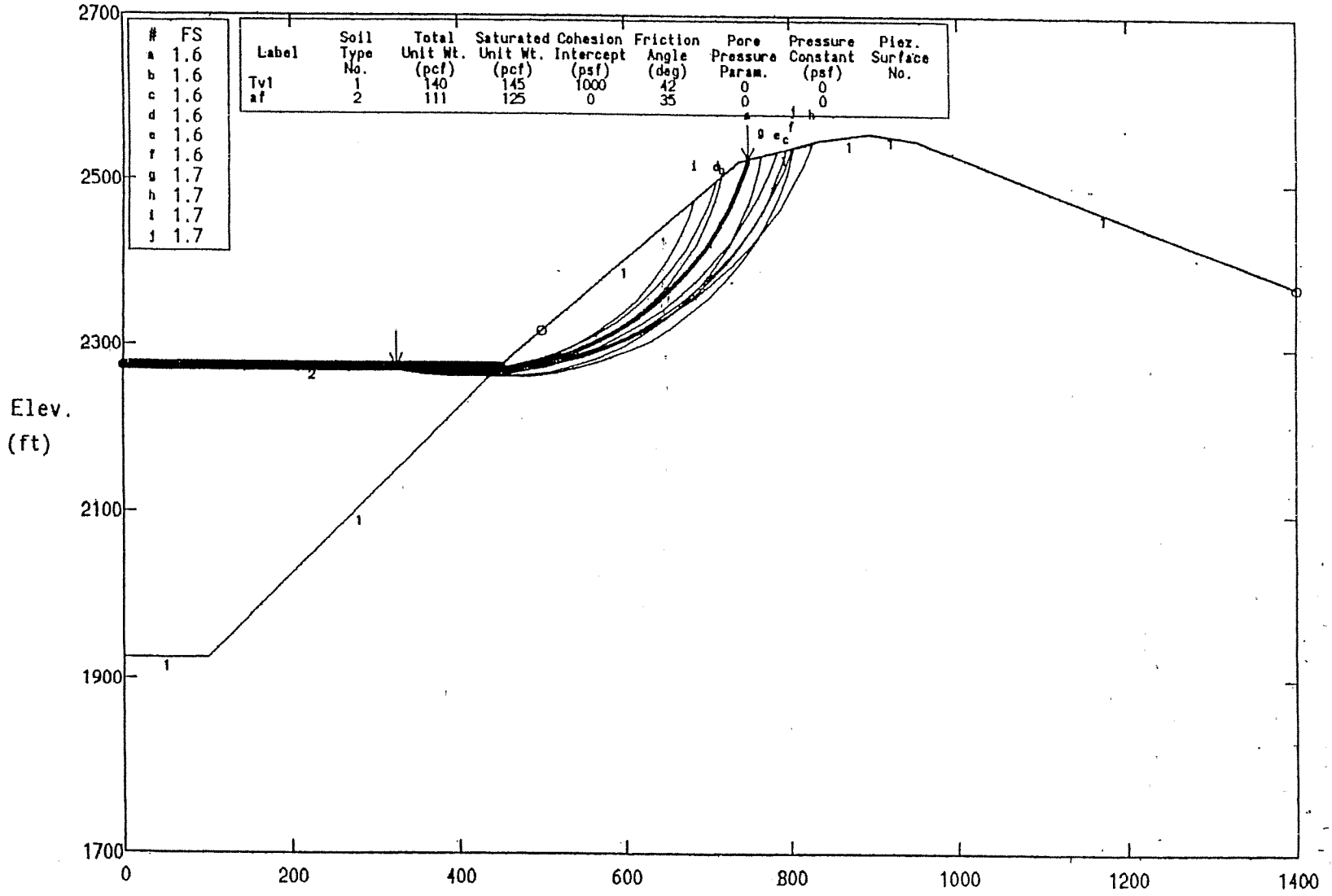

PCSTABL5M FSmin=1.6 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NA-NA'- STATIC

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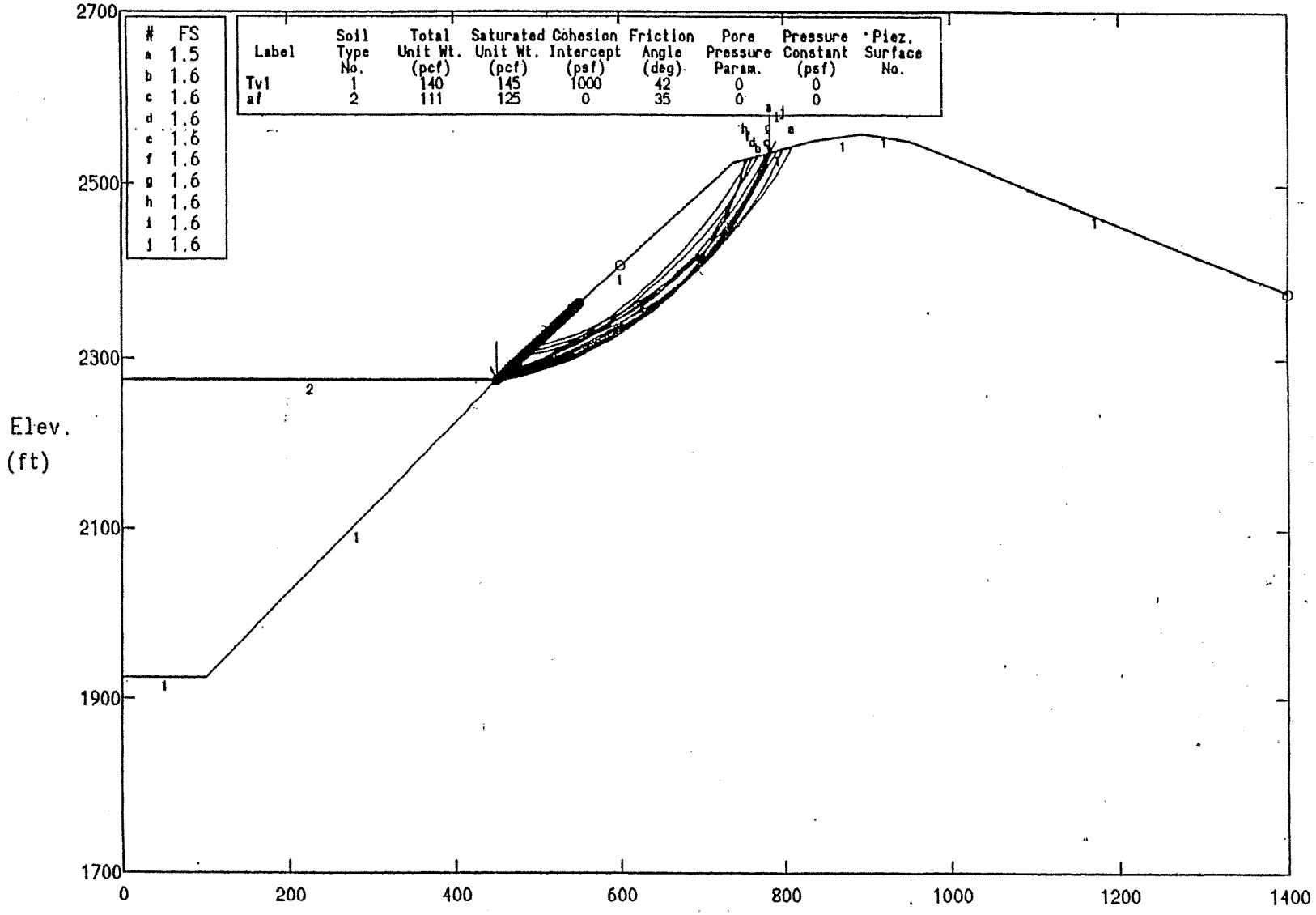


PCSTABL5M FSmin=1.5 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

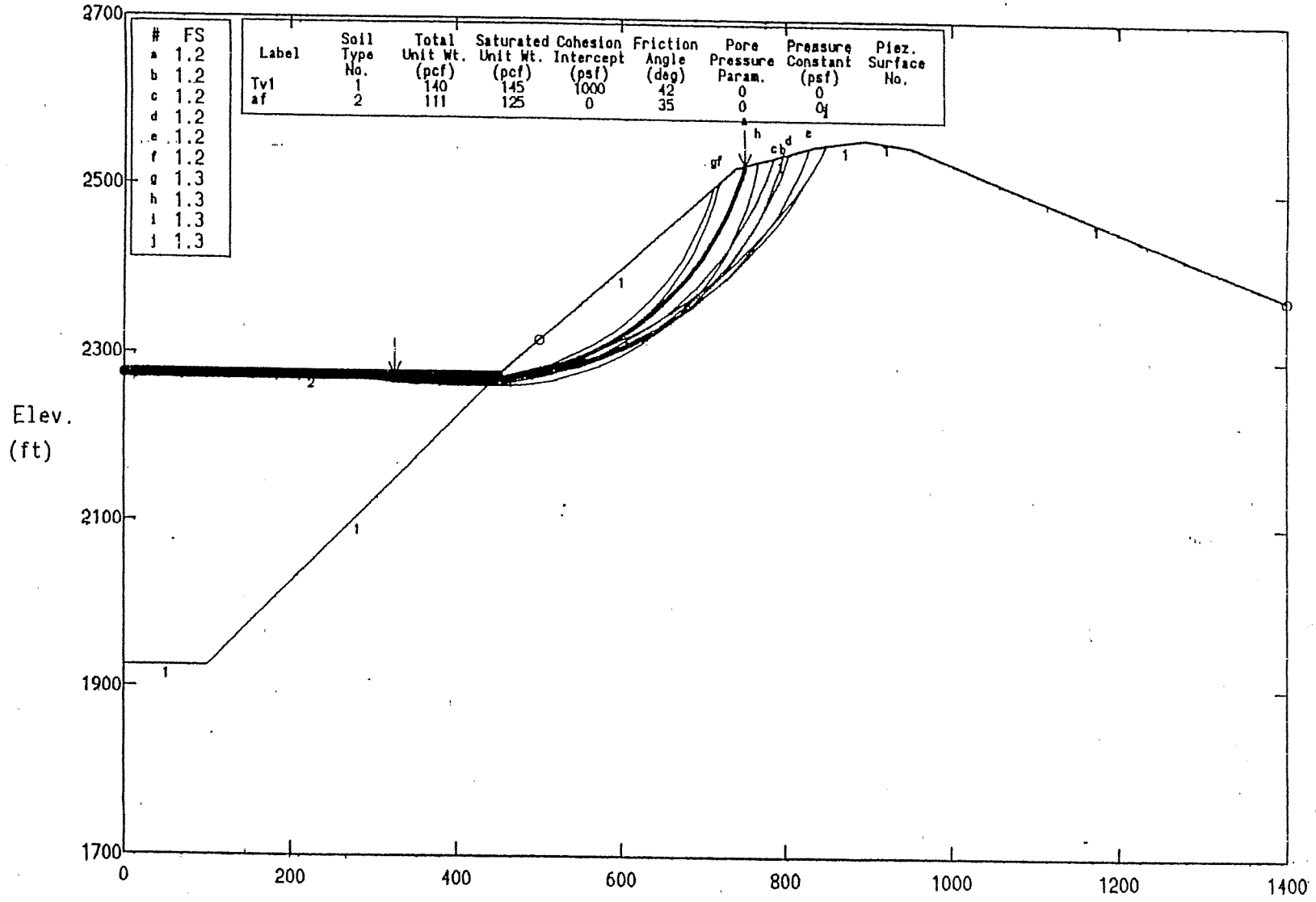
97018.8

Section NA-NA' Seismic Analyzes
Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NA-NA'- SEISMIC

Ten Most Critical. C:9718NAS1.PLT By: DLC 01-13-98 12:06pm

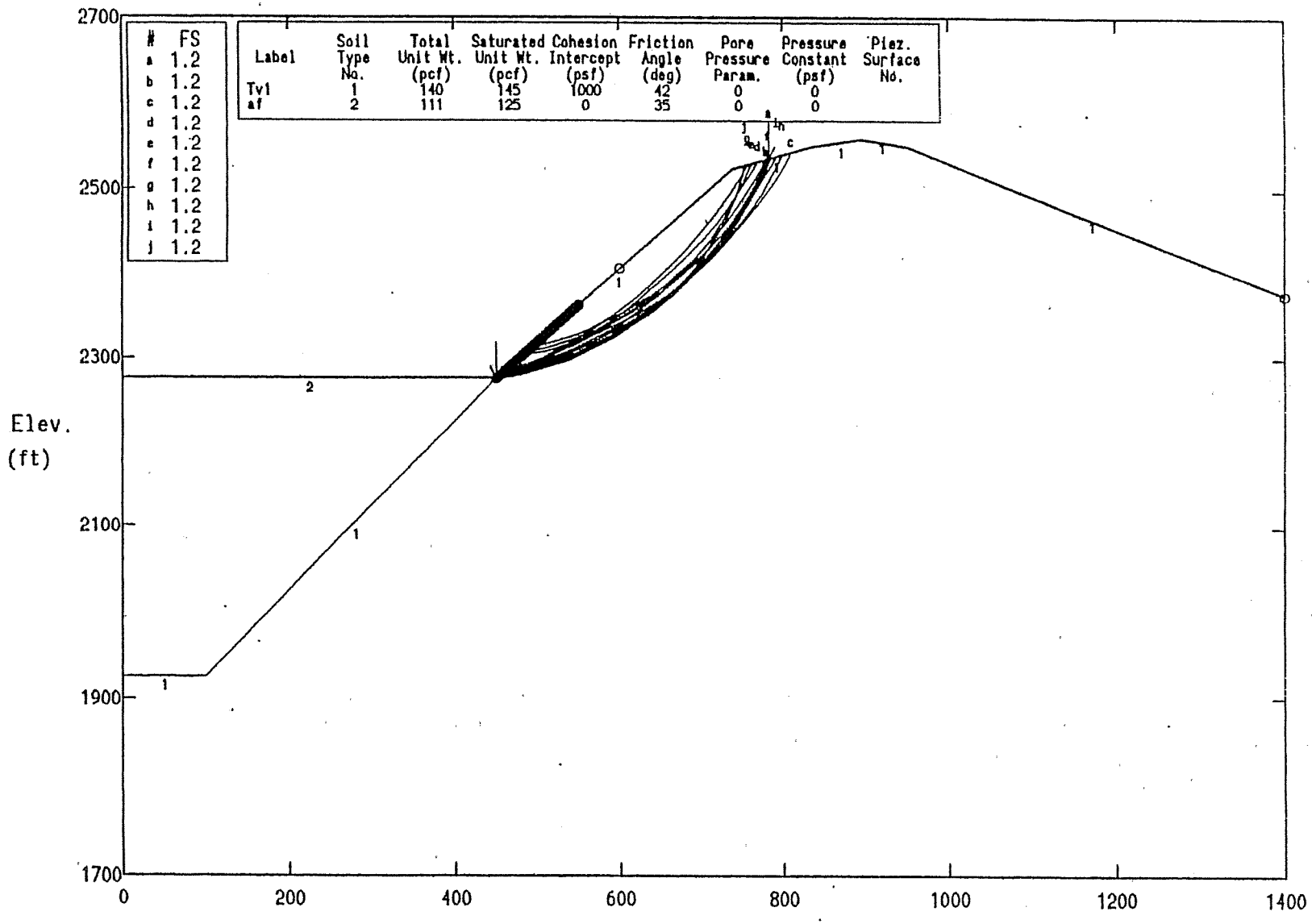


PCSTABL5M FSmin=1.2 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NA-NA'- SEISMIC

Ten Most Critical. C:9718NAS2.PLT By: DLC 01-13-98 12:03pm



PCSTABL5M FSmin=1.2 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

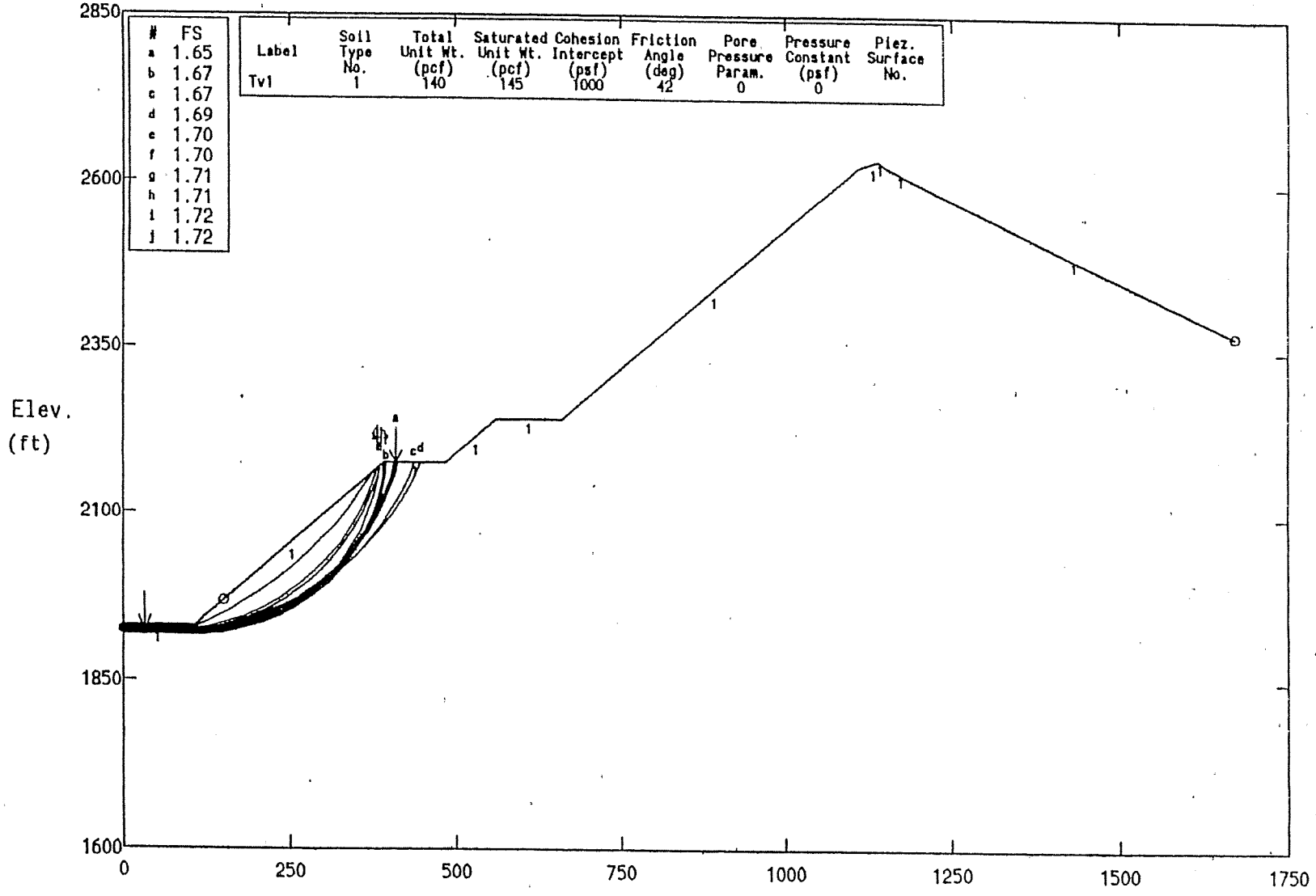
97018.8

Section NB-NB' Static Analyzes
Temporary / Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NB-NB'- STATIC

Ten Most Critical. C:9718NB1.PLT By: DLC 01-13-98 10:08pm



PCSTABL5M FSmin=1.65 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NB-NB'- STATIC

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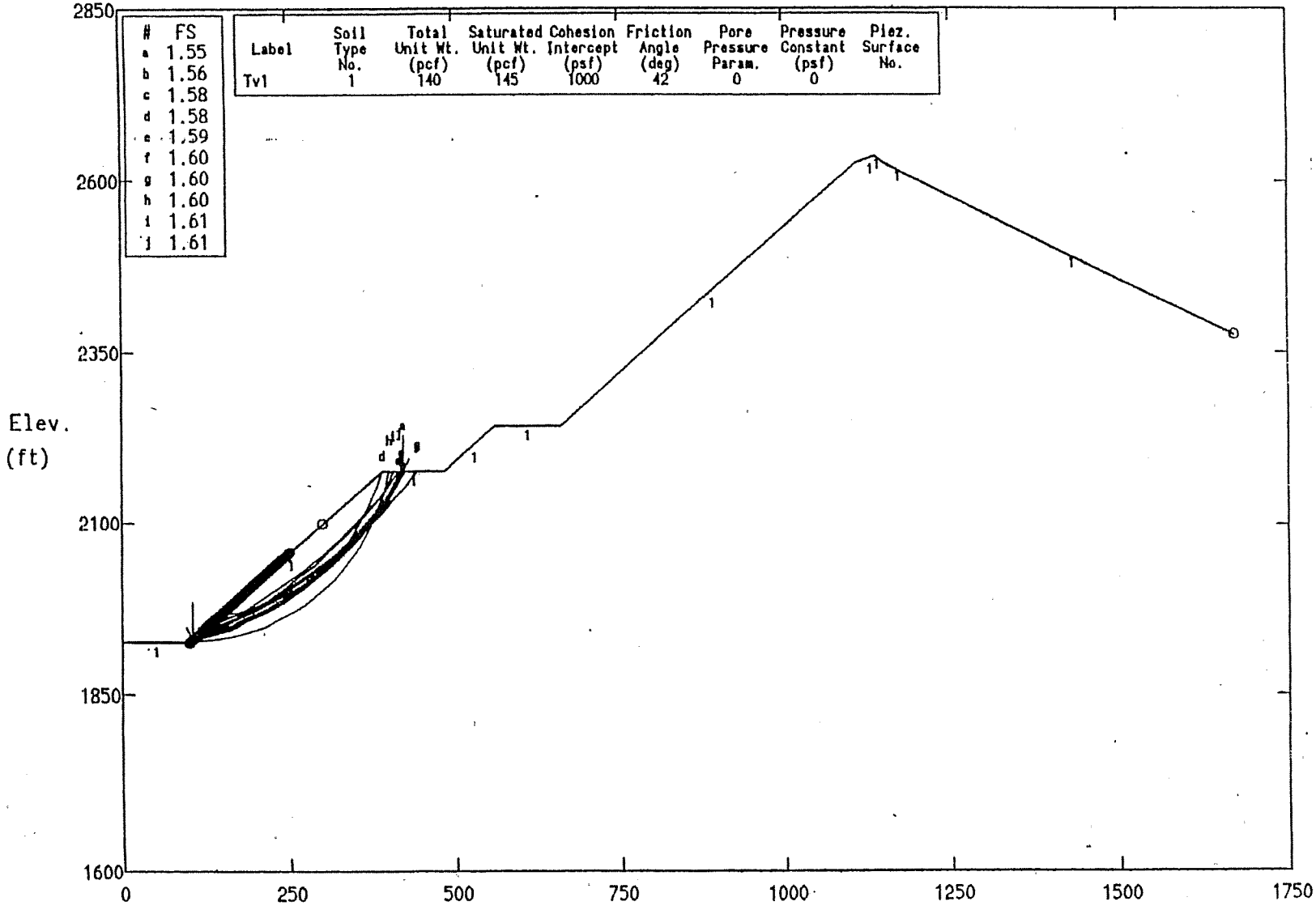

PCSTABL5M FSmin=1.55 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NB-NB'- STATIC

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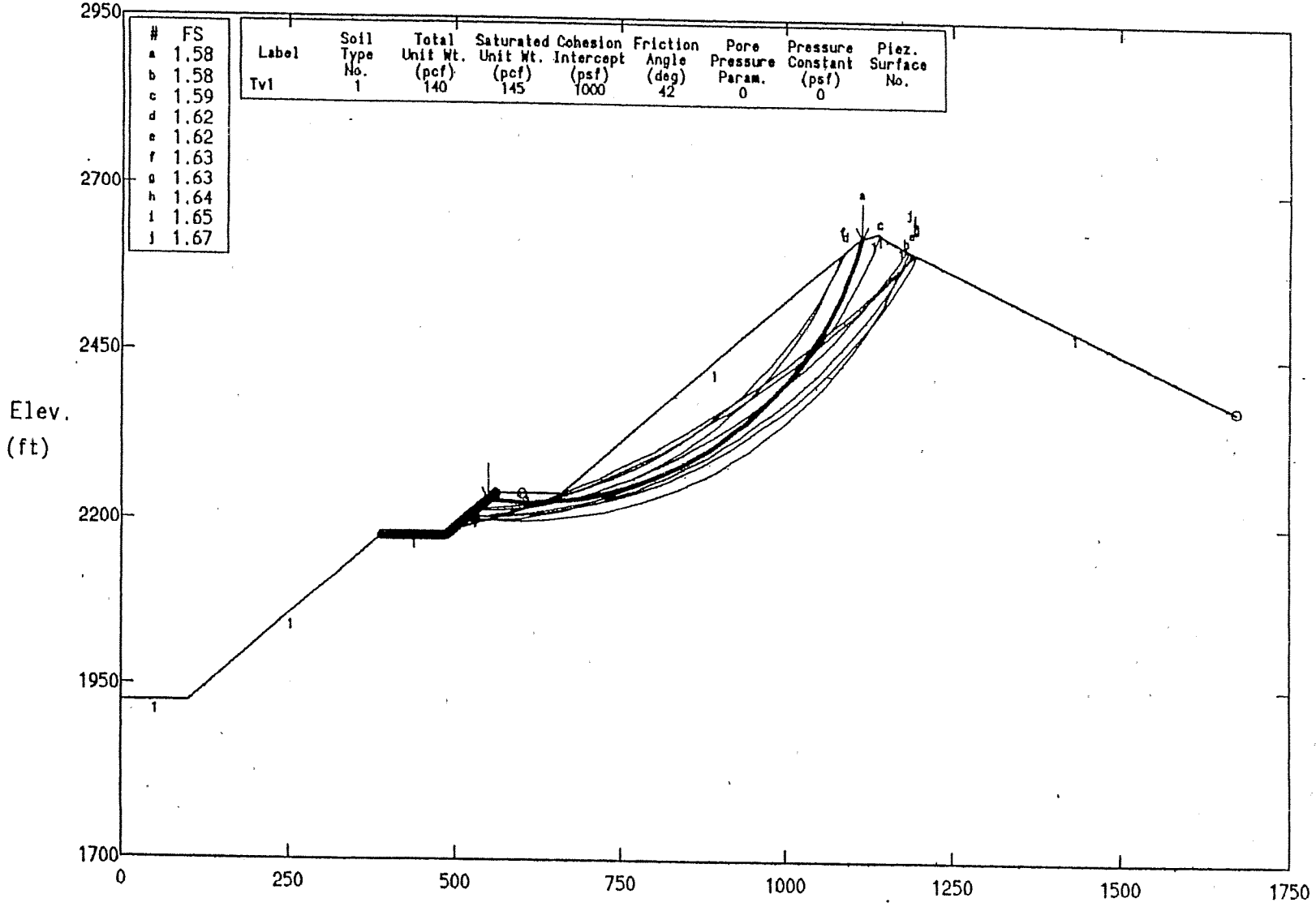

PCSTABL5M FSmin=1.58 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NB-NB'- STATIC

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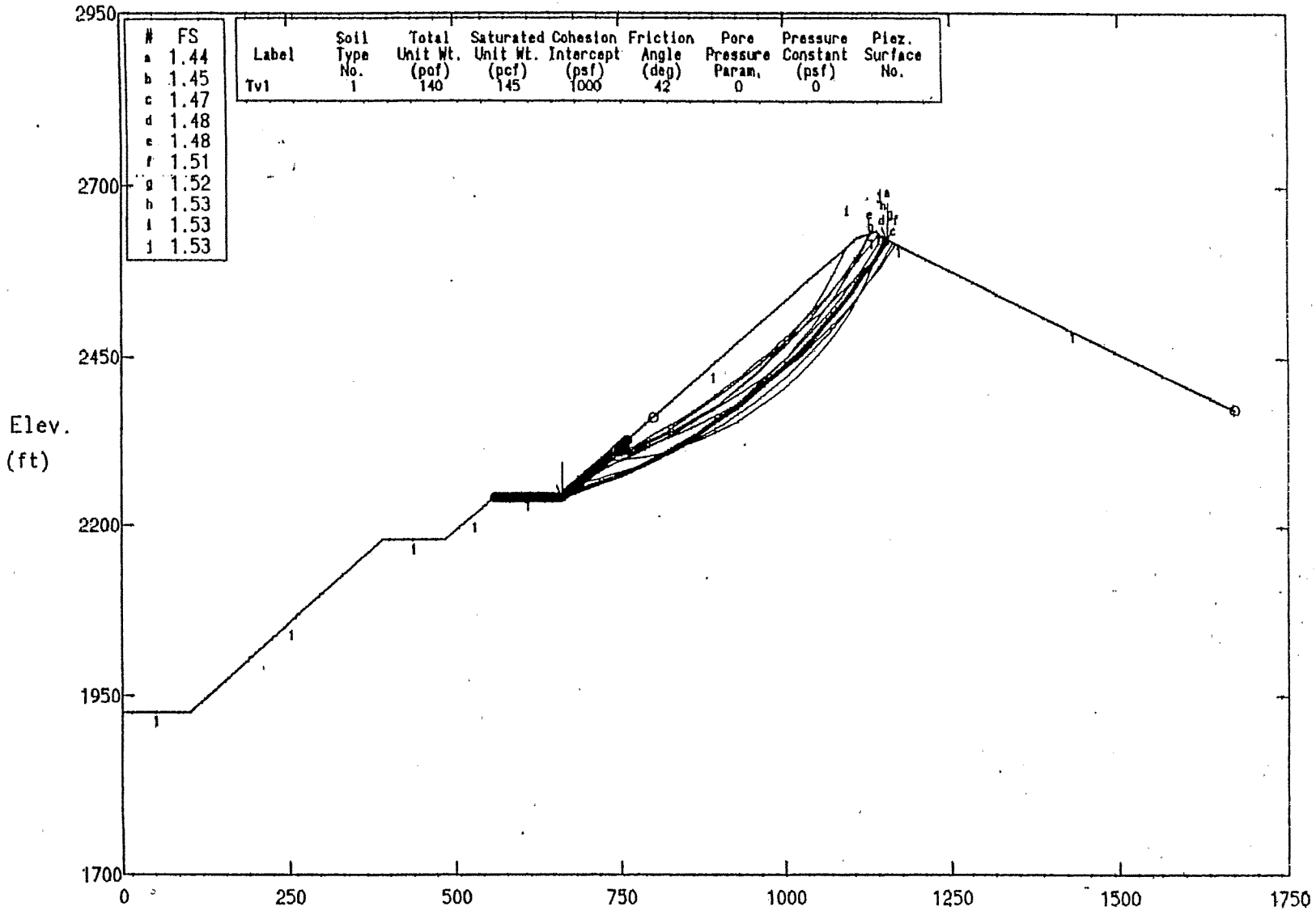


PCSTABL5M FSmin=1.44 X-Axis (ft)

Factors Of Safety Calculated By Thr ified Janbu Method for c & phi both > 0

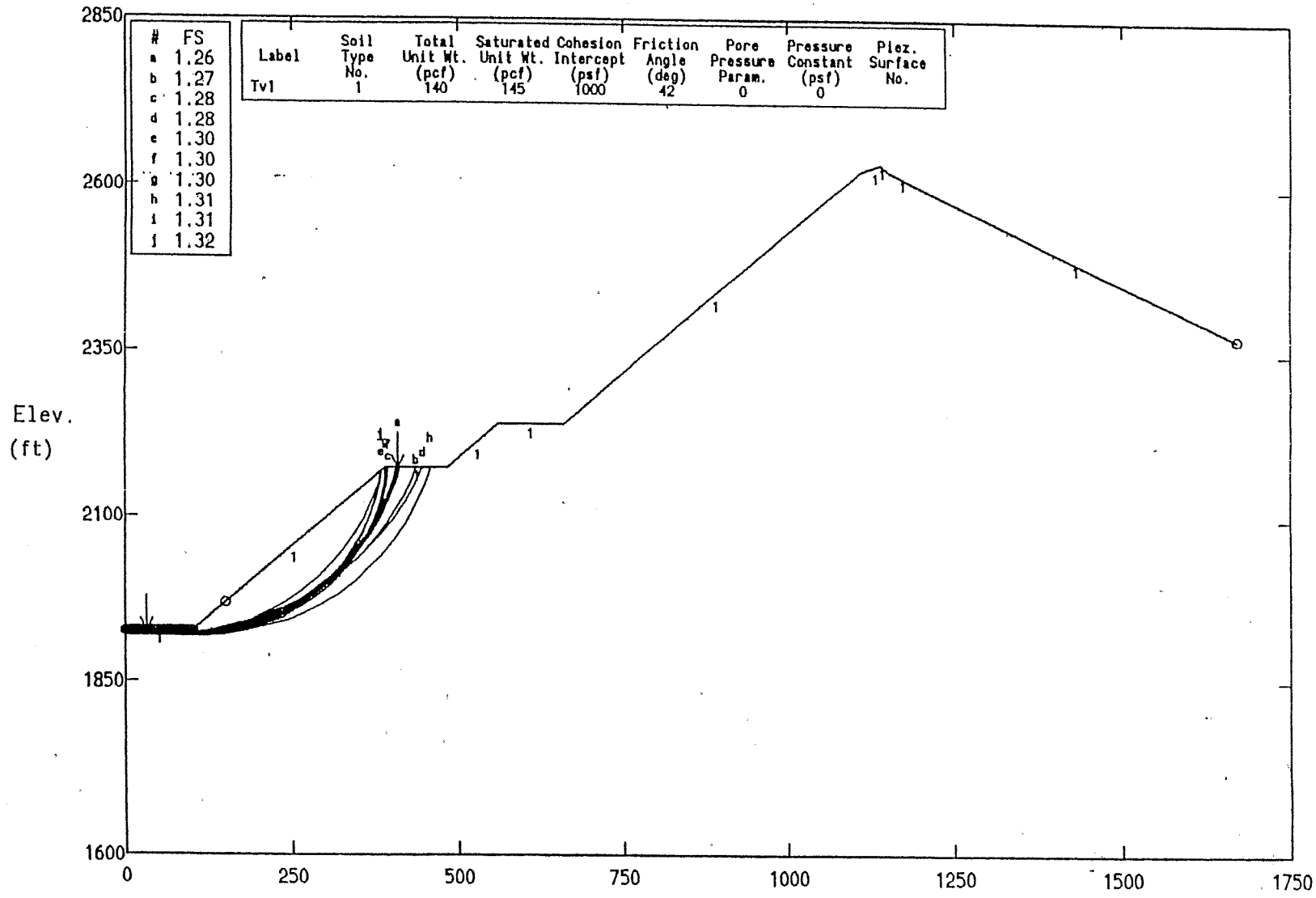
97018.8

Section NB-NB' Seismic Analyzes
Temporary / Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NB-NB'- SEISMIC

Ten Most Critical. C:9718NB1S.PLT By: DLC 01-13-98 9:59pm

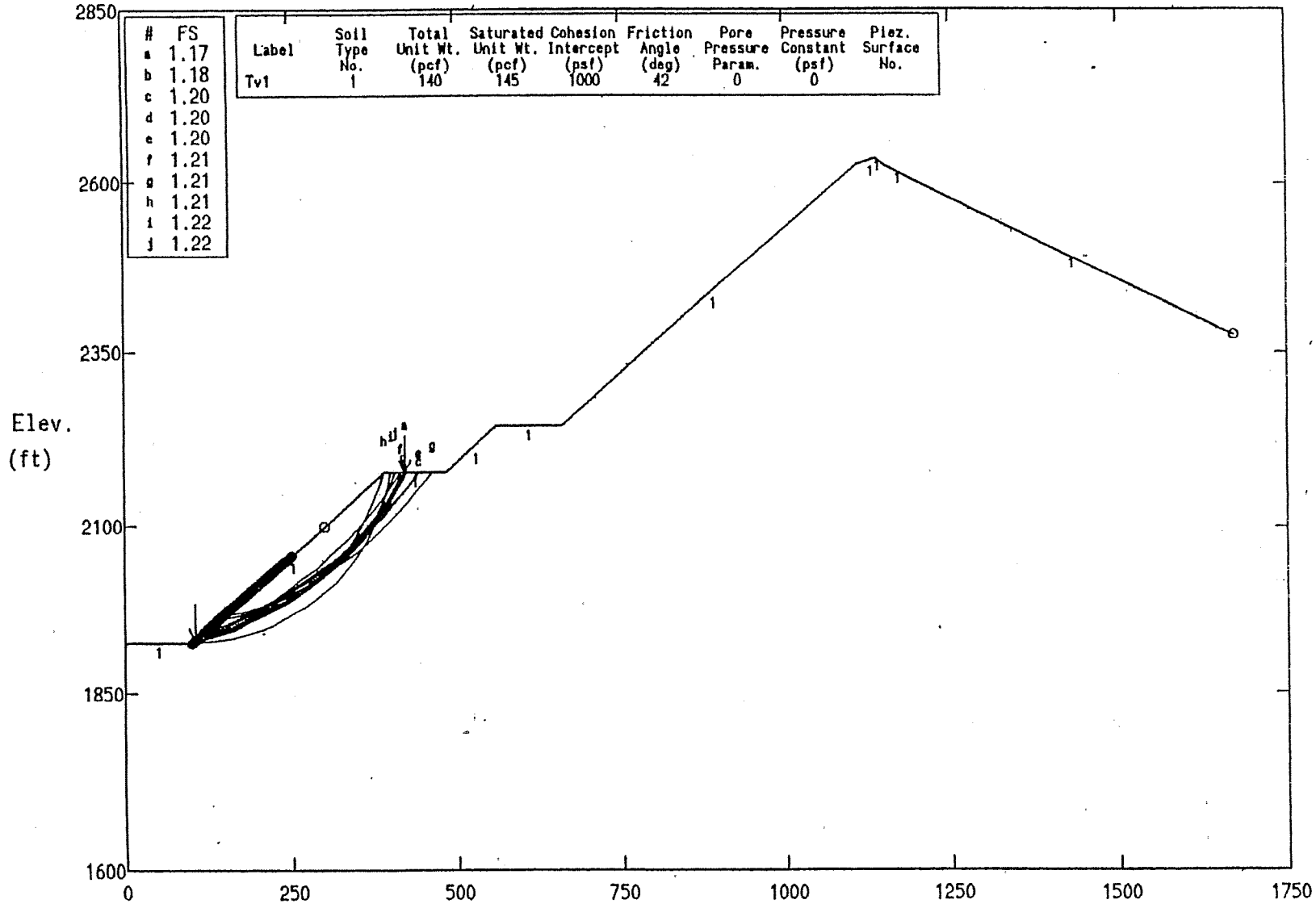


PCSTABL5M FSmin=1.26 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NB-NB'- SEISMIC

Ten Most Critical. C:9718NB2S.PLT By: DLC 01-13-98 10:04pm

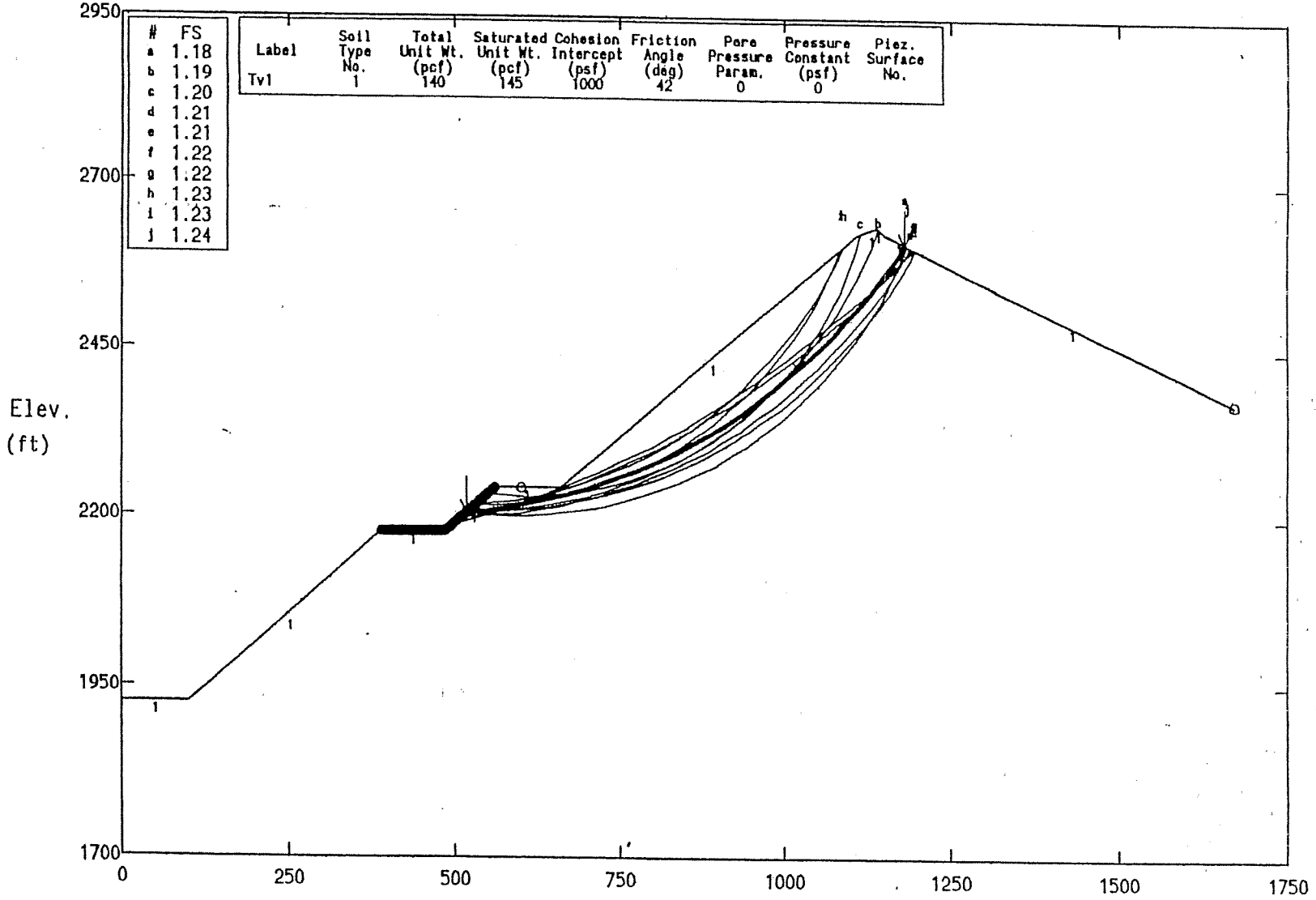


PCSTABL5M FSmin=1.17 X-Axis (ft)

Factors Of Safety Calculated By Thr "ndified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NB-NB'- SEISMIC

Ten Most Critical. C:9718NB3S.PLT By: DLC 01-13-98 9:55pm

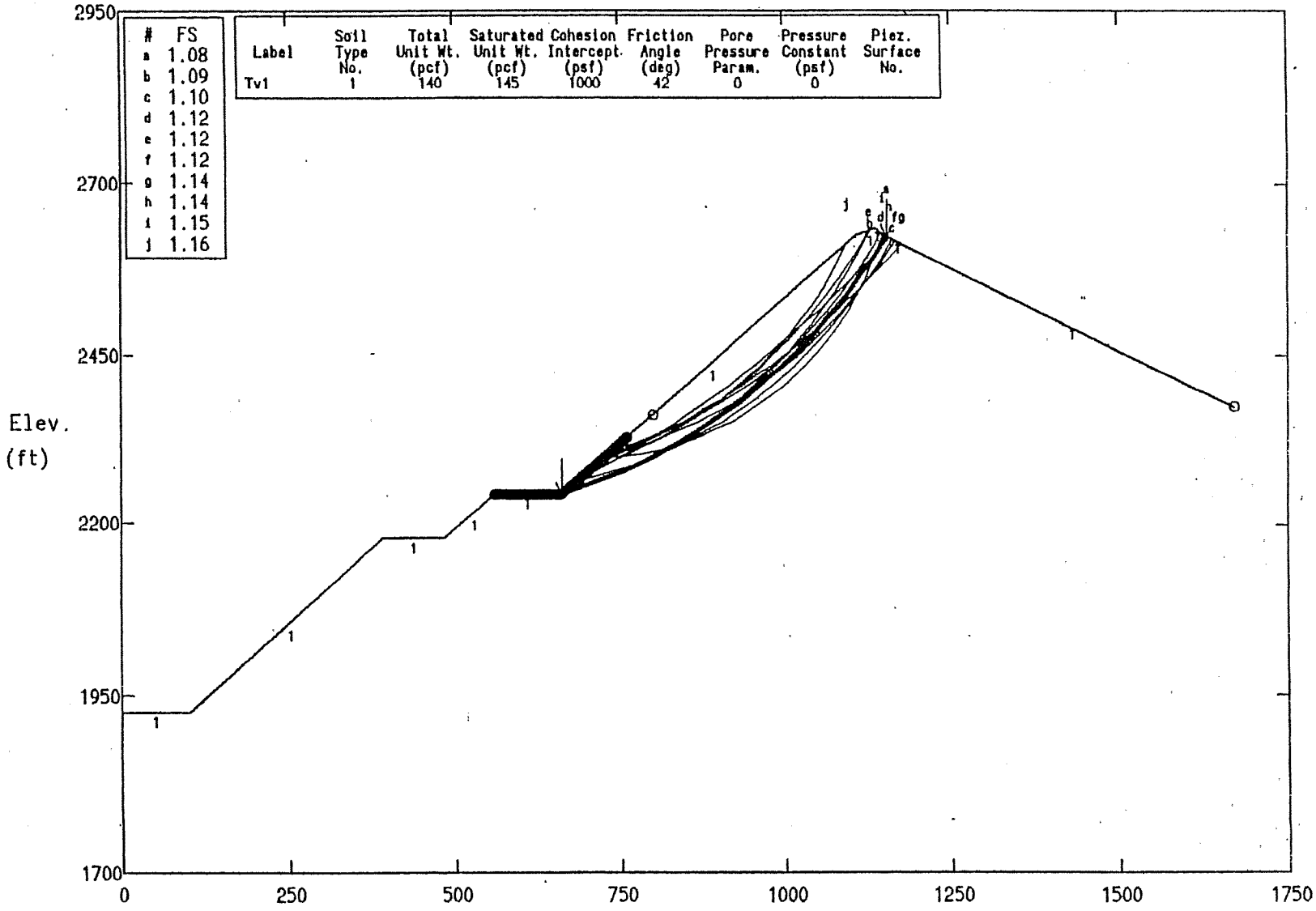


PCSTABL5M FSmin=1.18 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NB-NB'- SEISMIC

Ten Most Critical. C:9718NB4S.PLT By: DLC 01-13-98 9:27pm



PCSTABL5M FSmin=1.08 X-Axis (ft)

Factors Of Safety Calculated By Th 'odified Janbu Method for c & phi both > 0

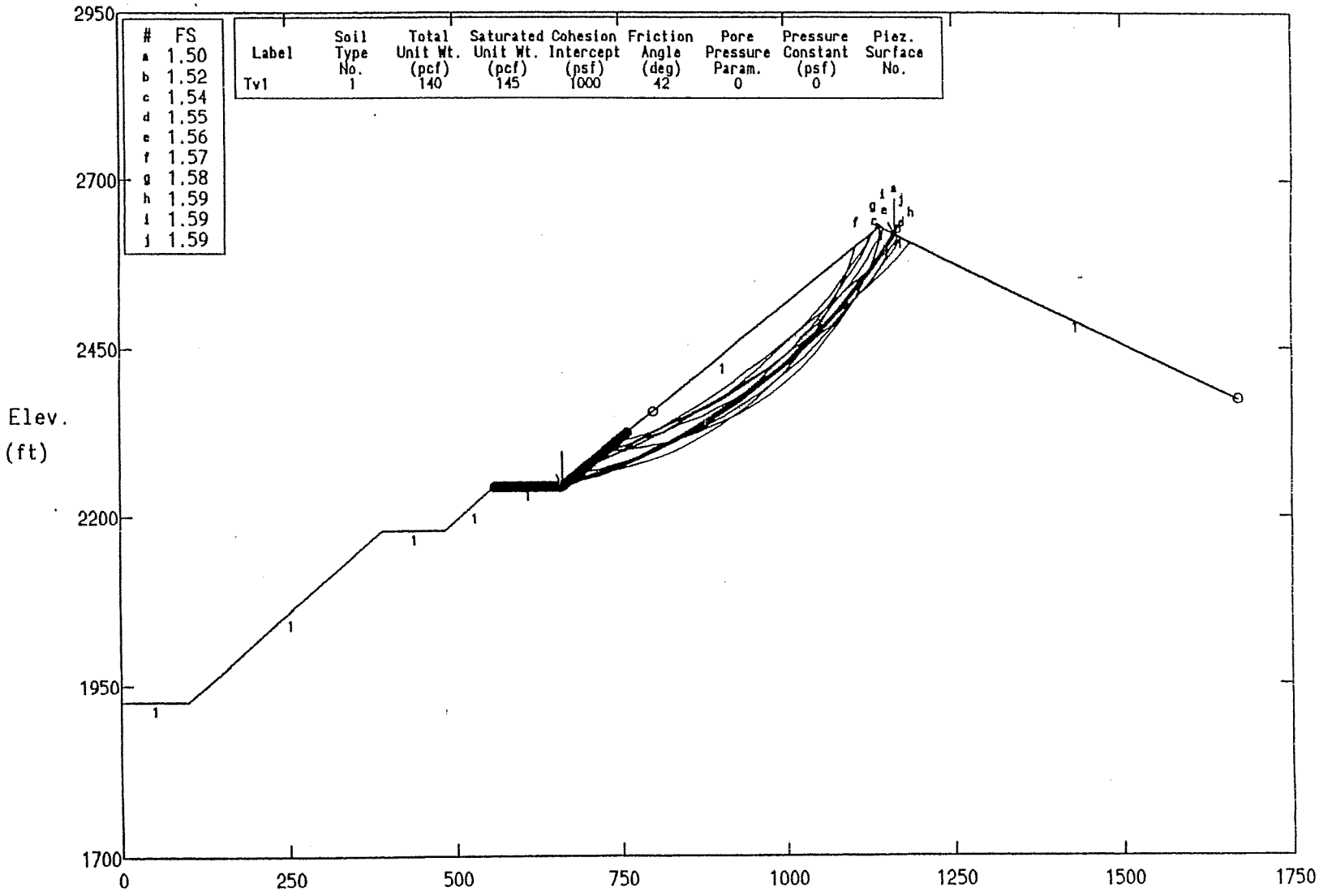
97018.8

Section NB-NB' Static Analyzes
Revised Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NB-NB'- STATIC Revised 1.25:1 Overall Slope

Ten Most Critical. C:9718NB6.PLT By: DLC 01-13-98 4:06pm



PCSTABL5M FSmin=1.50 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

97018.8

Section NB-NB' Seismic Analyzes
Revised Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NB-NB'- SEISMIC Revised 1.25:1 Overall Slope

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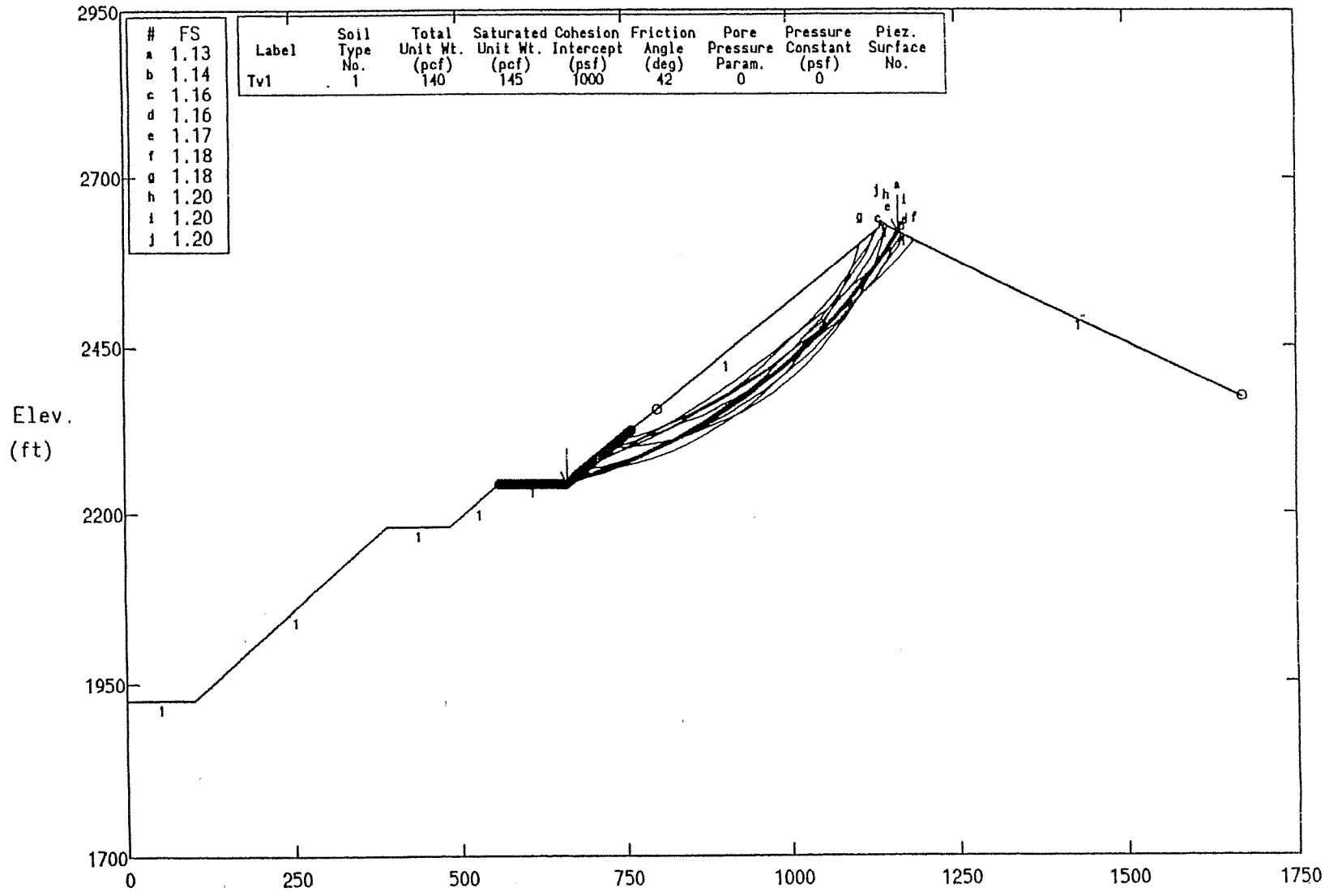


PCSTABL5M FSmin=1.13 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

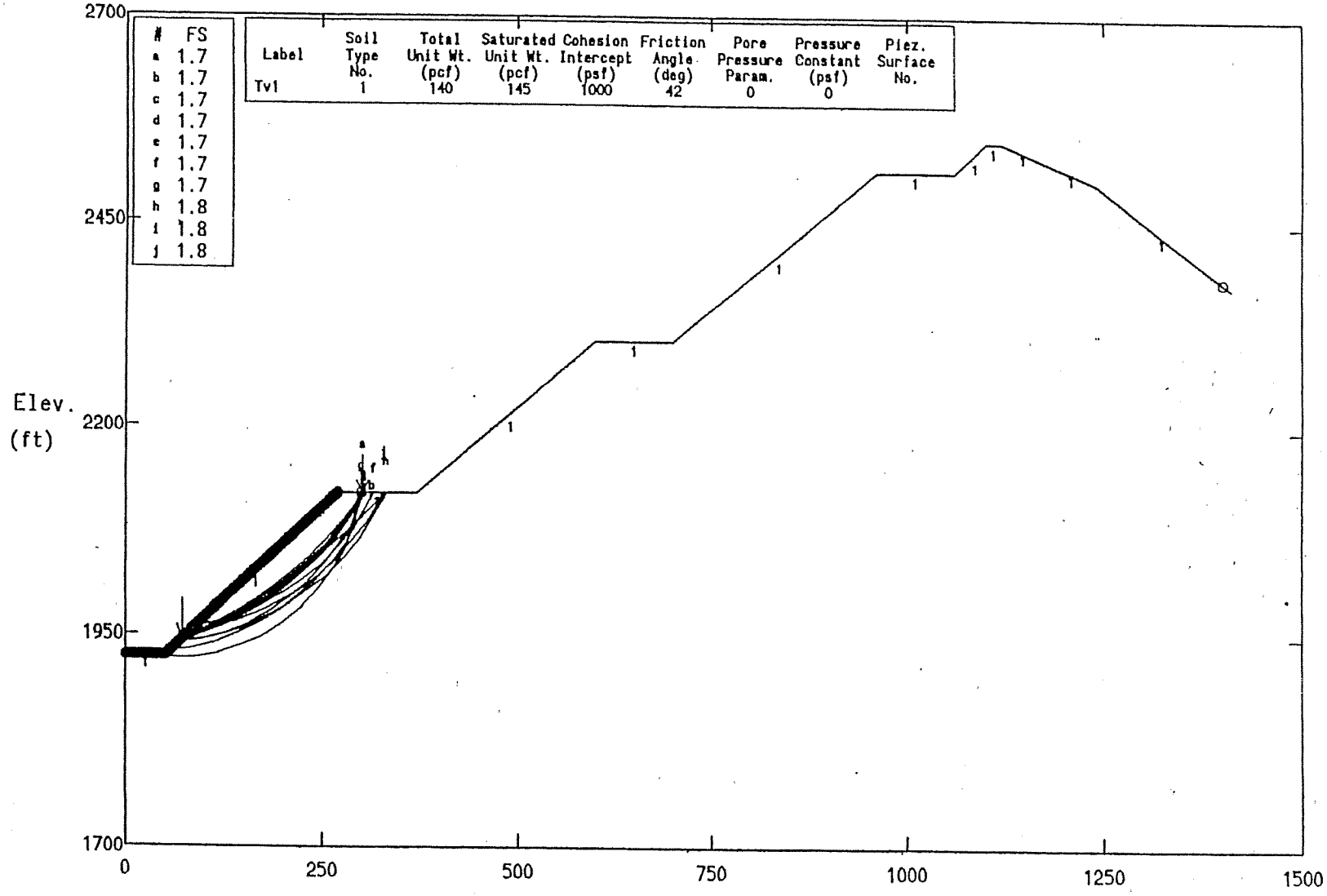
97018.8

Section NC-NC' Static Analyzes
Temporary / Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NC-NC'- STATIC

Ten Most Critical. C:9718NC1.PLT By: DLC 12-29-97 9:22pm



PCSTABL5M FSmin=1.7 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NC-NC'- STATIC

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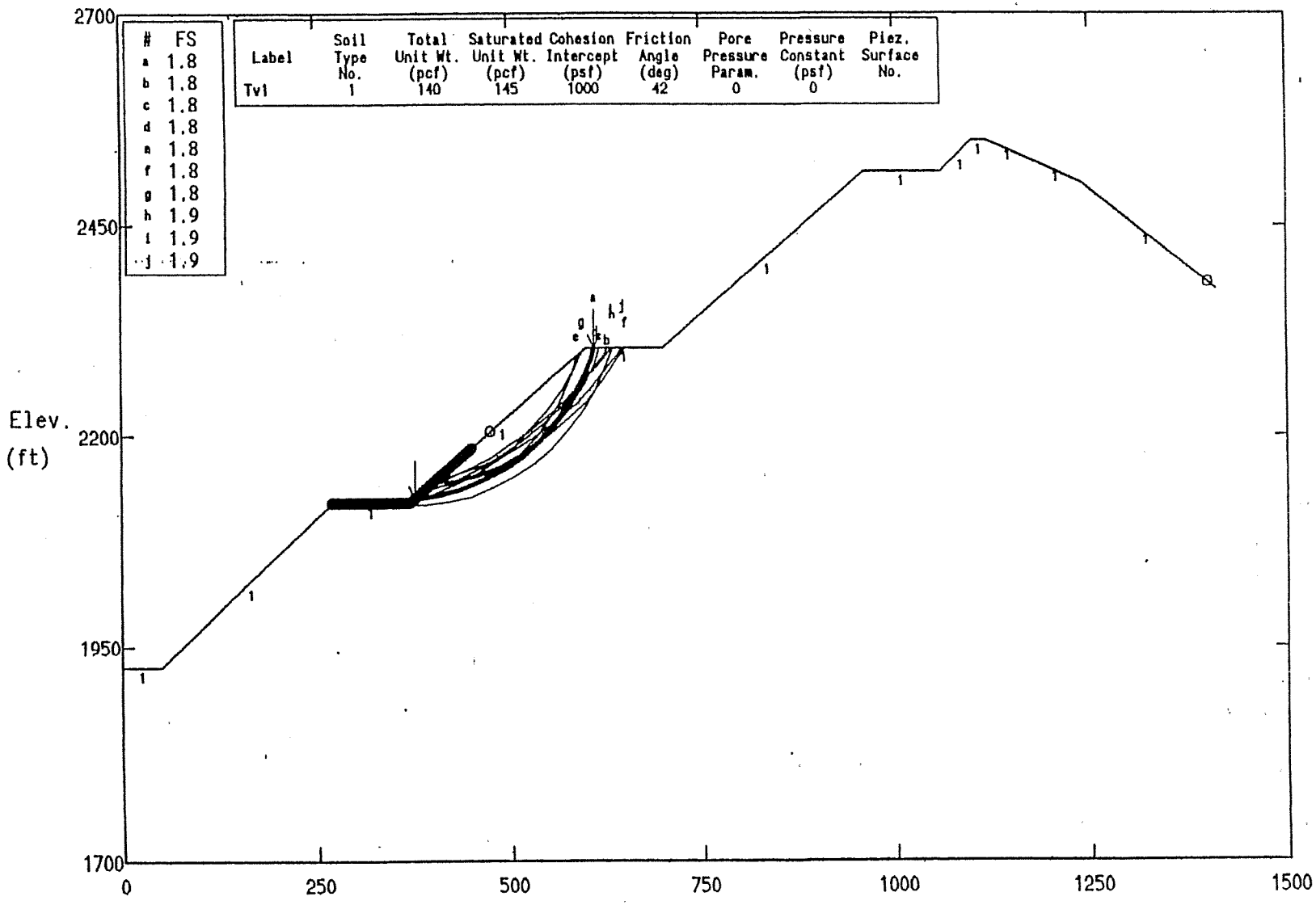
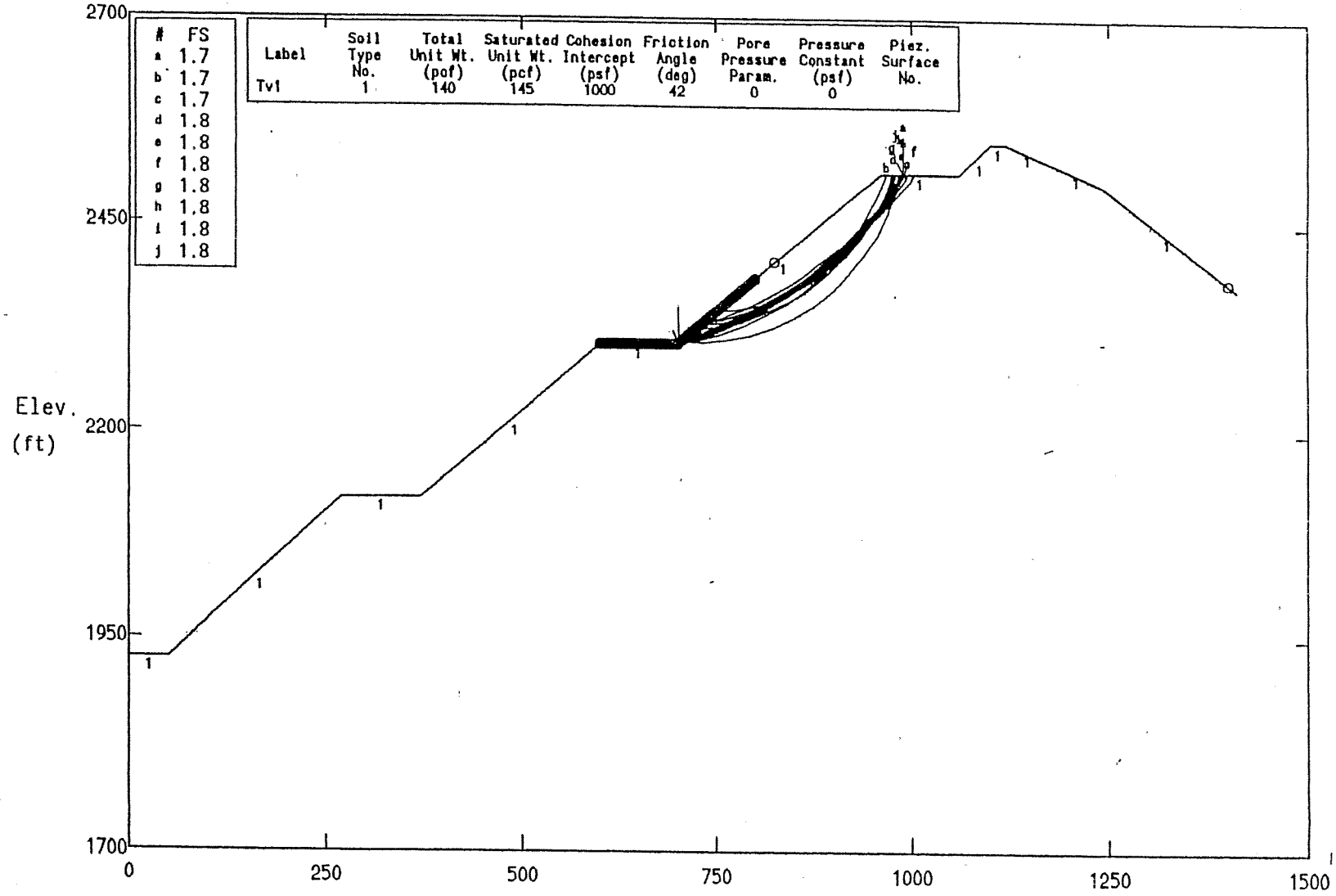


PCSTABL5M FSmin=1.8 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NC-NC'- STATIC

Ten Most Critical. C:9718NC3.PLT By: DLC 12-29-97 9:35pm



PCSTABL5M FSmin=1.7 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

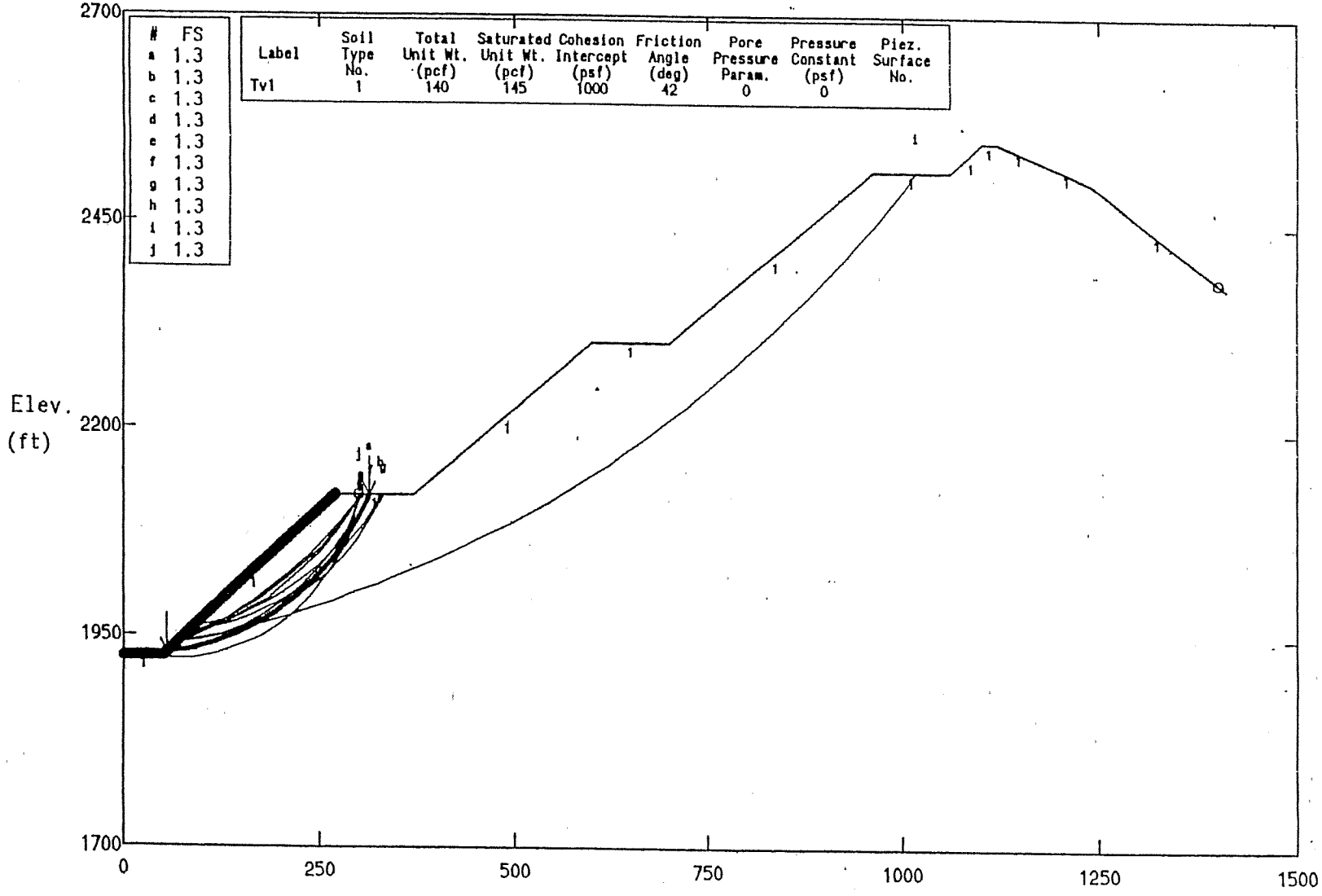
97018.8

Section NC-NC' Seismic Analyzes
Temporary / Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NC-NC'- SEISMIC

Ten Most Critical. C:9718NC1S.PLT By: DLC 12-29-97 9:25pm

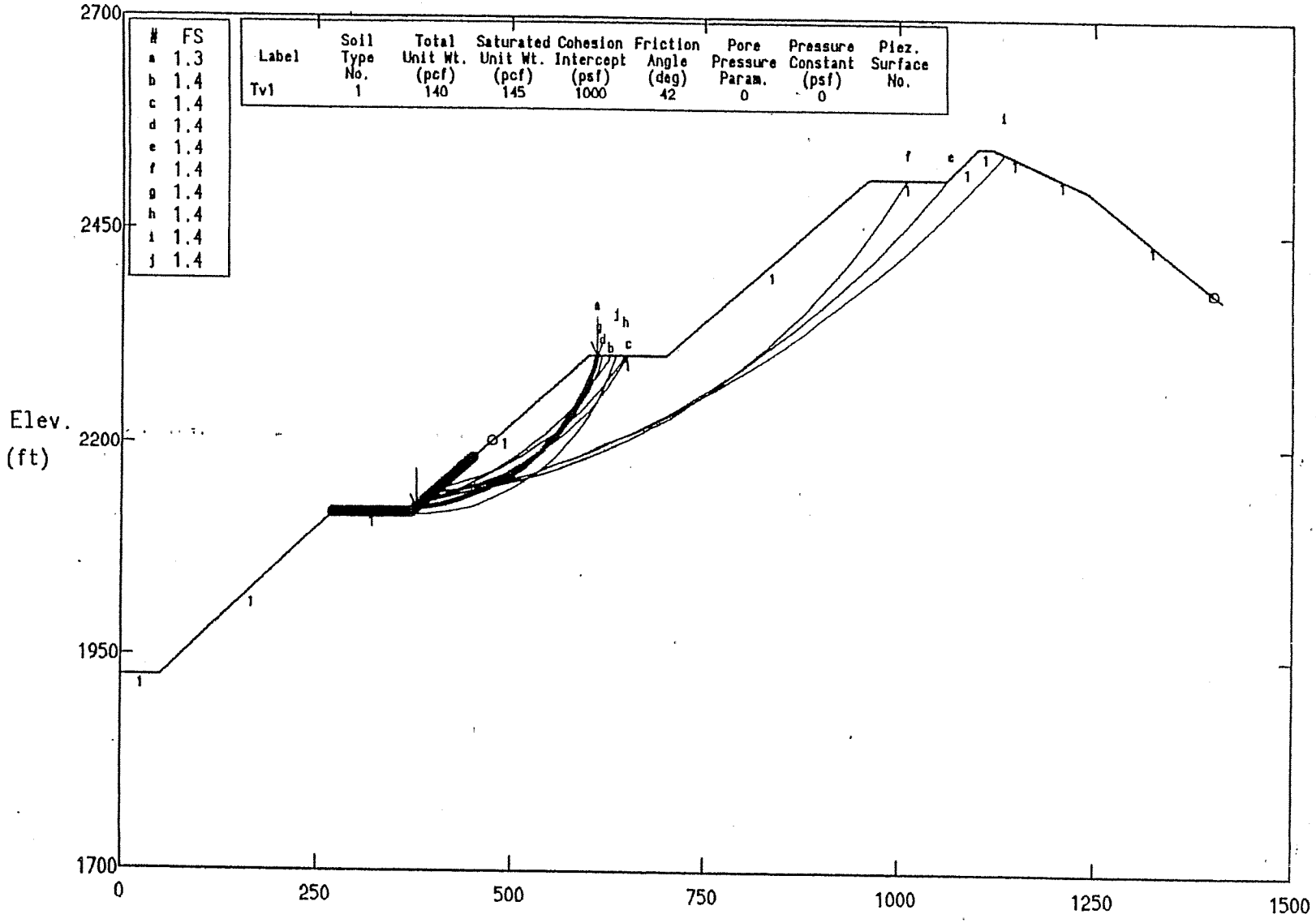


PCSTABL5M FSmin=1.3 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NC-NC'- SEISMIC

Ten Most Critical. C:9718NC2S.PLT .By: DLC 12-29-97 9:29pm

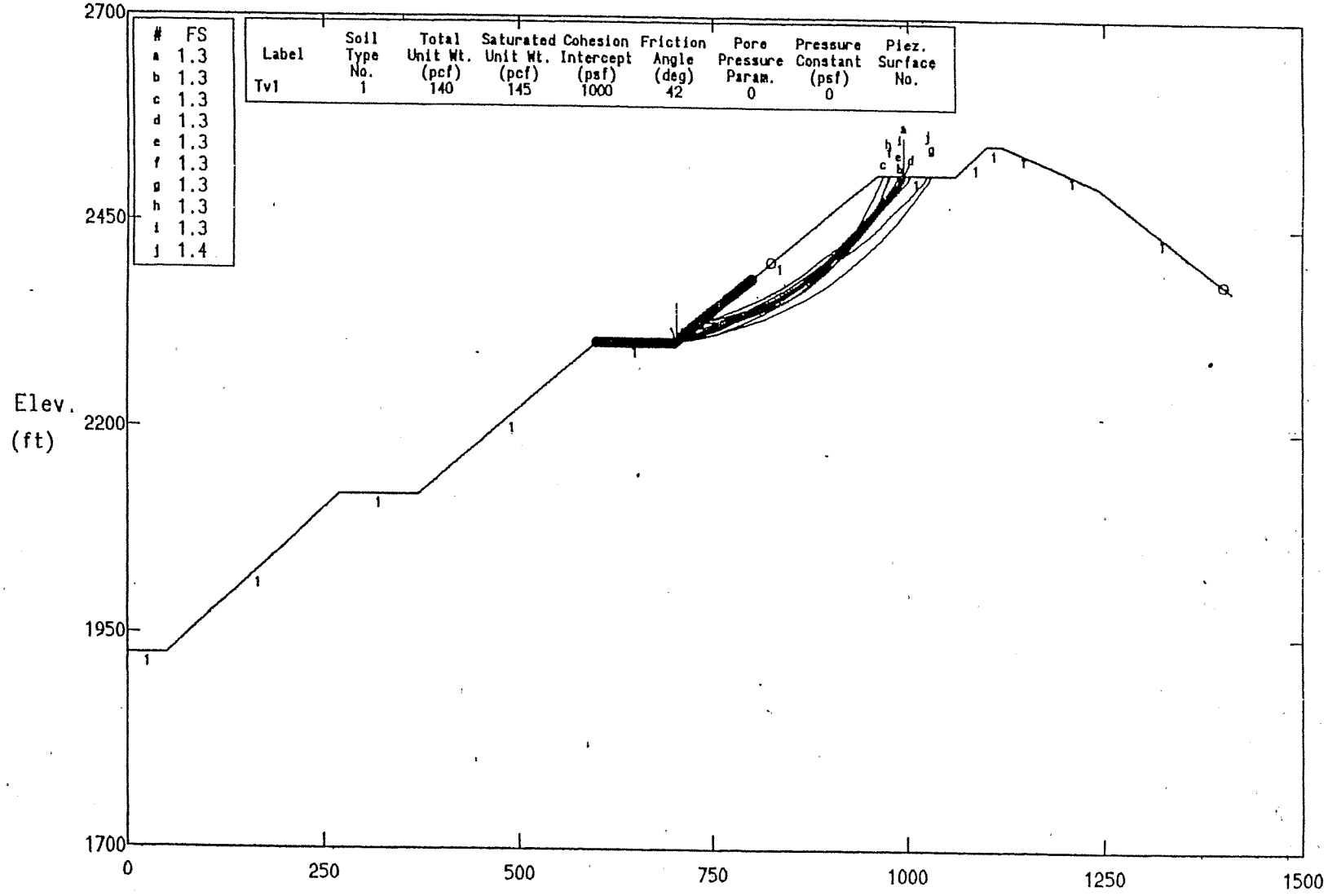


PCSTABL5M FSmin=1.3 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NC-NC'- SEISMIC

Ten Most Critical. C:9718NC3S.PLT By: DLC 12-29-97 9:37pm



PCSTABL5M FSmin=1.3 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

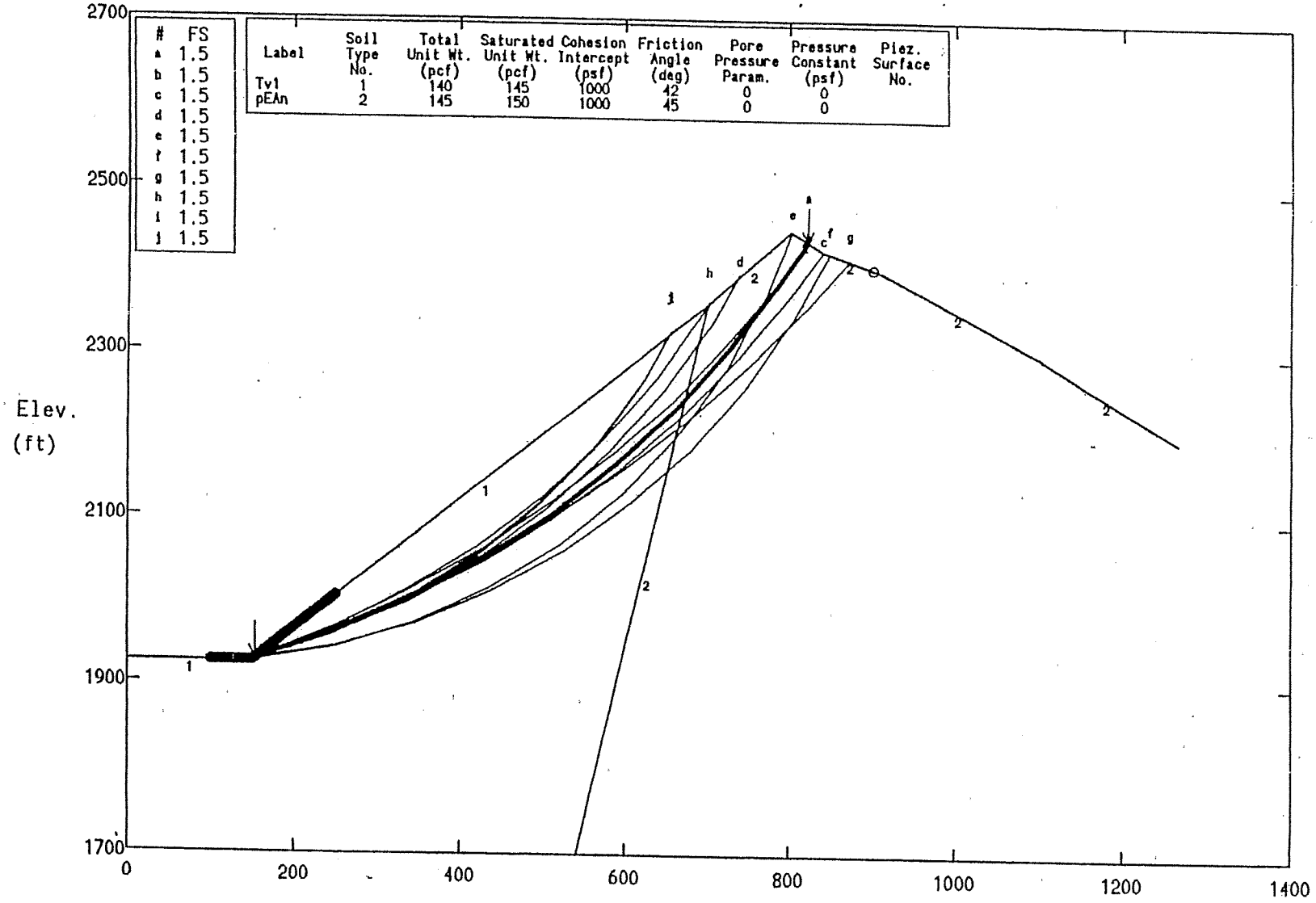
97018.8

Section ND-ND' Static Analyzes
Temporary / Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION ND-ND'- STATIC

Ten Most Critical. C:9718ND1.PLT By: DLC 01-05-98 10:18pm



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d	1.5
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h	1.5
i	1.5
j	1.5

Label	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
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pEAn	2	145	150	1000	45	0	0	

PCSTABL5M FSmin=1.5 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

97018.8

Section ND-ND' Seismic Analyzes
Temporary / Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION ND-ND'- SEISMIC

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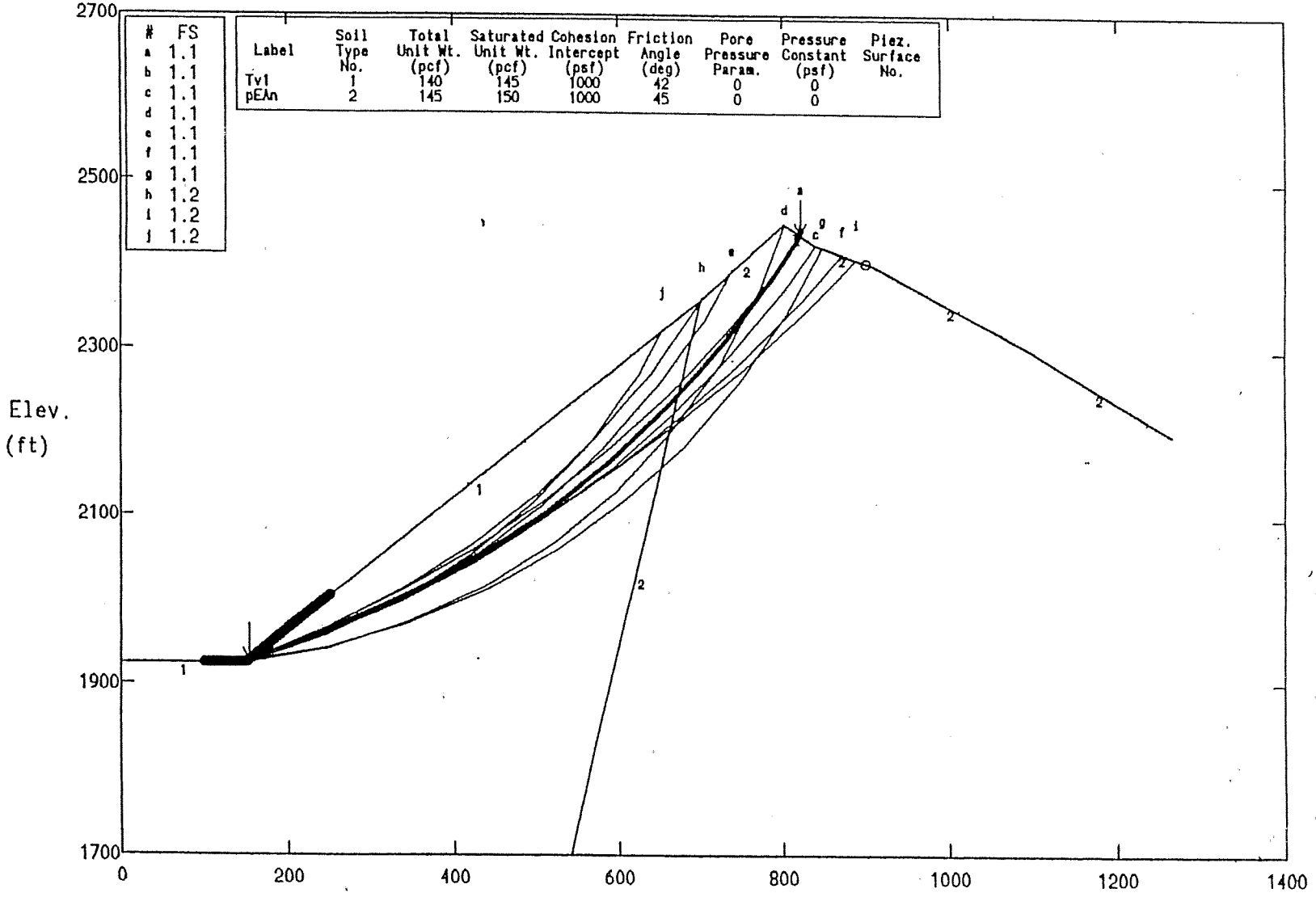

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i	1.2
j	1.2

Label	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
Tvl	1	140	145	1000	42	0	0	
pEAn	2	145	150	1000	45	0	0	

PCSTABL5M FSmin=1.1 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

97018.8

Section NE-NE' Static Analyzes
Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NE-NE'- STATIC

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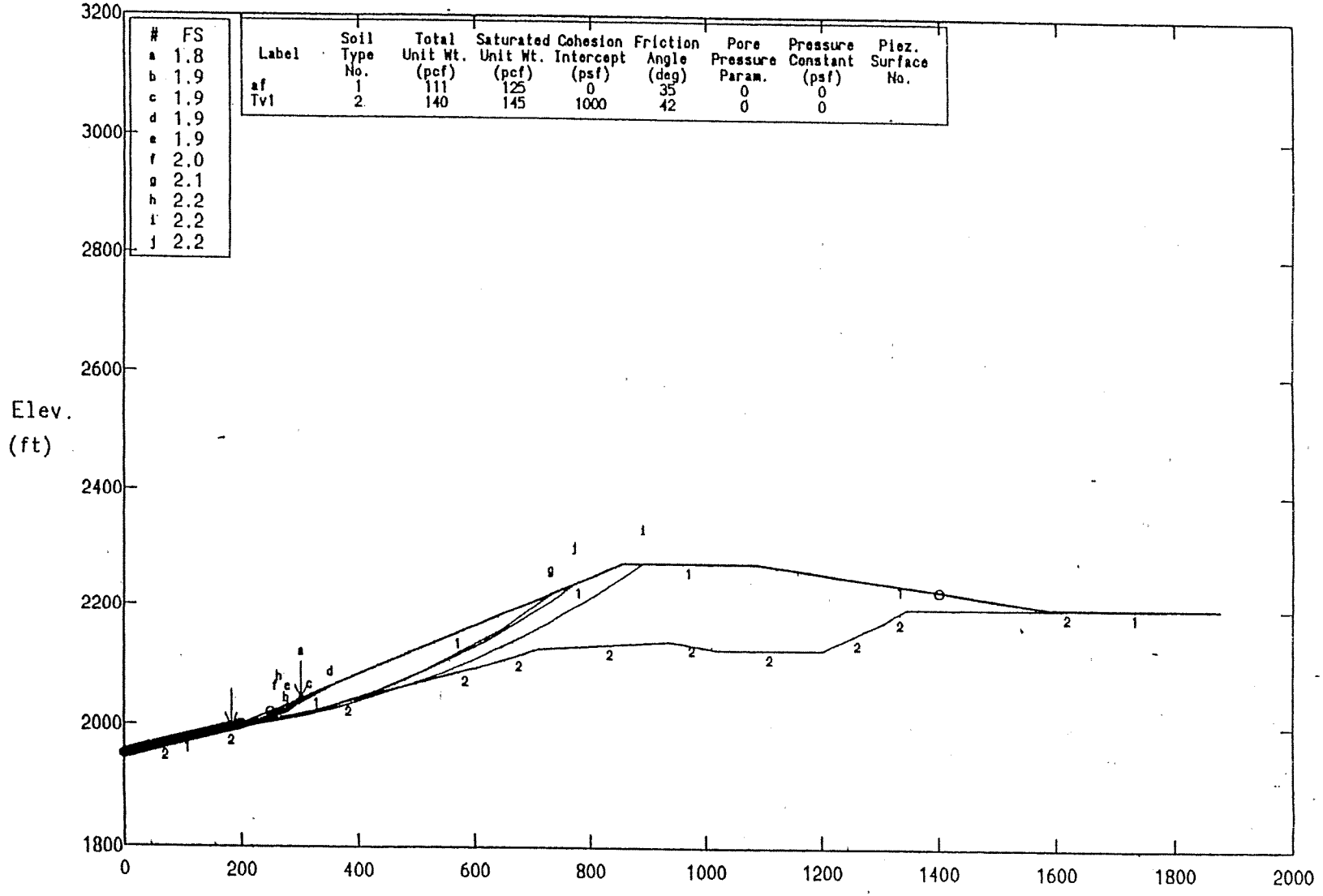

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i	2.2
j	2.2

Label	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
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Tv1	2	140	145	1000	42	0	0	

PCSTABL5M FSmin=1.8 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NE-NE'- STATIC

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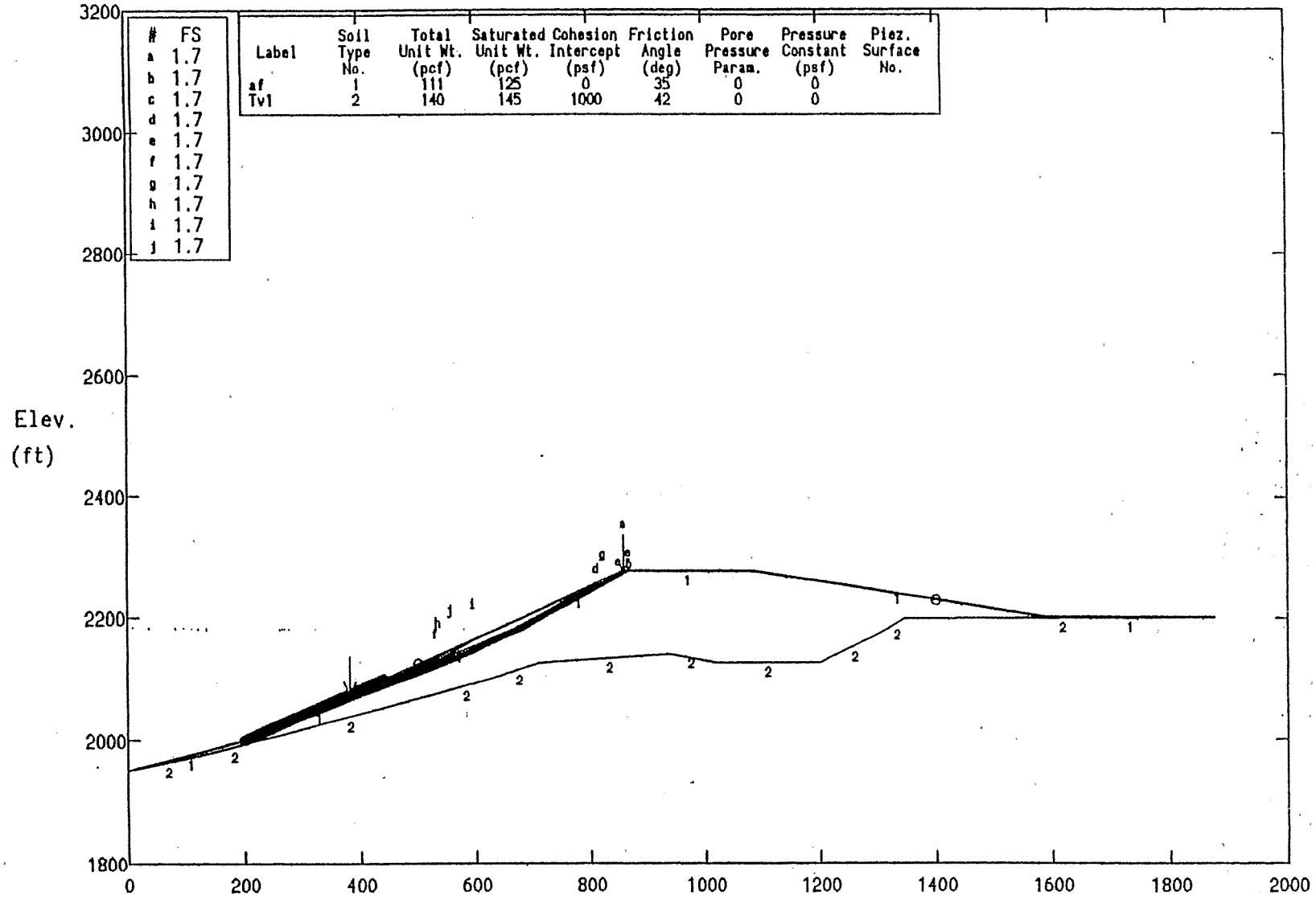

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j	1.7

Label	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
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PCSTABL5M FSmin=1.7 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

97018.8

Section NE-NE' Seismic Analyzes
Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NE-NE'- SEISMIC

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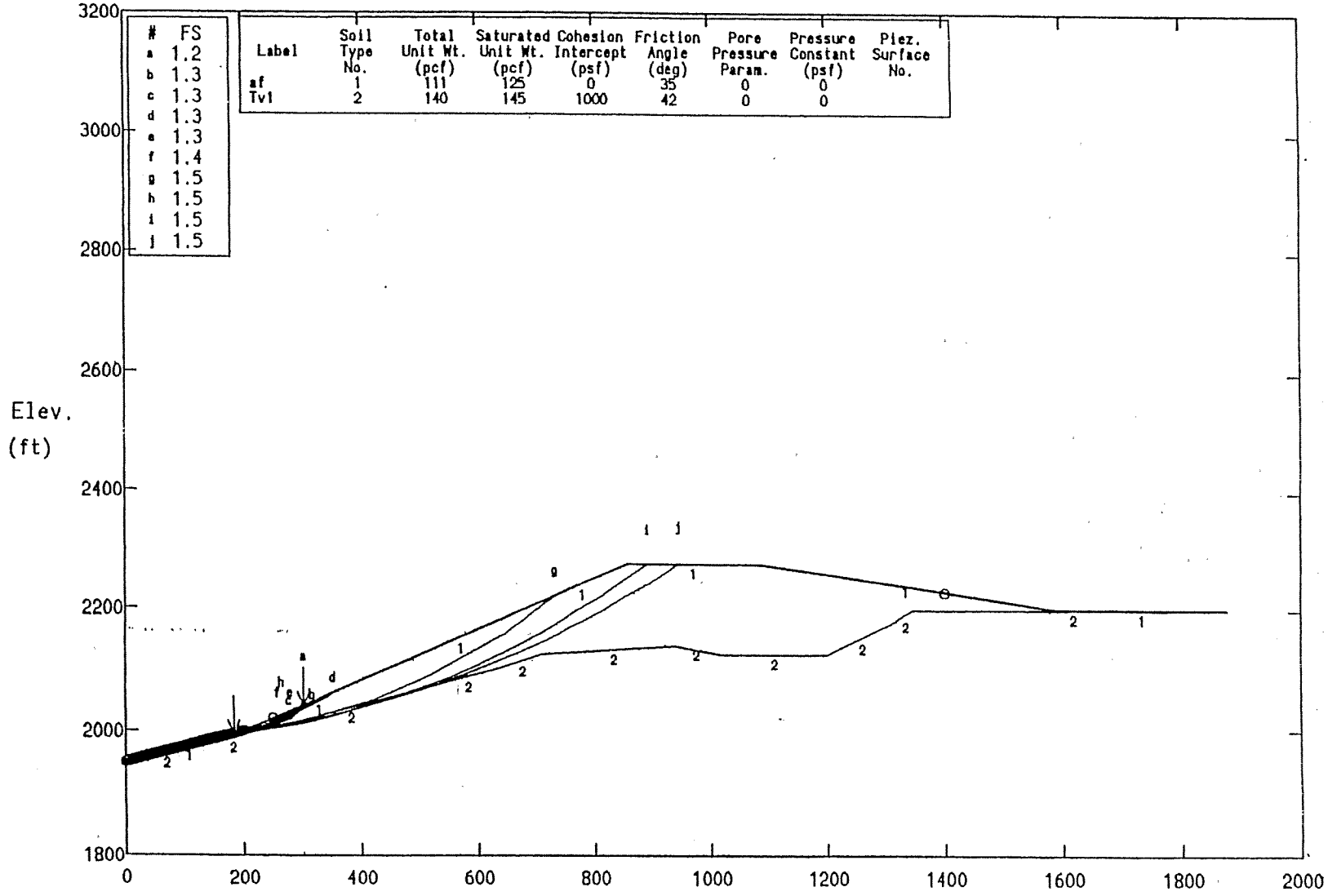

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Tv1	2	140	145	1000	42	0	0	

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Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NE-NE'- SEISMIC

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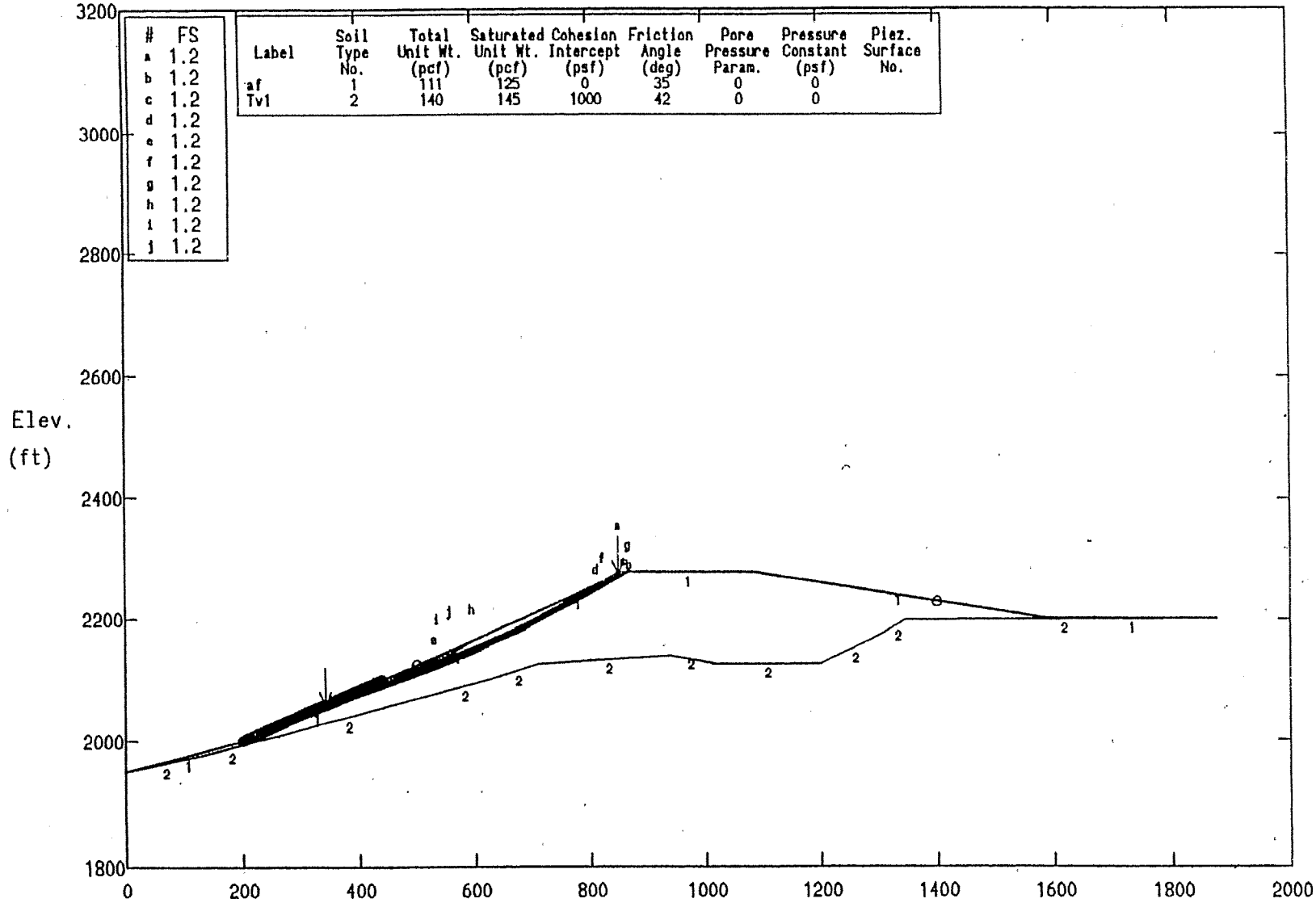

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j	1.2

Label	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
af	1	111	125	0	35	0	0	
Tv1	2	140	145	1000	42	0	0	

PCSTABL5M FSmin=1.2 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

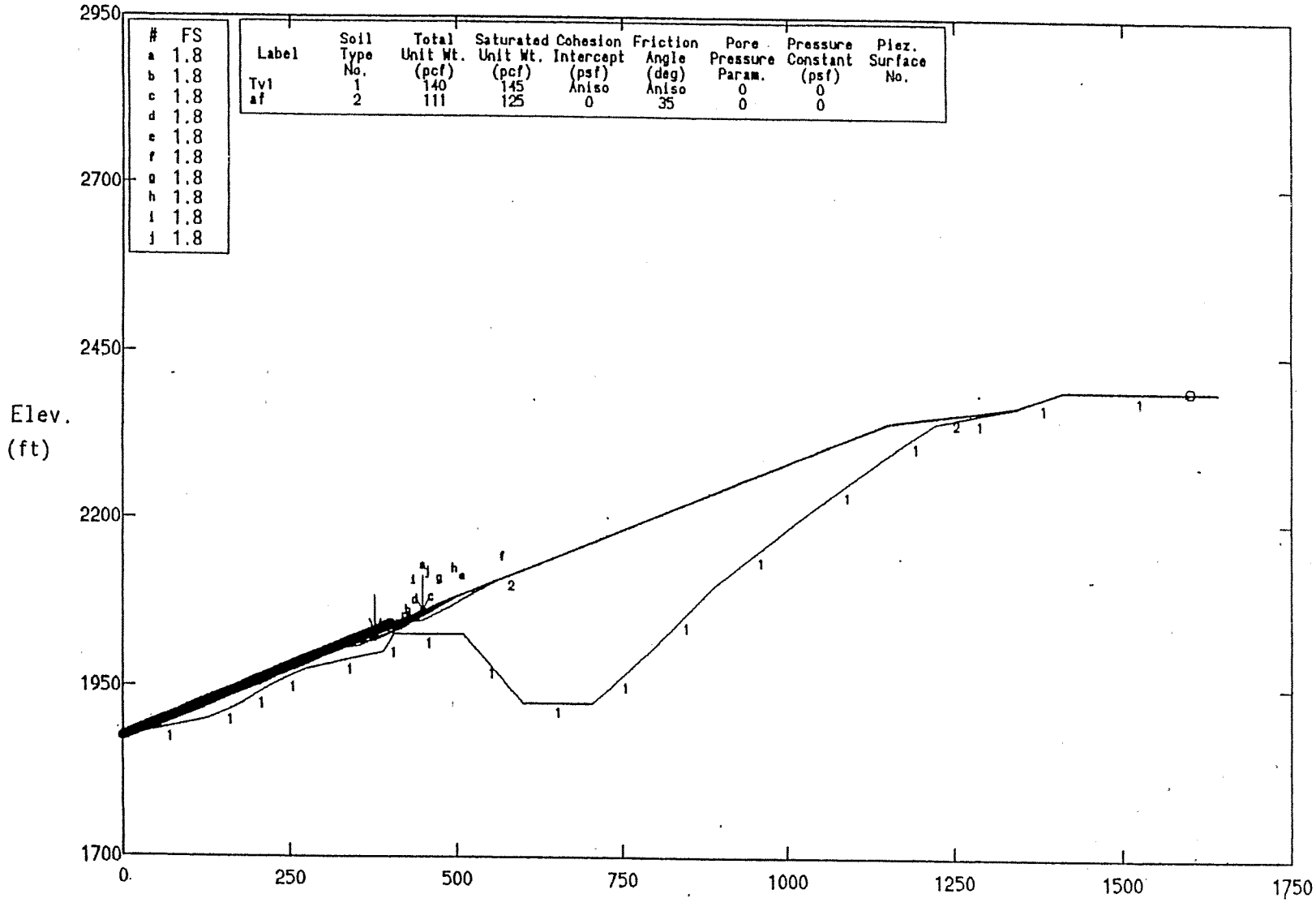
97018.8

Section NF-NF' Static Analyzes
Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NF-NF'- STATIC

Ten Most Critical. C:9718NF1.PLT By: DLC 12-31-97 6:19pm



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i	1.8
j	1.8

Label	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
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af	2	111	125	0	35	0	0	

PCSTABL5M FSmin=1.8 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NF-NF'- STATIC

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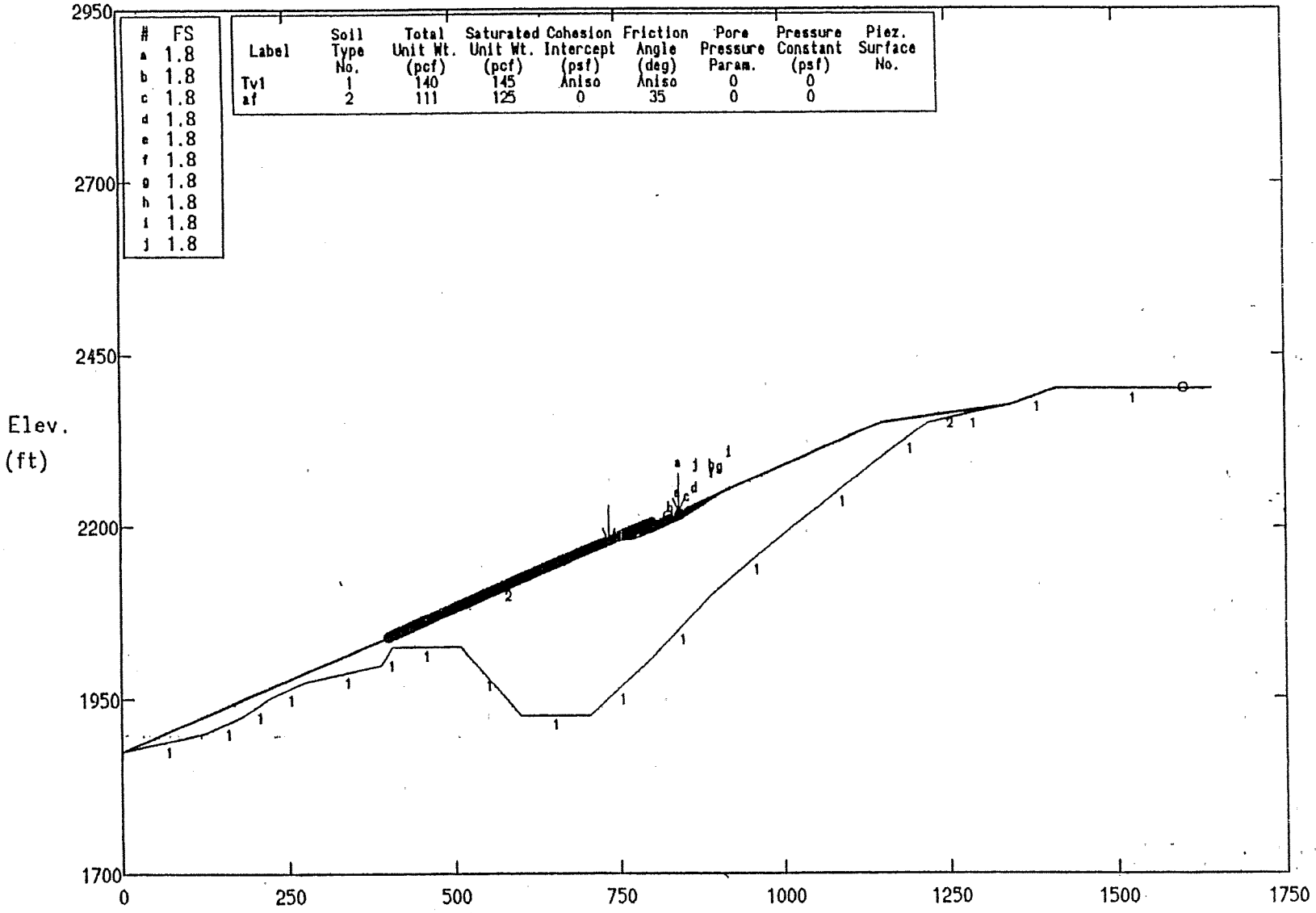

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c	1.8
d	1.8
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g	1.8
h	1.8
i	1.8
j	1.8

Label	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
Tv1	1	140	145	Aniso	Aniso	0	0	
af	2	111	125	0	35	0	0	

PCSTABL5M FSmin=1.8 X-Axis (ft)

Factors Of Safety Calculated By The " -ified Janbu Method for c & phi both > 0

97018.8

Section NF-NF' Seismic Analyzes
Reclaim Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NF-NF'- SEISMIC

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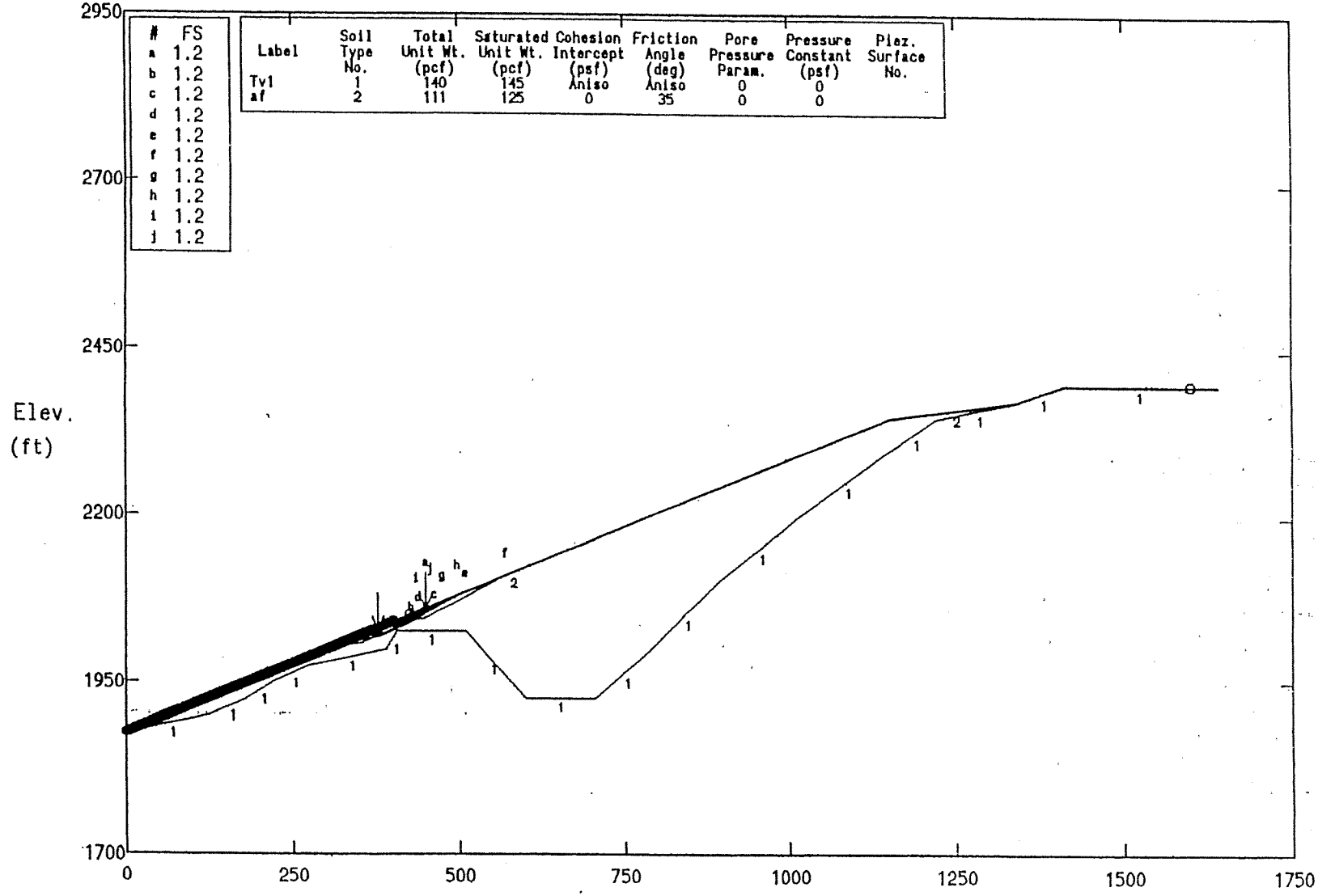

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i	1.2
j	1.2

Label	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
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af	2	111	125	0	35	0	0	

PCSTABL5M FSmin=1.2 X-Axis (ft)

Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - SECTION NF-NF'- SEISMIC

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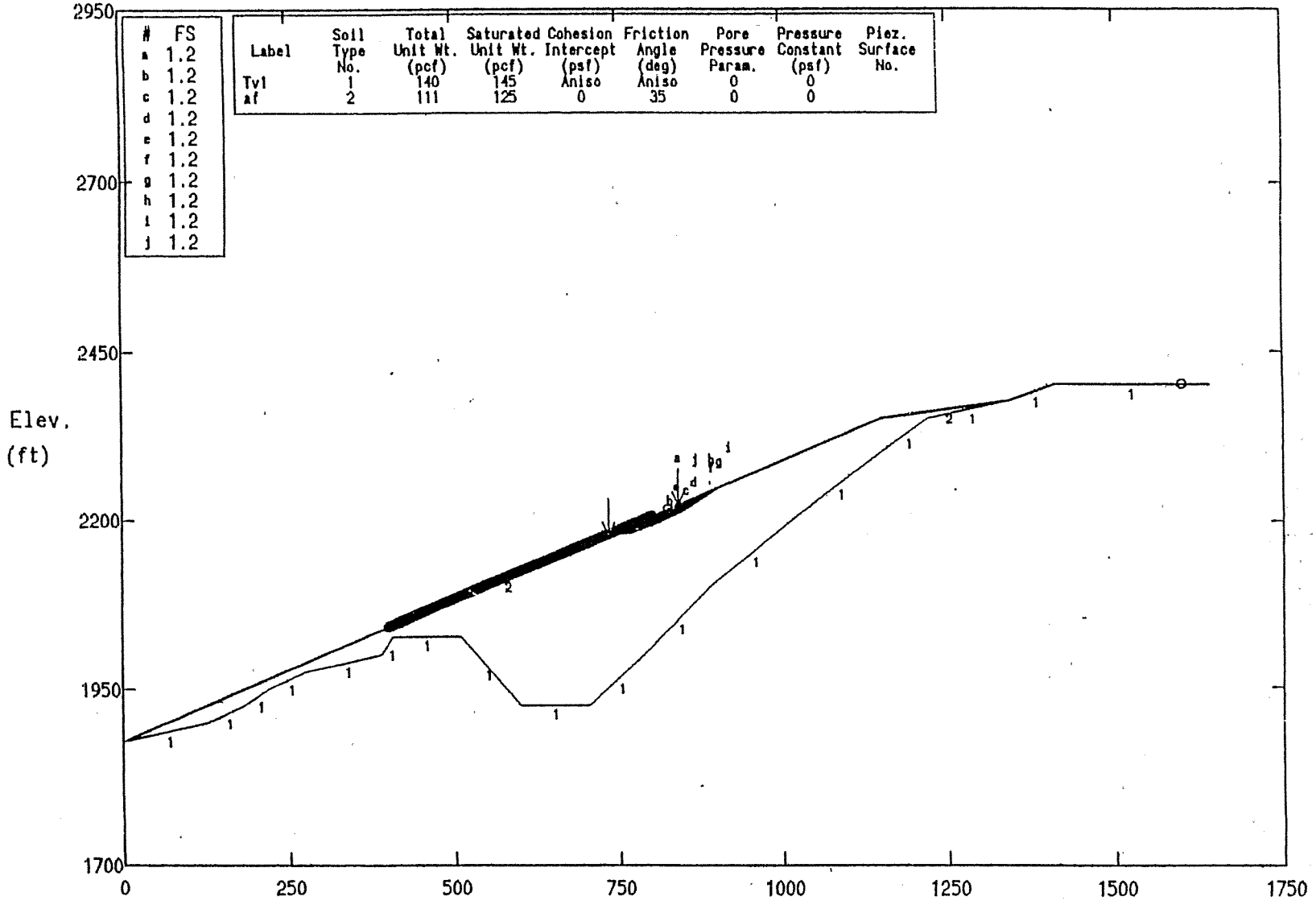

#	FS
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c	1.2
d	1.2
e	1.2
f	1.2
g	1.2
h	1.2
i	1.2
j	1.2

Label	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
Tvl	1	140	145	Aniso	Aniso	0	0	
af	2	111	125	0	35	0	0	

PCSTABL5M FSmin=1.2 X-Axis (ft)

Factors Of Safety Calculated By Thr "odified Janbu Method for c & phi both > 0

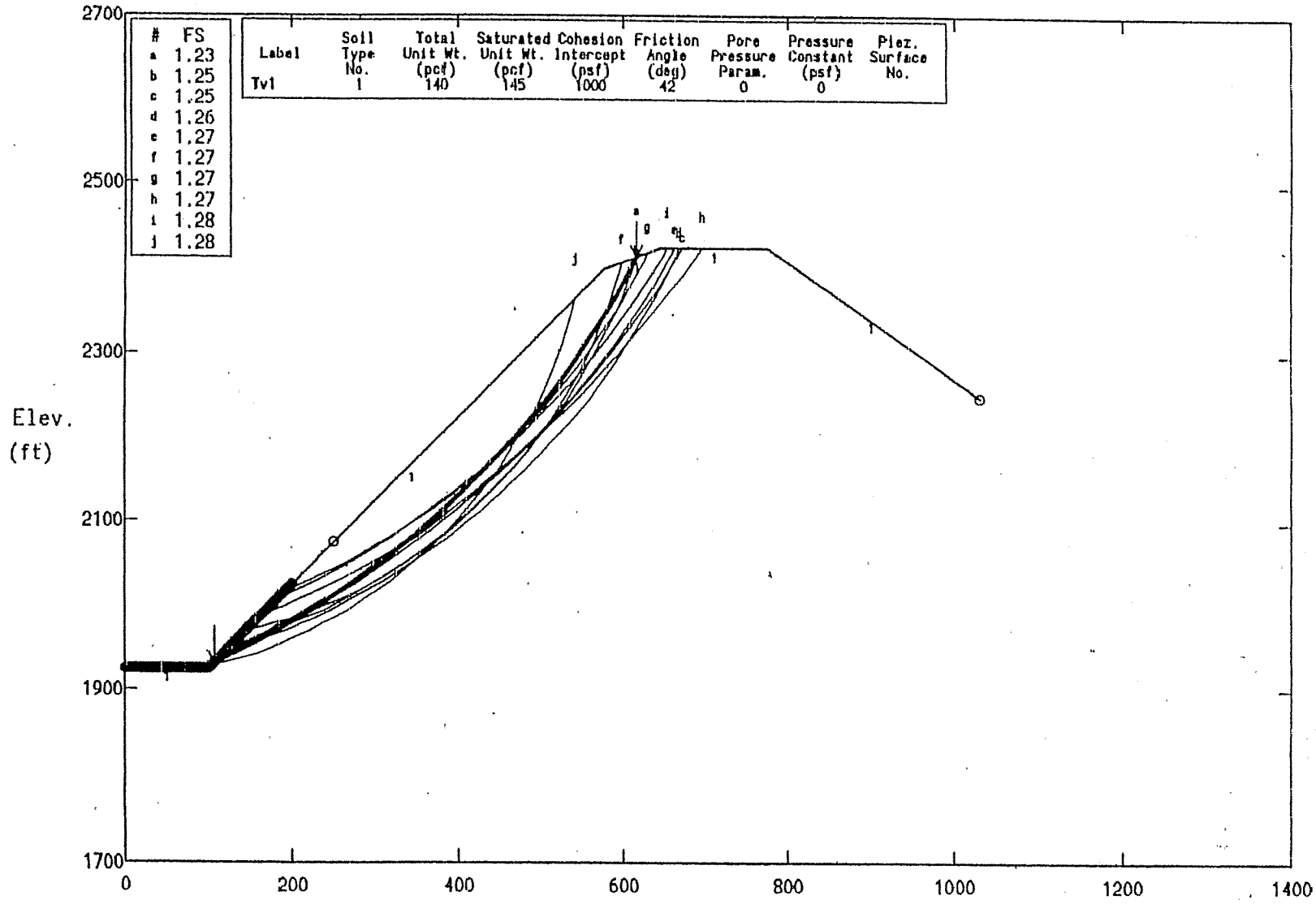
97018.8

Section NG-NG' Static Analyzes
Temporary Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - SECTION NG-NG'- STATIC TEMPORARY SLOPE CUT

Ten Most Critical. C:9718NGT1.PLT By: DLC 01-13-98 3:41pm



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Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

97018.8

Section NG-NG' Static Analyzes
Generic Temporary Slope

HILLTOP GEOTECHNICAL, INC.

SOLEDAD CANYON - GENERIC SECTION 1:1 440' TEMPORARY SLOPE CUT

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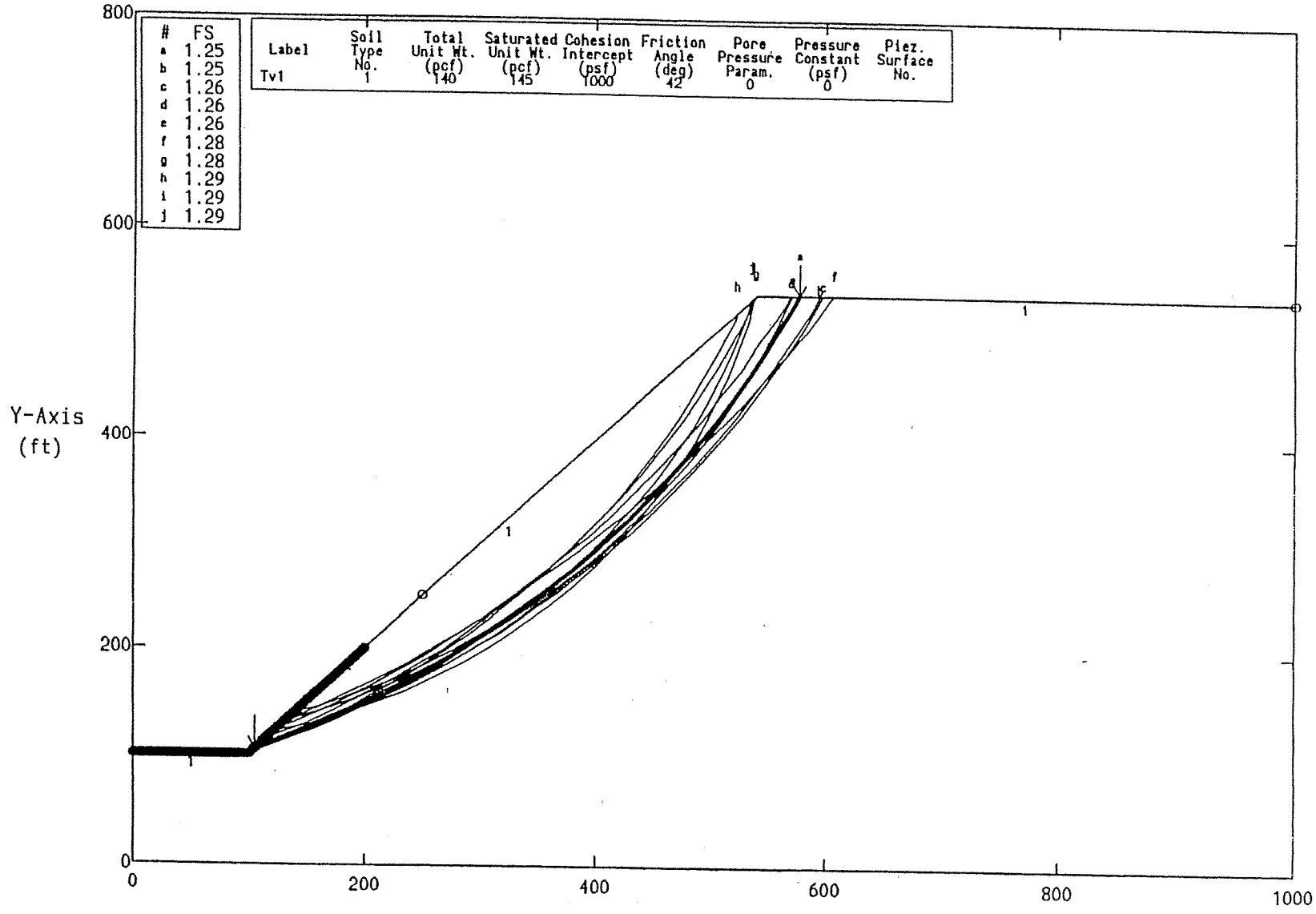

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Factors Of Safety Calculated By The Modified Janbu Method for c & phi both > 0

SOLEDAD CANYON - GENERIC SECTION 1.05:1 475' TEMPORARY SLOPE CUT

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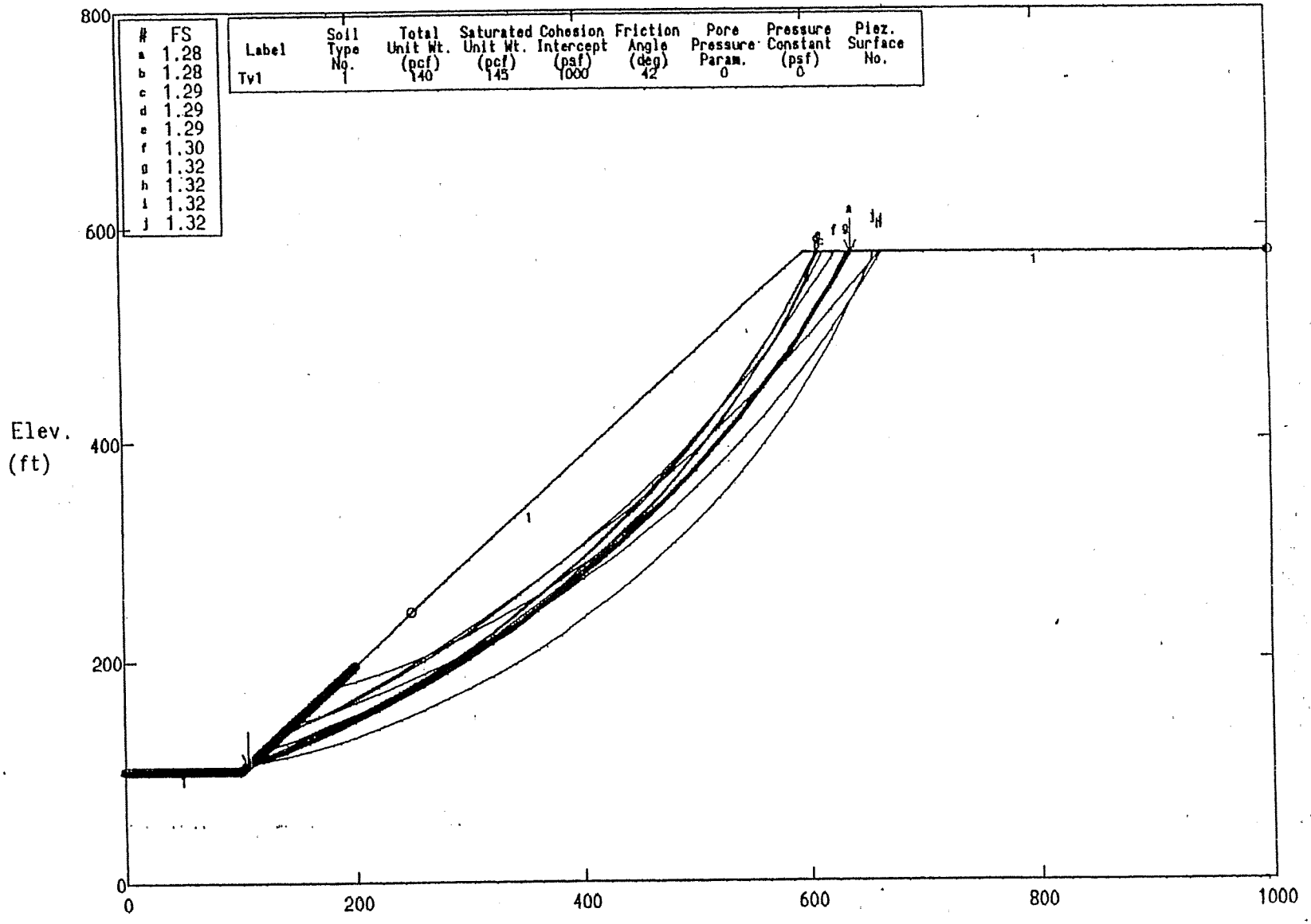
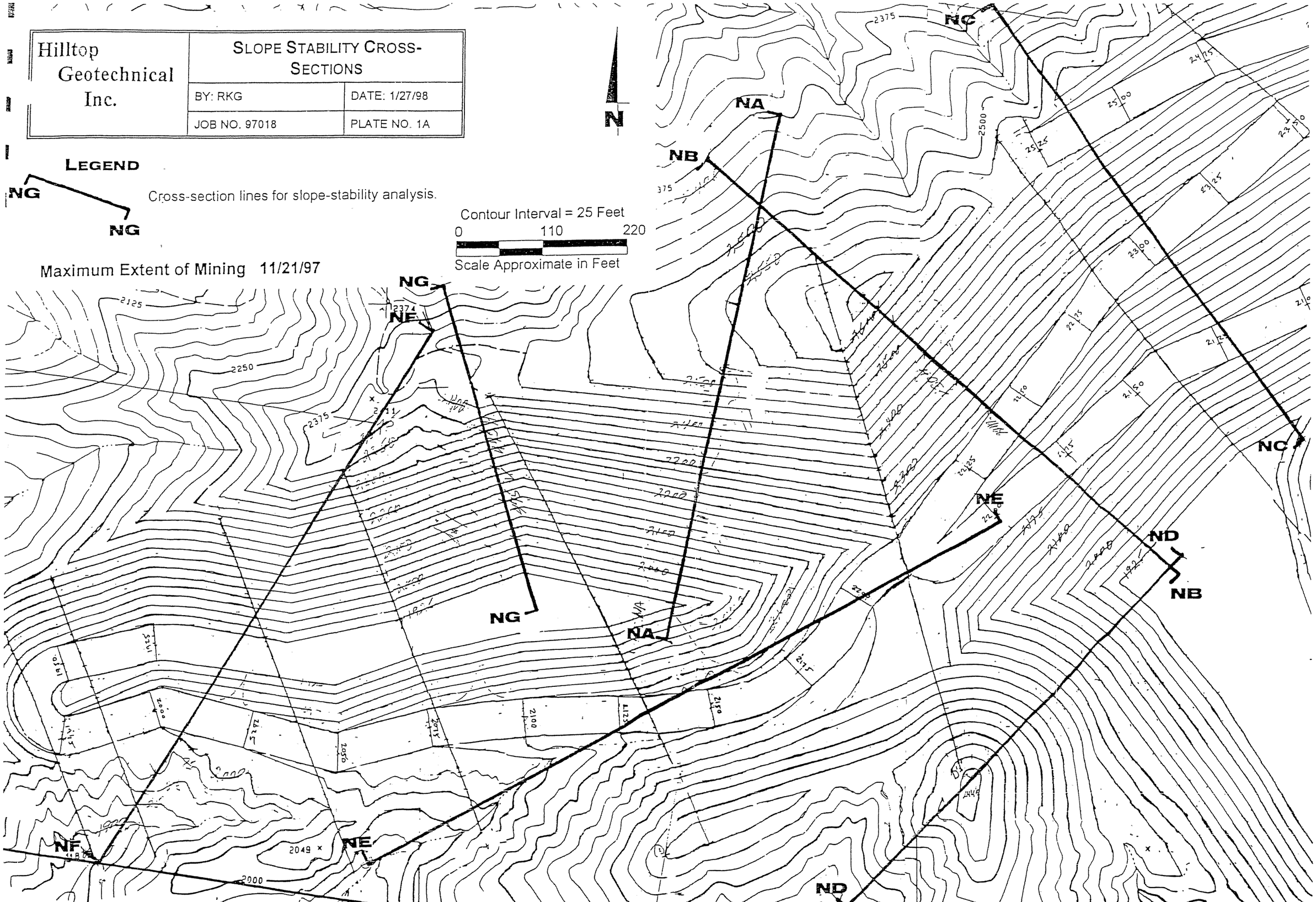


PCSTABL5M FSmin=1.28 X-Axis (ft)

Factors Of Safety Calculated By Th dified Janbu Method for c & phi both > 0

Hilltop Geotechnical Inc.	SLOPE STABILITY CROSS-SECTIONS	
	BY: RKG	DATE: 1/27/98
	JOB NO. 97018	PLATE NO. 1A



MINING AND RECLAMATION PLAN

SOLEDAD CANYON
SAND AND GRAVEL MINING PROJECT

Prepared for:

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS

CALIFORNIA DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY

BUREAU OF LAND MANAGEMENT
PALM SPRINGS - SOUTH COAST RESOURCE AREA

Prepared by:

TRANSIT MIXED CONCRETE COMPANY

JUNE 1997

MINING AND RECLAMATION PLAN
TRANSIT MIXED CONCRETE COMPANY
SOLEDAD CANYON SAND AND GRAVEL MINING PROJECT

Location: Soledad Canyon, County of Los Angeles, California

Reference: United Stated Department of Interior Bureau of Land Management

Contract Number: Ca-20139
Contract Number: Ca-22901

County of Los Angeles

Project Number: 91165

Prepared by: Southdown, Inc.
Transit Mixed Concrete Company
P.O. Box 575
1201 West Gladstone Avenue
Azusa, California 91702-0575

Environmental Affairs Manager:
Mr. Brian Mastin
(818) 812-7955

Technical Assistance by: Chambers Group, Inc.
17671 Cowan Avenue, Suite 100
Irvine, California 92612

Westcoast Environmental
4253 Transport Street, Suite A
Ventura, California 93003

June 1997

MINING AND RECLAMATION PLAN
SOLEDAD CANYON
SAND AND GRAVEL MINING PROJECT

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B Memorandum of Understanding Regarding Surface Mining and Reclamation Coordination

C Water Resource and Water Quality Sections, Preliminary Draft EIR for Soledad Canyon Sand and Gravel Mining Project

D Stormwater Pollution Prevention Plan, Transit Mixed Concrete Company Soledad Canyon Aggregate and Concrete Batch Plants, June 1997

E Spill Prevention, Control, and Countermeasures Plan, Transit Mixed Concrete Company, Soledad Canyon Aggregate and Ready Mixed Concrete Batch Plants, June 1997

F Evidence of Surface Owner's Understanding of the Future Planned Use of the Land After Termination of the Current BLM Contract

G Performance and Reclamation Bond

H County of Los Angeles Department of Public Works, Mining and Reclamation Plan Review Comments and Response to Comments

TAB D

SECTION 1 - INTRODUCTION

1.1 GENERAL INFORMATION

Project Name: TMC Soledad Canyon Quarry

BLM Contract Nos.: Ca-20139 and Ca-22901

Commodity to be Mined: Portland cement concrete aggregate, sand and gravel (PCC aggregates) and associated rock products.

Estimated Annual Production: Shown in Table 3-1

Estimated Total Production: 56,062,000 short tons

Proposed Startup Date: June 1998

Proposed Termination Date: June 2018

Estimated Number of Personnel: 30

Operator: Transit Mixed Concrete Co.
P.O. Box 575
Azusa, California 91702-0575

Mr. Brian Mastin
Telephone (818) 812-7955

Location: Assessors Parcel Numbers:
3210-14-25
3210-14-27
3210-14-28
3210-19-06
3210-19-07

Township: 4N Range: 14W Sections: 9 and 16

Base and Meridian: San Bernardino

Latitude: 34° 26' 34" (34.443) Longitude: 118° 20' 28" (118.341)

1.2 BACKGROUND INFORMATION

On August 18, 1989, the U.S. Department of Interior Bureau of Land Management (BLM) advertised a Notice of Sand and Gravel Sale to be held by a public competitive bid. This sale was conducted in accordance with the ordered stipulation for compromise settlement by the United States District Court for the Central District of California and applicable laws and

regulations. In addition, the BLM complied with the National Environmental Policy Act (NEPA) through preparation and distribution of an Environmental Assessment (EA) on the mineral sale (Appendix A) and is currently preparing an Environmental Impact Statement. Sealed bids were opened at a public bid opening on September 15, 1989, at the BLM California Desert District, Palm Springs-South Coast Resource Area office located in Palm Springs, California. The successful bidder was determined to be Transmix Corporation doing business as Transit Mixed Concrete Company (TMC). TMC is currently a division of Southdown, Inc.

This Mining and Reclamation Plan is intended to meet the requirements of the various federal regulations and laws pertaining to mining in the Code of Federal Regulations (CFR, applicable regulations include 25 CFR 211 and 43 CFR 3802, 3809, 3500, and 3600). Specifically, the Mining and Reclamation Plan will be evaluated against requirements included in 43 CFR 1600.0-4 relating to disposal of minerals under jurisdiction of the Federal Government, 43 CFR 1601.1-3 relating to environmental protection and review, 43 CFR 1602.1-1 regarding requirements for mining plans, 43 CFR 1602.1-2 regarding requirements for reclamation plans, and 43 CFR 1610.1-5 regarding performance and reclamation bonds. It is also intended to meet the requirements of the California Code of Regulations (California Administrative Code Title 14), the Surface Mining and Reclamation Act of 1975, and the County of Los Angeles Planning and Zoning Code. This is a plan and is subject to modification by the mine operator to compensate for unexpected conditions provided that those modifications are properly permitted by the appropriate regulatory agency.

The Mining and Reclamation Plan also will be evaluated in accordance with the terms of the Memorandum of Understanding (MOU) entered into by the State of California Department of Conservation-State Mining and Geology Board (SMGB) and the BLM in California (Appendix B). This agreement was finalized on February 7, 1990. The MOU was created for several reasons, including simplifying the administration of surface mining and reclamation on federal and private lands and eliminating duplication between the aforementioned agencies and counties serving as "lead agencies," such as the County of Los Angeles. It is anticipated that this Mining and Reclamation Plan can be accepted by all agencies as a "functionally equivalent document" as described in the MOU.

1.3 SITE DESCRIPTION AND LOCATION

The site for the proposed mining operation is located north of the City of Los Angeles (City) in Soledad Canyon in Sections 9 and 16 of Township 4 North, Range 14 West; San Bernardino Base and Meridian. This area is within an unincorporated area of the County north of Soledad Canyon Road, south of the Antelope Valley Freeway, and west of Agua Dulce Canyon. Figure 1-1 shows the vicinity of the project site (all figures in this plan are located in sequence behind the figure tab). Mining has been conducted on the site for approximately 20 years, and three quarries exist within a ¼-mile radius to the south and east of the proposed mining site.

The site has been identified by the California Department of Conservation Division of Mines and Geology (CDMG) as Aggregate Resource Section B-2 in its Special Report No. 143, Part V 1987 (Figure 1-2). Furthermore, the CDMG has classified the site as MRZ-2, a Mineral Resource Zone where adequate information indicates that significant mineral deposits are present

(Figure 1-3). The purpose of the CDMG classification was to assist in the designation of the land as containing a regionally significant aggregate resource. Title 14 of the California Code of Regulations (California Administrative Code) does designate this site as containing a regionally significant construction aggregate deposit.

For purposes of analysis and discussion, the project site has been divided into two areas based on project use and land ownership. These areas and the project footprint are presented on Figure 1-4. The proposed surface mining operation will be conducted within the 460 acres of Area A. Area A is a "split estate" with the surface estate owned in fee by the Canyon Country Enterprises, Inc., doing business as Curtis Sand and Gravel Company, while mineral ownership is held by the BLM. The project processing facilities will be located primarily within the 40 acres of Area B. Therefore, all of the proposed mining and operations will be located north of Soledad Canyon Road and the Santa Clara River. Water resources for the project will be developed in Area B and the area southwest of Area B, both of which are owned by the C.A. Rasmussen Company and are presently under a nonexclusive lease by TMC.

1.4 ENVIRONMENTAL SETTING

1.4.1 Regional Setting

The project site consists of approximately 460 acres and lies within an unincorporated area of the County of Los Angeles in the western San Gabriel Mountains in the area known as Soledad Canyon. Soledad Canyon is located in the Santa Clara River Valley, in the eastern portion of the region known as the Santa Clarita Valley. The valley lies between the boundaries of the Angeles National Forest to the north and south. The western boundary is the Ventura County line, and eastward, the planning area extends beyond Agua Dulce but does not include the unincorporated community of Acton.

The valley is the point of convergence of major transportation and utility corridors. Interstate 5 (Golden State Freeway), State Highway 14 (Antelope Valley Freeway), and the Southern Pacific Railroad are the main transportation routes through this region. Two major aqueducts (California Aqueduct and Los Angeles) traverse the valley. Oil and natural gas pipelines and power lines enter the valley from the north through Tejon Pass, cross the Valencia-Newhall community, and exit near Newhall Pass. In addition, the Santa Clara River traverses the valley from east to west. Portions of the Santa Clara River are designated as Significant Ecological Areas (SEAs) by the County.

The Santa Clara River, which drains a portion of the San Gabriel Mountains, supports several riparian vegetation communities along its course in this region. Riparian communities are considered sensitive in California, and these communities are important for wildlife as resources for nesting, refuge, and food. The riparian communities found along the river and its tributaries include cottonwood-willow woodland, willow scrub, mulefat scrub, and sycamore-alder woodland. The Santa Clara River and its tributaries also provide regional wildlife movement corridors by providing access between the areas of the Angeles National Forest north and south of the Antelope Valley Freeway.

The San Gabriel Mountains are part of the larger Transverse Ranges that run eastward from the coast at Santa Barbara to the Mojave and Colorado Deserts. The Transverse Ranges form a geographic northern boundary for southern California and have been identified as an important transition zone for northern and southern California vegetation elements. Specifically, the western San Gabriel Mountains form a transition zone between coastal and desert vegetation communities. The undeveloped portions of the region are a mosaic of coastal sage scrub, mixed chaparral, and semidesert chaparral communities. Coastal sage scrub is considered a regionally sensitive vegetation community because it is disappearing due to development. In this region, the coastal sage scrub and semidesert chaparral communities intergrade on south- and northwest-facing slopes, while mixed chaparral is found mainly on north-facing slopes where more seasonal moisture is available.

1.4.2 Local Setting

The project site is located in the eastern portion of the Santa Clarita Valley in an unincorporated area within the roughly triangular area between the Antelope Valley Freeway, Soledad Canyon Road, and Agua Dulce Road. The City of Santa Clarita is located in the central portion of the valley and is made up of several interrelated communities, including Newhall, Placerita Canyon, Valencia, Saugus, and Canyon Country. The unincorporated areas that surround the City of Santa Clarita are mostly undeveloped or developed to lower density residential and rural uses. The main planning communities within the unincorporated areas include Castaic, Val Verde, and Agua Dulce. In addition, the smaller, rural areas of Soledad, Lang, Pinetree, Sulphur Springs, and Vasquez Rocks are located in the surrounding area within a 5-mile radius of the project site. Land uses within the City of Santa Clarita boundaries are designated by the City's General Plan, while the main planning document for the unincorporated areas is the Santa Clarita Valley Area Plan under the County of Los Angeles General Plan.

1.4.3 Surrounding Land Uses

Spring Canyon and Bee Canyon lie west/northwest of the project site and are separated by the Antelope Valley Freeway. To the northwest, Tick Canyon traverses through the area known as Pinetree. Existing residential use in these canyon areas is designated for nonurban, low-density uses. In addition, higher density residential development is occurring in Pinetree and east of the project area. The land use designation for the Pinetree area changed from the designation of Hillside Management (HM) to Nonurban 2 (N2) in the Santa Clarita Valley Area Plan and the most recent amendment of the Land Use Policy Map. However, recently proposed residential projects may require a higher density urban designation; therefore, ultimate land use designations and zoning must be made consistent with any approved residential projects in the area. Local land use planning must also be consistent with state requirements regarding areas on or adjacent to regionally important mineral resource lands.

Bee Canyon lies southeast of the Antelope Valley Freeway and abuts the northern boundary of the project site. The canyon is vacant open space containing one abandoned residential dwelling. The County land use designation for this area changed from nonurban, low-density uses to higher density urban uses.

The mountainous, vacant lands north of the project site are currently designated by the County as open space lands. The lands east in the vicinity of Agua Dulce Canyon are designated as HM areas in the Santa Clarita Area Plan and are currently zoned as agricultural lands. Agua Dulce Canyon and the Santa Clara River are classified as floodplain areas by the County.

The Santa Clara River is adjacent to the southern border of the project site and crosses through the southeast corner of Area B. Bear Canyon and Bee Canyon are two tributaries that discharge to the river in the site vicinity. Current land uses associated with the river corridor include mining and industrial activities, rural residential, and recreational uses (recreation vehicle parks and camping). The predominant land use in the project vicinity is surface mining, and other uses include sparse rural residential and open space.

The area to the south and southeast of Area B is Angeles National Forest land. Mining has been and is still occurring in the areas adjacent to Area B at its eastern boundary.

1.4.4 Environmental Characteristics

Landform

The subject mining property, covering an area of approximately 460 acres, is mountainous and consists of a northeast-southwest trending ridge that is cut by steep-sided canyons. Elevations at the site range from a low near the western edge of about 1,875 feet above mean sea level to a high peak near the eastern edge of the site at 2,830 feet above mean sea level. The existing quarry excavation cuts deeply into the south slope and covers roughly 40 acres. It has large steep faces in excess of 125 feet high with slopes approximating 70 degrees.

Due to the naturally steep topography and significant amount of natural erosion, the soil development on the south side of the ridge is minimal. Better soil development occurs on the northwest side of the ridge, especially toward the lower Bee Canyon area. A detailed description of the geologic units is included in Section 2 herein.

Climate

The climate at the site is semiarid. Rainfall generally occurs from November through April. Precipitation in the site vicinity averages approximately 14.3 inches per year with occasional snows during some winter storms. Total evaporation potential is about 40 inches per year. However, the evaporation rate is lowest in the fall and winter months when precipitation is the heaviest, allowing infiltration of water into soils and runoff of water into streams and rivers, such as the Santa Clara River.

Water Resources

The entire project site drains to the Santa Clara River. About 65 percent of the site runoff drains directly southeast, off the steep southerly slopes into the river. The rest of the runoff

drains into Bee Canyon, which in turn drains into the Santa Clara River west of the site. The site contains three small ephemeral drainages, as identified on the U.S. Geological Survey Agua Dulce 7.5-minute quadrangle. In addition, the Santa Clara River crosses the southeast corner of site Area B, which is the only portion of the site in the 100-year floodplain. The river carries a Federal Emergency Management Agency Zone A designation in the project area (see Figure 1-5). Currently, stormwater runoff from the disturbed mining area is uncontrolled. Due to the lack of properly maintained desilting/debris basins, silt and debris regularly inundate a Soledad Canyon Road culvert near the existing site entrance.

The Santa Clara River represents the only practical source of water available for use in mining, aggregate processing, concrete production, fugitive dust particulate suppression, and earthen fines placement. Use of water from this source involves obtaining a permit and license for appropriative use of surface waters. Annual precipitation and runoff are the primary sources of water maintaining both surface and subsurface flows in the Santa Clara River. TMC has investigated water resource availability through detailed analysis of existing conditions. The various elements of the investigation of water resources, including 3.5 years of monitoring subsurface water levels in test wells, are set forth in a 1993 report prepared by Ground Water Systems, Inc., entitled, "Evaluation of Water Resources in the Vicinity of the Transit Mixed Concrete Company - C.A. Rasmussen Company Properties in the Soledad Canyon, Los Angeles County, California." The investigation shows that sufficient water is available to support project needs without adverse impact on other users or wildlife during normal years. TMC will monitor underflow conditions in the Santa Clara River for the life of the project and will stop pumping as necessary to preserve habitat and wildlife values (see Section 4.3.5 for additional information).

Water quality monitoring of the Santa Clara River at the project site during 1990, 1991, and 1992 has substantiated regional water quality information and indicates generally good surface and groundwater quality conditions. Appendix C of this Mining and Reclamation Plan includes excerpts from the project Environmental Impact Report (EIR) relative to water supply and water quality conditions.

Biological Resources

The entire project site, as well as areas to be used for water development, has been the subject of several biological field surveys. The project site supports a complex mosaic of plant communities. Additionally, areas on the site have been disturbed from previous mining operations, including previously deposited silt piles and silt ponds, all established by previous operators. The vegetation communities present on the site and their approximate acreage include approximately 29 acres of coastal sage scrub, 290 acres of mixed coastal sage scrub and semidesert chaparral, 57 acres of mixed chaparral, 39 acres of mixed chaparral and coastal sage scrub, and 45 acres of disturbed areas caused by previous mining operations. The vegetation communities of the areas planned for project water development and areas of the Santa Clara River downstream of the project include approximately 23 acres of riparian vegetation. These vegetation communities are shown on Figures 1-6 and 1-7.

Based on site surveys conducted at the proper time of year, no federal- or state-listed sensitive plant species were observed on the project site. However, a large population (1,000+ individuals) of slender-horned spineflower (*Dodecahema leptoceras*; a Federal and State Endangered Species), was observed on benches within the alluvial wash in Bee Canyon, well outside the project boundary. Three former Federal Candidate Species were found onsite: Peirson's morning glory (*Calystegia peirsonii*), slender mariposa lily (*Calochortus clavatus* var. *gracilis*), and Plummer's mariposa lily (*Calochortus plummerae*). In addition, club-haired mariposa lily (*Calochortus clavaus* ssp. *clavatus*), a California Native Plant Society sensitive species, was observed onsite. Pursuant to the EA prepared by BLM for the mineral sale, a survey for Nevin's barberry (*Berberis nevinii*), a Federal Candidate Species, was also conducted. A population of Nevin's barberry occurs in Big Tujunga Wash, approximately 10 miles south of Soledad Canyon on the south side of the San Gabriel Mountains and in habitat similar to that which occurs on the site. However, no Nevin's barberry were found on the site. No mitigation measures for Nevin's barberry are required.

The chaparral and coastal sage scrub community supports a variety of wildlife because of the type of cover it provides and the diversity of plant species present. Existing wildlife includes numerous common reptiles, small mammals, and birds. Additionally, deer are common to the area, and mountain lions occasionally visit. The Santa Clara River is a major regional resource and movement corridor for wildlife. Although coyotes were found to use ridge trails and roadways on the site, no other major movement corridors exist.

The project site contains habitat that potentially could support several sensitive species of terrestrial wildlife. Such species include the San Diego coast horned lizard (*Phrynosoma coronatum blainvillei*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), the coastal rosy boa (*Lichanura trivirgata rosafusca*), and coastal western whiptail (*Cnemidophorus tigris multiscutatus*). However, none of these wildlife species were found onsite during several site surveys, and their presence in viable population numbers is unlikely. The Santa Clara River in the vicinity of the project site is known to be inhabited by several sensitive species of fish, including the Santa Ana sucker (*Catostomus platyrhynchus*), arroyo chub (*Gila orcutti*), and unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). Of the three, only the unarmored threespine stickleback is formally listed (State and Federal Endangered Species). Section 4.3.5 describes the proposed stickleback habitat protection plan, as well as the status of formal consultation with U.S. Fish and Wildlife Service.

1.5 ARCHAEOLOGICAL SURVEY

As required in the special stipulations of BLM contracts, an archaeological survey has been conducted. No cultural resources were found that would be impacted by the proposed mining plan. Therefore, no mitigation measures will be necessary.

SECTION 2 - GEOLOGIC DESCRIPTION

2.1 INTRODUCTION

This section considers geotechnical aspects of TMC's proposed sand and gravel mining operation in Soledad Canyon including geologic characteristics, soils, mineral resources, slope stability, geologic hazards, and other earth resource considerations both onsite and in the surrounding area. It summarizes and incorporates information from several geotechnical studies of the project site completed by STE Associates, Inc. (STE) and Hilltop Geotechnical, Inc. (Hilltop) between 1991 and 1996. The studies upon which the geologic description in this section and the slope stability analysis in Section 3 are based, are listed below with a brief review of their subject matter.

1. Report on Geologic Conditions and Cut Slope Stability Analysis For a Proposed Aggregate Facility of 460 Acres in the Soledad Canyon Area, Los Angeles County (STE, November 1991) - This report summarizes the results of two previous studies done at the project site. One study included geologic mapping of the site, review of aerial photographs, clast count analysis, and overall aggregate potential. Also summarized was the previous geologic reconnaissance that included a slope stability analysis of the existing mining pit. New work included in this report consisted of a more detailed study of the existing pit including slope stability determination. Laboratory testing was also performed to evaluate existing and proposed cut slope conditions for both static and pseudostatic conditions. Recommendations concerning slope gradients, contouring and benching in the reclamation area have been incorporated in the Mining and Reclamation Plan.

2. Letter Report on Clarification of Fault Activity on the Soledad Canyon Fault and the Agua Dulce Fault, Soledad Canyon Site, Los Angeles County, California (Hilltop, December 1992) - This report clarified information on the Soledad and Agua Dulce Faults. These faults are listed as potentially active by Jennings Fault Map of California (1975), based largely on aerial photo interpretation. However, there is no record of fault activity or evidence of micro-seismicity at the site. Site investigation did not reveal evidence to suggest that the Soledad Canyon Fault is active or potentially active. Groundshaking as a result of activity along the San Andreas Fault is considered to be the seismic event that would cause the greatest potential geologic hazard onsite.

3. Letter Report on Clarification Regarding Geotechnical Reports, Proposed Aggregate Facility, Soledad Canyon, California (Hilltop, May 1993) - This report provided rationale and documentation for the preliminary slope stability analyses contained in STE's original geotechnical report. Factors of safety were calculated to support the conclusion that an overall 1 to 1 cut slope ratio is feasible. It also provided additional information to support the author's opinion that the use of benches cut into the overall slope will aid in controlling and confining localized small surficial slides and boulder "pop outs".

4. Preliminary Cut Slope Bench Stability Analysis, Proposed Aggregate Facility, Soledad Canyon Area, Los Angeles County, California (Hilltop, May 1993) - This report presents

the results of preliminary slope stability analyses conducted for proposed benches to be excavated in conjunction with the development of the proposed aggregate source. Overall gross slope stability evaluations were previously conducted (STE, 1991). The purpose of the bench widths and vertical spacing during mining operations. The report recommends minimum bench widths of 35 feet with a maximum vertical spacing of 35 feet and further clarifies the conditions where variance from this standard may occur. In addition, potential slope stability considerations with respect to the anticipated use of a vibratory rock crusher were evaluated.

5. Supplemental Slope Stability Evaluation, North Fines Storage Area, Proposed Soledad Canyon Aggregate Facility Soledad Canyon Area, Los Angeles County, California (Hilltop, March 1995) - This report presents the results of slope stability analysis for proposed fines storage area designated as the North Fines Storage Area (NFSA). Specific work involved a review of the general geology at the site and a re-evaluation of potential geologic hazards associated with strong groundshaking. Seismic design parameters based on new Northridge Earthquake data were used to conduct additional slope stability evaluations and to calculate revised Factors of Safety for the revised NFSA slope configuration.

6. Supplemental Slope Stability Evaluations, Aggregate Mining Area, Final Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California (Hilltop, July 1995) - This report provides the results of supplemental slope stability evaluations of the aggregate mining area final contour configurations. This report updates preliminary analyses prepared by STE that were based on a worst-case analysis without consideration for variations in final site configuration. The report found that the proposed final slope configurations meet the generally accepted standard Factor of Safety of 1.5 (static), with the exception of the slopes in the northeast portion of the site (existing mining area).

7. Additional Slope Stability Evaluations, North Fines Storage Area, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California (Hilltop, January 1996) - Additional slope stability evaluations were conducted to consider a modified design of the NFSA and to comply with revised design criteria specified by the Los Angeles County Department of Public Works. Prior slope stability evaluations for the NFSA determined that the design provided a static Factor of Safety of 1.4. Los Angeles County, however, stipulated that a minimum Factor of Safety of 1.5 would be required and the necessary geotechnical analysis was provided. The report concluded that the specified factor of safety can be achieved by compacting the outer 30 feet of the NFSA slope face to 80 percent relative compaction.

These reports and other relevant maps, plans, specifications, and descriptive materials are on file at the Los Angeles County Department of Public Works offices in Alhambra, California, and at Transit Mixed Concrete Company's offices in Azusa, California.

2.2 GENERAL GEOLOGY

The subject site is located on the south margin of the Soledad Basin, a small terrestrial rift basin situated near the central portion of the Transverse Range Province of California. The oldest sedimentary rocks yet found in the portion of the basin belong to the Oligo-Miocene Vasquez Formation. These sediments rest unconformably on Precambrian and Mesozoic Igneous and/or Metamorphic basement rocks. Rocks deposited within this basin are believed to have originated mainly from the San Gabriel Mountain area on the south and east, and from the Pelona Ridge to the north.

The Soledad Basin is considered to be a terrestrial rift basin that formed between the San Gabriel and San Andreas Faults. The site is bounded on the north by the Agua Dulce Fault and on the south by the Soledad Canyon Fault. The Soledad Canyon Basin is believed to be filled with over 15,000 feet of Oligocene through Recent nonmarine sediments and volcanics.

The project site is located southwest of the San Andreas fault zone and north of the Sierra Madre and San Gabriel fault zones. All of these zones are considered to be seismically active and have shown evidence of historic activity. In addition, other active or potentially active faults are known to exist within a 50-mile radius of the site. Based on distance from the project site, the maximum probable earthquake associated with each fault, and Campbell's Attenuation Curves, Table 2-1 presents probable peak bedrock accelerations from seismic activity for these fault zones and indicates that the San Andreas fault zone would be expected to cause the greatest groundshaking onsite.

Table 2-1

PROBABLE PEAK BEDROCK ACCELERATIONS FROM ADJACENT FAULT ZONES

Fault Zone	Distance from Site (miles)	Maximum Probable Magnitude (Richter)[1]	Probable Peak Bedrock Acceleration (g)[2]	Maximum Repeatable Acceleration (g)[3]
San Andreas	13	8.1	0.35	0.23
San Gabriel	7	6.7	0.23	0.15
San Fernando	12	6.4	0.13	0.09
Sierra Madre	13	6.6	0.15	0.10
Newport-Inglewood	28	6.7	0.07	0.05
Whittier	36	6.7	0.06	0.04

1 Source: Ziony 1985, Earthquake Hazards in the Los Angeles Region
2 Source: Campbell 1982, Near-Source Attenuation of Peak Horizontal A
3 Calculated as two-thirds of peak bedrock acceleration
g = gravitational units

2.3 SITE GEOLOGY

The site consists of a northwesterly dipping homocline made up of conglomerate rocks of the upper Vasquez Formation. The site is situated between the Soledad Canyon Fault and the Agua Dulce Fault. The Soledad Canyon Fault exists as a southern contact between the conglomerate formation and Precambrian anorthosite and anorthosite-related rocks that have been intruded by mafic dikes and sills, reported to be of Precambrian age, and by pinkish monzonite dikes, sills, and a small stock reported to be of Mesozoic age. A geologic map of the site is shown on Figure 2-1 and geologic sections are shown on Figures 2-2, 2-3, and 2-4.

2.3.1 Basement Rocks

Basement rocks at the subject site consist of highly sheared anorthosite and anorthosite-related rocks of Precambrian age that have been intruded by Precambrian mafic sills and dikes. Most of the mafic sill and dike rocks have been altered to chlorite and/or amphibolite schist. Locally, these Precambrian anorthosite and related rocks, as well as the mafic sill and dike rocks, have been intruded by Mesozoic age monzonite dikes, sills, and at least one small stock. The monzonites contain common to locally abundant muscovite mica and xenoliths of anorthosite. These basement rocks are confined to the area south of the Soledad Canyon Fault, which is the contact with the northerly conglomerate formation.

2.3.2 Sedimentary Rocks

Sedimentary rocks in the area of the subject site include the Upper Vasquez Formation conglomerate, Pleistocene (?) to Recent river and alluvial terrace deposits, and Recent alluvium and colluvium.

Upper Vasquez Formation Conglomerate

The thick conglomerate sequence at the subject site has been mapped as the Upper Vasquez Formation (Muehlberger 1958; Hendrix and Ingersoll n.d.). For mapping and rock quality purposes, the Upper Vasquez Formation conglomerates onsite have been separated into a lower unit (Unit 1), a middle unit (Unit 2), and an upper unit (Unit 3). These three units are described below.

Unit 1 (Lower Unit) Tv1

Strata of Unit 1 appear to have been deposited as a large alluvial fan. This alluvial fan deposit consists mainly of clast-supported, anorthosite-rich fanglomerate that was sourced from the flank of the San Gabriel Mountains. Locally the fanglomerate is matrix-supported and commonly contains 20 to 30 percent mafic clasts. The anorthosite and norite clasts related to it appear to be relatively unweathered and solid. There does appear to be less weathering with the larger

clasts than with the smaller ones. The clasts appear to constitute between 70 to 80 percent of the exposed rock.

The mafic clasts exhibit a higher degree of weathering, with 40 to 50 percent appearing moderately to strongly weathered. These mafic clasts appear to weather mainly by rock type rather than by clast size. Many of these clasts appear to be altered to chlorite, and a number of them contain pieces of magnetite and ilmenite.

The anorthosite and norites associated with it locally contain inclusions of pyroxene, amphibole, and magnetite. Some of the pyroxene and amphibole inclusions exhibit alteration to chlorite.

Rocks that were deposited on the main portion of the fan tend to be coarser grained, exhibit layered bedding, and have a cleaner matrix. Those deposited on the flank areas of the fan tend to have smaller clasts, exhibit channeling and crossbedding, and have a silty to very silty matrix. The fan appears to have migrated back and forth in an east-west direction during its time of deposition. The main, or central, portion of the fan appears to have shifted right and left (east and west) through time, and thus the best quality rock will generally be facies-controlled.

The fanglomerate deposition along the east flank area (Agua Dulce Canyon) interfingers with reddish-brown conglomerate beds that contain clasts of granitic, metamorphic, and volcanic rocks, which are not found in the Unit 1 fanglomerate. They appear to be alluvial deposits that, at least in part, have been derived from a different source than the Unit 1 fanglomerate.

As an alluvial fan matures, the fan progresses back toward the source, and the distal end of the fan moves back over the older fan deposits. Thus the distal (north) end of Unit 1 fanglomerate in the subcrop probably interfingers with similar reddish-brown conglomerates like those exposed in outcrop along the east flank. It is probably this same distal end of the fan type of deposition that is exposed near the top of the ridge and mapped as Unit 2.

Unit 2 (Middle Unit) Tv2

Strata of Unit 2 appear to have been deposited on the distal end of a large alluvial fan. This unit is composed of interfingering grayish beds of Unit 1 lithology and gray-brown to reddish-brown beds of Unit 3 lithology. Unit 2 seems to represent a transition zone between the Unit 1 fanglomerates and the Unit 3 alluvial gravels and distal fan deposits.

Unit 3 (Upper Unit) Tv3

Strata of Unit 3 appear to have been deposited mainly as alluvial river deposits. The clasts tend to be smaller, more rounded, and of more diverse composition than those found in Unit 1. There also seems to be more dark mafic clasts (35 to 45 percent) than seen in Unit 1. Most of these dark mafic clasts are highly weathered, mainly to chlorite. Where exposed, the conglomerates of this unit appear to be about half clast-supported and half matrix-supported. The matrix is quite silty and is commonly oxidized to a reddish-brown color.

River Terrace Deposits

Strata of the river terrace deposits are found both north and south of the Soledad Canyon Fault. These deposits consist of rather flat-lying silty sandy gravels and silty gravelly sands with minor silty sands and sandy silts. The river terrace deposits contain clasts of diverse rock types, including grandiorite, chalcedony, rhyolite, basalt, agate, anorthosite, magnetite, monzonite, gabbro, and diabase. Based on the clast types, the terraces were deposited by the ancestral Santa Margarita River.

Alluvial Terrace Deposits

Strata of the alluvial terrace deposits are found along the upper walls of present canyons, upgradient of the river terraces. The alluvial terrace material appears to locally interfinger with, and overlie, strata of the river terraces. The alluvial terrace deposits are commonly dissected by natural drainage systems and are composed mainly of reworked Unit 1 strata, but do include some material from Unit 2 strata. The matrix appears to be siltier than that seen in the Unit 1 lithology, but the clasts do not exhibit any visible change in weathering character. Rocks of this unit appear to have a thickness ranging from a few feet to locally in excess of 15 feet.

Alluvium and Colluvium Deposits

The alluvium is found in the bottoms of the present canyons. It consists mainly of reworked material from Unit 1 but does locally contain some clasts from Unit 2 and the terrace deposits. Thickness of this unit could not be determined but appears to range from a few feet to potentially greater than 50 feet.

The colluvium is present on the sides of the ridges. It consists of reworked material from the underlying unit. Based on recent exposures in the wall of a new quarry, this unit ranges in thickness from a few feet to over 10 feet.

2.3.3 Structure

Three faults in the project area are considered inactive: the Soledad, Agua Dulce, and Pole Canyon Faults.

The subject site is traversed by a major east-west trending fault near the southern side. This fault, the Soledad Canyon Fault, is a normal fault with little evidence of lateral displacement, dipping between 30 and 70 degrees, but described at its type locality as dipping 62 degrees. It has an average trend of N75E and separates crystalline basement rocks on the south from Oligo-Miocene sedimentary rocks to the north. Movement along the Soledad Canyon Fault ceased over 12 million years ago and is therefore not considered an active fault.

The Oligo-Miocene Vasquez Formation conglomerates form a northeast-southwest trending ridge that dips off to the northwest. At the subject site, these rocks trend N60E in the western portion

and swing to a trend of N40E near the eastern boundary. The beds dip from 25 to 35 degrees northwesterly. Several structure cross sections are presented on Figures 2-2, 2-3, and 2-4. In the western part of the subject site is a series of nearly parallel small joint fractures. These joint fractures trend between N10W and N40W and appear to be nearly vertical.

The Pole Canyon Fault trends approximately N60E and is south of the Soledad Canyon Fault. Approximately 500 feet south of the Old Lang Gaging Station, the Pole Canyon Fault crosses the Santa Clara River. The fault is evident in a road cut along Soledad Canyon Road south of the proposed sand and gravel extraction operations Area A. Further east along the fault, it crosses the Santa Clara River, again, through the area leased by the applicant for water and facilities development (Area B). To the north of the subject site is another east-west trending fault, believed to be inactive, called the Agua Dulce Fault.

2.3.4 Physical Hazards

Four potentially hazardous areas occur at the project site associated with previous rock and gravel processing operations.

Existing Silt Ponds: The first area of concern is an area of adjacent siltation ponds located south of Soledad Canyon Road. The ponds were previously filled by a rock and gravel process washwater pipeline from the adjacent Canyon Country Enterprises Mining property. The south perimeter of the ponds is diked by a service road that is north of and parallel to the railroad right-of-way. This area is actually not hazardous in its existing condition. It would be hazardous if something were to be built on the area.

Existing South Silt Pile: The second area of concern is a silt pile located on the south side of the Santa Clara River in a gently sloping area at the base of the San Gabriel Mountains. Prior to C.A. Rasmussen Company purchasing this property, approximately 275,000 cubic yards of partially dewatered silt from the aforementioned siltation ponds were excavated by others and placed on the south side of the river. The entire fill area measures approximately 450 feet wide (east to west) by 400 feet long and 50 feet deep. This fill was not engineered or compacted to a predetermined specification. The silt pile apexes southward into a ravine that collects runoff from the adjacent hills. The runoff percolates through the silt above the original ground surface and seeps out of the toe of the silt bed. This action is evidenced by silt fans extending toward the river. Because the silt pile will not be affected by TMC's project and because it is the responsibility of other operators, it will not be discussed further herein. However, it is noted that the landowner and previous mining operator are developing a solution to the problem.

Steep Cut Slope Area: Because cut slopes are prone to failure, they present a hazard to equipment and personnel above and below them. Slope failure may be induced by surcharge, vibration, or seismic motion. Proposed mining operations will resolve potential problems with steep cut slopes by creating a protective berm on the northwest corner of the slope where rockfall potential is high.

Sand Stockpile: The stockpile lies east of a north-south trending ravine directly below the area that was previously mined. A portion of the stockpile in the ravine was washed out in March 1992 by surface runoff from the existing mined area and surrounding steep slopes. The runoff discharged down the service road toward Soledad Canyon Road, but siltation of Soledad Canyon Road was avoided by diverting the flow into a culvert that drains into the siltation ponds. In addition, much of the sand has already been physically removed from the area. The remaining stockpiled sand will be used on the project site for construction of improvements.

SECTION 3 - MINE PLAN

This section provides a description of the pre-mining operations/construction and mining operations and phases. Individual aspects of the mining plan are subject to changes due to a varying market demand, actual geologic conditions encountered, and changing regulations. The mining plan is subject to modification by the mine operator to compensate for unexpected conditions, provided that applicable regulations are met. Based on the appropriate studies and analyses, the proposed mining operation was designed to avoid or minimize potentially significant adverse environmental impacts. Therefore, many avoidance and mitigation measures have been designed into the plan and are described in the following sections.

3.1 GENERAL MINING PLAN

3.1.1 General Layout and Project Plan

The site consists of a northeast-southwest trending ridge that rises about 700 feet above Soledad Canyon Road. Figure 3-1 shows a view of the ridge looking toward the east. Previous mining operations have left a large excavation on the south side of the ridge. Figure 3-2 shows the south side of the ridge and the previous mining operation. Extensive geologic mapping has identified distinct geologic units in the Vasquez Conglomerate of the ridge. The general mining plan is to mine on the south side of the ridge to minimize surface disturbance and visual impacts. Figure 3-3 shows the project parcel and areas of operation. A series of four excavation cuts are planned on the south side of the ridge starting at higher elevations and sloping downward at angles approaching 45 degrees. A fill area for excess natural fines will be established on the north side of the ridge, as well as in other areas that will be established in the mine cuts on the south side of the ridge. The area on the north side will be used for fines storage throughout the life of the site; however, revegetation of this area will be sequential as filling proceeds and benches are prepared for reclamation. Figure 3-4 presents the project plan, including the mining operations boundary, the fines storage area on the north side of the ridge (North Fines Storage Area), and other existing facilities to be utilized. Setbacks for all aspects of the mining operation have been designed to comply with County codes. The setbacks will be at least 50 feet for mining operations adjacent to public roads or other parcels. Figure 3-5 provides existing and finished contours for the mining plan, including the contours for the principal cuts and fills. The proposed contours represent the final reclamation contours for mining and fines storage areas, with the exception that the NFSA roadway contours will be reclaimed.

A total of 64 million tons of product are available to be mined. TMC currently holds a 20-year contract with the BLM to either mine up to 56.1 million tons of product or mine through the 20th year. Under a future BLM contract, another 8 million tons of product will be available for mining below the 2,125-foot elevation in mining Cut 4. Additional aggregate product would be available from this property if future cuts are made to the north. The exact tonnage remaining to be mined will depend on the mining economics at that time and the required contract with BLM. Mining under that contract would be subject to County, state, and federal approval.

Based on this Mining Plan, the project will be complete at the end of the 20th year because TMC holds no contract at this time for future mining.

If the maximum mining production (56.1 million tons) is realized by the end of the contract term, the resultant modification to the land form would result in lowering the ridge elevation from approximately 700 to about 500 feet above Soledad Canyon Road. Several existing ravines on the north side of the ridge will be filled, resulting in a hillside rather than a ridge with ravines. TMC will revegetate disturbed ground surfaces, returning the site to an open space condition. Reclamation of the site for TMC's mining impacts has already been guaranteed by TMC through posting a bond with the BLM and state and county governments (see Section 4.5).

The principal material to be mined will be the Vasquez Conglomerate, which can be divided into the "lower unit" Tv1 and the "middle unit" Tv2. Figures 2-2, 2-3, and 2-4 show cross sections of the site and the principal material to be mined. A higher proportion of good quality sand and gravel is located in the unit identified as Tv1, which is overlain by unit Tv2. It is estimated that 70 percent of the Tv1 material and 45 percent of the Tv2 material can be sold as product. Therefore, to produce 56.1 million tons of aggregate product, it is estimated that 82.7 million tons of materials will be mined, up to 13.2 million tons of fines will be backfilled into the mined-out areas of the quarry, and 12.9 million tons of fines will be stockpiled in the North Fines Storage Area. Any remaining fines will be sold.

The project has been designed and the environmental impacts assessed using a worst-case fines storage requirement of 30% of the total excavation quantity. Depending upon the amount of fines that may be sold as product and the amount of fines actually encountered during operations, the need for permanent fines storage may be decreased and/or the NFSA may be reduced in size.

3.1.2 Drainage Concept and Mine Preproduction Activities

Slope Stability - Existing Site

Preproduction operations will include stabilizing the existing steep slopes of the existing quarry at the southeast corner of the site. This existing quarry will be stabilized by using fill to buttress the slopes. The area will then be used to stockpile the products of the mining operation. In addition, protective berms will be used where rockfall potential is high, such as on the northwest corner of the existing cut-slope area.

Drainage Concept Plan

No portion of the operations area is subject to floodplain inundation. However, Area A contains four steep canyons, and their runoff will be controlled by flow and debris basins. Project site drainage plans were prepared for TMC by Environmental Solutions Inc. (ESI) and the C.A. Rasmussen Company. C.A. Rasmussen is the landowner of Area B of the project site. ESI developed preliminary design concepts and erosion control criteria. C.A. Rasmussen augmented, modified, and refined ESI's preliminary work. The final plans exist as a drainage

concept designed by C.A. Rasmussen (1993, and summarized herein) and erosion control designs for onsite facilities created by ESI, also summarized herein. A full set of project design plans is on file with Los Angeles County Department of Public Works.

The project site includes seven different drainage areas. The drainage concept plan provides an estimate of the hydrology and hydraulics of the facilities that currently exist, as well as the proposed facilities that will exist during and after Project operations. Drainage conditions were analyzed for six different conditions that characterize the status of the Project throughout its life. Those conditions include preexisting conditions, conditions during each of four separate mining cuts, and postproject conditions. The stormwater runoff flowpath was analyzed for each situation. The quantitative characterization of site hydrology is based on the methodology established by the County Department of Public Works. Drainage facility requirements were based on the 50-year capital flood and were in accordance with the guidelines of the County Hydrology/Sedimentation Manual (1991). Design criteria for flood control works were based on the worst-case scenarios expected to occur at any time during or after operation of the Project.

The Drainage Concept has been developed to channel stormwater runoff from each tributary drainage area into one of seven basins. These desilting/debris basins will trap the sediments and debris that occur in the onsite flood flows. These basins will trap sediment and debris from all storm events (including capital storms) and will discharge water with less sediment to offsite areas. The basins will retain all of the stormwater from lesser storms for controlled later release.

As the final mining cut (Cut 4) proceeds, the existing ridgeline will be cut back to the north, which will increase the size of the tributary drainage areas on the south side of the ridge due to the increased surface area exposed from mining. The increased size of the tributary drainage areas will result in somewhat increased flood flows on the south side of the ridge and decreased flood flows on the north side of the ridge.

Site drainage areas and desilting/debris basins are located as shown on Figure 3-6. The basin sizes were determined based on an analysis of soil types, likely debris production, impervious factors (e.g., paved areas), and time of concentration (the time it takes for rain falling on the most remote part of the tributary area to flow to the basin located in the lowest part of the area).

Tributary drainage areas were calculated for each phase of mining. Likewise, debris production was calculated for each drainage area for each phase of the mining project. The stormwater runoff rate, calculated in cubic feet per second (cfs), was estimated for each basin under each condition, assuming that the site vegetation had been burned (a worst-case scenario that speeds runoff) and considering the likely debris production from each area. The summary of this analysis is presented in Table 3-1. The required debris capacity and required flow rate for basin outlet pipes are listed in Table 3-2. The resultant flow to each existing culvert for each condition is listed in Table 3-3. Culvert locations are shown on Figure 3-7.

The analysis shows that the existing 30-inch-diameter culvert, under Soledad Canyon Road near the southeast corner of the property, is adequate for all scenarios or mining phases, except for the currently existing condition. Installation of the proposed desilting/debris basins will improve existing conditions and render the culvert adequate. Another existing 36-inch-diameter culvert

Table 3-1

DESILTING/DEBRIS BASIN HYDROLOGY SUMMARY

Basin	Existing[1]	Cut[2] 1	Cut 2	Cut 3	Cut 4	Post[3]
Burned Discharge[4] (Qburned cfs)						
1	-[5]	19	26	26	26	-
2E[6]	-	171	187	183	216	-
A	50	50	50	50	43	43
B	74	74	74	74	37	37
C	23	23	23	23	24	24
D	40	40	40	68	56	56
F	45	45	45	42	42	42
Burned and Bulked Discharge (Qburned & Bulked cfs)						
1	-	26	35	35	35	-
2E[6]	-	227	250	243	286	-
A	68	68	68	68	59	59
B	101	101	101	101	50	50
C	31	31	31	31	32	32
D	55	55	55	93	74	44
F	61	61	61	58	58	39
Debris[7] (cy)						
1	-	555	833	833	833	-
2E[6]	-	6,438	6,938	6,771	8,214	-
A	-	1,887	1,887	1,887	2,164	-
B	-	2,886	2,886	2,886	1,499	-
C	-	777	777	777	777	-
D	-	1,499	1,499	2,498	2,164	-
F	-	1,942	1,942	1,443	1,443	-
Tributary Area[8] (acres)						
1	-	10	15	15	15	-
2E[6]	-	116	125	122	148	148
A	34	34	34	34	39	39
B	52	52	52	52	27	27
C	14	14	14	14	14	14
D	27	27	27	45	39	39
F	35	35	35	26	26	22

1 Existing denotes project site as it exists before mining.
2 Cut refers to site at conclusion of each mining phase.
3 Post denotes site as it will exist following reclamation.
4 Discharge refers to flow from tributary area into basin facilities.
5 - indicates not applicable.
6 Basin 2E is the basin combining Basins 2 and E.
7 Debris indicates volume of debris from tributary area into basin facilities.
8 Tributary Area is the watershed above each basin.
cfs = cubic feet per second
cy = cubic yards

Table 3-2

REQUIRED DEBRIS CAPACITY AND FLOW RATE FOR BASIN OUTLET PIPES

Basin	Mining Cut Number(s)	Required Debris Capacity (Total Sediment Volume - cy)	Required Flow Rate* for Basin Outlet Pipe (Qburned - cfs)
1	2 - 4	833	26
2E	4	8,214	216
A	4	2,164	50
B	2	2,886	74
C	1 - 4	777	24
D	3	2,498	68
F	1 - 2	1,942	45

* Basin outlet pipe capacity is the same number as "Burned Discharge (Qburned cfs)" shown in Table 3-1.

Table 3-3

CULVERT HYDROLOGY SUMMARY

Culvert (inches)	Exist	Cut 1	Cut 2	Cut 3	Cut 4	Post
Total Flow to Culvert Inlet (Qburned and bulked cfs)						
30[1]	215	57	64	64	64	52
36[2]	122	207	237	237	265	278
48[3]	358	284	319	319	346	348
Culvert Tributary Area (acres)						
30	99	28	33	33	33	24
36	57	137	146	143	169	180
48	171	181	202	199	224	220

[1] 30-inch culvert, under Soledad Canyon Road east of existing access road.
[2] 36-inch culvert, under Soledad Canyon Road west of existing access road.
[3] 48-inch culvert, under the railroad downstream of the 36-inch culvert.

in the area is not adequate for any scenario and must be supplemented by a parallel 45-inch-diameter culvert if adverse impacts are to be avoided. TMC proposes to add a 45-inch-diameter reinforced concrete pipe culvert to provide adequate culvert discharge capacity. The new culvert will be installed when other road improvements are made during the preproduction phase.

Procedures for temporary control of site drainage during construction phases have been detailed by ESI. These procedures include grading benches and roads so that water flows in controlled paths against the face of cut slopes and placing sandbag berms at periodic intervals to slow the flow of water. Desilting/debris basins will be constructed as soon as possible when surface disturbance is to occur in a tributary drainage area.

Onsite drainage facilities as designed by ESI and modified by C.A. Rasmussen, include V-ditches, onsite culverts, drop inlets, drainage pipes, and desilting/debris basins. C.A. Rasmussen made one substantial revision to ESI's plans by combining desilting/debris Basin 2 and Basin E into a new basin designated Basin 2E (as previously shown on Figure 3-6).

Final design of the sediment basins will be submitted to Los Angeles County Public Works for review after project approval and prior to construction. The final design will be based on the LACDPW Hydrology/Sedimentation Manual. The design will be done according to DPW policy B IV, which states, "waterways shall be designed to maintain an equilibrium between sediment supply and the waterway and sediment transport through the waterway". With those design criteria satisfied, no impacts should occur when the project is active. Because the area will be revegetated with native plant species, post-project and pre-project sediment production rates will also be equivalent.

Energy dissipation and scour protection will be provided downstream of sesilting basins and proposed culverts as needed. The proposed controlled rate-of-release system is shown in the conceptual design of the basins. Final design will be prepared in consultation with Los Angeles County Public Works Design Division and will be provided after project approval and prior to construction.

Other Drainage Considerations

Two existing culverts on Soledad Canyon Road in the vicinity of the project site facilities are currently inadequately sized to protect the road from the possibility of flooding (previously shown in Figure 3-7). Implementation of the TMC Project will protect and supplement these culverts, resulting in adequate culvert sizing. This is a positive aspect of the Project.

Downgradient culverts from the Soledad Canyon Road are not subject to negative impacts because of implementation of the Project. A culvert under the C.A. Rasmussen access road is a private culvert and, as such, is not subject to County design requirements. C.A. Rasmussen, the private landowner, is satisfied with the current and proposed conditions for that culvert. The most downstream culvert in this drainage pattern is a 48-inch-diameter culvert that runs under the Southern Pacific Rail Road. The 48-inch culvert has adequate capacity for all scenarios or phases of the Project.

Stormwater Pollution Prevention Plan

No negative impacts are associated with floodwaters contacting hazardous materials because the production areas of the site is outside of flood hazard zones. TMC will design, build, and operate the proposed facilities according to the specifications detailed in the Stormwater Pollution Prevention Plan (SWPPP) prepared by West Coast Environmental (1997) and included herein as Appendix D.

Stormwater management practices have been selected to include both baseline and advanced management practices. As a new facility, stormwater management has been incorporated into facility design wherever possible including designing sedimentation and erosion control structures; covering and/or containing all hazardous material storage and use areas; preparing a Spill Prevention, Control, and Countermeasure Plan (SPCCP); and implementing a preventative maintenance program covering machinery/vehicles and stormwater conveyance facilities.

Prestripping

Observations of Area A show that little to no topsoil is present in the areas that will be disturbed during the mining operation; thus, no prestripping is required. Clearing vegetation will occur as necessary as mining proceeds; therefore, the potential for erosion will be minimized. As mining and/or backfilling or fines storage proceeds, areas will be seeded with a plant mix designed to reduce erosion (see Section 4.2).

Conveyor Way and Haul Road Construction

After the desilting/debris basins and ditches have been constructed for erosion control, mine preproduction work will continue with the construction of roads for the mobile mine equipment and a right-of-way for the conveyor system. The preproduction construction work is shown on Figure 3-8.

The proposed right-of-way for the 12.5-degree sloped conveyor is 50 feet wide. This width provides a 10-foot-wide berm on either side, a 10-foot area for the conveyor, and a 20-foot-wide road for the small vehicles required to service the conveyor.

The 2,325-foot elevation bench is the first area of sufficient width to locate the required conveyors and mobile crushing plant. A temporary 80-foot-wide haul road is proposed to be constructed between this bench and the North Fines Storage Area haul road. The road will have a maximum grade of 8 percent (descending to the 2,225 foot elevation) and is sized to accommodate a 15-foot-wide berm and a running surface equal to 3.5 times the width of an 85-ton haulage truck. The 80-foot-wide North Fines Storage Area haul road will be constructed from the plant site to the ridgeline elevation of 2,375 feet with a grade of about 8 percent. The haul road will continue from the ridgeline to the bottom of the fines storage area and will complete the preproduction work needed for the mine. The roads and fines storage area will be used throughout the life of Cut 1 and will be available if necessary during the Cut 2 mining period. The haul road to the bottom of the fines storage area will be covered as the area is backfilled as discussed in Section 4.

Alternately, fines may be transported from the processing area to the North Fines Storage Area by means of a conveyor system. Use of the conveyor system would eliminate the need for construction of the proposed NFSA haul road capable of accommodating 85-ton haul trucks. A smaller road could be built for construction vehicle access and the conveyor system would be located adjacent to this roadway.

Facilities Construction

Facilities are proposed to be located in Areas A and B north of Soledad Canyon Road. The facilities include the following:

- aggregate processing plant,
- batch plant,
- fuel island,
- truck washout,
- truck scale and scale house,
- service and maintenance building,
- stockpile areas,
- water tanks,
- dust palliative storage tank
- office, and
- facility parking area.

Construction of the facilities would proceed after appropriate site grading and setbacks and access road construction are completed in accordance with standard construction practices and zoning and grading ordinances of the County.

Specifically, construction of the fuel island will include two 6,000- to 10,000-gallon aboveground diesel storage tanks, as well as a propane storage tank. Additional tanks include a 1,000-gallon waste oil tank, three 250- to 1,000-gallon fresh motor oil tanks, and a 1,000-gallon hydraulic fluid tank. The construction and installation of these tanks are designed to meet the requirements of the South Coast Air Quality Management District (SCAQMD) Standards and the County fire codes. Two 600,000-gallon water storage tanks are proposed for the facilities area. A chemical storage tank to hold dust palliatives will be located onsite.

3.1.3 Concept Plan of Mining Cuts

General Description of Mining Cuts

The generalized mine plan is to excavate the deposit in four or more cuts to minimize production transportation distances and prepare an area for stockpiled fines. Table 3-4 shows the reserves of the four cuts.

The first mining cut (Cut 1) will start at approximately the 2,350-foot elevation three-quarters of the way up the south side of the ridge and proceed downslope in 25- to 35-foot benches to

Table 3-4

CUTS 1 TO 4 MINE TOTAL TONNAGES[1]
(tons x 1,000)

Elevation (feet)	Total Mined	Fines	Product	Cumulative Fines	Cumulative Product
2,700	66	36	30	36	30
2,675	261	144	117	180	147
2,650	600	279	321	459	468
2,625	929	395	534	854	1,002
2,600	1,297	529	768	1,383	1,770
2,575	1,724	676	1,048	2,059	2,818
2,550	2,207	861	1,346	2,920	4,164
2,525	2,613	967	1,646	3,887	5,810
2,500	2,942	1,059	1,883	4,946	7,693
2,475	3,324	1,114	2,210	6,060	9,903
2,450	3,670	1,147	2,523	7,207	12,426
2,425	3,883	1,165	2,718	8,372	15,144
2,400	4,109	1,233	2,876	9,605	18,020
2,375	4,435	1,331	3,104	10,936	21,124
2,350	4,756	1,427	3,329	12,363	24,453
2,325	4,951	1,485	3,466	13,848	27,919
2,300	5,051	1,515	3,536	15,363	31,455
2,275	5,204	1,561	3,643	16,924	35,098
2,250	5,314	1,594	3,720	18,518	38,819
2,225	5,313	1,594	3,719	20,112	42,537
2,200	5,339	1,601	3,738	21,713	46,275
2,175	5,425	1,627	3,798	23,340	50,073
2,150	5,502	1,650	3,852	24,990	53,925
2,125	5,534	1,661	3,873	26,651	57,798*
2,100	3,278	983	2,295	27,634	60,093
2,075	5,579	1,673	3,906	29,307	63,999
Total	**93,306**	**29,307**	**63,999**	**29,307**	**63,999**

[1] Anticipated mining and production volumes are estimates only and could change on an annual basis because of market conditions or other factors.

* TMC's contract limit for Proposed Project at 56.1 million tons.

approximately the 2,075-foot elevation. Figure 3-9 shows the maximum extent of Cut 1. The plus ¼-inch aggregate material will be crushed to minus 6 inches and transferred to a horizontal movable conveyor. Then this material will be transferred to the semipermanent, sloped conveyor leading to the plant stockpile. The fines screened at the crusher feed will be temporarily stacked on the operating bench and then loaded into 85-ton haul trucks or 44-cubic-yard scrapers and moved to the North Fines Storage Area. The storage area will be constructed from the bottom up in 4- to 5-foot lifts. Each successive lift will be set back 8 to 10 feet to produce the overall slope of 2 horizontal feet for every 1-foot rise in elevation. The aggregate production areas will be excavated from the bottom up. The overall interim pit slopes are anticipated to be approximately 1 horizontal to 1 vertical. Benches will be excavated at regular intervals within this overall temporary slope inclination and will serve as access roads during the lifetime of the operation. Upon completion of the mining operation, the excavated slopes will be laid back to approximately 1.13 horizontal to 1 vertical (or other slope angle approved by Los Angeles County DPW), and the face of the slopes will be recontoured with 4-foot vertical faces and 4-foot benches. In addition, 15-foot-wide benches will be created at approximately 100-foot vertical intervals within the overall slope face. Profiles of the storage area and pit area reclaimed slopes are shown on Figure 3-10.

This mining method will be repeated until Cut 1 is mined out. The 2,075-foot elevation has been chosen as the working floor because the existing quarry bottoms out at approximately this level. However, if the material meets the quality requirements for PCC aggregate, mining may continue until the excavation is restricted by the south property limit or the Soledad Canyon Fault.

Figure 3-11 shows the configuration of the maximum extent of Cuts 2 and 3. Cut 2 will start at the 2,700-foot elevation near the top of the south side of the ridge and continue to the east end of the property. Fines from Cut 2 will be sent to the North Fines Storage Area and later to the mined-out area of Cut 1. It is anticipated that Cut 2 will be completed near the 13th year of mining operations.

Cut 3 will begin operation near the 11th year of production in the west end of the mine with the installation of a second front-end loader or hydraulic excavator, a second mobile crusher, and another conveying system leading to the plant stockpile. The fines will be backfilled into the North Fines Storage Area, Cut 1 mined-out area, and then into the mined-out area of Cut 2.

The mining of Cuts 1 through 3 will be concentrated on the south side of the ridge. Cut 4 is an extension of the quarry to the north and will be the last cut required to obtain the contracted 56.1 million tons of aggregate product. This cut extends to the north side at the top of the ridge, and the natural fines will be stored in the North Fines Storage Area, Cut 2 mined-out area, and then in the mined-out area of Cut 3.

Figure 3-12 shows the maximum extent of Cut 4. Cut 4 will be put into production near the 13th year of operation when mining in Cut 2 will be completed. The upper elevations of Cut 4 consist of material that is not of the quality required for aggregate; therefore, this unmarketable material will be removed and backfilled into Cut 2. The mobile crusher will begin operation at the 2,650-foot elevation, and a conveying system will transport the crushed product down to the plant stockpile.

Near the 15th year of operation, Cut 3 will be completed and the mining operation from this cut will be moved into Cut 4 on the 2,425-foot elevation. At this time, both mobile crushers will operate in the same area, although they will usually be on different benches. The two product conveying systems will parallel each other to the plant stockpile. Fines will be backfilled into Cut 3.

Figure 3-13 presents two cross-sectional representations of Cuts 1 through 4. The location of the cross sections is depicted on Figure 3-12. Cross section A-A[1] shows the maximum extent of the cuts and includes the fines storage contouring on the North Fines Storage Area as well as the backfilling of fines within Cuts 1 through 3. Cross Section B-B[1] does not cross the North Fines Storage Area but does show reclaimed area contouring.

TMC's current contract with the BLM will expire at the end of the 20th year of operation when mining will be on the 2,125-foot elevation of Cut 4. The reclaimed contours for the site at the end of mining are shown on Figure 3-14.

It is the position of TMC and BLM that after implementation of the reclamation plan, the mining area will be retained as open space. The debris basins are not permanent structures and will be removed after reclamation.

Slope Stability Potential

Slope stability analyses have been performed by ESI and Hilltop Geotechnical, Inc., to evaluate the potential for impacts related to slope instability in the Project's proposed North Fines Storage Area, batch plant area, and mining cuts, and in the existing gravel pit and sand stockpile at the site.

Stability under static (existing) and pseudostatic (seismic) conditions was evaluated using computer-assisted analysis to calculate factors of safety against failure. The analyses involved modeling to replicate parameters such as soil strength and slope angles in the areas being evaluated and the use of a horizontal acceleration (g) factor to simulate a seismic event. A seismic coefficient of 0.15 g was used for all of the slope areas evaluated for subject project, consistent with the standard practice at the time that most of the stability analyses were performed. However, new earthquake data derived from geotechnical studies of the 1994 Northridge earthquake have been applied in a supplemental analysis of the North Fines Storage Area. The North Fines Storage Area is the only area of the mining site in which there is a potential for impacts relating to slope failure to affect property outside of the TMC mining operation.

The slope stability analyses performed resulted in determinations of numeric "safety factors" for each of the modeled slope conditions. A pseudo-static safety factor of 1.0 is considered

minimally stable. Under static conditions, the standard for the building industry is a safety factor of 1.5; however, standards for slope stability are generally lower for the mining industry. Based on County requirements, a factor of safety of 1.5 is used for all slopes.

North Fines Storage Area

The proposed placement and compaction of fines in the North Fines Storage Area were evaluated for slope stability by ESI (1991) using direct shear tests and a seismic coefficient of 0.15 g. As a result of the seismic damage derived from the 1994 Northridge earthquake, Hilltop (1995) performed a supplemental analysis of the proposed slopes using the same shear test data and a higher seismic coefficient (0.26 g). Both analyses modeled conditions based on assumptions of 75-percent compaction of fill material and a slope angle of 2:1 (horizontal to vertical). Hilltop (1996) modified the slope stability analysis to comply with design criteria specified by Los Angeles County.

The results of the first two studies indicate that deep-seated failure in the North Fines Storage Area is unlikely under static loading conditions, and any slope instability occurring in the area will probably be in the form of nuisance shallow sloughing of material and surficial erosion. It is anticipated that the Project's proposed stabilization and revegetation program for the North Fines Storage Area will help minimize these shallow effects. Some permanent slope deformation is anticipated under the type of seismic loading conditions that would be associated with a maximum probable earthquake; however, the range of movement that would be associated with such an event is small compared to the overall length of the slope.

Moisture content is a factor in compaction of silty fine to coarse sandy materials, with drier materials typically requiring more compaction effort to achieve the desired density. ESI determined that because the fill materials are highly permeable, accumulation of moisture would not result and liquefaction would not occur.

Prior slope stability evaluations for the north fines storage area were based upon design criteria using a static factor of safety of 1.4. Recently, Los Angeles County has indicated that although this is not a land development project, a minimum factor of safety of 1.5 would be required for all static slope stability evaluations. A review of the stability evaluations contained in Hilltop (1995) indicates that the static factor of safety against deep-seated slope failure was 1.9, while the factor of safety against shallow failure was 1.4. Since the safety factors obtained for deep-seated slope stability were greater than the required 1.5, only shallow slope or surficial stability stability would need to be improved to 1.5.

The simplest method to improve the surficial stability of the slope surfaces would be to increase the shear strength of the upper materials within the north fines storage area. Prior laboratory tests conducted by Soil and Testing Engineers, Inc. indicated that the shear strength of the anticipated north fines storage area materials increased with increased compaction. The initial stability evaluations were based upon soil strengths obtained from laboratory samples compacted to 75 percent of the laboratory maximum dry density.

Hilltop's (1996) evaluation has been accomplished to determine the degree of compaction required to achieve a 1.5 factor of safety. Based on this analysis, the factor of safety can be achieved by compacting the outer 30 feet of material on the slope to 80 percent relative compaction. The remainder of the fill within the proposed slope would be compacted to 75 percent relative compaction, as previously proposed. In addition, test fills are recommended to verify strength parameters used in the stability analyses.

Based on these analyses, no significant impacts on slope stability in the North Fines Storage Area are anticipated.

Other Fines Storage

Fines produced during mining will also be backfilled into the mining cuts. The fills in Cuts 1 and 2 will be minor fills, however, the Cut 3 fill will be subject to factor of safety design parameters. Slope stability analysis (Hilltop 1995) indicates that a 1.8 deep-seated factor of safety can be achieved in Cut 3 with 75 percent relative compaction of the fill. This exceeds the required 1.5 factor of safety. The compaction requirements have been incorporated with project design, therefore, no significant impact on slope stability is anticipated.

Former Gravel Pit

Recommendations have been made for stabilizing the near-vertical walls of the existing 40-acre pit. Static and pseudostatic analyses of the pit slope stability were performed using the PCSTABL5 computer program to calculate factors of safety against failure. A 0.15-g horizontal acceleration was used to simulate a seismic event. Initially, the bottom of the pit walls on the west, north, and northeast sides will be buttressed with fill. For a final configuration, the cut slopes will be laid back to 1.13:1 (horizontal to vertical) using 15-foot-wide benches at 100-foot vertical intervals. No significant adverse impacts with regard to slope stability are anticipated; conversely, a beneficial impact will result because an existing physical hazard will be alleviated.

Batch Plant Area Slopes

Slope stability of the highest (160 feet) proposed cut slope in the future batch plant area has been evaluated. The 1:1 slope of the exposed conglomerate and anorthosite would achieve a safety factor of 1.5 and 1.2 for static and pseudostatic conditions, respectively; therefore, no significant slope stability impacts are anticipated.

Proposed Mining Cuts

Hilltop Geotechnical (1993) conducted a preliminary slope stability analysis to determine reasonable bench widths and vertical spacings to be used during the mining operation to achieve acceptable slope stability.

Stability analyses for the benches were conducted using the soil strength parameters previously developed for gross stability evaluations and a seismic coefficient of 0.15 g. Subsequently, Hilltop (1995) performed a supplemental analysis of the area using a higher coefficient (0.26 g) that was based on seismic data derived from the 1994 Northridge earthquake.

Conclusions based on the supplemental analysis indicate that with the exception of the slopes in the extreme northeast portion of the mining area, all final slope configurations can be considered stable under static loading based on geotechnical industry-accepted standards. Although the final configuration slopes in the northeast portion of the mining area have factors of safety of slightly less than 1.5 under static loading conditions, these slopes would perform satisfactorily. Consistent with County of Los Angeles requirements, the final configuration of these slopes will be designated to achieve a factor of safety of 1.5.

The results of the supplemental stability evaluations also indicate that the majority of the slopes in the final mining area configuration will have a pseudostatic factor of safety of one or less when subjected to the strong groundshaking induced by a maximum probable earthquake of 8.1 magnitude on the Richter scale on the San Andreas Fault. However, this does not indicate slope failure in a conventional sense, but rather that the potential for deformation exists. As a result, some permanent slope deformations resulting from seismic loading should be anticipated. Although deformations should be expected, the magnitude of permanent seismic deformations is estimated to be small. Permanent deformations on the order of 1.5 to 3 feet may occur for the tallest slopes in the northeast area of the aggregate mining area while deformations of less than 1 foot are expected for a majority of the northern slope areas. It should be noted that the estimated permanent seismic deformations are small relative to the overall slope lengths. In addition, catastrophic seismic-induced failures are not anticipated for the final slope configurations of the mining area.

Consistent with the requirements of the County of Los Angeles all slope configurations will be designed to achieve a pseudostatic factor of safety of 1.1 or greater.

During mining and based on the results of the analyses, acceptable stability will be achieved by constructing 35-foot-wide benches with maximum vertical spacings of 35 feet in the undisturbed native materials. In addition, the minimum horizontal setback for heavy equipment on the cut benches should be 15 feet, measured from the outer edge of the undisturbed native material.

The stability analyses also evaluated the effects of water infiltration on the final recontoured bench configuration and determined that slope stability would be virtually unchanged by saturation of near-surface materials. Although moderate amounts of material sloughing from the 4-foot benches may occur during heavy rain storms, such sloughing is expected to be minor and will not affect the overall stability of the slopes. In consideration of potential adverse effects of equipment vibration on slope stability during the mining operation (e.g., localized popouts, raveling, and rockfalls), Hilltop (1993) recommends that the rock crusher unit be frequently moved, as is normal during mining operations.

Based on the slope stability analyses, the proposed mining operation can be engineered to avoid significant impacts related to slope instability.

3.2 MINE PRODUCTION PHASING AND SCHEDULE

Mining was originally scheduled to commence on November 15, 1991, after obtaining all the required permits. Under this original schedule, the proposed TMC mining operations would

have been completed on November 15, 2011. However, based on the current permitting schedule, it is anticipated that mining will commence in 1998 and be completed in 2018. Any further delay in permitting would cause a corresponding delay in the mining schedule.

The proposed mining schedule is divided into two phases in accordance with TMC's agreement with the BLM, as shown in Table 3-5. Phase 1 will last 10 years with a gross mine production rate averaging about 1.4 million tons of product per year, but ranging from 300 to 2,150 tons per year. Phase 2 will begin near the eleventh year, and mining will proceed at a rate resulting in approximately 4.2 million tons of product per year. The mine is scheduled to continue at this rate for 10 years. It should be noted that the anticipated mining and production volumes are estimates only and could change on an annual basis because of market conditions or other factors.

3.3 OPERATIONS PLAN

3.3.1 Mining

It is anticipated that excavation activities will take place 6 days a week between the hours of 5:00 a.m. and 10:00 p.m. but will not exceed 14 hours per day. The number of hours of excavation per day will vary based on market demand, as mentioned above, water demand, and seasonal water availability. It is anticipated that, when water is more plentiful (typically winter and spring), daily excavation activity will be higher than other times of the year. Additional factors that may affect operating hours include possible restrictions on operating equipment to meet air quality emission limitations and/or off-peak electricity demand "time-of-use" considerations.

Excavation and backfilling operations are anticipated to include the following equipment:

- hydraulic excavator (one or two),
- dozer (one),
- 44-cubic-yard scrapers or 85-ton haul trucks (one to three),
- 12-cubic-yard wheel loader (one)
- compactor (one),
- semi portable primary crusher system (one in Phase 1; two in Phase 2), and
- conveyor system (one in Phase 1; two in Phase 2).

It is proposed to mine this property by using an electric-powered, screening, crushing, and conveying system, including a 42- by 48-inch jaw crusher. The deposit will be mined by a hydraulic excavator in the 10- to 14-cubic-yard capacity range, and the material transported to the crusher by offroad trucks. The feed material will be screened, and the minus ¼-inch fines that cannot be used for product will be backfilled for storage in the North Fines Storage Area and other fines storage areas.

The use of a mobile crusher and conveyor system will reduce air pollution and noise levels because the use of diesel equipment will be minimized. However, because of the steep irregular terrain, some diesel-driven equipment will be needed to handle the minus ¼-inch material.

Table 3-5

PROPOSED MINE SCHEDULE
(tons x 1,000)[1]

Phase	Year	Feed	Fines	Product	Cumulative Product
1	1	429	129	300	300
1	2	714	214	500	800
1	3	1,143	343	800	1,600
1	4	1,429	429	1,000	2,600
1	5	1,786	536	1,250	3,850
1	6	2,500	750	1,750	5,600
1	7	2,786	836	1,950	7,550
1	8	3,071	921	2,150	9,700
1	9	3,071	921	2,150	11,850
1	10	3,071	921	2,150	14,000
2	11	6,000	1,800	4,200	18,200
2	12	6,000	1,800	4,200	22,400
2	13	6,000	1,800	4,200	26,600
2	14	6,000	1,800	4,200	30,800
2	15	6,000	1,800	4,200	35,000
2	16	6,000	1,800	4,200	39,200
2	17	6,000	1,800	4,200	43,400
2	18	6,000	1,800	4,200	47,600
2	19	6,000	1,800	4,200	51,800
2	20	6,000	1,800	4,200	56,000

Operating days/year	-	**Phase 1**	**270**
	-	**Phase 2**	**290**
Plant operating hours/day	-	**Phase 1**	**14**
	-	**Phase 2**	**16**
Plant tons/hour	-	**Phase 1**	**575**
	-	**Phase 2**	**905**
Mine tons/hour	-	**Phase 1**	**821**
	-	**Phase 2**	**1,293**

[1] Anticipated mining and production volumes are estimates only and could change on an annual basis because of market conditions or other factors.

3.3.2 Processing

It is proposed that the aggregate processing will take place 16 hours a day, and aggregate shipping will take place 24 hours a day depending on market demand. Aggregate plant operations are anticipated to include the following equipment:

- 10-cubic-yard wheel loader (two),
- rough-terrain forklift (one),
- motor grader (one),
- rough terrain crane (one),
- ton end dump truck (one),
- street sweeper (one),
- skid-steer loader (one), and
- miscellaneous service trucks and welders (three to four estimated).

The concrete batch plant and ready-mixed shipping may run 7 days a week, 24 hours a day depending on market demand. However, at the present time, it is anticipated that these operations will take place 17 hours per day from 5:00 a.m. to 10:00 p.m., 6 days a week.

A total of 380 outbound truck trips per day will occur during Phase 1 for aggregate and concrete shipping. During Phase 2, it is estimated that the outbound truck trips per day will total 582.

The number of employees onsite is estimated to be 15 in Phase 1 and 30 in Phase 2. The exact number of employees will depend on the market demand for material at any given time.

3.3.3 Water Resources

Water will be used in several aspects of the operations, including aggregate production, dust suppression, compaction of excess fines, ready-mixed production, and truck washing. The water system proposed for the aggregate production has been designed to conserve water and represents a state-of-the-art recycling system. The process will consist of collecting water that was used to wash excess fines and clays off the sand and gravel product. The recovered water will be treated with a polymer flocculating agent that attracts the fines/clay particles and causes these particles to clump together. The flocculating agent that will be used is HYDROFLOC 437, or equivalent, which has been approved by the U.S. Environmental Protection Agency (EPA) and is not considered hazardous.

The water and solids will be fed into a clarifying tank where the solids settle to the bottom and the clarified water flows over a weir at the top of the unit, returning to the process system for reuse. The solids, including the flocculating agent, will be collected and dried to between 35 to 50 percent solids by weight. The solids then will be blended with the natural fines for compaction onsite.

The washout station for trucks that carry concrete will be equipped with a recycling system. Excess water from the washout system will be pumped to the aggregate production system.

Use of the operating and recycling systems described above will result in approximately 40-percent conservation of water resources compared to standard methods of mining and operations. The total amount of water necessary for operations is estimated at 423 (winter) and 461 (summer) acre-feet per year during Phase 1 and 717 (winter) and 775 (summer) acre-feet per year during Phase 2. Table 3-6 presents the project water balance summary with recycling systems described above for the project. The table presents "original recovery," which is the water usage rate that will result from planned recycling operations. "Maximum recovery" represents the potential minimal water usage that could result from additional recovery efforts, if needed.

The water resources to support the project are proposed to be developed from three wells located in the area southwest of Area B, with on-demand pumping and an aboveground pipeline to the facilities site. The proposed production wells and water collection pipelines are shown on Figure 3-4. A 600,000-gallon storage tank is proposed to be located on the facility site for temporary water storage and serve as a fire safety measure. During Phase 2 of the mining operation, a second water storage tank will be constructed.

Table 3-6

PROJECT WATER BALANCE SUMMARY

	Winter Rate			Summer Rate		
	Usage (gpm)	Usage (gpd)	Usage (ac-ft/yr)	Usage (gpm)	Usage (gpd)	Usage (ac-ft/yr)
Phase 1 - First 10 Years of Operation						
Original Recovery	623	511,993	423	679	558,541	461
Maximum Recovery	359	380,113	314	521	499,874	352
Phase 2 - Following 10 Years of Operation						
Original Recovery	847	805,105	717	914	870,742	775
Maximum Recovery	609	576,683	513	677	642,321	572

Source: TMC
gpm = gallons per minute
gpd = gallons per day
ac-ft/yr = acre-feet per year

3.3.4 Dust Suppression

Dust suppression for the project will be accomplished several ways, including the use of dust palliatives and graveled and paved facility surfaces. The use of water for dust suppression during operations mainly will be reduced through the use of dust palliatives. Several dust palliatives have been evaluated by TMC for use in the project in Soledad Canyon. A combination of ligno-sulfonates, magnesium chloride, and water will most likely be used depending on the different areas and activities of the operation. All dust palliatives used will

meet air quality and water quality standards and will meet the U.S. Fish and Wildlife Service and the California Department of Fish and Game standards. Fugitive dust released during aggregate processing will be mitigated using air pollution control equipment as deemed acceptable by the SCAQMD.

3.3.5 Public Safety

Site Access

Measures will be taken to ensure public safety during project operations. All areas offering reasonable access to the excavation area will be fenced off. Entrance and exit roads will be equipped with a gate that will obstruct pedestrian and vehicular traffic. The outer boundaries of the property will be posted with signs displaying the message "SURFACE MINING" in letters not less than 4 inches in height. A sign with letters not less than 1 inch in height with the message "This property may be used at any time for the extracting and processing of rock, sand, gravel, decomposed granite, clay, and similar materials, by Title 22 of the Los Angeles County Code" will also be posted. Signs displaying the message "DANGER - NO TRESPASSING" will be posted. Both signs will be posted not more than 500 feet apart, with signs placed at each change in direction of boundary lines of the property and displayed in such a manner as to give reasonable notice to any passerby of the message contained thereon.

Sanitary Facilities

Portable toilets or some other sanitary facility system acceptable to the County Department of Health Services will be used for sewage disposal.

Stormwater Runoff and Management

The potential sources of stormwater runoff pollution at the facility include fugitive dust from the aggregate operations, oil and grease from equipment operating and maintenance, hydrocarbons from fuel and oil dispensing, cement and fly ash from the cement batch operation, compounds from admixtures used in the concrete operation, flocculents used in water treatment, and dust control agents applied to roads and storage piles. The following pollutants may be present in stormwater discharge from the facility: total organic carbon, total dissolved solids, total suspended solids, natural metals (very low concentration expected), a basic pH, increased biochemical oxygen demand, and some trace chemicals. Because the facility is new, there is no history of hazardous material or oil releases by TMC. The SWPPP is included herein as Appendix D. Previous and current use of the site by the Curtis Sand and Gravel Company may have impacted the site with respect to stormwater runoff; however, a Phase I and II Site Assessment of the property performed by the Chambers Group, Inc., in August 1990 concluded that "there is no threat or risk of contamination from the current site activities other than the potential of surface spillage of fuel, oil, or hydraulic fluid from mining equipment." This risk is present on any mining site and is thus not unique to this property. Additionally, the stormwater runoff sampling performed in 1991 and 1992 indicates no significant hazardous contamination at the current site.

Stormwater management practices have been selected to include both baseline and advanced management practices. As a new facility, stormwater management has been incorporated into facility design wherever possible, including design of sedimentation and erosion control structures, covering and/or containing all hazardous material storage and use areas, and preparation of an SPCCP (included herein as Appendix E).

Fire Hazard

The project site consists of very rugged terrain in an area described by the Forester and Fire Warden as Fire Zone 4, which is a high fire-hazard area. Fire potential for the vegetated areas surrounding the project site, including the Angeles National Forest located just south of the project site, is also considered high. The project will conform to all County 1990 Uniform Fire Codes and will provide additional safety by removing all vegetation from the active mining area. TMC will also make the stored water supply and earthmoving equipment available to County firefighters for onsite wildfire suppression.

Fuel Storage

The project includes two 6,000- to 10,000-gallon aboveground diesel storage tanks. Storage of fuel onsite will be required to comply with state and federal regulations, and storage and dispensing permits will be obtained as necessary. Any accidental release of fuel or hazardous material will be required to be immediately reported to local fire emergency personnel and appropriate County and state agencies. For any spill, the County Environmental Health Department and State Office of Emergency Services will be contacted. For a spill involving any type of water, the EPA, among others, will be contacted (see Appendix E for additional details on spill response).

Use of Explosives

Mining operations may require occasional blasting onsite. However, no explosives will be stored onsite, and blasting will be conducted by an independent contractor with a valid California "blaster license" pursuant to State of California Construction Safety Orders (from California Occupational Safety and Health Administration [Cal-OSHA]) Article 8, Sections 1550-1580. Explosives will be transported to the site by the licensed blasting company, and safety during transportation of blasting material will be ensured by the licensed blaster pursuant to Cal-OSHA Article 8, Section 1564 and the California Vehicle Code, Division 14, for requirements for vehicle transportation of explosives on public highways, streets, or roads. Any use of explosives onsite will be in accordance with the Mine Safety and Health Administration (MSHA) and other applicable regulations.

Safety measures will be maintained by monthly reviews and worker safety meetings, as well as by mine safety inspections conducted by MSHA every 6 months. The operation of the project includes compliance with all regulations and requirements of the Occupational Safety and Health Administration (OSHA), MSHA, and all applicable County 1990 Uniform Fire Codes, including Article 77, Explosives and Blasting Agents, and Article 79, Flammable and Combustible Liquids.

SECTION 4 - RECLAMATION PLAN AND SPECIFICATIONS

Reclamation is a combination of processes that minimize adverse environmental effects of surface mining and return the land to a beneficial end use. The following plan defines the processes to be used by TMC for reclamation of the proposed mining site in Soledad Canyon. The plan includes reclamation processes that are concurrent with mining operations to minimize adverse effects of surface mining and final reclamation processes to return the land to a beneficial use at the end of mining at the site. Revegetation of the North Fines Storage Area will be a concurrent permanent reclamation process as the area is filled as described below.

4.1 RECLAMATION PLAN

4.1.1 Concurrent Reclamation

Concurrent reclamation includes those processes that will occur as mining operations proceed to minimize adverse effects from mining. Measures have already been described in the previous sections that will minimize erosion, provide watershed control, and protect water quality in the Santa Clara River during mining operations. These measures include construction of ditches, dikes, and desilting/debris basins. Surface vegetation at the site will be removed no sooner than necessary for facility construction and mining operations to proceed in order to minimize erosion.

As mineral extraction proceeds, mined slopes will be left devoid of vegetation and will be revegetated as soon as practical. Revegetation of these slopes must occur at that time of the year when planted material has the greatest chance of germinating and becoming established. For the site location and its attendant climate, it is planned that seeding of herbs and shrubs take place in the period concurrent with initiation of fall rains, usually around mid-October to mid-November. In order to take maximum advantage of winter precipitation, all seeding will take place between October to December, depending on weather patterns for specific years. Therefore, by June 15 of any year after mineral extraction begins, all disturbed areas that are to be reclaimed at that time will be evaluated for revegetation to commence during the above-noted time period.

4.1.2 Final Reclamation Plan

Currently, the project area is scheduled to be reclaimed after TMC's contract with the BLM expires at the end of the 20th year of operation. At that time, mining will have reached the 2,125-foot elevation of Cut 4. TMC holds no contract at this time for future mining. Final reclamation, as described herein, assumes that BLM would not contract out the remaining 8.0 million tons of product that would be available for mining below the 2,125-foot elevation. In the future, if BLM determines that additional mining is feasible, county, state, and federal approvals would be required, as would modification to this final reclamation plan.

At the commencement of final reclamation, TMC will remove its plant facilities and all equipment from the site and will reclaim these areas by removing the facilities foundations and roads. The area will be ripped and regraded to conform with the local topography and then revegetated. TMC will also initiate its long-term protection of all mined slopes and disturbed areas that are not already revegetated.

Quarry slopes that remain after 20 years of mining in areas of Cuts 2, 3, and 4 will receive benching as needed so that all slopes will be serrated with 4- by 4-foot steps. The horizontal portion of each bench will be sloped slightly downward, from front to back, to promote water collection and absorption and minimize erosion. These serrations have been used extensively throughout the state for road cuts and, in many cases, are now revegetating naturally. After the stepping is complete, revegetation will be conducted.

Similar methods are anticipated to be used for the final revegetation as those used for the concurrent revegetation plan. Because the final reclamation plan takes place after the concurrent revegetation plan has been implemented, innovations in reclamation and revegetation will most likely have been incorporated into the plan. Therefore, successful new reclamation and revegetation techniques will be incorporated into the final reclamation plan.

As with the concurrent revegetation plan, planting of herbs and shrubs will take place in the period concurrent with the initiation of fall rains, usually around mid-October. In order to take maximum advantage of winter precipitation and minimize initial irrigation, all seeding and plantings will take place from October to December, depending on the weather.

Desilting/debris basins and dikes will be reclaimed when they are no longer required. Current planning indicates that they will be required throughout the life of the mine. After year 20, the remaining fines will be removed from settling ponds, dikes will be removed, and the fines, ponds, and diked area will be reclaimed.

Mining-related changes to the terrain will be visible from surrounding vantage points. Extensive reclamation and restoration efforts will be implemented as part of the Mining Plan to restore a natural appearance to the mining and fines storage areas. Figure 4-1 provides a computer simulation of the existing site contours, while Figure 4-2 simulates the topographic conditions of the site after completion of mining. By comparison, the Final Reclamation Plan would result in site contours as simulated on Figure 4-3.

4.1.3 Reclamation of North Fines Storage Area

The North Fines Storage Area will be located on the northern portion of the property. It will consist of backfilled fines to be constructed in 4- to 5-foot lifts, with each successive lift placed 8 to 10 feet back to maintain a 2:1 (horizontal to vertical) slope. Revegetation of the North Fines Storage Area will be an ongoing process as the lifts are constructed. Fills completed each year will be scheduled for seeding and planting in the following October to December time period.

The material deposited in this area will consist of much finer sediment than that remaining on the mined slopes to the south. The character of the material to be vegetated, the difference in slopes, and the greater availability of moisture associated with the northern slopes allow the use of species for mesic exposure. The use of container plantings in groups will mimic the contouring that presently exists prior to fill deposition on this northern portion of the site. The plants will be grouped to suggest ravines and gullies. This planting scheme visually contours the slope without changing the compaction specifications for the fines area. The resulting visual appearance of the slope will be similar to the original west-facing slope of Bee Canyon.

Over the life of the mine, up to about 13 million tons of fines may be stockpiled in the North Fines Storage Area. The fines will fill in the existing ravine areas along the Project's north face, slightly raise the final elevation above existing conditions, and move the ridgeline closer to the freeway. During mining operations, filling in of this north face will be visible from the Antelope Valley Freeway. Fines storage will be conducted in phases over the life of the Project, in benches from the bottom up. The fines storage area will also be contoured to provide some additional form to the filled-in areas. Figure 4-4 provides a simulation of the design for mitigating fill areas. Figure 4-5 illustrates the actual mitigation design contours.

4.2 REVEGETATION SPECIFICATIONS

Revegetation is defined as establishing vegetation on disturbed land (Newton 1992). The goals of revegetation include erosion control, visual reintegration, return of ecological functions to a site, and mitigation as required by law.

Approximately 130 acres will be disturbed by mining cut faces and 54 acres disturbed by filling the North Fines Storage Area. An additional 3 acres at the aggregate processing site will be disturbed by the location of the processing plant, and approximately 45 acres are presently disturbed from the existing quarry site. The total area to be reclaimed will be approximately 232 acres, 178 of which will be on the south side of the ridge. When nothing further is planned for the disturbed areas, these areas will be revegetated consistent with the preexisting density of vegetation. This planting will occur during the first wet season after the areas are abandoned. Because TMC's contract with the BLM expires after 20 years, mining will be discontinued, and TMC will revegetate all of the disturbed areas that are not already revegetated.

Revegetation plans and species lists have been developed from onsite baseline vegetation studies. Because it is currently planned that the site will be mined and revegetated concurrently over a period of 20 years, there will be an opportunity to evaluate the success of the revegetation effort over time, not only for species compatibility but also vegetative cover and degree of erosion control provided, slope stability, and so forth. As appropriate, TMC reserves the right to modify the proposed revegetation effort to maximize its success. However, no significant modifications to the revegetation plan will be made without obtaining necessary agency concurrence prior to initiating the change.

4.2.1 Collection and Propagation of Plant Materials

Wherever possible, plant material for seeding and container planting will be collected from the site before mining proceeds or from areas near the site. Collection of plant material will begin 2 years in advance of any revegetation to ensure that adequate seed and plants are available. The preliminary seed collections for the main species in the plant palette will be tested to determine the purity and germination rates of the specific material collected. The final application rates to be used in hydroseeding will be determined based on the actual amounts and quality of the seeds collected.

Seed collection will be supervised by a qualified commercial seed collector/supplier with experience in native seed collections. To ensure natural genetic diversity in the planting and protect the viability of the donor plants, several distinct areas will be used for seed collection of each species. Collected seed will be cleaned to a commercially acceptable grade, tested, and labeled with species name, weight, purity, and germination rate. Seeds will be stored in a cool, dry environment until delivery for hydroseeding or to the nursery for sowing of container plants.

Seeds for propagation of container plant materials will be grown by persons with experience in native plant propagation. All container plant materials that support mycorrhizal fungi will be inoculated with mycorrhizae during propagation. Container plants will be grown either onsite or at a nursery in proximity to the site.

4.2.2 Site Preparation

Prior to revegetation, the disturbed areas will be free of invasive, noxious weeds. It is not anticipated that weeds will be problematic because immediate revegetation is planned for areas after mining abandonment as mining proceeds over the site. However, if weeds become a problem, weed removal will be accomplished through mechanical means. Spot herbicide treatment will be applied to exotic species that require root kill. The actual type and amount of herbicide to be used will be based on recommendations by a licensed pest control operator and product labels. No preemergent herbicides will be used.

Prior to seeding, the soil surface will be roughed up before revegetation proceeds. Roughing up the soil surface will provide pockets in which the seeds can lodge and germinate. The soil surface can be roughed up by discing, sheepsfoot rolling, or track walking over the surface.

4.2.3 Seed and Container Palettes for Revegetation

Species mixes for seed and container planting for revegetation are presented in Tables 4-1 through 4-5. The species proportions were obtained from the relative cover values determined during the baseline vegetation study, plus adjustments upward to account for mortality of at least 50 percent (60 percent on xeric exposures). The tables cover all phases (concurrent and final) of the site reclamation and all areas. If experience shows that revegetation success or lower mortality rates reduce the requirement for planting density, then seed and container mixes will

Table 4-1

CONCURRENT RECLAMATION SEED MIX FOR MINE AREAS

Common Name	Scientific Name	Pounds Per Acre
Xeric Exposures		
Yarrow*	*Achillea millefolium*	2
California sagebrush	*Artemisia californica*	2
Evening primrose*	*Camissonia californica*	3
California buckwheat	*Eriogonum fasciculatum* ssp. *fasciculatum*	5
Deerweed	*Lotus scoparius*	8
Miniature lupine*	*Lupinus bicolor*	4
Monkeyflower	*Mimulus longiflorus*	3
Crested needlegrass	*Achnatherum coronata*	6
Six-weeks fescue*	*Vulpia octoflora*	4
Total		**37**
* For soil stabilization purposes only - not found onsite.		

Table 4-2

SEED MIX FOR NORTH FINES STORAGE AREA RECLAMATION

Common Name	Scientific Name	Minimum/Maximum Pounds Per Acre
Mesic Exposures		
California sagebrush	*Artemisia californica*	2.0 / 3.0
Coreopsis	*Coreopsis bigelovii*	2.0 / 3.0
Whispering bells*	*Emmenanthe penduliflora*	1.0 / 2.0
Brittlebush	*Encelia actoni*	5.0 / 7.0
California buckwheat	*Eriogonum fasciculatum* ssp. *fasciculatum*	5.0 / 6.0
California buckwheat	*Eriogonum fasciculatum* ssp. *foliolosum*	2.0 / 3.0
Deerweed	*Lotus scoparius*	4.0 / 6.0
Lupine*	*Lupinus bicolor*	1.0 / 2.0
California melic	*Melica californica*	5.0 / 8.0
Crested needlegrass	*Achnatherum coronata*	1.0 / 2.0
Black sage	*Salvia mellifera*	1.5 / 2.5
Total		**29.5 / 44.5**
* For soil stabilization purposes only - not present onsite.		

Table 4-3

CONTAINER PLANT MATERIALS
FOR NORTH FINES STORAGE AREA RECLAMATION

Common Name	Scientific Name	Approximate Density per Acre
Mesic Exposures		
Big berry manzanita	*Arctostaphylos glauca*	30 - 40
Hoary-leaf ceanothus	*Ceanothus crassifolius*	30 - 35
Yerba Buena	*Eriodictyon crassifolium*	35 - 40
Beavertail cactus	*Opuntia basilaris* var. *basilaris*	20 - 25
Scrub oak	*Quercus berberidifolia*	40 - 50
Holly-leaf redberry	*Rhamnus ilicifolia*	30 - 40
Total Density per Acre		**185 - 230**

Table 4-4

FINAL RECLAMATION
SEED MIX FOR MINE AND FACILITIES AREAS

Common Name	Scientific Name	Minimum/Maximum Pounds per Acre
Xeric Exposures		
Chamise	*Adenostoma fasciulatum*	2.0 / 3.0
California sagebrush	*Artemisia californica*	2.0 / 3.0
Coreopsis	*Coreopsis bigelovii*	2.5 / 3.0
Brittlebush	*Encelia actoni*	6.0 / 8.0
California buckwheat	*Eriogonum fasciculatum* ssp. *fasciculatum*	5.0 / 6.0
California buckwheat	*Eriogonum fasciculatum* ssp. *foliosum*	3.5 / 4.5
Lupine*	*Lupinus bicolor*	2.0 / 3.0
California melic	*Melica californica*	2.0 / 4.0
Wild canterbury bell	*Phacelia minor*	3.0 / 5.0
Crested needlegrass	*Achnatherum coronata*	2.0 / 3.0
Black sage	*Salvia mellifera*	1.5 / 2.5
Total		**31.5 / 45.0**
* For soil stabilization purposes only - not present onsite.		

Table 4-5

FINAL RECLAMATION
CONTAINER PLANT MATERIALS FOR MINE AND FACILITIES AREAS

Common Name	Scientific Name	Approximate Density per Acre
Xeric Exposures		
Chamise	*Adenostoma fasciulatum*	50 - 60
Mountain mahogany	*Cercocarpus betuloides*	20 - 30
California juniper	*Juniperus californica*	25 - 30
Our Lord's candle	*Yucca whipplei*	30 - 40
Total Density per Acre		**125 - 160**

be adjusted accordingly. Ultimately, revegetation performance standards will be met as detailed in Section 4.2.7.

Seeding Methods

Tables 4-1 and 4-4 list species to be used for hydroseeding in the mined areas that have mainly xeric exposure. Table 4-2 lists species to be used in hydroseeding the North Fines Storage Area that have a mesic exposure. Mesic exposures include habitats represented by the coastal sage scrub/mixed chaparral, mixed chaparral, and northwest- to east-facing slopes of the coastal sage scrub/semidesert chaparral measured in the baseline vegetation study. Xeric exposures include habitats represented by southeast- to west-facing slopes of coastal sage scrub/semidesert chaparral. Estimates of species proportions in these different seed mixtures are also provided, but the exact amount used in revegetation will depend on availability. The overall goal of the species mix is to provide adequate representation of species richness, density, and cover on the reclaimed sites. Some species are not native to the project site locality but are used in the seed mixes because these species do well in new or disturbed soil, stabilize the soil, or in some way improve the soil. These species will eventually be outcompeted by the local native species and are not considered invasive. For example, *Lupinus bicolor*, an annual legume not found on the project site, is included because it will host nitrogen-fixing bacteria and enrich the soils in the early stages of revegetation.

The seed mix will be planted in the fall from October to December using an imprinter where possible and/or hydroseeding. Imprinting is useful for pressing seeds into the soil in "safe" pockets for germination. Hydroseeding provides the advantages of holding seed in place on steep and smooth slopes, while covering the seed minimally with mulch. It is effective both in short- and long-term revegetation.

Although hydroseeding is considered a suitable method for revegetating the site, other seeding techniques may be evaluated during the initial reclamation period. Imprinting is a successful seeding method that could be used on the site if a mechanism can be designed to negotiate the slopes. The most successful techniques will be used on the project site.

Hydroseeding will consist of hydraulic application of a slurry mixture containing water, organic soil stabilizer, cellulose wood fiber, and seed. It is not anticipated that fertilizer will be added to the mix because native plants have low nutrient requirements and fertilizer application favors the establishment of noxious, weedy species.

The following materials will be applied in a one-step hydromulch operation:

- 2,000 pounds/acre virgin cellulose wood fiber,
- 160 pounds/acre organic soil stabilizer, and
- seed mix as developed for each phase of reclamation and area based on Tables 4-1, 4-2, and 4-4.

Container Planting Methods

Container plantings will be placed in natural-looking patterns to suggest the contouring of the original site. Table 4-3 lists species to be used for container planting in the North Fines Storage Area. Table 4-5 lists the species to be used for container planting in the final reclamation of the mine and facilities areas.

Container planting is necessary to maximize the chances of successfully achieving the revegetation standards for plant cover and density, provide soil stabilization early in the revegetation process, and obtain reproduction of the dominant shrub species as early as possible for contributions to the seed bank. The total number of container plants per acre represents approximately 25 percent of the total density of plants per acre observed during the baseline vegetation study, plus an adjustment upward to accommodate mortality. The species selected for container planting are primarily those that grow relatively slowly and are not expected to perform well in competition with species that are hydroseeded. However, some species that grow more quickly and are necessary for early stabilization of subsurface soils are included in the container planting.

Container plants will be set out on the site in the fall under the supervision of a native plant revegetation specialist. Planting holes will be twice as deep and wide as the rootball of the container plant. Prior to planting, the holes will be filled with water, backfilled halfway with soil, and filled again with water. If a temporary irrigation system will be used (i.e., "clay pots"), it should be installed at planting.

Plants will be planted with minimal root disturbance in the premoistened holes with the root crown less than 1 inch above surrounding ground level. Soil will be backfilled in the hole and tamped gently around the plant. A watering basin will be constructed around each plant, and the basins will be filled with water.

4.2.4 Irrigation

No permanent irrigation system will be maintained at the revegetation sites. Any temporary irrigation requirements will be determined by the revegetation monitor. A temporary irrigation system using the "clay pots" or "deep pipe" irrigation techniques may be used.

4.2.5 Maintenance

All plantings and seeding will be maintained for a period of 5 years or until the revegetation standards have been met. The revegetation monitor will assess the site for health and vigor, and prescribe specific replanting or reseeding requirements if needed. If noxious weeds threaten the success of the revegetation sites, they will be removed using mechanical means and/or EPA labeled herbicides.

4.2.6 Monitoring

Monitoring the revegetated site consists of two phases:

1. maintenance monitoring, including installation and establishment monitoring, and
2. performance monitoring.

The following section describes each monitoring phase and the parties responsible for each phase.

Installation, Establishment, and Maintenance

The success of the revegetation installation is the responsibility of TMC. In order to assure that the revegetation performance standards are met, TMC will monitor the installation process from the beginning of the collection of seeds and plant cuttings through completion of its contractual maintenance period. The monitoring will include verification of plant propagule collection and planting quality, site preparation, and planting techniques.

Horticultural monitoring during establishment is necessary to evaluate the health of the planted material and identify any problems that require remedial action to ensure that revegetation performance standards are met. TMC is responsible for horticultural monitoring. The monitoring should be conducted by a trained professional with expertise in native plant horticulture. Monitoring reports will describe the survival, function, and appearance of the community. The horticultural monitor will provide specific recommendations regarding irrigation, weed control, replanting or reseeding, erosion control, site protection, and pest control. Necessary remedial action will be undertaken at the appropriate time in accordance with the recommendations of the horticultural monitor. All recommendations should be submitted in writing to TMC.

The monitoring schedule is outlined as follows:

- frequent (ranging from weekly to monthly) during critical periods through the first year of planting, and
- semiannual monitoring during the spring and summer for the second through fifth years of planting or until performance standards are met.

Additional monitoring will be required for any areas that have not met the performance standards at the end of the 5-year performance monitoring period.

A summary of maintenance recommendations and remedial actions will be documented in annual reports and submitted to TMC. The annual report will include overall site observations, a qualitative evaluation of the functioning of the plant community (i.e., performance of seedlings and container plants), and whether the revegetation sites require further significant maintenance measures.

Performance Monitoring

The performance monitoring, which is the responsibility of TMC, will quantify development of the revegetation to evaluate whether the sites have met the performance standards. The performance monitoring will begin during the spring after the first year of installation of the revegetation sites and continue until performance standards are met.

Monitoring will consist of fixed transects at each revegetation site. The number of transects necessary will be evaluated to ensure statistical confidence based on variation at each site. Data collected will consist of, at a minimum, percent cover and frequency for each species encountered along the transect. Photodocumentation of the sites will be conducted. Data will be compared to reference data collected from the site prior to mining and existing adjacent communities.

An annual report will be submitted to TMC and the County, Department of Regional Planning. The report will include an introduction to the project, survey methodology, data analysis, and comparison to the reference data, as well as a discussion of the survey results in relation to the performance standards. The annual summary of the maintenance recommendations and remedial actions, specified in the previous section, will be included as an appendix to the annual report.

4.2.7 Performance Standards

Concurrent Reclamation

The goal of the concurrent revegetation plan is to provide erosion control during the life of the mining operation. Revegetation will be considered successful when seeded areas do not require significant maintenance measures. Significant maintenance measures include planting of seeds, irrigation, erosion control, or weed control. Therefore, the performance standard will be determined in the field.

Final Reclamation

The goals of the revegetation program are to provide erosion control and approach the patterns of cover and dominant species distribution in the existing community. Performance standards will be based on the progress of the revegetation toward achieving the target vegetation percent

cover and frequency of distribution. Revegetation sites will be considered successful when the following performance standards are met:

- The revegetation site does not require significant maintenance measures during the last 2 years of the establishment period as documented in the restoration monitor's annual reports. Significant maintenance measures include planting seeds or containers, irrigation, erosion control, and weed control.

- The revegetation site is developing a trend in percent cover, species diversity, and frequency that is comparable to the existing scrub community. After 5 years, there will be a minimum of 70 percent vegetation cover as compared to an existing adjacent reference community. Species diversity will be at least 45 percent of the existing community. The frequency of the dominant species in the plant palettes (*Encelia actonii*, *Artemisia californica*, *Adenostoma fasciculatum*, *Eriogonum fasciculatum*, and *Salvia mellifera*) will be at least 50 percent of their frequency in the existing community.

4.3 PROTECTION OF FISH, WILDLIFE, AND HABITAT

The following measures are incorporated into the plan for protection of existing environmental, wildlife, and habitat resources.

4.3.1 Sensitive Plant Species

Significant impacts on the sensitive plant species (Pierson's morning glory, slender mariposa lily, Plummer's mariposa lily, and club-haired mariposa lily) in the northwestern region of the project site because of fines placement, and potentially from placement of desilting/debris Basins B and C, are mitigable. Seeds of these sensitive species shall be collected from impacted populations as fines storage proceeds, and the seeds shall be incorporated into the revegetation plan for the site. These plant species, especially Pierson's morning glory, are found in areas that have experienced disturbance such as fire or clearing. Therefore, incorporating the seed of these species into the revegetation plan for the site will provide a means to salvage the populations, and impacts on these species will be reduced to less-than-significant levels.

4.3.2 Sensitive Wildlife

Potential significant impact on the coastal western whiptail would be reduced with the implementation of the reclamation plan. This species is often associated with disturbed sites, and the project would not represent a permanent loss of habitat.

4.3.3 Mitigation for Excess Siltation

Extensive surface drainage and flood control analyses have been completed for the proposed project. Pre-project conditions, during-project conditions for various phases of mining, and

post-project conditions have been analyzed. The location and size of desilting/debris basins have been identified. The locations and sizes of erosion control devices such as V-ditches, culverts, and drop-inlet structures have been determined. Final design will be reviewed and approved by Los Angeles County Department of Public Works.

Additionally, reclamation and revegetation plans for disturbed land surfaces have been detailed. The reclamation process has been assured through the posting of a $1.4 million Performance and Reclamation Bond. This bond was made payable to BLM as well as the CDMG and the County.

TMC proposes to mitigate potential impacts from excess siltation to the B_1 population of unarmored threespine stickleback through a program of controlled mining practices including the constructing and maintaining desilting/debris basins and erosion control devices. Accumulations of silt will be periodically removed from the basins and placed into compacted earthen fill areas that will be subsequently revegetated. Concurrent reclamation and revegetation will occur on all disturbed areas that are being permanently abandoned.

4.3.4 Mitigations for Toxic Spills and Discharges

During development of the overall project plans, a SWPPP and a SPCCP were prepared by West Coast Environmental. These plans detail construction requirements for tanks and secondary containment structures, as well as inspection and operating procedures that minimize the potential for spills and leaks that would result in pollution of stormwater, groundwater, or river water (see Appendices D and E, respectively).

TMC proposes to mitigate the potential for toxic spills and discharges through implementation of the SWPPP and SPCCP.

4.3.5 Unarmored Threespine Stickleback Habitat Monitoring Program Surface and Groundwater

TMC proposes to implement a multifaceted unarmored threespine stickleback habitat monitoring program. This program would consist of the combined efforts of assessing local rainfall amounts, predicting surface flows based on rainfall amounts, measuring surface flows, measuring subsurface water elevations, and monitoring habitat quality.

Water resources in the project vicinity have been evaluated extensively by a variety of means. Precipitation patterns have been analyzed, surface flows have been measured, underflow water elevations have been monitored, and aquifer storage has been characterized based on seismic exploration and physical well tests. Surface and subsurface flows of the river were determined giving consideration to annual cycles and year-to-year variability. The surface flows are typically variable with very large flows during winter storm months and gradually declining flows through the summer and fall. Underflows also gradually decline annually but remain relatively constant when compared to surface flows. Underflows in this reach of river are the source of sustained surface flows in the permanent unarmored threespine stickleback habitat between Stations P4 and P5 (Figure 4-6) during the dry seasons. Correlations were found to exist between annual precipitation measurements and measured surface flows. Dry season surface flows can be predicted based on the preceding wet season precipitation amounts.

Surface water flows were measured at gaging stations near Lang between the years of 1949 to 1989. In recent years, the gaging stations have been inoperative. TMC proposes to resume surface flow measurements during the life of the project (20 years).

TMC and its lessor, the C.A. Rasmussen Company, installed four monitoring wells on Rasmussen property in 1989. Law/Crandall Inc. has monitored the water levels of the Santa Clara River underflow for TMC since 1989. TMC proposes to continue underflow monitoring during the life of the project.

A primary monitoring concern is that groundwater pumping not lower the water level in the permanent unarmored threespine stickleback habitat. This downstream section of the river is of great concern because it is the only part of the habitat capable of supporting sticklebacks on a regular basis. The rest of the streambed upstream from the pond and the Pole Canyon Fault is either seasonally dry or has low oxygen levels. The proposed monitoring program will ensure that the permanent stickleback habitat in the stream is not degraded as a result of groundwater pumping. If the habitat quality is threatened, groundwater pumping will be adjusted or curtailed, as necessary.

TMC proposes to continue and refine the ongoing quality assessment of unarmored threespine stickleback habitat. Recent observations after the flood flows of the 1992-1993 storm show that the river, and subsequently the stickleback habitat, is dynamic. Therefore, the exact location of permanent habitat may vary from year to year. The following plan outlines the procedures for habitat monitoring over the life of the project.

TMC has prepared a Biological Assessment pursuant to the Endangered Species Act, relative to the Unarmored Threespine Stickleback. BLM has included the stickleback monitoring program in the Biological Assessment and has requested a Biological Opinion from USFWS. USFWS's initial review of the monitoring program was positive. The final Biological Opinion is due in July 1997 and TMC will adjust the monitoring program if required, to be consistent with the USFWS Biological Opinion.

Determination for Initiation of Habitat Quality Monitoring

Each season, monitoring will take place along the reach of river from the area where surface flows originate (just upstream from monitoring Station P4) to just below Station P6. Three years of monitoring have shown that this reach of the river supports unarmored threespine stickleback habitat during the low flow periods, even during a prolonged drought.

Monitoring will begin each season when the reach of the Santa Clara River between Bear Creek and the Pole Canyon Fault near Station P1 dries. This reach dries only in low to normal rainfall years when impacts on unarmored threespine stickleback habitat potentially could occur from TMC pumping from the river underflow. Monitoring will not take place in years with high precipitation and year-round flow throughout the reach from Bear Creek to the Pole Canyon Fault.

Monitoring Protocol

In years when the aforementioned reach dries, aerial photos of the monitoring reach will be used to provide the base for GIS mapping of the monitoring reach. Each monitoring year, information on both natural and unnatural streambed alteration at River's End Trailer Park will be recorded, and the perennial riparian vegetation will be mapped.

The aerial photo and map will be verified by field inspection, and the following information will be gathered along the entire monitoring reach:

- description/photo documentation of perennial riparian vegetation,
- description of pool formation,
- description of emergent and aquatic vegetation,
- description of River's End Trailer Park streambed alteration, and
- survey for unarmored threespine stickleback individuals along the monitoring reach.

After the initial description of the monitoring reach has been completed, monitoring stations will be established for the remainder of each season. Additionally, monitoring will take place at the U.S. Forest Service (USFS) Campground upstream of the project to serve as a control site. The following methods will be used to establish monitoring stations:

1. If the River's End Trailer Park has not altered the streambed, then monitoring stations will be set up every 100 meters (m) along the monitoring reach from the springs near Station P4 to Station P6.

   However, if the River's End Trailer Park has altered the stream, then monitoring stations will be established every 50 m from just below the trailer park alteration to Station P6. Additionally, measurements will be taken at the springs just upstream of the inlet to the ponding produced by the streambed alteration and at the outlet from River's End Trailer Park. These measurements will be taken to assure that a determination of effect can be made to separate TMC pumping from the streambed alterations of the river in this area.

2. An area of the river will be established for monitoring at the USFS Campground. This monitoring reach should have a similar gradient to the downstream project monitoring reach. Monitoring stations will be established as a control in known unarmored threespine stickleback habitat.

Monitoring stations will be identified by global positioning system coordinates to enable exact location. At the initiation of monitoring during the dry season, monthly sampling at the stations will be conducted using transects across the river and will consist of measuring the following parameters:

1. Flow: three measures will be taken across the stream from the midpoint and half the distance to the banks of the stream on either side. At each point, three measures will be taken and averaged. The flow measurement will be taken with a pygmy flow meter or other equivalent equipment.

2. Depth: three measures as outlined for the flow measurements above.

3. Oxygen: five measures will be taken across the stream from the midpoint, half the distance to the banks, and either at the edge of the emergent vegetation or the edge of the streambanks, whichever is found at the monitoring location.

4. Temperature: three measures as outlined for the flow measurements above.

Action Levels

Action levels will be used to initiate management of the mining operation to reduce or stop pumping of the underflow from the river. Any combination of two or more of the following levels of the average measured parameters for the monitoring reach that do not simultaneously occur at the control site upstream of the project area will result in the initiation of management of the operations to reduce or curtail water pumping:

- mean temperature of stream is above 27°C (80.6°F),
- mean oxygen level below 3.0 milligrams per liter,
- decrease of 25 percent or more of mean water depth at both the outer edge and midpoint of stream compared with the previous measurement, and
- decrease in flow of 25 percent or more from the previous measurement and the difference in the change in flow is significantly different (at the 0.05 level) from the changes at the control site.

Measured natural drop in depth over a 1-month period in the proposed monitoring reach showed a range of between 15 to 32 percent. Therefore, coupled with other habitat measurements, a decrease in 25 percent or more of mean water depth is a reasoned approach to arrive at an action level.

Response and Action Plans

TMC will be responsive to any significant habitat modification or degradation of the B_1 population unarmored threespine stickleback habitat that is attributable to TMC's proposed project. Water flows will be regulated through a controlled program of subsurface flow removal and habitat monitoring so that there is no threat to the continued existence of the B_1 population of the unarmored threespine stickleback.

In the event of a below-average rainfall year, aggregate production can be adjusted as much as practicable so that production is increased in the wet season and reduced in the dry season, thereby reducing water consumption in the dry season. Some management of concrete production may also be practical. Truck washing can be minimized. Some of the excess fines from the dry screening of the mining operation can be stockpiled, temporarily deferring or

eliminating the need for water used in compacting fines into earthen fills. The use of water for dust suppression can be minimized while the use of dust palliatives can be increased, thereby requiring less total water consumption for dust suppression. Recycling of process washwaters can be maximized. Alternate sources of water for temporary use during dry spells can be sought. Pumping and production will be stopped temporarily, if necessary, to assure the quality of the permanent stickleback habitat.

Plan Review

The monitoring, response, and action plans will be subject to review by TMC and the resource agencies such as BLM and USFWS as mining proceeds. Factors such as the interval of monitoring and the number of monitoring stations may be adjusted after the initial monitoring seasons are analyzed and reviewed with the resource agencies.

4.3.6 Invasive Plant Removal

An additional measure to protect the habitat is the removal or control of giant reed (*Arundo donax*) from riparian areas adjacent to and downstream of the mining site. The USFS has a plan to control giant reed in the Angeles National Forest portion of the Santa Clara River near the project. TMC proposes to coordinate with the USFS to remove giant reed from non-Forest land along the river from the project site to the permanent stickleback habitat just below River's End Trailer Park and from the project site east to the junction of Aqua Dulce Creek with the Santa Clara River. Because this plant is invasive and uses a large amount of water, removal of giant reed from the river will improve the riparian and stream habitat for sensitive fish species, including the unarmored threespine stickleback. Removal of giant reed will also conserve water for the native riparian vegetation and sensitive aquatic wildlife species.

The removal operation would consist of an annual survey to assess giant reed vegetation on non-Forest land from just above the junction of Agua Dulce Creek and the Santa Clara River to the permanent stickleback habitat at Station 6 just below River's End Trailer Park. Removal operations would be contingent on receiving permission from property owners in the area.

After areas of giant reed are assessed each year, plants will be cut, and the stems/stumps will be sprayed immediately with a glyphosate-type herbicide (i.e., Roundup). The cut vegetation will be removed from the river corridor and will be shredded and disposed of at a landfill or burned. The cut-and-spray operation will be conducted in late summer or early fall when the plants will be near the end of the growing season and the herbicide will be more likely to be transported to the roots.

The removal operation will be coordinated each year with the USFS (Angeles National Forest), and a letter report summarizing the annual operation will be sent to USFS each year for the duration of the project.

4.4 END USE OF DISTURBED LANDS - SURFACE OWNER

This property is a severed estate. The surface estate of the land involved was patented under the Stockraising Homestead Act of 1916, reserving to the United States all minerals within the offered sale area. The surface rights currently belong to Canyon Country Enterprises dba Curtis Sand and Gravel Company. The mineral rights were reserved to the U.S. Government, administered by the BLM. The United States District Court for the Central District of California ordered a competitive bid sale of sand and gravel pursuant to a compromise settlement in the case of USA versus Canyon County Enterprises for mineral taking trespass. Canyon Country Enterprises' bid on the sand and gravel for sale as did Transmix Corp, the successful bidder. Canyon Country Enterprises' bid was for an amount of 100 million tons of sand and gravel (Appendix F). This bid constitutes clear evidence that the surface owner acknowledges that valuable mineral reserves exist on the property and that the most suitable use of the land after the expiration of current contracts for the mining of 56,000,000 tons of sand and gravel is the continued mining of an additional amount of sand and gravel, at least for an additional amount of 44,000,000 tons.

When TMC's contract with the BLM expires at the end of the 20th year of operation, or roughly in the year 2018, mining will be on Bench 2125 of Cut 4. Another 7.9 million tons of product will be available in this cut below Bench 2125 for future mining. Millions of additional tons of aggregate product will remain in this property if future cuts are taken to the north. The exact tonnage remaining to be mined will depend on the mining economics at that time.

If mining is to continue by another operator, TMC will remove its plant facilities from the 460 acres and if no longer used, reclaim the processing plant site as described above. At the very least, if TMC is selected to continue mining after this 20-year contract has been completed, TMC will ensure that all disturbed areas that will no longer be active will be reclaimed and revegetated as provided for herein.

4.5 FINANCIAL ASSURANCE PERFORMANCE BOND

Financial assurances to assure reclamation of mining sites are required by the Federal Government, the State of California, and the County of Los Angeles. Federal regulations regarding performance and reclamation bonds are detailed in the Code of Federal Regulations, 43 CFR at 3610.1-5. The State of California has adopted Financial Assurance Guidelines for use by lead agencies such as the County of Los Angeles. In conformance with a long-standing state policy designed to " eliminate duplication among agencies and counties serving as lead agencies in implementing State and Federal requirements," and pursuant to a formally adopted MOU entered into by the State of California and the BLM, the State of California has agreed that "Any federally required financial assurance may be used to satisfy local and State surety requirements" (emphasis added).

Therefore, pursuant to the aforementioned MOU, the State of California has already agreed that the Performance and Reclamation Bond submitted by TMC to the BLM with regard to this project (Bond Number 526-09-34) may be used to satisfy State of California and County of Los Angeles requirements for the financial assurance of the reclamation plan (Appendix G). This

bond was submitted to the BLM in March 1990. Subsequently, in April 1992, a co-obligee rider was attached to and became a part of Bond 526-09-34, naming the SMGB and the County of Los Angeles as additional obligees. In April 1992, this rider was acknowledged and accepted by the authorized officer of the BLM and was submitted by TMC to the County of Los Angeles with a request that the County submit the bond to the state for review and approval.

Federal regulations required that a performance bond amounting to 20 percent of the contract value be deposited with the BLM. In this case, the first contract value (for the first phase of the project) is equal to $7,000,000. Therefore, the required bond amount is calculated as $7,000,000 x 0.20 = $1,400,000, which is the penal sum of Bond 526-09-34.

State Financial Assurance Guidelines indicate that a financial assurance should be "in an amount sufficient to reclaim, pursuant to the lead agency approved reclamation plan, lands disturbed since January 1, 1976; lands to be disturbed in the next year; and lands not reclaimed successfully pursuant to the approved reclamation plan." Based on the proposed reclamation plan, it is estimated that first-year reclamation costs will be approximately $1,144,308. The costs were determined as described below.

For reference, the construction stages that are referred to in the first year reclamation cost estimate include the following activities:

Construction Stage 1:

- Site access road excavation and paving
- Excavate stockpile area and on-site access roads
- Construct north and east buttresses adjacent to upper stockpile area
- Construct upper stockpile area

Construction Stage 2:

- Excavate and fill lower stockpile area
- Construct west buttress, conveyor bench, and access ramp
- Construct diversion ditch, debris basins, and starter berms for NFSA
- Construct NFSA access road and erosion control features

Construction Stage 3:

- Construct remaining conveyor benches, access ramps, and erosion control features.

Construction Stage 4:

- Excavate and grade pad for office
- Excavate and grade pad for batch plant area
- Construct erosion control features

4.5.1 First Year Reclamation Cost Estimate

The amount of excavation to be completed during construction sequence stages 1 through 4 will be on the order of 1,000,000 cubic yards. The excavated material will be used for the construction berms, buttresses, and road and storage area. Excess material will be processed and marketed. First-year gross and net production is estimated to be 722,000 and 500,000 cubic yards, respectively. It is estimated that the first year of operation will carry the construction sequence into stage 3.

Plant and Facilities

At the end of the first year the plant and facilities to be removed will consist of the Portable Plant and associated conveyors, water system, water reclaim system, office trailers, truck scales, electrical system, and miscellaneous small structures (secondary containment, etc.). The batch plant and associated equipment and roads will not yet be installed because excavation of the area for the batch plant will not be complete.

Cut and Fill

At the end of the first year there will be some cuts required to form sloped areas to the reclamation configuration. The existing disturbed area will have earth buttreses added during construction stages 1 and 2 for safety reasons. However, these buttresses only extend to elevations between 2,100 and 2,150 feet. In addition, the buttresses are sloped at 1.5 to 1 for both cut and fill. The cuts and fills needed to get the existing slopes to the required 1 to 1 for cut areas and 2 to 1 for fill areas begin at elevations near 2,100 feet and extend above 2,400 feet. Therefore, the cuts and fills required in the existing disturbed area at the end of the first year are essentially the same as they are at the present time.

All of the desilting basins constructed during the first year will require demolition and filling.

Desilting Basins

The dimensions of the desilting basins, dams, spillways, and so forth are not given on the conceptual plans. Each basin is estimated to have the following:

100 square yard of gunite 3" thick;
8.5 cubic yards of rip rap (10'x 15 x 1.5');
150 feet of CMP (corrugated metal pipe).

The basin, which may be completed by the end of the first year, would include A, B, C, D, 2E, and 1. The demolition and filling of these basins is included in the estimate.

Drop Inlets and Outlet Pipes

Not all the drop inlets associated outlet pipes will be installed in the first year of operation. The ones that may be installed by the end of the first year include D1 and D2 on the North Fines Storage Area (NFSA) haul road and D1, D2, D3, D4, D5, and D7 in the operating area. Demolition of these drop inlets and associated outlet pipes are included in the estimate.

Culverts

Like the drop inlets, not all the culverts will be installed in the first year of operation. The culverts that could be installed are C1, C2, C4, C5, C6, C7, and C9. Demolition of these culverts is included in the estimate.

Revegetation

The cut and fill areas of the NFSA haul road will likely be vegetated soon after construction of the road. However, for the purposes of this estimate, it is assumed that no revegetation has taken place. The costs for revegetation were estimated from local experience.

Asphalt, Fence and Sign Removal

These items are among the first to be completed on construction project, and it is assumed in this estimate that they will be completed at the end of the first year. Costs are summarized in Table 4-6 and are based on Means Heavy Construction Cost Data, 9th edition, 1995, and Harry Smith demolition estimates for similar equipment at the Moorpark TMC operation.

Table 4-6

RECLAMATION COST ESTIMATE
END OF FIRST YEAR OPERATION

	Amount	Units	Unit Cost	Cost
Cut and Fills				
Existing disturbed area fill	251,867	CY	$1.36	See notes 1 & 2
Existing disturbed area cut	281,694	CY	$2.18	$614,093
10 percent for slope keys, etc.				61,409
Desilting basin fill	20,963	CY	$1.36	28,510
Plant and Facilities				
Plant and conveyors				$17,250
Fixed production equipment				6,000
Electrical system				4,200
Water reclaim				8,500
Water system				7,000
Office trailers				3,000
Miscellaneous (secondary containment, etc.)				1,500
Asphalt Removal (entrance road area)	9,886	SY	$6.60	$65,248
Desilting Basins A, B, C, 2E, 1				
Pipe removal	900	LF	$12.75	$11,475
Gunite demolition	5,400	SF	$ 2.87	15,498
Riprap demolition	900	SF	$14.35	12,915
Drop Inlets D1, D2 (NFSA road) **Drop Inlets D1, D2, D3, D4, D5 & D7 (processing area)**				
Pipe removal	1,415	LF	$12.75	$18,041
Inlet removal	8	Each	$255.00	2,040
Culverts C1, C2, C4, C5, C6, C7 and C9				
Pipe Removal	875	LF	$12.75	$11,156

Table 4-6

RECLAMATION COST ESTIMATE
END OF FIRST YEAR OPERATION

	Amount	Units	Unit Cost	Cost
Sign and Fence Removal				
Fence	3,900	LF	$2.29	$ 8,931
Signs	18	Each	$15.65	282
Rip compacted areas (Estimate 30,000 SY, 1 foot deep)	10,000	CY	$2.60	$26,000
Areas where revegetation is required[5]				
Old mine area and buttresses	21.41	Acres		
Grading plan area	8.4	Acres		
NFSA Road[6]	13.11	Acres		
Desilting basin A	.2	Acres		
Desilting basin B	1.31	Acres		
Desilting basin C	.2	Acres		
Desilting basin D	0.65	Acres		
TOTAL	7.2	Acres	$3,000	$171,600
10% for maintenance				$17,160
NFSA Cut and Fill[6]	32.5	Acres	$1,000	$32,500
TOTAL				**$1,144,308**

1. Total cut and fill to be balanced in the field to ensure no import or export of fill material.
2. Balanced cut and fill. The earthwork necessary for site reclamation in areas where existing topography has no physical restriction can be accomplished by excavating a balanced cut and fill using a dozer and then compacting on fill areas as necessary. Therefore, there is no added cost for doing the fill.
3. 10 percent is added to the cut costs as a contingency to cover slope toe keys and any stabilizing fill required on cut areas.
4. 10 percent is added to the revegetation costs to cover maintenance of the seeded areas.
5. Revegetation costs are based on Ventura County Planning Division recommended costs and local experience.
6. Revegetation costs of road cut and fill are estimated for container plants only. Seeding should already have occurred.

Source: West Coast Environmental, 1996.

SECTION 5 - REFERENCES

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Bowers, J.C. and G.A. Irwin

1978 *Water Quality Investigation Upper Santa Clara River Basin, California.* U.S. Geological Survey, Water Resources Investigations 77-99, Menlo Park, California.

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1983 *Mineral Land Classification of the Greater Los Angeles Area. Special Report 143, Part VII.* Classification of Sand and Gravel Resource Areas, San Bernardino Production-Consumption Region.

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Goodman, R.H.

1994 *Survey for the Southwestern Pond Turtle, Clemmys marmorata pallida, in Soledad Canyon Along the Santa Clara River, Los Angeles County, California.* Prepared for Chambers Group, Inc., July 1994.

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1993 *Evaluation of Water Resources in Vicinity of the Transit Mixed Concrete, Inc. - C.A. Rasmussen Company Properties in the Soledad Canyon, Los Angeles County, California.*

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1993a *Clarification Regarding Geotechnical Reports, Proposed Aggregate Facility, Soledad Canyon, California.* May 4, 1993.

1993b *Preliminary Cut Bench Stability Analysis, Proposed Aggregate Facility, Soledad Canyon Area, Los Angeles County, California.* May 19, 1993.

1992 *Clarification of Fault Activity on the Soledad Canyon Fault and the Agua Dulce Fault, Soledad Canyon Site, Los Angeles County, California.* December 11, 1992.

Hulett, M.

1992 *Letter Report from Hilltop Geotechnical Clarification of Fault Activity on the Soledad Canyon Fault and the Agua Dulce Fault, Soledad Canyon Site, Los Angeles County, California.*

Law/Crandall, Inc. (LAW)

1992a *Recoverable Water from Bear Creek Watershed, Los Angeles County, California.* Prepared for Transit Mixed Concrete Company. November 9, 1992.

1992b Santa Clara River Underflow 1991 Annual Report, Transit Mixed Concrete Company's Proposed Soledad Canyon Mining Operation, Los Angeles County, California. July 30, 1992.

Newton, G.

1992 *Revegetation: Restoration Planning.* SERCAL p. 1.

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1991 *Report of Geological Conditions and Cut Slope Stability Analysis for a Proposed Aggregate Facility of 460± Acres in the Soledad Canyon Area, Los Angeles County, California.* Prepared for Transit Mixed Concrete Company. November 8, 1991.

Transit Mixed Concrete (TMC)

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1994 Answers to Vested Rights Protests vs. Application No. 29967, Transit Mixed Concrete Company, Soledad Canyon Project. March 11, 1994.

1997a *Transit Mixed Concrete Company Soledad Canyon Aggregate and Concrete Batch Plants Storm Water Discharge Pollution Prevention Plan.* June 1997.

1997 *Transit Mixed Concrete Company Soledad Canyon Plants Spill Prevention Control and Countermeasure Plan.* June 1997.

1991 Permit to Construct Update and Application, Transit Mixed Concrete Company, Soledad Canyon, 1200 Soledad Canyon Road, Canyon Country, California. February 19, 1991.

COUNTY OF LOS ANGELES CERTIFICATION

I, the undersigned, hereby certify that this Reclamation Plan complies with the applicable requirements of Articles 1 and 9 (commencing with Sections 3500 et seq. and 3700 et seq., respectively) of Chapter 8 of Division 2 of Title 14 of the California Code of Regulations, with the requirements of the Surface Mining and Reclamation Act, Section 2710 et seq., and with the requirements of the Los Angeles County Code, Section 22.56.1290.

Signed this _____ day of _____, 19____

Planning Director _____

BUREAU OF LAND MANAGEMENT CERTIFICATION

I, the undersigned, hereby certify that this Reclamation Plan complies with the applicable requirements contained in the Code of Federal Regulations, specifically 43 CFR 3600 et seq. to 3610 et seq. relative to disposition of mineral resources on lands controlled by the Federal Government.

Signed this _____ day of _____, 19____

Area Manager _____

STATEMENT OF RESPONSIBILITIES - TRANSIT MIXED CONCRETE COMPANY

I, the undersigned, hereby agree to accept full responsibility for reclamation of all mined lands as described and submitted herein and in conformance with the applicable requirements of Articles 1 and 9 (commencing with Sections 3500 et seq. and 3700 et seq., respectively) of Chapter 8 of Division 2 of Title 14 of the California Code of Regulations, the Surface Mining and Reclamation Act commencing with Section 2710 et seq., Code of Federal Regulations, specifically 43 CFR 3600 et seq. to 3610 et seq. relative to disposition of mineral resources on lands controlled by the Federal Government, and with any modifications requested by the administering agency as conditions of approval.

Signed this _____ day of _____, 19____

Mine Operator's Representative _____

APPENDIX G

PERFORMANCE AND RECLAMATION BOND

PERFORMANCE BOND
(See Instructions on reverse)

DATE BOND EXECUTED *(Must be same or later than date of contract)*: March 8, 1990

PRINCIPAL *(Legal name and business address)*

Transmix Corporation
'60 Valley Boulevard
s Angeles, CA 90030

TYPE OF ORGANIZATION ("X" one)

- [ ] INDIVIDUAL
- [ ] PARTNERSHIP
- [ ] JOINT VENTURE
- [X] CORPORATION

STATE OF INCORPORATION: California

SURETY(IES) *(Name(s) and business address(es))*

American Casualty Company of Reading, Pennsylvania
CNA Plaza
Chicago, Illinois 60685

PENAL SUM OF BOND

MILLION($)	THOUSAND($)	HUNDRED($)	CENTS
1	400	000	00

CONTRACT DATE	CONTRACT NO.
3-8-90	CA-20139

OBLIGATION:

We, the Principal and Surety(ies), are firmly bound to the United States of America (hereinafter called the Government) in the above pena sum. For payment of the penal sum, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally. However where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well a "severally" only for the purpose of allowing a joint action or actions against any or all of us. For all other purposes, each Surety binds itself jointly and severally with the Principal, for the payment of the sum shown opposite the name of the Surety. If no limit of liability is indi cated, the limit of liability is the full amount of the penal sum.

CONDITIONS:

The Principal has entered into the contract identified above.

THEREFORE:

The above obligation is void if the Principal —

(a)(1) Performs and fulfills all the undertakings, covenants, terms, conditions, and agreements of the contract during the original term c a contract and any extensions thereof that are granted by the Government, with or without notice to the Surety(ies), and during the lif any guaranty required under the contract, and (2) perform and fulfills all the undertakings, covenants, terms conditions, and agreement any and all duly authorized modifications of the contract that hereafter are made. Notice of those modifications to the Surety(ies) ar waived.

(b) Pays to the Government the full amount of the taxes imposed by the Government, if the said contract is subject to the Miller Ac (40 U.S.C. 270a-270e), which are collected, deducted, or withheld from wages paid by the Principal in carrying out the construction cor tract with respect to which this bond is furnished.

WITNESS.

The Principal and Surety(ies) executed this performance bond and affixed their seals on the above date

PRINCIPAL

Signature(s)	1. Daniel J. Pellow (Seal)	2. (Seal)	Corporate Seal
Name(s) & Title(s) (Typed)	1. Daniel J. Pellow Vice President/Technial Services and Administration	2.	

INDIVIDUAL SURETY(IES)

Signature(s)	1. (Seal)	2. (Seal)
Name(s) (Typed)	1.	2.

CORPORATE SURETY(IES)

Name & Address	American Casualty Company of Reading, Pennsylvania, Chicago, IL	STATE OF INC. PA	LIABILITY LIMIT $ 14,800,000.		Corporate Seal
Signature(s)	1. Linda Frey	2.			
Name(s) & Title(s) (Typed)	1. Linda Frey Attorney-in-Fact	2.			

NSN 7540-01-152-8060
PREVIOUS EDITION USABLE

25-106

STANDARD FORM 25 (REV. 10-8
Prescribed by GSA
FAR (48 CFR 53.228 (b))

CORPORATE SURETY(IES) *(Continued)*

SURETY B	Name & Address		STATE OF INC.	LIABILITY LIMIT $	Corporate S
	Signature(s)	1.	2.		
	Name(s) & Title(s) *(Typed)*	1.	2.		
SURETY C	Name & Address		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	Signature(s)	1.	2.		
	Name(s) & Title(s) *(Typed)*	1.	2.		
SURETY D	Name & Address		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	Signature(s)	1.	2.		
	Name(s) & Title(s) *(Typed)*	1.	2.		
SURETY E	Name & Address		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	Signature(s)	1.	2.		
	Name(s) & Title(s) *(Typed)*	1.	2.		
SURETY F	Name & Address		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	Signature(s)	1.	2.		
	Name(s) & Title(s) *(Typed)*	1.	2.		
SURETY G	Name & Address		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	Signature(s)	1.	2.		
	Name(s) & Title(s) *(Typed)*	1.	2.		

BOND PREMIUM ▶	RATE PER THOUSAND	TOTAL
	$ 1.50	$ 21,000.00

INSTRUCTIONS

1. This form is authorized for use in connection with Government contracts. Any deviation from this form will require the written approval of the Administrator of General Services.

2. Insert the full legal name and business address of the Principal in the space designated "Principal" on the face of the form. An authorization person shall sign the bond. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.

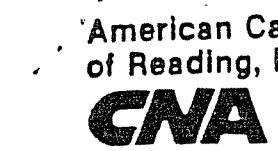
3. (a) Corporations executing the bond as sureties must appear on the Department of the Treasury's list of approved sureties and must act within the limitation listed therein. Where more than one corporate surety is involved, their names and addresses shall appear in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)". In the space designated "SURETY(IES)" on face of the form insert only the letter identification of the sure

(b) Where individual sureties are involved, two or more resp sible persons shall execute the bond. A completed Affidavi Individual Surety (Standard Form 28), for each individual sur shall accompany the bond. The Government may require t sureties to furnish additional substantiating information concer their financial capability.

4. Corporations executing the bond shall affix their corpo seals. Individuals shall execute the bond opposite the word "Co rate Seal"; and shall affix an adhesive seal if executed in Ma New Hampshire, or any other jurisdiction requiring adh

5. Type the name and title of each person signing this d in space provided.

American Casualty Company
of Reading, Pennsylvania



For All the Commitments You Make
Offices/Chicago, Illinois

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men by these Presents, That AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA, a corporation duly organized and existing under the laws of the Commonwealth of Pennsylvania, and having its principal office in the City of Chicago and State of Illinois, does hereby make, constitute and appoint William R. Plegge, Charles C. Campbell, Charles H. Harper, Linda Frey, Dale E. Temple, John Gerety, Melanie D. Moon, Carolyn A. Cory, Individually of Little Rock, Arkansas its true and lawful Attorney-in-Fact with full power and authority hereby conferred to sign, seal and execute in its behalf bonds, undertakings and other obligatory instruments of similar nature - In Unlimited Amounts -

and to bind AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA thereby as fully and to the same extent as if such instruments were signed by the duly authorized officers of AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA and all the acts of said Attorney pursuant to the authority hereby given are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the Board of Directors of the Company:

"Article VI — Execution of Obligations and Appointment of Attorney-in-Fact

Section 2. Appointment of Attorney-in-fact. The President or Vice President may, from time to time, appoint by written certificates attorneys-in-fact to act in behalf of the Company in the execution of policies of insurance, bonds, undertakings and other obligatory instruments of like nature. Such attorneys-in-fact, subject to the limitations set forth in their respective certificates of authority, shall have full power to bind the Company by their signature and execution of any such instruments and to attach the seal of the Company thereto. The President or any Vice President or the Board of Directors may at any time revoke all power and authority previously given to any attorney-in-fact."

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company at a meeting duly called and held on the 11th day of November, 1966:

"Resolved, that the signature of the President or a Vice President and the seal of the Company may be affixed by facsimile on any power of attorney granted pursuant to Section 2 of Article VI of the By-Laws, and the signature of the Secretary or an Assistant Secretary and the seal of the Company may be affixed by fascimile to any certificate of any such power, and any power or certificate bearing such facsimile signatures and seal shall be valid and binding on the Company. Any such power so executed and sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Company."

In Witness Whereof, AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed this 13th day of May, 19 88.

AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA

State of Illinois } ss
County of Cook }

J. E. Purtell — Vice President.

On this 13th day of May, 19 88, before me personally came J. E. Purtell to me known, who, being by me duly sworn, did depose and say: that he resides in the Village of Glenview, State of Illinois; that he is a Vice-President of AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA, the corporation described in the which executed the above instrument; that he knows the seal of said Corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

Linda C. Dempsey — Notary Public.

My Commission Expires November 12, 199

CERTIFICATE

I, M. C. Vonnahme, Assistant Secretary of AMERICAN CASUALTY COMPANY OF READING PENNSYLVANIA, do certify that the Power of Attorney herein above set forth is still in force, and further certify that Section 2 of Article VI of the By-Laws of the Company and the Resolution of the Board of Directors, set forth in said Power of Attorney are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said Company this 8th day of March, 19 90.

G-3

M. C. Vonnahme — Assistant Secretary.

R-23142-D

APPENDIX H

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS MINING PLAN AND RECLAMATION REVIEW COMMENTS AND RESPONSE TO COMMENTS

Chambers Group, Inc.

Environmental Consultants ° Scientists ° Planners ° Engineers

MEMORANDUM

DATE: June 11, 1997

TO: Mr. Ron Lacayo, PE
Los Angeles County Department of Public Works

FROM: Thomas C. Ryan
Chambers Group, Inc.

SUBJECT: County Review Comments on the Mining and Reclamation Plan; Transit Mixed Concrete Company, Soledad Canyon Sand and Gravel Mining Project

Thank you for your agency's latest review comments on the subject Mining and Reclamation Plan. TMC will be preparing a formal written response to each comment. As you discussed with John Hecht of West Coast Environmental, there are several points that may be best addressed by having key TMC project staff meet directly with you, Mr. Steuer, and any others you think necessary. Accordingly, our initial response to the County's comments is provided below and we hope to meet to work out the remaining points. Your review comments are attached for reference.

Response to Los Angeles County Department of Public Works, Materials Engineering Division, Geologic Review Sheet, comments by Charles Nestle, dated 5/20/97.

1. *All slopes must be stable as designed, or revised to achieve appropriate factors of safety.*

   The project is presently being reviewed and changes in design considered to maintain static and seismic factors of safety of 1.5 and 1.1, respectively. We would like to meet with your staff to discuss our proposed mitigation to achieve the required factors of safety (also see the response to item 2 of Geotechnical Engineering Unit's comments which follow).

2. *The Geotechnical Engineering Unit's review dated 5/20/97 is attached.*

   A response to the Geotechnical Engineering Unit's comments is attached.

Corporate Headquarters

16700 Aston Street
Irvine, CA 92606
714-261-5414
Fax: 714-261-8950

Inland Empire

3600 Lime Street, Suite 321
Riverside, CA 92501
909-276-8344
Fax: 909-276-0923

Response to Los Angeles County Department of Public Works, Materials Engineering Division comments by Mark A. Steuer, dated 5/20/97.

1. *Provide static and seismic slope stability analysis for the "Cut 3 Fines Area". Also, provide a geotechnical cross section showing the critical failure plane used in analysis. Indicated the various shear strength parameters used in the analysis in the appropriate segments of the failure plane. Show location of the cross sections used in slope stability analysis on the geotechnical map. Recommend mitigation if factors of safety are below County minimum standard.*

   As discussed recently with John Hecht, we believe the requested information is included in the geotechnical reports submitted to your office previously. During our proposed meeting, we will identify and review the information for you and your staff.

2. *All final contour configuration slopes must exhibit static and seismic factors of safety above 1.5 and 1.1, respectively. Recommend mitigation accordingly.*

   The project is presently being reviewed and changes in design considered to maintain static and seismic factors of safety as specified. We would like to meet with your staff to discuss our proposed mitigation to achieve the required factors of safety.

3. *The response to Remark #3 of the previous geotechnical engineering review sheet is unacceptable. Provide static and seismic slope stability analysis for all proposed final and temporary debris basin slopes steeper than 3:1 gradient. Analysis should consider a "rapid drawdown" condition. Also, provide a geotechnical cross section showing the critical failure plane used in analysis. Indicate the various shear strength parameters used in the analysis in the appropriate segments of the failure plane. Show location of the cross sections used in slope stability analysis on the geotechnical map. Recommend mitigation if factors of safety are below County minimum standards.*

   Based on your previous discussion with John Hecht, all of the proposed debris basins are temporary structures that will be removed as part of the site reclamation. There are no permanent or final debris basins. TMC proposes a condition on the project that would require submittal to the County of the information requested in this comment, and approval of such information, prior to commencement of preproduction construction activities. We propose the following condition be included in the Mining Plan and EIR with respect to design of debris basins:

   "Applicant shall submit a static and seismic slope stability study that analyzes all proposed debris basin slopes greater than 3:1 gradient. The study must be approved by the Department of Public Works prior to commencing grading work on the project."

Corporate Headquarters

16700 Aston Street
Irvine, CA 92606
714-261-5414
Fax: 714-261-8950

Inland Empire

3600 Lime Street, Suite 321
Riverside, CA 92501
909-276-8344
Fax: 909-276-0923

4. *Show the following on the grading plan:*

   Compaction requirements for fill slope materials placed within the North Fines Storage Area, per Figure 3-5 of the Mining and Reclamation Plan.

   TMC is not requesting approval of grading permits at this time. Compaction requirements for the North Fines Storage Area are noted on the Reclamation Plan Figure 3-5 as follows, "Compaction Requirement: 75% relative compaction minimum; 80% relative compaction in 30 foot fill cap".

   Grading plans for construction of site improvements requiring a building permit will be submitted as part of that process. The ESI grading plans submitted with the Mining and Reclamation Plan were marked, "conceptual for permitting only" and it is our belief that surface mining projects do not require a separate grading plan for mining operations.

5. *The Geotechnical Engineeer must review the grading plans and sign and stamp the plans in verification of his recommendations. Original manual signature and wet stamp are required.*

   See response to item 4 above.

6. *Requirements of the Geology Section are attached and must be complied with.*

   Geology Section comments are attached and responded to below.

7. *Include a copy of this review sheet with your response.*

   A copy of the review sheet is attached.

Attachment

Corporate Headquarters

16700 Aston Street
Irvine, CA 92606
714-261-5414
Fax: 714-261-8950

Inland Empire

3600 Lime Street, Suite 321
Riverside, CA 92501
909-276-8344
Fax: 909-276-0923

Sheet 1 of 1

Los Angeles County Department of Public Works
MATERIALS ENGINEERING DIVISION
GEOLOGIC REVIEW SHEET
900 S. Fremont Ave., Alhambra, CA 91803

Dist. Office 8.2
F X NF
Job No. LXW91165

STATUS CHECKS (818) 458-4926
8-9 am & 3-4 pm Mon.-Thurs.

Thomas Guide
Tract/PM
Lot(s)
Parent Tract
Location Soledad Canyon
Site Address Soledad Canyon Road
Geologist Hilltop Geotechnical
Developer/Owner Transit Mixed Concrete Co.
Geotechnical Engineer same
Engineer/Arch. Southdown, Inc.

DISTRIBUTION
__ Dist. Office
1 Geologist
__ Geotech. Eng.
1 Section File
1 Grading Sect.
__ Proc. Cntr.
1 Ron Lacayo

Review of: Mining and Reclamation Plan — Soledad Canyon Sand and Gravel Mining Project (excludes evaluation of operations for mining, or facilities/structures)

Geologic Report Dated 12/11/92
Geology and Geotechnical Engineering Reports dated 1/31/96, 7/12/95, 4/23/95, 5/19/93, 5/4/93, 11/8/91 (STE Assoc.)

Action: Plan is not approved for reasons below.

Remarks/Conditions:

1. All slopes must be stable as designed, or revised to acheive appropriate factors of safety.

2. The Geotechnical Engineering Unit's review dated 5/20/97 is attached.

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 2
To JOHN H.	From FON L.
Co.	Co.
Dept.	Phone #
Fax # (805) 644-5929	Fax # (818) 458 4949

Prepared by [signature] Reviewed by Date ~~4/10/97~~ 5/20/97

NOTICE: Public safety, relative to geotechnical subsurface exploration, shall be provided in accordance with current codes for excavations, inclusive of the Los Angeles County Code, Chapter 11.48, and the State of California, Title 8, Construction Safety Orders.

46-0052
1-25-96
F-RE:FORM.6

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

MATERIALS ENGINEERING DIVISION

District Office 8.2
Job No. LXW91165
Sheet 1 of 1

Address: 900 S. Fremont Ave.
Alhambra, CA 91803
Telephone: (818) 458-4925
Calling hours - Monday through Thursday 8-9 a.m. & 3-4 p.m.

Reclamation Plan

Location Soledad Canyon Road, Soledad
Developer/Owner Transit Mixed Concrete Co.
Engineer Southdown, Inc.
Geotechnical Engineer Hilltop Geotechnical (95009)
Geologist Same as above

Project No. 91165

Review of:

Response Letter by Chambers Group Dated 12/20/96
Geotechnical Reports Dated 11/8/91, 5/4/93, 5/19/93, 4/23/95, 7/12/95 and 1/31/96
Geologic Reports Dated 11/8/91, 12/11/92, 5/4/93, 5/19/93, 4/23/95, 7/12/95 and 1/31/96

Refer to references in review sheet dated 7/23/96

ACTION:

Plans are not approved; the following information is required:

REMARKS:

1. Provide static and seismic slope stability analysis for the "Cut 3 Fines Area". Also, provide a geotechnical cross section showing the critical failure plane used in analysis. Indicate the various shear strength parameters used in the analysis in the appropriate segments of the failure plane. Show location of the cross sections used in slope stability analysis on the geotechnical map. Recommend mitigation if factors of safety are below County minimum standard.

2. All final contour configuration slopes must exhibit static and seismic factors of safety above 1.5 and 1.1, respectively. Recommend mitigation accordingly.

3. The response to Remark #3 of the previous geotechnical engineering review sheet is unacceptable. Provide static and seismic slope stability analysis for all proposed final and temporary debris basin slopes steeper than 3:1 gradient. Analysis should consider a "rapid drawdown" condition. Also, provide a geotechnical cross section showing the critical failure plane used in analysis. Indicate the various shear strength parameters used in the analysis in the appropriate segments of the failure plane. Show location of the cross sections used in slope stability analysis on the geotechnical map. Recommend mitigation if factors of safety are below County minimum standard.

4. Show the following on the grading plan:

   Compaction requirements for fill slope materials placed within the North Fines Storage Area, per Figure 3-5 of the Mining and Reclamation Plan.

5. The Geotechnical Engineer must review the grading plans and sign and stamp the plans in verification of his recommendations. Original manual signature and wet stamp are required.

6. Requirements of the Geology Section are attached and must be complied with.

7. Include a copy of this review sheet with your response.

Prepared by Mari A. Steuer Date 5/20/97

NOTICE: Public safety, relative to geotechnical subsurface exploration, shall be provided in accordance with current codes for excavations, including of the Los Angeles County Code, Chapter 11.48, and the State of California, Title 8, Construction Safety Orders.

TOTAL P.02

TOTAL P.03

Chambers Group, Inc.
Environmental Consultants
Scientists
Planners
Engineers

December 20, 1996
(8200D)

Mr. Ron Lacayo
Los Angeles County Department of Public Works
900 S. Fremont Avenue
Alhambra, CA 91803

Subject: Transit Mixed Concrete Company; Soledad Canyon Mining and Reclamation Plan, Response to County Review Comments

Dear Mr. Lacayo:

Thank you for providing your staff's comments on the TMC Soledad Canyon Mining and Reclamation Plan. TMC has compiled information that responds to those comments and is submitting the information to you for your consideration. The information is being submitted via this letter and attachments. Upon your review and approval of this transmittal, TMC will revise the Mining and Reclamation Plan accordingly. This document will become the approved Mining and Reclamation Plan for the project. We believe this approach will facilitate your review of the enclosed new and/or revised information and expedite submittal of an acceptable Mining and Reclamation Plan.

Each of three comment letters are responded to below on an item by item basis. County comments are italicized.

Response to Los Angeles County Department of Public Works, Building and Safety/Land Development Division comments by Sree Kumar, dated /8/17/96.

1. *Provide calculations showing the amount of sediment production rates and volumes from the watershed tributary to each desilting basin.*

   Attached is a copy of "DRAINAGE CONCEPT FOR TRANSIT MIXED CONCRETE COMPANY SOLEDAD CANYON PROJECT", by C.A. Rasmussen Company, June 1993. This document contains the requested information. The Drainage Concept has been prepared in accordance with design parameters contained in the LACDPW Hydrology/Sedimentation Manual.

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e-mail: cgiriver@aol.com

2. *Provide analysis that identifies sediment transport impacts, if any, to the properties, facilities, and streams downstream from the proposed project and below the desilting basins resulting from the reduction and entrapment of sediment.*

   Final design of the sediment basins will be submitted to Public Works for review after project approval and prior to construction. The final design will be based on the LACDPW Hydrology/Sedimentation Manual. The design will be according to DPW policy B IV, which states "waterways shall be designed to maintain an equilibrium between sediment supply and the waterway and sediment transport through the waterway". With those design criteria satisfied, no impacts should occur when the project is active. Because the area will be revegetated with native plant species, post project and pre-project sediment production rates will also be equivalent.

3. *Provide energy dissipation and scour protection, downstream of desilting basins and proposed culverts.*

   Energy dissipation and scour protection will be provided downsteam of desilting basins and proposed culverts as needed. Rip rap and a controlled rate release system are shown in the conceptual design of the basins which is attached.

   Final design energy dissipation and scour protection will be accomplished in consultation with the Los Angeles County Department of Public Works Design Division, as required by Section E-2, of the LAC DPW Sedimentation Manual. Final design of the energy dissipation system will be furnished after project approval and prior to construction.

Response to Los Angeles County Department of Public Works, Materials Engineering Division comments by Charles Nestle, dated 8/20/96.

The basis of, and contingency of this review is that the after implementation of the reclamation plan, the area will be designated as open space, i.e., not for any type of development:

Please provide the geologic reports referenced in the Reclamation Plan documents and used as the basis for the evaluation of proposed reclamation plan. Provide an addendum geologic report as warranted to requirements of this review.

It is TMC's and BLM's position that after implementation of the reclamation plan, the area will be retained as open space. The debris basins are not permanent structures and will be removed after reclamation is completed.

One copy each of the referenced geologic reports relative to slope stability are included with this correspondence and cover all aspects of the project. While various geologic information has been updated, we do not believe an addendum is warranted.

1. *Provide a reclamation plan clearly delineating property boundaries, final and existing topography, major grading, and proposed basins. Use this map as a base for the geologic map that includes all data collected.*

   A base map depicting the existing contours, final reclamation contours, debris basins, and cut and fill areas has been developed and is enclosed as Figure 3-5. This is a new map within the Mining and Reclamation Plan; the existing Figure 3-5 and subsequent maps in the Mining and Reclamation Plan will be renumbered. In addition, geologic information has been compiled from the existing project geotechnical reports and placed on the base map. This map will be incorporated into the revised Mining and Reclamation Plan and replaces the existing Figure 2-1. A copy of revised Figure 2-1 is enclosed for your review.

2. *Provide geologic cross-sections at true scale (hor./vert.) that depict existing and proposed final grades, and geologic data and conditions.*

   Cross-sections at true scale, including existing and proposed contours, are included in the enclosed set of Grading Plans and Facility Layouts. Please see the following sheets for specific cross-sections as follows:

   Sheet 9 - Processed Aggregate Storage Area Cross Sections
   Sheet 10 - Aggregate Processing, Batch Plant and Storage Area Cross Sections
   Sheet 11 - Batch Plant and Office Area Cross Sections
   Sheet 19 - North Fines Storage Area Cross Sections
   Sheet 20 - North Fines Storage Area Cross Sections and Details
   Sheet 21 - North Fines Access Road Profile

   These cross-sections supplement the existing geologic cross-sections shown in the Mining and Reclamation Plan, Figures 2-1, 2-2 and 2-3, which include existing geologic conditions.

3. *Delineate existing major cut & fill areas.*

   Existing major cut and fill areas are delineated on the new Figure 3-5. The total area of mining Cuts 1 though 4, the North Fines Storage Area fill, the Cut 3 Fines Storage fill, and the North Fines Storage Area access road cuts and fills are included on the Figure.

4. *Provide additional geologic structural data including joints, shears, and other potential planes of weakness. Provide analyses relative to slope stability/rock slide potential.*

   The requested geologic structural data is included in the geology report by STE Associates Inc., 1991 and Hilltop Geotechnical, Inc. (1993, 1995, and 1996), included with this submittal. Additionally, the onsite geology was accounted for in the slope stability analyses. For points of clarification, contact Mark Hulett, CEG, at Hilltop Geotechnical, Inc., (909) 862-0897.

5. *Per Section 22.56.1420 of the County Planning and Zoning Code, reclamation slopes must be stable and 2:1. Cut slopes to 600 feet at 1:1 are apparently proposed.*

   Under Part E of Section 22.56.1420, it states that, "Final slopes shall not be steeper than two feet horizontal to one foot vertical (2:1) unless the applicant can demonstrate to the Hearing Officer's satisfaction that a steeper slope will not:

   A. Reduce the effectiveness of revegetation and erosion control measures where they are necessary; and,
   B. Be incompatible with the alternate future uses approved by the Hearing Officer for the site; and,
   C. Be hazardous to persons that may utilize the site under the alternative future uses approved for the site."

   Relative to A, the proposed project incorporates extensive revegetation and erosion control measures based on the final overall slope configuration of 1.13:1 (horizontal to vertical). The revegetation, and erosion control features of the reclamation plan are feasible and use commonly accepted design features. The effectiveness of the revegetation program will be monitored throughout the life of the project, as concurrent revegetation takes place, and for five years after completion of the site reclamation.

   Slope stability evaluations were performed based on the final slope configuration and the reports which document feasibility of the design are referenced in the Mining and Reclamation Plan and included herein for your information.

   Relative to B and C, the ultimate future use of the site is considered to be open space. However, at the end of the 20-year mining operation, it is anticipated that the recoverable resources will remain and that mining could continue subject to a new Mining and Reclamation Plan. Whether future use is open space or continued mining, there will be no incompatibility with future uses or hazards to persons using the site in the future.

6. *Benching and keying of "fills", and installation of subdrains in "fill" areas appears warranted: please provide comments, evaluation and design.*

   Benching and keying into competent natural soils will be performed during the filling process of the North Fines Storage Area. In addition, subdrains will more than likely be recommended to be installed in the canyon areas of the proposed North Fines Storage Area. However, specific evaluations, design and recommendations have not been provided at this time. These items are typically addressed in a specific geotechnical investigation for final design. The results of such a study will be provided to Department of Public Works prior to initiation of any fill activity and after project approval.

7. *Show geologic conditions and remediation planned on cross sections for the existing major quarry slopes.*

   The requested information is included in the report by STE Associates, Inc., 1991, a copy of which is included with this submittal.

8. *Provide geologic reports that are approved by State-certified geologists.*
   The geologic reports referenced in the Mining and Reclamation Plan and included herein have been prepared by state-certified geologists.

9. *Discuss the impact of the 75% compacted fills above the proposed desilting/debris basins. What is the anticipated contributory volume of material from these fills? Are the basins sized accordingly?*

   "DRAINAGE CONCEPT FOR TRANSIT MIXED CONCRETE COMPANY SOLEDAD CANYON PROJECT", by C.A. Rasmussen Company, referred to in item 1 above, is attached. Section V, Hydrologic Evaluation of the Site, discusses the design criteria used in the study. As stated in the first paragraph of Section V., "The quantitative characterization of site hydrology is based on the methodology established by the Los Angeles County Department of Public Works. The 50 year capital flood was the basis of the analysis of the design storm for which drainage facility requirements would be determined." The Summary Calculations, on pages 11 through 13 of the same report have tables which indicate that the size of the debris basins are calculated for the maximum debris conditions in all cases. These tables are currently included in the Mining and Reclamation Plan as Tables 3-1, 3-2, and 3-3, pages 17 and 18.

The design calculations assumed the area was 100% recently burned. In reality, no more than 25% of the North Fines Storage Area should be exposed at any one time. Revegetation will take place annually as the area is filled, and vegetation will be removed ahead of the fill no sooner than necessary.

The North Fines Storage Area will be constructed as a series of steps, 8 feet horizontal to 4 feet vertical. The horizontal portion of the step is to be sloped back into the hill to conserve water and encourage revegetation. This will maintain an overall slope angle for the North Fines Storage Area of 2:1 (horizontal to vertical) and will decrease erosion appreciably. Other drainage features may be installed at the fill location as determined through final design.

With respect to the stated 75% compaction specification, the outer 30 feet of fill in the North Fines Storage Area will be compacted to 80% rather than 75% in order to achieve the County specified overall 1.5 factor of safety. This additional compaction requirement will reduce erosion potential in the long term.

No outlet structures or pipes are depicted on the plans. Are any proposed?

Conceptual design of the debris basins, spillways, and outlet structures are shown on the "Grading Plans and Facility Layouts" dated April 1991 by Environmental Solutions, Inc. Attached is an excerpt from these plans showing the basin. The final design of the basins, outlet structures and energy dissipation structures will be furnished after project approval and prior to construction.

Who will ultimately be responsible for maintenance of these basins, or how will potential debris flow hazard of sediments be prevented?

The maintenance and cleaning of the debris basins will remain the responsibility of the mine operator during the life of the mine. After the revegetation has matured at the end of the mining operation, as part of the reclamation required by SMARA, the debris basins will be removed and the area graded to the surrounding contours. The area will be revegetated as described in the revegetation plan which is part of the reclamation plan.

Response to Los Angeles County Department of Public Works, Materials Engineering Division, comments by Mark A Steuer, dated 7/23/96.

1. *The Geotechnical Engineer must sign, stamp and indicate the date of registration expiration on the soils report and all addenda. Original manual signature and wet stamp are required.*

   Copies of relevant geotechnical reports bearing appropriate stamp and information are enclosed for your information.

2. *Provide geotechnical addenda dated 1/31/96, 7/12/95, and 3/23/95 by Hilltop Geotechnical, Inc. regarding slope stability analysis.*

   The cited geotechnical reports are included for your information.

3. *Provide static and seismic slope stability analysis for all proposed debris basin slopes steeper than 3:1 gradient. Analysis should consider a "rapid drawdown" condition. Also, provide a geotechnical cross section showing the critical failure plane used in analysis. Indicate the various shear strength parameters used in the analysis in the appropriate segments of the failure plane. Show location of the cross section used in slope stability analysis on the geotechnical map. Recommend mitigation if factors of safety are below County minimum standards.*

   Since these basins will be removed at the end of the project, the final debris basins design will be completed and submitted after project approval and prior to construction, and will be subject to LADPW review and approval.

4. *Show the following on the reclamation plan:*

   Compaction requirements for fill slope materials placed within the North Fines Storage Area.

   Compaction requirements for materials placed in the North Fines Storage Area have been added to Figure 3-5 in the Mining and Reclamation Plan and will be shown on final design drawings submitted to the Department of Public Works prior to construction.

5. *Requirements of the Geology Section are attached and must be complied with.*

   Requirements of the Geology Section are addressed in this submittal.

6. *Include a copy of this review sheet with your response.*

Copies of the County's three letters of comment are included herein.

That concludes our written response to your agency's Mining and Reclamation Plan comments. It would be our pleasure to meet with you and/or your staff to discuss these items in more detail or resolve any remaining issues. Please call John Hecht of West Coast Environmental, (805) 644-7976, or me at Chambers Group, Inc., (714) 261-5414 if you would like to discuss this information. Otherwise, we will follow up with you in about a week.

Sincerely,

CHAMBERS GROUP, INC.

Thomas C. Ryan
Senior Program Manager

TCR/tss784

Attachments:

Letters and Memoranda

1. Memorandum to Phil Doudar from Sree Kumar, Los Angeles County Department of Public Works, Building and Safety/Land Development Division, dated /8/17/96.
2. Geologic Review Sheet, Los Angeles County Department of Public Works, Materials Engineering Division, by Charles Nestle, dated 8/20/96.
3. Geotechnical Engineering Review Sheet, Los Angeles County Department of Public Works, Materials Engineering Division, by Mark A Steuer, dated 7/23/96.

Geology Reports:

1. Report of Geologic Conditions and Cut Slope Stability Analysis for a Proposed Aggregate Facility of 460+ Acres in Soledad Canyon, Los Angeles County, CA., November 8, 1991, STE Associates, Inc.
2. Clarification of Fault Activity on the Soledad Canyon Fault and the Agua Dulce Fault, Soledad Canyon Site, Los Angeles County, CA, December 11, 1992, Hilltop Geotechnical, Inc.

3. Clarification Regarding Geotechnical Reports, Proposed Aggregate Facility, Soledad Canyon, CA., May 4, 1993, Hilltop Geotechnical, Inc.
4. Preliminary Cut Bench Stability Analysis, Proposed Aggregate Facility, Soledad Canyon, CA., May 19, 1993, Hilltop Geotechnical, Inc.
5. Supplemental Slope Stability Evaluations, North Fines Storage Area, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, CA., March 23, 1995, Hilltop Geotechnical, Inc.
6. Supplemental Slope Stability Evaluations, Aggregate Mining Area Final Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, CA., July 12, 1995, Hilltop Geotechnical, Inc.
7. Additional Slope Stability Evaluations, North Fines Storage Area, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, CA., January 31, 1996, Hilltop Geotechnical, Inc.

Drainage Concept Design Report:

1. Drainage Concept for Transit Mixed Concrete Company Soledad Canyon Project, Los Angeles County, California, June 1993, C.A. Rasmussen Company.

Project Plans and Revised Figures:

1. One set of blueprints, "Grading Plans and Facility Layouts", Transit Mixed Concrete Company, Soledad Canyon Project, Environmental Solutions, Inc., 23 sheets plus title sheet, April 1991, including revisions through April 1994.

2. Revised Figures 2-1 and 3-5 from the Mining and Reclamation Plan.

cc: Brian Mastin, Transit Mixed Concrete Company, Inc.
John Hecht, West Coast Environmental
Mark Hulett, Hilltop Geotechnical, Inc.

July 17, 1996

TO: Phil Doudar
Building and Safety/Land Development Division

Attention Steve Dunn

FROM: Sree Kumar
Hydraulic/Water Conservation Division

TRANSIT MIXED CONCRETE
SURFACE MINING AND RECLAMATION PLAN, SOLEDAD CANYON

We have reviewed the package submitted for the surface mining and reclamation proposed by Transit Mixed Concrete Company and have the following general comments:

1. Provide calculations showing the amount of sediment production rates and volumes from the watershed tributary to each disilting basin.

2. Provide analysis that identifies sediment transport impacts if any, to the properties, facilities, and streams downstream from the proposed project and below the disilting basins resulting from the reduction and entrapment of sediment.

3. Provide energy dissipation and scour protection, downstream of desilting basins and proposed culverts.

If you have any questions, please call Maria at extension 6153.

MIL:mil
MISC\TMC.WPD

cc: H/WC (3) (Kumar, Lillibridge, Files)

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 2
To JOHN	From RON LACAYO
Co.	Co.
Dept.	Phone # (818) 458-4943
Fax # (805) 644-5929	Fax # (818) 458-4949

Sheet 1 of 1

STATUS CHECKS (818) 458-4925
8-9 am & 3-4 pm Mon.-Thur.

Los Angeles County Department of Public Works
MATERIALS ENGINEERING DIVISION
GEOLOGIC REVIEW SHEET
900 S. Fremont Ave., Alhambra, CA 91803

Dist. Office 8.2
F X NF
Disaster
(Fees Waived $)
Job No. LXW91165
Hrs.

Thomas Guide
Tract/PM
Lot(s)
Parent Tract
Location Soledad
Site Address
Geologist STE Associates, Inc.
Developer/Owner Transit Mixed Concrete Co.
Geotechnical Engineer same
Engineer/Arch. Southdown, Inc.

DISTRIBUTION
Dist. Office
Geologist
Geotech. Eng.
1 Section File
1 Grading Sect.
1 Proc. Cntr.
Supervisor

Review of: Mining and Reclamation Plan — Soledad Canyon Sand and Gravel Mining Project (excludes evaluation of operations for mining, or facilities/structures)

Action: Plan is not approved for reasons below.

Remarks/Conditions:

The basis of, and contingency of this review is that after implementation of the reclamation plan, the area will be designated as open space, i.e., not for any type of development:

Please provide the geologic reports referenced in the Reclamation Plan documents and used as basis for the evaluation of proposed reclamation plan. Provide an addendum geologic report as warranted to requirements of this review.

1. Provide a reclamation plan clearly delineating property boundaries, final and existing topography, major grading, and proposed basins. Use this map as a base for the geologic map that includes all data collected.

2. Provide geologic cross sections at true scale (hor./vert.) that depict existing and proposed final grades, and geologic data and conditions.

3. Delineate existing major cut & fill areas.

4. Provide additional geologic structural data including joints, shears, and other potential planes of weakness. Provide analyses relative to slope stability/rock slide potential.

5. Per Section 22.56.1420 of the County Planning and Zoning Code, reclamation slopes must be stable and 2:1. Cut slopes to 600 ± feet at 1:1 are apparently proposed.

6. Benching and keying of "fills", and installation of subdrains in "fill" areas appears warranted; please provide comments, evaluation and design.

7. Show geologic conditions and remediation planned on cross sections for the existing major quarry slopes.

8. Provide geologic reports that are approved by State certified geologists.

9. Discuss the impact of the 75% compacted fills above the proposed desilting/debris basins. What is the anticipated contributory volume of material from these fills? Are the basins sized accordingly? No outlet structures or pipes are depicted on the plans. Are any proposed? Who will ultimately be responsible for maintenance of these basins, or how will potential debris flow hazard of sediments be prevented?

10. The Geotechnical Engineering Unit's review dated 7/23/96 is attached.

Charles Nestle

Prepared by _____ Reviewed by _____ Date 8/20/96

NOTICE: Public safety, relative to geotechnical subsurface exploration, shall be provided in accordance with current codes for excavations, inclusive of the Los Angeles County Code, Chapter 11.48, and the State of California, Title 8, Construction Safety Orders.

48-0062
1-25-98
F-R3.FORM.6

TOTAL P.02

GEOTECHNICAL ENGINEERING REVIEW SHEET
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

MATERIALS ENGINEERING DIVISION

Address: 900 S. Fremont Ave.
Alhambra, CA 91803
Telephone: (818) 458-4925
Calling hours - Monday through Thursday 8-9 a.m. & 3-4 p.m.

District Office 8.2
Job No. LXW91165
Sheet 1 of 1

Reclamation Plan

Location Soledad Canyon Road, Soledad
Developer/Owner Transit Mixed Concrete Co.
Engineer Southdown, Inc.
Geotechnical Engineer Soil and Testing Engineers, Inc
Geologist Same as above

Project No. 91165

Review of:

Geotechnical Report Dated April 1996 Geologic Report Dated April 1996

ACTION:

Plans are not approved; the following information is required:

REMARKS:

1. The Geotechnical Engineer must sign, stamp and indicate the date of registration expiration on the soils report and all addenda. Original manual signature and wet stamp are required.

2. Provide geotechnical addenda dated 1/31/96, 7/12/95, and 3/23/95 by Hilltop Geotechnical, Inc. regarding slope stability analysis.

3. Provide static and seismic slope stability analysis for all proposed debris basin slopes steeper than 3:1 gradient. Analysis should consider a "rapid drawdown" condition. Also, provide a geotechnical cross section showing the critical failure plane used in analysis. Indicate the various shear strength parameters used in the analysis in the appropriate segments of the failure plane. Show location of the cross sections used in slope stability analysis on the geotechnical map. Recommend mitigation if factors of safety are below County minimum standard.

4. Show the following on the reclamation plan:

   Compaction requirements for fill slope materials placed within the North Fines Storage Area.

5. Requirements of the Geology Section are attached and must be complied with.

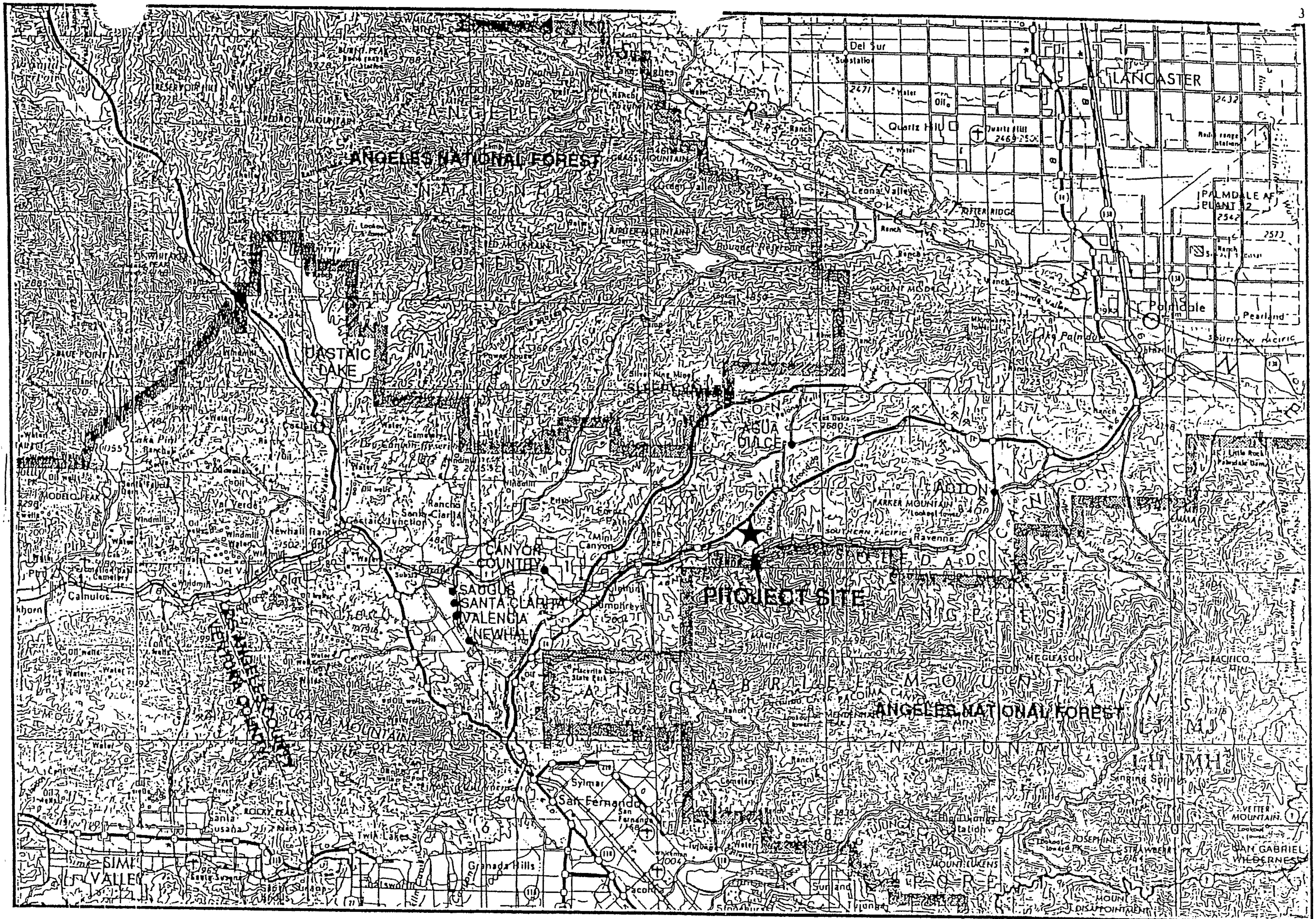
6. Include a copy of this review sheet with your response.

FGD
Prepared by Mark A. Steuer Date 7/23/96

NOTICE: Public safety, relative to geotechnical subsurface exploration, shall be provided in accordance with current codes for excavations, inclusive of the Los Angeles County Code, Chapter 11.48, and the State of California, Title 8, Construction Safety Orders.

TOTAL P.03

FIGURES



MILES

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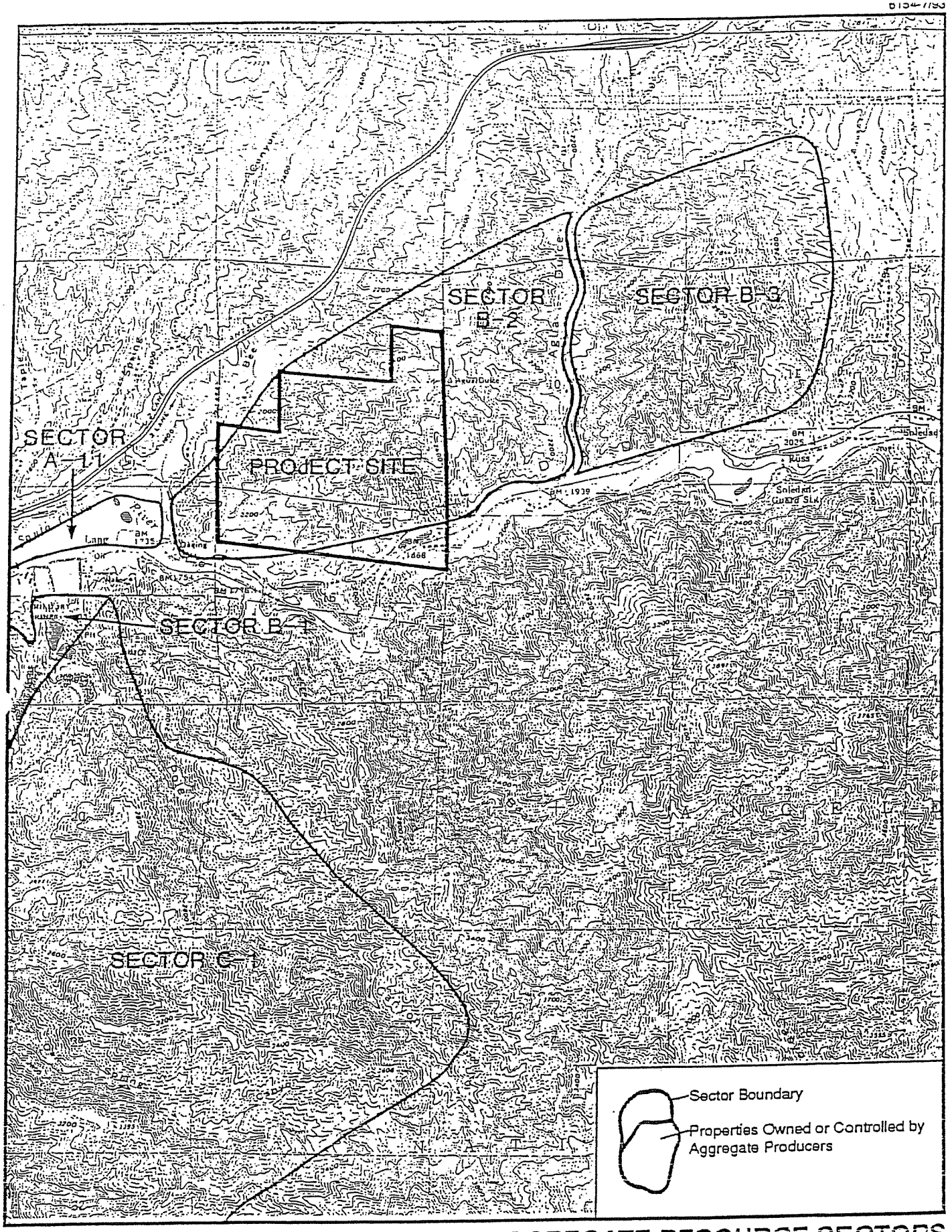
Source: USGS 1:250,000 series, Los Ar s, CA

REGIONAL LOCATION

Figure 1-1



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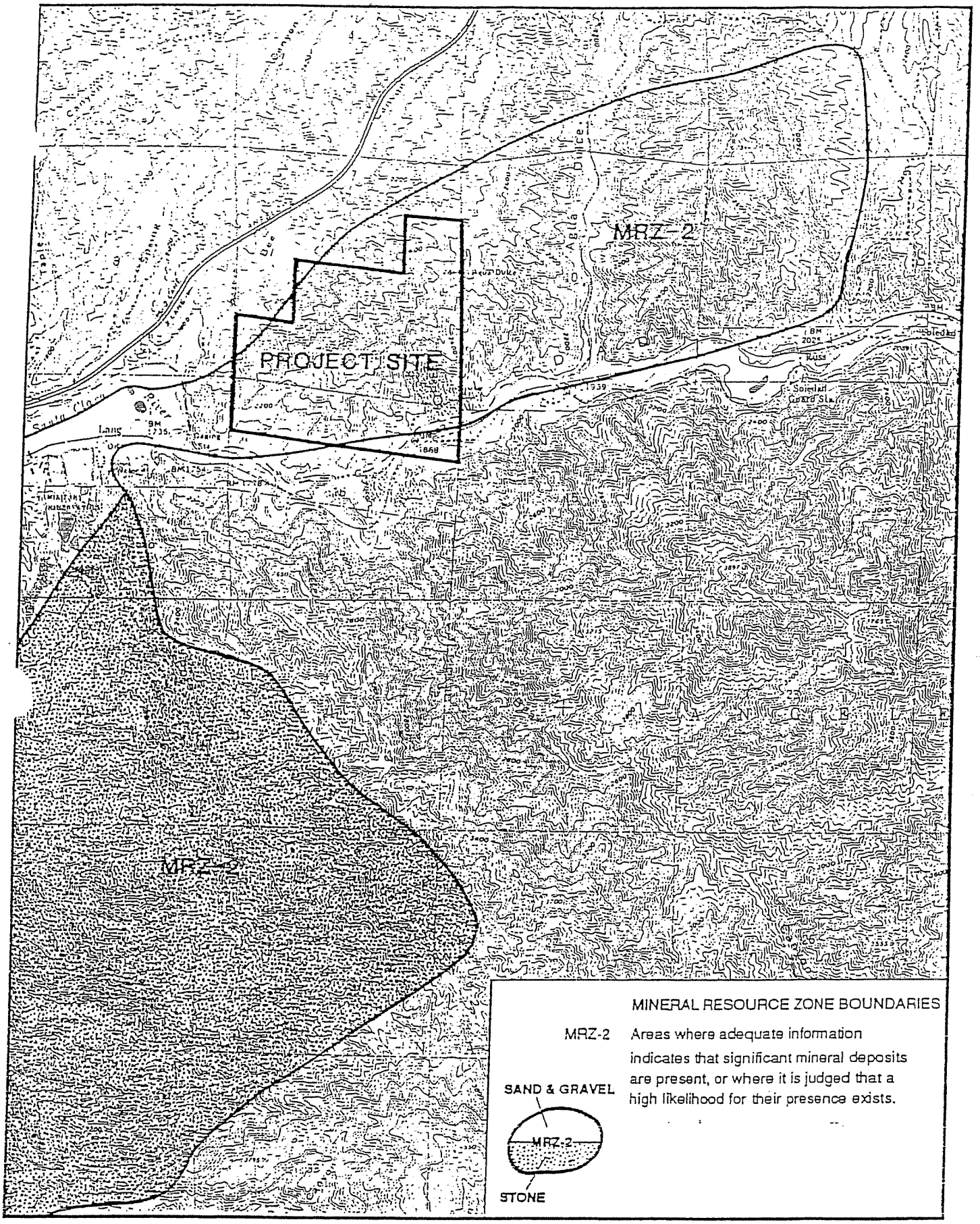
Source: CDMG, 1987a

AGGREGATE RESOURCE SECTORS

Figure 1-2



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FEET

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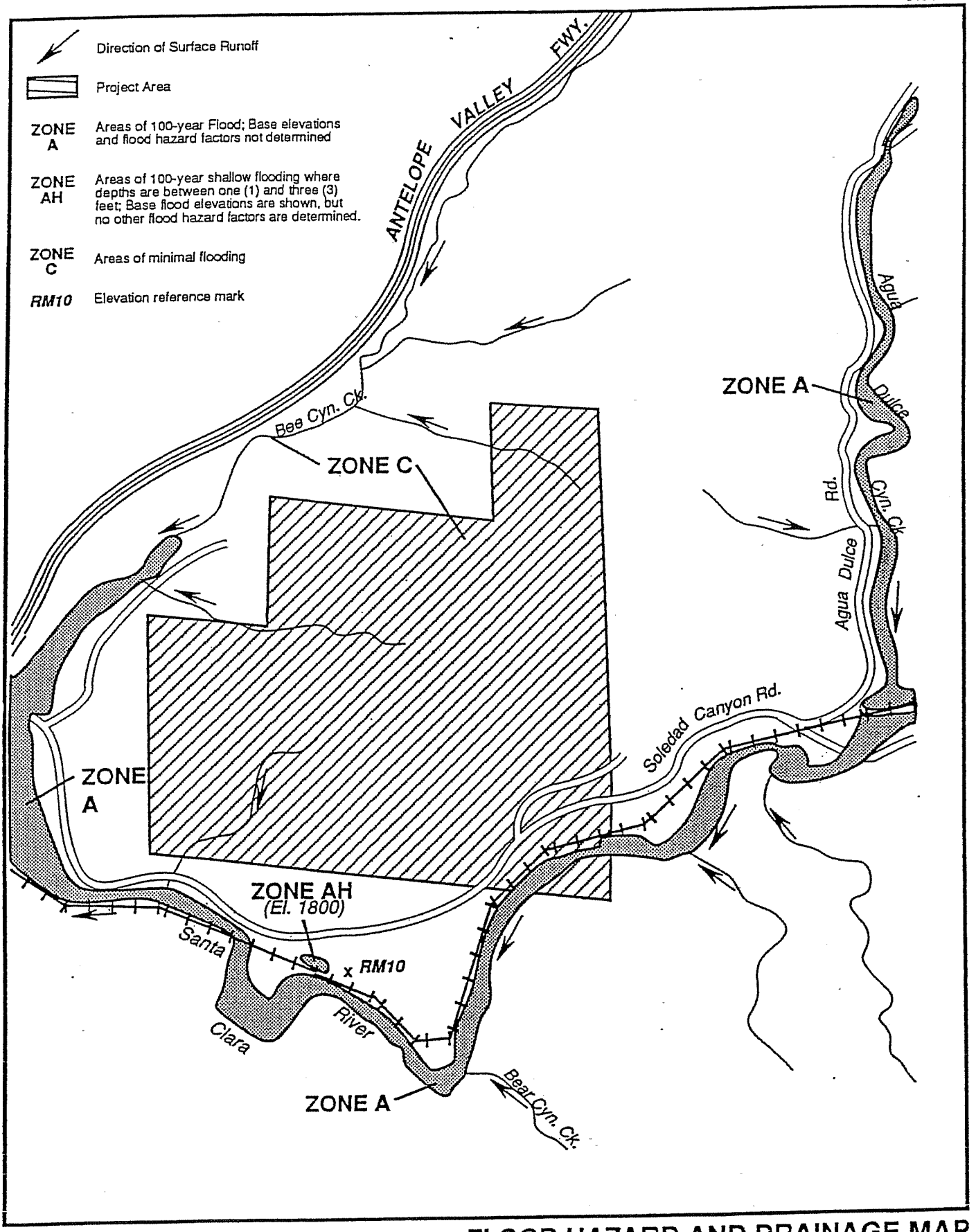
SOURCE: California Department of Conservation, Division of Mines and Geology, 1987 (b).

MINERAL LAND CLASSIFICATION MAP

Figure 1-3



FLOOD HAZARD AND DRAINAGE MAP

Figure 1-5

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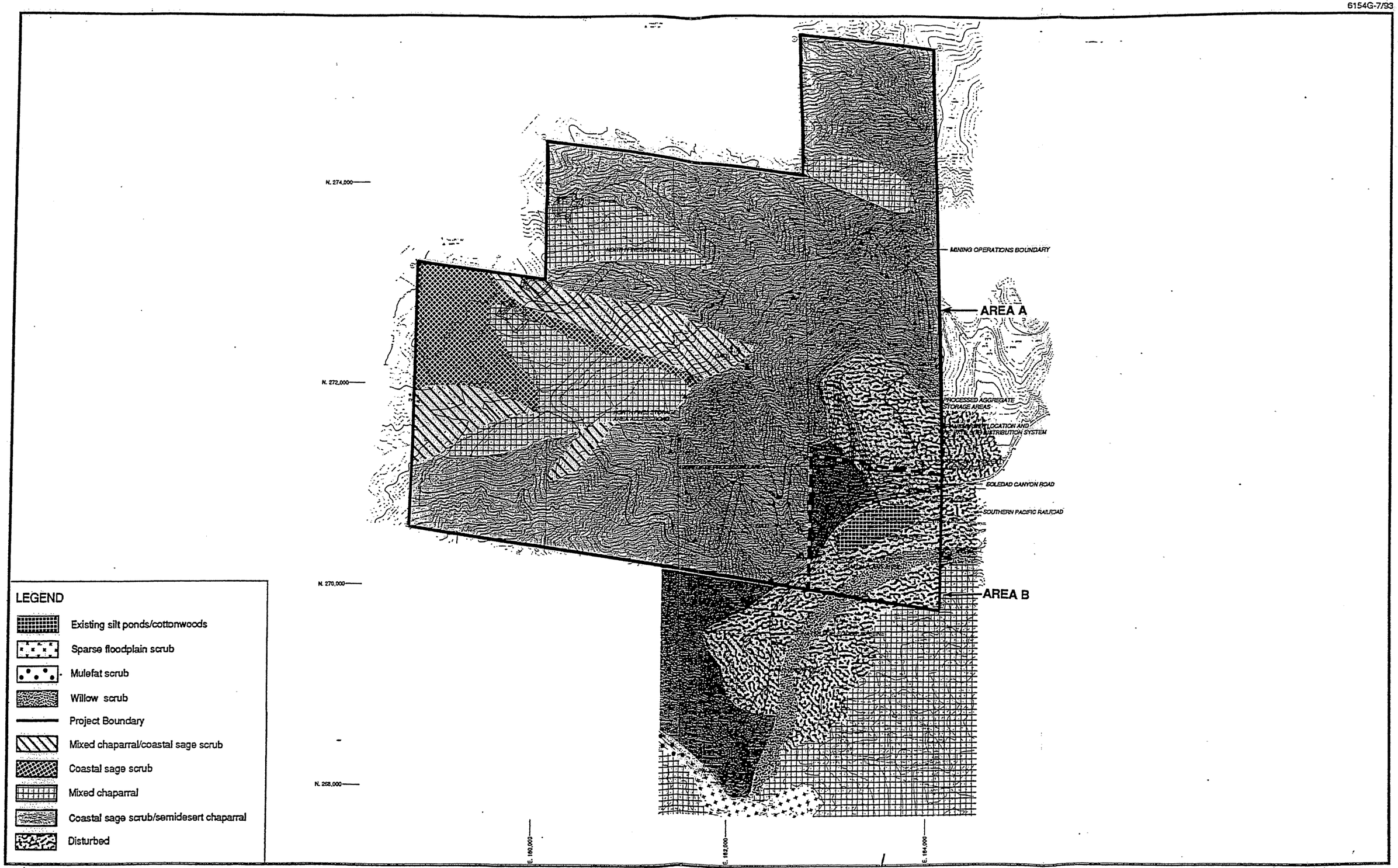
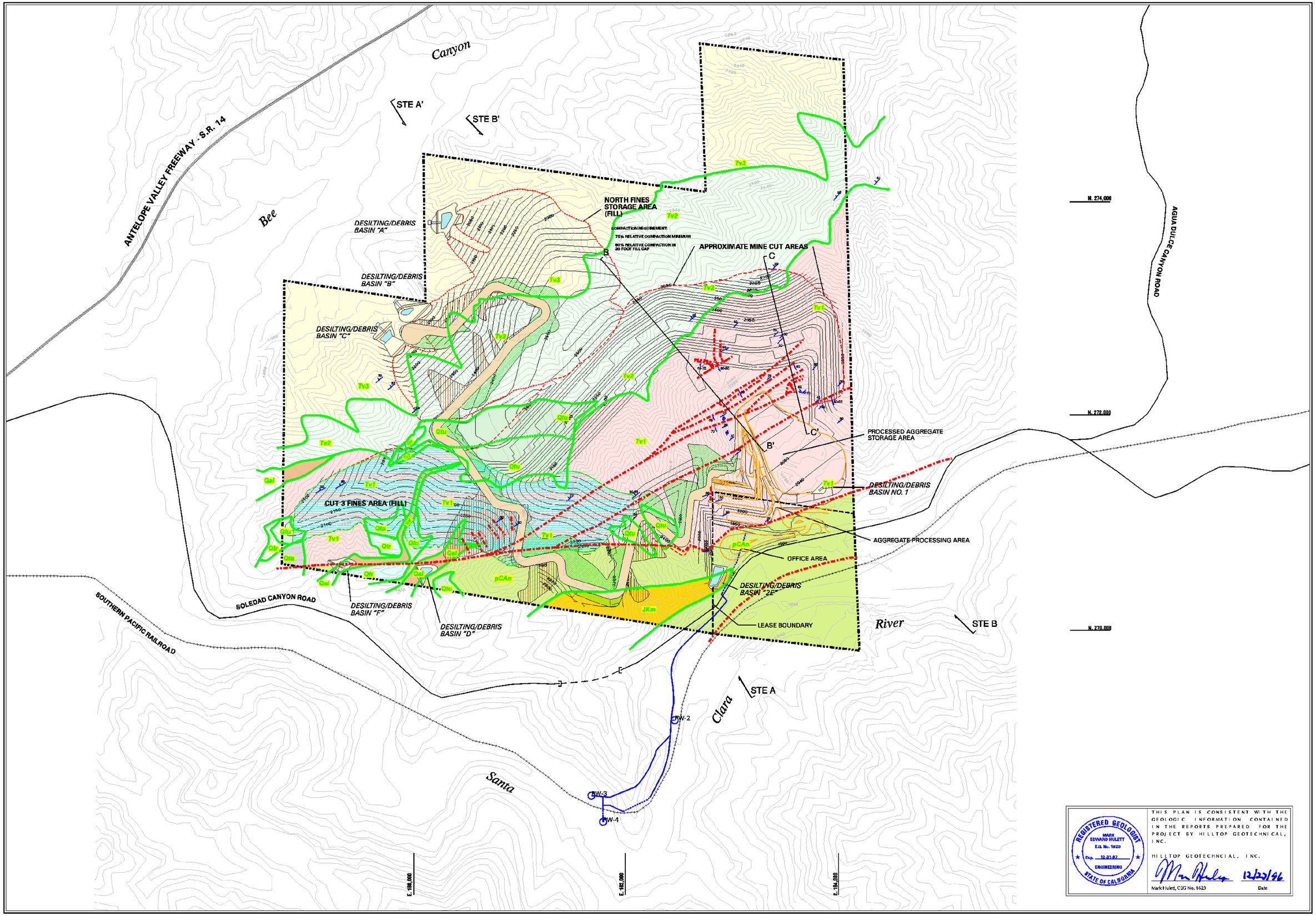
Source: Federal Emergency Management Agency (FEMA)
Flood Insurance Rate Map No. 065043-0370B. 1980



Source: Environmental Solutions, 1992
File No. D-90450-CP002

VEGETATION MAP
Figure 1-6



Explanation

- NFSA Road
- NFSA Road - Cut
- NFSA Road - Fill
- Cut 3 Fines Storage (Fill)
- Proposed Contour Lines
- Existing Contour Lines
- Freeway
- Railroad
- Primary Road
- Project Boundary
- Lease Boundary
- Aggregate Processing Area
- Water Pipe - Above Ground
- Water Pipe - Underground
- Water Supply Well
- Soil Type Boundary
- Soil Type Boundary (Subterranean)
- Fault Line
- Bedding Plane Attitude
- Joint Attitude
- Vertical Joint
- Approximate Fault Dip
- Approximate Mine Cut Areas (Cut)
- Approximate North Fines Storage Area (Fill)

B - B' Cross Section

JKm	*Muscovite monzonite*
pCAn	*Anorthosite*
Qal	*Alluvium*
Qta	*Alluvial terrace*
Qtr	*River terrace*
Qtu	*Undifferent-iated terrace*
Tv1	*Lower unit, Vasquez Conglomerate*
Tv2	*Middle unit, Vasquez Conglomerate*
Tv3	*Upper unit, Vasquez Conglomerate*

FOR PERMITTING ONLY

NOT FOR CONSTRUCTION

DEBRIS BASINS AND NFSA ROAD TO BE REMOVED CONSISTENT WITH FINAL RECLAMATION

REGISTERED GEOLOGIST
MARK EDWARD HULETT
E.G. No. 1623
Exp. 12-31-97
ENGINEERING
STATE OF CALIFORNIA

THIS PLAN IS CONSISTENT WITH THE GEOLOGIC INFORMATION CONTAINED IN THE REPORTS PREPARED FOR THE PROJECT BY HILLTOP GEOTECHNICAL, INC.

HILLTOP GEOTECHNCIAL, INC.

Mark Hulett, CEG No. 1623 — Date 12/23/96

Soledad Canyon
Geology Map

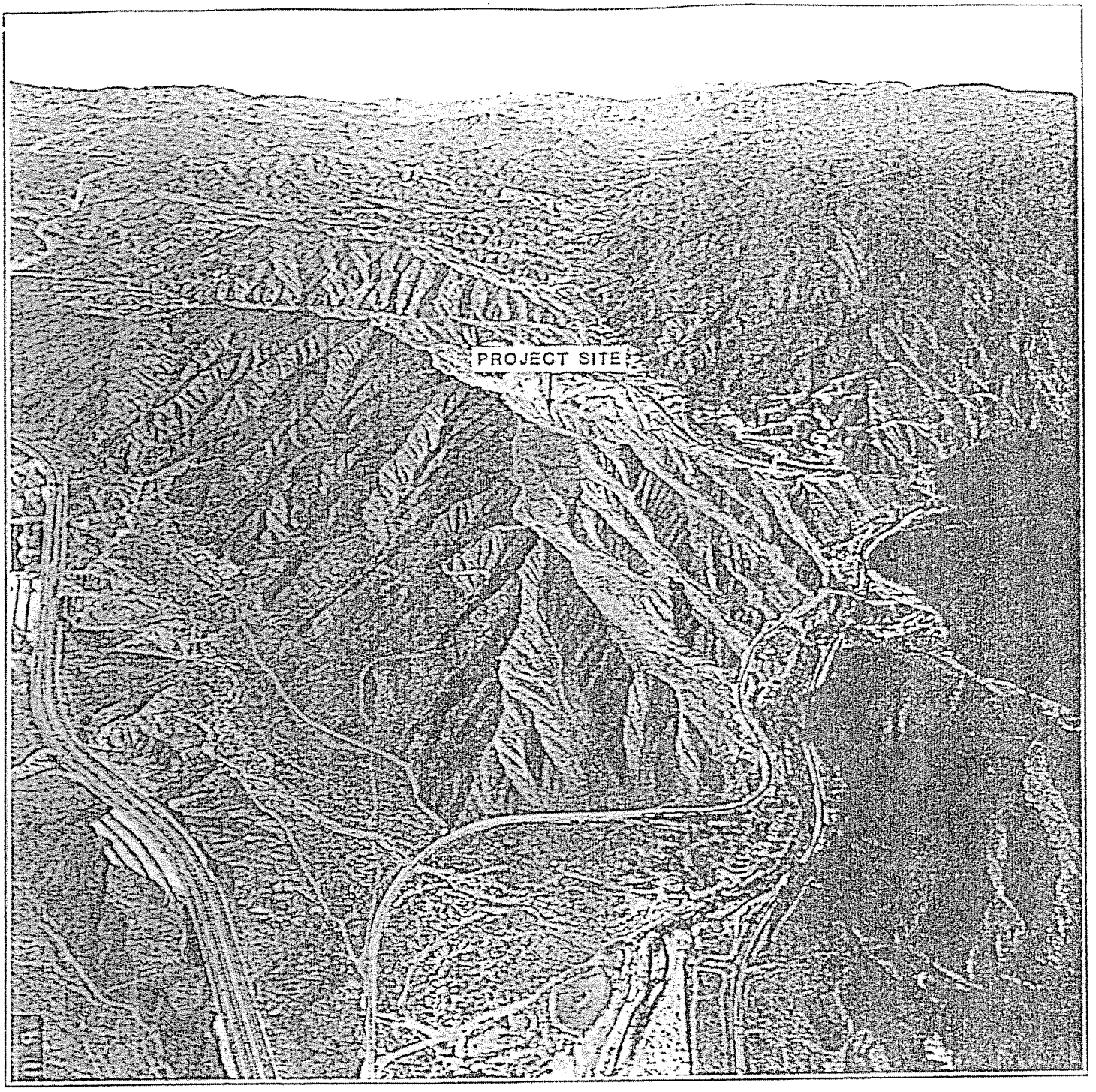
Figure 2-1

Chambers Group, Inc.

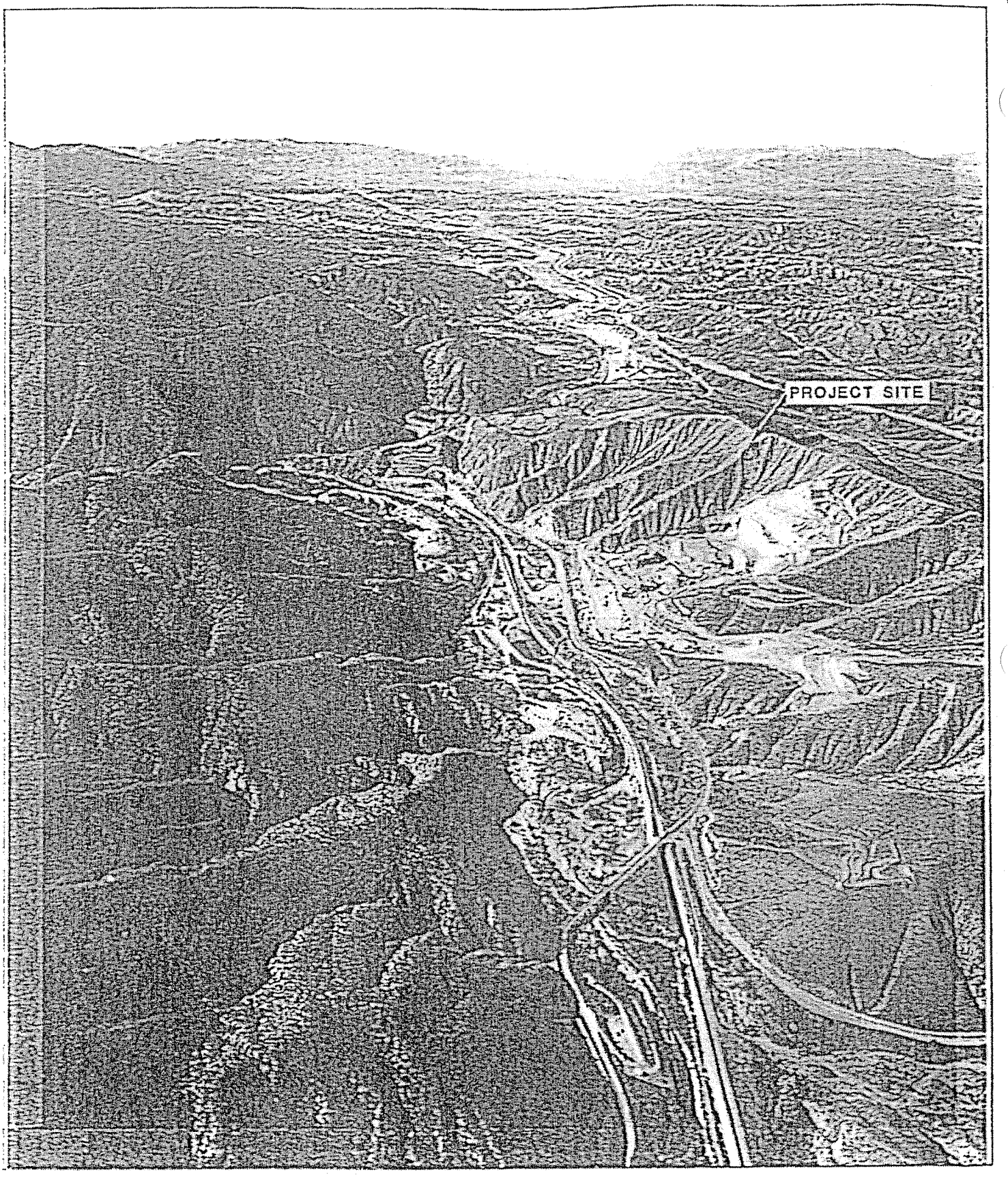
Project# 8200 D

MAP SCALE 1" = 400'

October 14, 2008 -z:
proj
gis



AERIAL VIEW OF PROJECT SITE LOOKING EAST
Figure 3-1



AERIAL VIEW OF PROJECT SITE LOOKING WEST
Figure 3-2

TAB E

January 2004

PROPOSED
MITIGATION MONITORING AND REPORTING PROGRAM
FOR THE SOLEDAD CANYON SAND AND GRAVEL MINING PROJECT

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared in accordance with the requirements of the California Environmental Quality Act ("CEQA"), Section 15097. The adoption of a mitigation monitoring or reporting program in accordance with CEQA serves to ensure that the mitigation measures identified in the Final Environmental Impact Report for the CEMEX Soledad Canyon Sand and Gravel Mining Project are implemented. This document lists each mitigation measure, describes the methods and timing for implementation of each measure, and identifies those agencies/parties that will be responsible for verifying compliance with each measure.

PROPOSED MITIGATION MONITORING AND REPORTING PROGRAM
SOLEDAD CANYON SAND AND GRAVEL MINING PROJECT

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
Geotechnical					
G1. [1]	No longer applicable due to elimination of the NFSA with implementation of Mitigation Measure VQ5, Mitigated Mining Cuts.				
G2.	Fill slope stability in the Cut 1 fill area will be obtained by constructing 2:1 (horizontal to vertical) slopes and by achieving 75 percent relative compaction. Benches will be constructed at 35-foot-wide and 90-foot vertical intervals. To mitigate the potential for surficial instability, the outer 10 feet of the proposed fill slopes will be constructed with a soil material having minimum strength characteristics of cohesion equal to 175 psf and angle of internal friction equal to 35 degrees or some other alternative soil strength combination that will result in the minimum factor of safety of 1.5.	During mining and slope construction in the Cut 1 fill area.	County of Los Angeles Department of Public Works.	Site Plan review by DPW. Periodic testing of fill materials to verify strength parameters of fill soil and relative compaction by CEMEX and reported to Agency.	At regular intervals throughout Project lifetime after Cut 1 filling begins.
G3.	Ultimately, the former gravel pit high walls will be altered to a 1.15:1 (horizontal to vertical) slope using 15-foot-wide benches at 100-foot vertical intervals. The bottom of the pit walls on the west, north, and northeast sides will be buttressed with fill to provide a buffer zone and increase slope stability.	During mining and slope construction in the former gravel pit.	County of Los Angeles Department of Public Works.	Site Plan review by DPW and periodic testing of fill materials to verify strength parameters of fill soil and relative compaction by CEMEX and reported to Agency.	At regular intervals throughout Project lifetime.
G4.	To achieve suitable factors of safety for cut slopes, the following mitigation is presented. For the cut slopes at the northeast portion of the mining area, overall inclinations of the slopes will be flattened from 1.15:1 to 1.25:1. For the cut slopes at the far northeast portion of the mining area, the overall inclinations of the slopes will be flattened from 1.15:1 to 1.30:1.	During mining and slope construction at the northeast portion of the mining area.	County of Los Angeles Department of Public Works.	A California-registered engineering geologist shall periodically monitor the cut slope process.	At regular intervals throughout Project lifetime.
G5.	Interim mining cuts will be constructed using 35-foot-wide benches over 35-foot elevational changes during the removal of the native material while controlling surface runoff and erosion.	During mining, but prior to slope contouring.	County of Los Angeles Department of Public Works.	A California-registered engineering geologist shall periodically monitor the process.	At regular intervals throughout Project lifetime.

[1] See CEQA Findings, Section 2.1.3.A.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
G6.	The mining activity will be regularly monitored throughout the life of the RNFSA Project by a California registered civil engineer or engineering geologist, and periodic testing of the fill materials will be performed to verify strength parameters of the fill soil and relative compaction. The mine operator will maintain all records of correspondence, reports, and designs provided by the registered professional.	During all mining activity.	County of Los Angeles Department of Public Works.	The following monitoring actions shall be performed under the direction of a California-registered civil engineer or engineering geologist: Periodic testing of fill materials to verify strength parameters of fill soil and relative compaction Verification of compliance with Mitigation Measures G1, G2, G3, G4, G5, and G7	At regular intervals throughout Project lifetime.
G7.	Proposed mining and reclamation specifications and procedures will be in accordance with the County of Los Angeles Planning and Zoning Code, Title 22, Part 9, Chapter 22.56 surface mining permits.	Project startup and during mining.	County of Los Angeles Department of Public Works.	Site Plan and Reclamation Plan review by DPW and approval and periodic testing of fill materials to verify strength parameters of fill soil and relative compaction by California-registered civil engineer or engineering geologist and reported to Agency.	Site Plan and Reclamation Plan review and approval are a condition of approval prior to construction. Periodic testing shall be carried out at regular intervals throughout Project lifetime.
Water Resources					
WR1.	CEMEX will conduct a monitoring program for water resources and sensitive ecological habitats in the immediate vicinity of the RNFSA Project. The Habitat Protection Plan has been prepared in cooperation with the BLM and the USFWS who have responsibility for Plan compliance, review and adjustments over the life of the RNFSA Project. The Plan includes the following components: a) Four existing monitoring wells, as shown on Figure 3.1.2-5 of the DEIR, will be maintained to monitor water levels of the Santa Clara River underflow during the life of the RNFSA Project. b) Surface flows of the Santa Clara River will be monitored during the life of the RNFSA Project at a location(s) to be determined in conjunction with Responsible Agencies prior to the start of mining. c) The riparian and aquatic habitat in the immediate vicinity of the site will be monitored as detailed in the	Throughout the life of the Project.	State Water Resources Control Board (SWRCB) and US Fish and Wildlife Service (USFWS).	Habitat Protection Plan review and approval by agencies. Annual report by CEMEX. Periodic site visits and review of annual report by Agencies.	Condition of Approval throughout Project lifetime.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	habitat protection plan presented in Appendix F6 of the DEIR. d) The Habitat Protection Plan contains action levels that will trigger adjustments to mining operations to reduce RNFSA Project water consumption to avoid significant degradation of the ecologically sensitive habitats attributable to the RNFSA Project. Operational adjustments will include one or more of the following: ➢ seasonal sand and gravel production adjustments through stockpiling materials, ➢ seasonal management of concrete production, ➢ stockpiling fines temporarily to eliminate water used in the compaction process, ➢ increased use of dust palliatives for dust control, ➢ temporary reduction or cessation of pumping of river underflows, and ➢ cessation of mining operations, if necessary.				
WR2.	The feasibility of importing commercially available water as a supplemental source of water for operations during dry periods will be investigated periodically during the course of the RNFSA Project. Any such water identified shall have appropriate water quality characteristics consistent with the Regional Water Quality Control Board Basin Plan Water Quality objectives. Any such feasible sources shall be discussed with the County Department of Regional Planning to determine how such source(s) shall be delivered to the site.	Prior to anticipated dry periods.	County of Los Angeles Department of Regional Planning.	Report submittal by CEMEX.	Prior to importation of water.
Flood					
F1.[2]	The RNFSA Project will include construction of four desilting/debris basins according to the specifications of the Drainage Concept Plan to control surface runoff and sedimentation. During final design, the Applicant shall submit detailed plans for the debris basins including a static and seismic slope study that analyzes all proposed debris basin slopes greater than 3:1 gradient. Plans shall be approved by the Department of Public Works (DPW) prior to the commencement of grading work on the RNFSA Project.	Before project work or mining commences in the catchment area above each watercourse.	County of Los Angeles Department of Public Works.	Plans shall be approved by the DPW prior to the commencement of grading work on the project.	Prior to grading and construction.
F2.	A 45-inch culvert will be installed under Soledad Canyon Road to accommodate existing runoff conditions as well as conditions for the RNFSA Project. Construction of desilting/debris Basin 2E and the addition of the 45-inch-	During preproduction phase of Project.	County of Los Angeles Department of Public Works.	Design review and approval of culverts and debris/basins by DPW.	Prior to initiation of construction.

[2] Revised from November 2001 Mitigation Monitoring and Reporting Program due to elimination of the NFSA. See CEQA Findings Section 2.3.3.A.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	diameter culvert under Soledad Canyon Road are RNFSA Project design features that result in beneficial impacts by correcting inadequate existing conditions.				
F3.	Proper maintenance and cleaning of erosion control facilities and desilting/debris basins will be conducted as part of the RNFSA Project operations. Inspection frequencies and maintenance procedures are required by the Stormwater Pollution Prevention Plan (SWPPP) (see Appendix B1 of the DEIR). These procedures are detailed in the Storm Water Management Practices section of that plan. In addition, the requirement that the stormwater desilting/debris basins will be inspected after every storm event and every 24 hours during prolonged storm events will be conducted and will be added to the SWPPP. Prevention of spills of hazardous materials, such as petroleum fuels and products, is addressed in the Spill Prevention Control and Countermeasures Plan (SPCCP) (see Appendix B2 of the DEIR).	During mining through life of Project.	County of Los Angeles Department of Public Works.	Monthly inspection of stormwater and erosion control facilities for compliance with SWPPP, by CEMEX and reported to DPW. Inspections of stormwater desilting/debris basins after every storm event and every 24 hours during prolonged storm events for compliance with SWPPP by CEMEX and reported to Agency.	Monthly, throughout Project lifetime. After every storm event and every 24 hours during prolonged storm events throughout Project lifetime.
Water Quality					
WQ1.	The proposed Drainage Concept Plan will be implemented by CEMEX. The drainage concept establishes a drainage plan and facility requirements for the RNFSA Project and provides the design parameters for the location, sizing, and scheduling of the erosion control facilities to handle the runoff, sedimentation, and debris flows generated by the RNFSA Project. The plan addresses drainage during the pre-mining road construction and grading phase, during the mining operation, and after completion of mining.	Plan approval prior to site activity. Plan implementation during preproduction phase, during mining, and during reclamation.	County of Los Angeles Department of Public Works - Hydraulic/Water Conservation Division.	Desilting/debris basin design review and approval by DPW.	Approval prior to construction, with plan implementation throughout Project lifetime.
WQ2.	CEMEX will implement provisions of the SWPPP. The SWPPP (1) identifies potential sources of pollutants that will adversely affect stormwater discharges from the site and (2) describes in detail specific best management practices to reduce the levels of pollutants in stormwater discharges. Key elements of the SWPPP include a preventive maintenance program for vehicles and the stormwater conveyance systems, a system of good housekeeping measures to control contamination of runoff, and a system of desilting/debris basins designed for settling out excess suspended sediments in the site runoff, thus controlling downstream sedimentation.	Plan approval prior to site activity. Plan implementation during life of Project.	County of Los Angeles Department of Public Works. CRWQCB - Los Angeles Region.	SWPPP review and comment by DPW. Monthly inspection of stormwater facilities for compliance with SWPPP by CEMEX and reported to DPW.	Approval prior to construction, with plan implementation throughout Project lifetime.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
WQ3.	CEMEX will implement provisions of the SPCCP. Use of secondarily contained aboveground storage tanks (ASTs) to hold dust palliative, diesel fuel, waste oil, fresh motor oil, and hydraulic fluid onsite will minimize exposure of these products to surface water and groundwater. The risk of undetected leaks is much smaller with ASTs than with underground storage tanks (USTs). Additionally, the SPCCP identifies procedures and controls that will be implemented over the life of the RNFSA Project to prevent and minimize the release of chemicals into the area's surface waters. The SPCCP's main focus is storage of diesel, hydraulic oil, motor oil, and waste oil in all ASTs having capacities of greater than 55 gallons (no USTs are planned for the facility). However, areas of the site designated for storage of smaller volumes of potentially hazardous materials (e.g., solvents and cleaners) are also covered in the SPCCP. General compliance requirements relating to facility operations that are addressed in the SPCCP include spill response, leaks and malfunctions, rainwater accumulation, inspection, changes, training, and recordkeeping.	Plan approval prior to site activity. Plan implementation during life of Project.	County of Los Angeles Department of Public Works. CRWQCB - Los Angeles Region.	SPCCP review and comment by DPW. Annual inspection of ASTs and spill containment facilities for compliance with SPCCP by CEMEX and reported to DPW.	Approval prior to construction, with plan implementation throughout Project lifetime.
WQ4.[3]	CEMEX will install a septic tank onsite that is designed for routine pump out.	During preproduction phase of Project.	County of Los Angeles Department of Health Services.	Site visit, review and approval by DHS.	At completion of tank installation, but prior to use.
WQ5.	Desilting/debris basins will not be removed until disturbed areas have been successfully revegetated.	During mining and following mine closure.	County of Los Angeles Department of Public Works.	Site visit and review following each reclamation phase/ prior to removal of associated sediment retention basin.	Prior to removal of sediment retention basins.
WQ6.	The use of chloride-based dust palliatives on-site will be prohibited as long as the Santa Clara River is listed as impaired for chlorides on the California 303(d) List, unless specifically agreed to by the Los Angeles County Sanitation District and the Regional Water Quality Control Board.	Prior to use of dust suppressants containing chloride.	CRWQCB - Los Angeles Region. County of Los Angeles Sanitation District.	Plan review and approval by Sanitation District.	Prior to use of dust suppressants containing chloride.

[3] Revised from AEDEIR in response to comments. See Revised FEIR Reponses to comments, p. 4-16 to 17.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
Noise					
N1.	The Applicant will conduct blasting operations in general conformance with the federal OSMRE regulations as stated in 30 CFR, Chapter VII, Sections 816.61 through 816.68 and other applicable regulations. Conformance shall be demonstrated through preparation of a detailed Blasting Plan identifying RNFSA Project compliance with the stated requirements (as minimum standards) and through monitoring of blasting activities. The Blasting Plan shall be reviewed and approved by the County prior to conducting any blasting onsite. The Blasting Plan shall provide for the following: a) Submission to and approval by the County of the specific blast design prior to blasting, where such blasting will occur within 1,000 feet of habitable buildings outside the permit area. b) Conducting a public awareness program, including notification of all residents within ½ mile of any part of the permit area of the opportunity to request a pre-blast survey. The notification is to be done at least 30 days prior to initiation of blasting. A CEMEX information officer who can be contacted by telephone for information will be designated. c) Publication of the anticipated blasting schedule at least 10 days prior to the beginning of the blasting program via a newspaper of general circulation in the RNFSA Project area and by direct mail to residents within ½ mile, and republication at least every 12 months or whenever substantive changes to the schedule are to be implemented. d) Placement of warning signs and access controls to blast areas. e) Incorporation of the provision that blasting shall be conducted to prevent injury to persons, damage to public or private property outside the permit area, adverse impacts on any underground mine, and change in course, channel, or availability of surface or groundwater outside of the permit area. f) Conducting blasting so that the maximum air overpressure shall not exceed 133 dB (2-Hz minimum) measured directly between the nearest occupied residence and the blast site (ref. U.S. Bureau of Mines Report of Investigations 8485 (1980) "Structure	Plan approval during preproduction phase of Project. Plan implementation during mining.	County of Los Angeles Department of Public Works. Office of Surface Mining Reclamation and Enforcement (OSMRE). Mine Safety and Health Administration (MSHA).	The Blasting Plan is subject to review and approval by the DPW, OSMRE, and MSHA. Specific blast designs are subject to DPW approval.	Prior to blasting operations.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	Response and Damage Produced by Airblast from Surface Mining").				
	g) Conducting blasting so that the peak particle velocity generated from any blast shall not exceed 0.5 in/sec for vibration frequencies below 40 Hz, and 2.0 in/sec for vibration frequencies of 40 Hz or more, measured directly between the nearest occupied residence and the blast site (U.S. Bureau of Mines 1980b). Other methods of determining acceptable particle vibration such as the use of scaled-distance equations shall be allowed subject to approval by the County.				
	h) Conducting periodic monitoring offsite to ensure compliance with airblast and vibration standards and providing a seismograph record of each blast. Monitoring shall be conducted at a representative residential receptor and at a representative location adjacent to the Santa Clara River riparian habitat.				
	i) Controlling flyrock at the blast site in accordance with OSMRE regulations. That is, flyrock traveling in the air or along the ground shall not be cast from the blasting site.				
	j) Maintain records as specified by the County of all blasts for a minimum 3-year period.				
	k) Identification of conditions when blasting will be curtailed, including atmospheric conditions that are conducive to transmission and amplification of noise offsite, and/or conditions conducive to the transport of high levels of fugitive dust emissions offsite. The Blasting Plan will identify such conditions where blasting is to be curtailed by the Applicant. The program shall also specify the candidate control measures specifically aimed at reducing blasting fugitive emissions.				
	l) Identification of other parameters affecting blasting such as the regulatory requirement that blasting be conducted during daylight hours. Blasting shall be prohibited on Sundays and specified holidays.				
	m) Implementing specific measures to prevent nitrate contamination of surface and groundwater due to use of ammonium nitrate/fuel oil ("ANFO").				

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
N2.	Depending on the proposed lot configurations of the proposed Bee Canyon project, homes located west of the westernmost boundary of the RNFSA Project may be subject to significant noise during Mining Cut 1 operations. If the Bee Canyon project is constructed, the noise impact from mining will be reduced to less than significant by constructing berms or cut slopes to shield lots from direct noise exposure as confirmed through acoustic evaluation (based on final grading contours of the Bee Canyon project). It is anticipated that these measures would be applicable only if the Bee Canyon project were actually constructed.	Prior to implementation of Cut 1 if Bee Canyon Project is constructed.	County of Los Angeles Departments of Public Works/Health.	Berm design review and approval by DHS.	Prior to implementation of Cut 1 if Bee Canyon Project is constructed.
N3.	At the River's End Trailer Park, and the proposed Bee Canyon project, if constructed, soundwalls or berms will be constructed adjacent to affected lots to mitigate offsite truck transportation noise. Prior to wall construction, a more thorough study will be conducted by qualified personnel in the fields of structural engineering, environmental noise assessment, and architectural acoustics to design for soundwall placement and consideration of overall dimension, materials used, height differential between the roadway and receptors, grade and curvature of the road next to the receptors and the position of the receptors at the bottom of the slope.	Prior to Project implementation, for the River's End Trailer Park. At the time of construction of the Bee Canyon project, if constructed.	County of Los Angeles Departments of Public Works/Health.	Berm design review and approval by DHS.	Prior to Project implementation.
N4.	The applicant will provide the residence located above Soledad Canyon Road at the intersection of Soledad Canyon Road and Aqua Dulce Canyon Road (the Easterly residence) with noise attenuation in the form of either a sound wall or the installation of noise reduction windows.	Prior to Project implementation.	County of Los Angeles Departments of Public Works/Health.	Wall design approval or window installation.	Prior to Project implementation.
Public Services					
PS1.	Fire prevention training for all employees will be conducted based on California Occupational Safety and Health Administration (Cal-OSHA) standards, and fire prevention equipment will be available onsite.	Throughout project.	Cal-OSHA. County of Los Angeles Fire Department (LACFD).	The Project site shall be subject to unscheduled visits by Cal-OSHA and/or LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during Project construction and mine operations.
PS2.	No explosives will be stored onsite.	At all times.	Cal-OSHA LACFD	The Project site shall be subject to unscheduled visits by Cal-OSHA and/or LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
PS3.	The water storage facilities onsite will be accessible to fire equipment by an all weather road capable of supporting 50,000 pounds. The road width should be a minimum of 26 feet within 25 feet of either side of the tank connection.	At all times.	LACFD	The Project site shall be subject to unscheduled visits by LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.
PS4.	The water storage tanks should have a 4 inch and 2.5 inch outlet with National Standard threads. These outlets should be no more than 6 feet from the road.	Prior to mining operations.	LACFD	LACFD review.	At completion of tank construction.
PS5.	The minimum road width shall be 26 feet throughout the mining operation and must reach to within 150 feet of all buildings and equipment. The fire department shall have access to site gates.	At all times.	LACFD	The Project site shall be subject to unscheduled visits by LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.
PS6.	Grades on gravel roads should not exceed 10 percent. If they are paved, then a 15 percent grade is acceptable.	At all times.	LACFD	The Project site shall be subject to unscheduled visits by LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.
PS7.	Turnarounds will be provided on any road that exceeds 300 feet or one every 0.25 mile to 0.5 mile. The minimum radius is 32 feet.	During mining.	LACFD	The Project site shall be subject to unscheduled visits by LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.
PS8.	A minimum 200-foot fuel break will be provided around any mining operation. Fire protection shall comply with all County code requirements.	Prior to mining operations.	LACFD	The Project site shall be subject to unscheduled visits by LACFD inspectors to ensure compliance with the fire prevention regulations.	At any given time during mine operations.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
Air Quality					
AQ1a.	Construction Exhaust Emissions. Mitigation for both heavy equipment and vehicle travel is limited. However, the following will reduce these emissions to the maximum extent feasible: a) maintain equipment in tune per manufacturer's specifications; b) use catalytic converters on gasoline-powered equipment; c) retard diesel engine timing by 4 degrees; d) install high-pressure fuel injectors; e) use reformulated, low-emission diesel fuel; f) substitute electric and gasoline-powered equipment for diesel-powered equipment where feasible; g) where applicable, do not leave equipment idling for prolonged periods; h) curtail (cease or reduce) construction during periods of high ambient pollutant concentrations (i.e., Stage II smog alerts). i) retard fuel injection timing, resulting in NOx reduction of 30 percent (>40 percent in AP-42); j) use high-pressure fuel injectors resulting in PM-10 reduction in excess of 80 percent with a reduction in hydrocarbons; and k) use low-emission fuels resulting in unquantified reductions in all emissions. Equipment built to meet EPA/CARB certified engine standards incorporates a number of combustion system improvements. Therefore mitigation measure AQ1a involving retarding diesel engine timing by 4 degrees and installing high-pressure fuel injectors would not be applicable to this equipment.	During mining.	County of Los Angeles Department of Regional Planning/BLM/ SCAQMD.	Applicant will maintain maintenance and operating logs of pertinent equipment for SCAQMD review.	At annual SMARA compliance inspection.
AQ1b.	Construction Fugitive Dust Emissions. Although dust impacts are not expected to be significant during the construction phase, standard measures will be implemented to control fugitive dust emissions during construction as required by SCAQMD Rules 402 and 403. These rules contain a nuisance provision that gives an SCAQMD inspector wide latitude to enforce dust abatement,	During all site activities.	SCAQMD.	Review and approval of Fugitive Dust Plan by SCAQMD. Investigation of complaints by SCAQMD.	Fugitive Dust Plan will be reviewed annually. As required throughout Project lifetime.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	particularly in the event of a nuisance complaint. Because of the extreme distances from sensitive receptors, no nuisance complaints are anticipated. Still, typical abatement measures, including daily watering of active construction areas and all traveled dirt roads to minimize dust lofting from vehicular disturbance, will be used. The RNFSA Project is subject to Rule 403 and will prepare a fugitive dust plan that will be reviewed and approved by the SCAQMD on an annual basis. The Plan will include Best Available Control Measures (BACM) and the regulation prohibits both visible dust and PM-10 concentrations in excess 50 μg/m3 at the RNFSA Project boundary. The Project will comply with the requirements of Rule 403.				
AQ1c.	Operations Exhaust Emissions. Because most of the trucks will be independently owned and operated, CEMEX has little control over these emissions. Still, CEMEX does have some control over these emissions while the trucks are onsite and in the selection of the owner-operators. Applicable mitigation then includes the following: 1. Trucking will be performed on a 24-hour-per-day basis. This will reduce emissions by allowing trucks to operate during non-peak hours, increasing truck speeds, and eliminating prolonged idling in traffic, thereby decreasing truck emissions. 2. When operating onsite, trucks will not be left idling for prolonged periods. 3. Applicant-operated trucks that are observed to emit excessive amounts of smoke (particulate matter) will either be tuned up or repaired, as applicable. Private owner-operators will be warned that, if their trucks emit excessive amounts of smoke, they will not be allowed future access to the facility. 4. Where applicable, high-pressure fuel injector nozzles will be used, and diesel engine timing will be retarded by 4 degrees, except as modified by mitigation measure AQ4. (This includes both trucks and heavy equipment.)	During operations.	County of Los Angeles Department of Regional Planning/BLM/ SCAQMD.	Applicant will maintain a log demonstrating compliance with this requirement.	At annual SMARA compliance inspection.
AQ2.	The RNFSA Project is subject to Rule 403 and will prepare a fugitive dust plan that will be reviewed and approved by the SCAQMD on an annual basis. The Plan will include Best Available Control Measures (BACM) and the regulation prohibits both visible dust and PM-10		SCAQMD	Review and approval of Fugitive Dust Plan by SCAQMD. Investigation of nuisance	Fugitive Dust Plan will be reviewed annually. As required throughout Project lifetime.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	concentrations in excess 50 µg/m3 at the RNFSA Project boundary. The RNFSA Project will comply with the requirements of Rule 403. Mitigation measures and control efficiencies for each dust-generating operation are presented. These measures will be incorporated into the Rule 403 Fugitive Dust Plan as follows: 1. The product conveyor systems include the use of covered transfer points controlled by negative pressure vented to a bag house augmented by water or surfactant spray in the main plant area. Resultant fugitive dust emissions are projected to be roughly equivalent to those produced by covered conveyors, and no further mitigation is warranted. 2. In accordance with the SCAQMD permitting for the site, all permitted dust-producing equipment involved in rock crushing and conveyance must be vented to filters kept moist using spray bars. 3. Mitigation includes twice-daily watering followed by immediate broom-truck sweeping with a high efficiency street sweeper (as per SCAQMD Rule 1186) of paved roads to control the fugitive dust kicked up by the vehicles' tires. The control efficiency is dependent on the ability to remove silt from the road, and application of the above measures is conservatively estimated to result in a 90-percent control efficiency. 4. In addition to travel over paved surfaces, onsite travel will include material movements over unpaved surfaces because of travel on unpaved roads situated between the paved access road and the aggregate facility. For these unpaved roads, mitigation includes regular application of a chemical dust suppressant with a demonstrated control efficiency in excess of 80 percent. 5. Mitigation for offsite truck travel on paved and unpaved roads includes using wet spray during truck loading of sand and broom-truck sweeping of the roadway as trucks leave the site. Furthermore, in accordance with Assembly Bill No. 3220, Clapton 1486, aggregate materials shall only be carried in the cargo area of a vehicle. The cargo area shall not contain any holes, cracks, or openings through which			complaints by SCAQMD.	

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	the materials may escape, regardless of the degree to which the vehicle is loaded. Additionally, all trucks shall be equipped with the following: a) properly functioning seals on any openings used to empty the load, including, but not limited to, bottom-dump release gates and tailgates; b) splash flaps behind every tire, or set of tires, regardless of position on the truck, truck tractor, or trailer; c) center flaps at a location on the rear of each bottom-dump release gate or trucks or trailers equipped with bottom-dump release gates. The top of the center flap shall not be lower than the adjacent tires or set of tires, and the bottom of the center flap shall extend to within 5 inches of the pavement surface; d) fenders that completely cover the tops of the tires not already covered by the truck, truck tractor, or trailer body; e) complete enclosures on all vertical sides of the cargo area, including, but not limited to, tailgates; f) shed boards designed to prevent aggregate materials from being deposited on the vehicle body during top loading; and g) covers to keep transported materials from blowing, where feasible, except that vehicles transporting aggregate materials shall not be required to cover their loads if the load where it contacts the sides, front, and back of the cargo container area remains 6 inches from the upper edge of the container area, and the load, at its peak, does not extend above any part of the upper edge of the cargo container area.				
	6. [4]Fugitive emissions from equipment activity in the fines backfill area will be controlled with water spray with a control efficiency in excess of 50 percent. Implementation of mitigation measure AQ3 will eliminate the use of scrapers in the fines backfill area.				

[4] Revised from November 2001 Mitigation Monitoring and Reporting Program due to elimination of the NFSA. See CEQA Findings Section 3.1.B.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	7. To control wind erosion, inactive areas will be controlled by dust suppressants with an efficiency in excess of 80 percent, and by RNFSA Project design, active areas will receive water spray with an efficiency of at least 50 percent. Because more area will be inactive than active at any one time, an assumed 75 percent control efficiency is applied to the site as a whole. 8. An anemometer shall be placed onsite to monitor wind speed. It shall be calibrated and maintained in accordance with Rule 403, for use with the Fugitive Dust Plan.				
AQ3.[5]	To further reduce PM-10 emissions, CEMEX shall use a semi-stationary "fines" conveyor system to move fines from the mobile crusher, located in the active fines backfill area. A mobile conveyor will tie in to this stationary fines conveyor thereby allowing fines to be distributed without the need for subsequent trucking of this material. The mobile crusher has the ability to remove almost all of the fines during the crushing procedure. This crusher shall be equipped with two separate mobile conveyor systems. One of these mobile conveyor systems will transport fines removed in the initial crushing process to the stationary fines conveyor and subsequently to the fines backfill area. The other mobile conveyor will transport excavation products to the main product conveyor which takes it to the rock plant for further processing. Not all of the fines are removed at the mobile crusher and the rock plant also produces a modicum of fines during the processing procedure. These fines will be hauled by dump truck from the rock plant back to the fines backfill area. Transfer points on the conveyor will be controlled by wet suppression.	During mining at about Year 15.	County of Los Angeles Department of Public Works/BLM/SCAQMD.	Permit Condition, incorporate into approved Plan of Operations. Review by DPW.	Review and approval of Plan of Operations and annual compliance review as part of the annual SMARA compliance inspection.
AQ4.	This mitigation measure incorporates the use of EPA/CARB certified engines where applicable for the RNFSA Project. For equipment falling in the appropriate horsepower ranges, the RNFSA Project will use equipment which meets EPA/CARB emission standards for non-road engines. For Phase 1, the minimum standards which would apply would be the 1996 standards for 175-750 hp engines and the 2000 standards for equipment rated >750 hp.	During mining.	County of Los Angeles Department of Public Works/BLM/SCAQMD.	Applicant will maintain a log of onsite equipment specifications that demonstrates compliance with this measure to SCAQMD and DPW.	At annual SMARA compliance inspection.

[5] Revised from November 2001 Mitigation Monitoring and Reporting Program due to elimination of the NFSA. See CEQA Findings, Section 3.1.B.

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	Additional equipment purchased for Phase 2 of the RNFSA Project will meet the year 2001 standards for 175-750 hp. Equipment built to meet EPA/CARB certified engine standards incorporates a number of combustion system improvements. Therefore mitigation measure AQ1c involving retarding diesel engine timing by 4 degrees and installing high-pressure fuel injectors would not be applicable to this equipment. The applicant will maintain a log of on-site equipment specifications that demonstrates compliance with this measure. Verification will be made by the lead agency at the annual SMARA inspection.				
AQ5.[6]	The Project Applicant will incorporate the use of particulate filters or equivalent technology to ensure that diesel exhaust particulate emissions from mobile sources at the Project site will be less than 1,735 lbs/year for Phase 1 and Phase 2. At this level of annual emissions, the exposure risk for the Project related to diesel particulate emissions would be less than 1 in 100,000, for residential receptors, as shown in the analysis in Appendix C of the AEIDEIR. In order to achieve this level of diesel exhaust particulate emissions, CEMEX will install particulate filters that achieve 95 percent or greater reduction in diesel exhaust particulates on the following equipment: Phase 1: one 13 cubic yard pit loader; two 100-ton haul trucks; and one water truck Phase 2: two 13 cubic yard pit loaders; four 100-ton haul trucks; one water truck; two front end loaders; and one 35-ton dump truck. If particulate filters with a control efficiency of 95 percent or greater are not available, CEMEX will implement alternative or additional methods in combination with filters or in place of filters to reduce diesel exhaust particulate emissions to less than 1,735 lbs/year. Since diesel exhaust has recently begun to receive a high degree of attention, significant advances in control	During mining.	County of Los Angeles Department of Public Works/BLM/SCAQMD.	Applicant will maintain a monthly log of equipment operating hours and will implement control measures when annual emissions approach the required threshold.	At annual SMARA compliance inspection.

[6] Revised from November 2001 Mitigation Monitoring and Reporting Program to provide for clarification. See CEQA Findings, Section 2.7.3.B.

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	technology for heavy equipment are anticipated in the future. As these advances take place, CEMEX will review new technologies for their feasibility and applicability. Alternative methods for achieving equivalent or better diesel particulate reductions may be implemented in place of or in combination with particulate filters. These alternatives may include: • Conversion of some equipment to alternative or dual-fuel technology, if this becomes feasible. • Purchasing lower emitting equipment, if it becomes available when new purchases are being considered. • Use of low sulfur diesel, if it becomes available.				
Air Conformity Stipulations (not included in AQ mitigation measures)					
	SCAQMD Permits for onsite stationary sources	Prior to operation at the site.	SCAQMD	Obtain valid Permit to Construct or Permit to Operate for all stationary equipment prior to operations.	Annual reporting required to and periodic inspections by SCAQMD.
Biota					
B1.	The Reclamation Plan provides for concurrent revegetation of the site with species presently found onsite. The Reclamation Plan outlines revegetation specifications and establishes performance criteria for success of revegetation of the site.	During mining operations and after mine closure.	County of Los Angeles Departments of Public Works and Regional Planning.	Onsite verification of completion of performance criteria for successful site revegetation as set forth in the reclamation plan (Section 2.2).	During concurrent mining reclamation processes and completion of the final reclamation plan.
B2.[7]	Potentially significant impacts on the sensitive plant species (Peirson's morning glory, slender mariposa lily, Plummer's mariposa lily, and club-haired mariposa lily), if they were to occur on the southwest edge of the site near the ridge, as determined by a qualified biologist, will be mitigated by the following actions. Seeds of these sensitive species shall be collected from impacted populations as fines storage proceeds, and the seeds shall be incorporated into the Revegetation Plan for the site. These plant species, especially Peirson's morning glory, are found in areas that have experienced disturbance such as fire or clearing. Therefore, incorporating the seed of these species into the revegetation plan for the site will provide a means to salvage the populations, and impacts on	During mining operations and after mine closure.	County of Los Angeles Departments of Public Works and Regional Planning.	Onsite verification of completion of successful sensitive plant species site revegetation as set forth in reclamation plan (Section 2.2).	As required following completion of mining operations and final reclamation (after 20 years).

[7] Revised from November 2001 Mitigation Monitoring and Reporting Program due to elimination of the NFSA. See CEQA Findings, Section 2.8.3.A.

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	these species will be reduced to less-than-significant levels. As additional assurance to preserve the genetic diversity that these individuals represent through these species' representative ranges, the following specification shall be adhered to: A donation in the amount of $4,000 shall be given to the Rancho Santa Ana Botanical Gardens for the collection and preservation of seeds of both slender mariposa lily and Plummer's mariposa lily. Initial seed collection will be done prior to any ground disturbance, with subsequent seed collection during the life of the RNFSA Project.				
B3.	Potential significant impacts on the coastal western whiptail will be reduced to less than significant with the implementation of the Reclamation Plan which is set forth as part of the RNFSA Project actions. This species is often associated with disturbed sites, and implementation of the RNFSA Project would not represent a permanent loss of its habitat. Even though the Reclamation Plan is part of the RNFSA Project actions, the Applicant shall assure its implementation with oversight to be provided by the County.	Following mine closure (20 years).	County of Los Angeles Departments of Public Works and Regional Planning.	Onsite verification of presence of suitable coastal western whiptail habitat following reclamation.	Following completion of mining operations and final reclamation (after 20 years)
B4.	Impacts from stray lighting from facilities and equipment yards will be reduced to a level of less than significant with the use of low-intensity lighting and direction shields.	Project construction.	County of Los Angeles Departments of Public Works and Regional Planning.	Onsite visit and photic evaluation.	After lighting is installed during Project construction.
B5.[8]	Potential impacts on the Santa Clara River biological resources from uncontrolled surface runoff from the site will be mitigated through implementation of RNFSA Project design measures including construction and maintenance of four desilting/debris basins and implementation of the RNFSA Project SWPPP and SPCCP.	Project lifetime (20 years).	County of Los Angeles Departments of Public Works and Regional Planning. CRWQCB	SWPPP and SPCCP review and approval. Monthly inspection of stormwater facilities for compliance with SWPPP.	Condition of Approval prior to construction and throughout Project lifetime.
B6.	Potential impacts on riparian habitat and proposed critical habitat of the unarmored threespine stickleback and regionally sensitive riparian vegetation from uncontrolled pumping of underflows of the Santa Clara River will be mitigated through implementation of the Habitat Protection Plan. The monitoring plan will be a multifaceted program of water resource monitoring and habitat monitoring of the permanent flowing stickleback habitat downstream from the site, as well as seasonal habitat adjacent to and	Project lifetime.	U.S. Fish and Wildlife Service (USFWS) and Los Angeles County Department of Regional Planning	Approval of Habitat Protection Plan and unscheduled regulatory site inspections by USFWS.	Periodically, throughout Project lifetime in accordance with full text of Habitat Protection Program in Appendix F6 of DEIR.

[8] Revised from November 2001 Mitigation Monitoring and Reporting Program due to elimination of the NFSA. See CEQA Findings, Section 2.8.3.D.

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	downstream of the site. The habitat protection program is presented in detail in Appendix F6 of DEIR. The monitoring program will contain action levels based on habitat requirements for the unarmored threespine stickleback and riparian vegetation. These action levels will trigger adjustments to mining operations to reduce RNFSA Project water consumption, including the temporary cessation of pumping if necessary. In response to below-seasonal average rainfall, mining operations will be adjusted during the dry season to reduce water consumption. Operational adjustments will include one or more of the following: ➢ seasonal sand and gravel production adjustments, ➢ seasonal management of concrete production, ➢ temporary stockpiling of fines, ➢ increased use of dust palliatives, ➢ temporary reduction or cessation of pumping of river underflows, and ➢ cessation of mining operations, if necessary.				
B7.[9]	No longer applicable due to elimination of the NFSA with implementation of Mitigation Measure VQ5, Mitigated Mining Cuts.				
B8.	The following mitigation measures shall be implemented to ensure that there would be no significant impacts to nesting birds and no violation of the Migratory Bird Treaty Act as part of the RNFSA Project: ➢ Vegetation clearing shall be conducted during the non-breeding season (August 16 through January 31) to limit impacts to nesting birds. ➢ In the event that vegetation clearing is necessary during the breeding season (February 1 through August 15), then a biologist shall conduct a pre-construction survey to identify the locations of any breeding birds within the areas that will be affected by the clearing. If the biologist finds an active raptor nest within or adjacent to the areas requiring clearing, then the biologist shall	Before vegetation clearing.	County of Los Angeles Department of Regional Planning and USFWS.	Onsite verification during and following vegetation clearing/report submittal.	Periodically, throughout Project lifetime.

[9] See CEQA Findings, Section 2.8.3.A.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	delineate a 500-feet wide buffer zone. This zone shall be marked with flagging and construction or clearing shall not be conducted within this buffer zone until the biologist determines that the nest is no longer active. ➢ If the biologist identifies active nests of other bird species within or adjacent to the areas requiring clearing, then the biologist shall delineate a 250-feet wide buffer zone. This zone shall be marked with flagging and construction or clearing shall not be conducted within this buffer zone until the biologist determines that the nest is no longer active.				
B9.	Prior to each phase of vegetation removal within the proposed mining development envelope, the applicant shall perform general wildlife surveys for the presence of any sensitive species listed at the time of the survey by either California Fish & Game or U.S. Fish and Wildlife Service. In particular, the applicant shall undertake protocol surveys for the California gnatcatcher in areas of suitable habitat prior to each new phase of vegetation removal or until such time as this species is no longer listed under either the California or Federal Endangered Species Acts. The surveys shall be conducted by a biologist who is permitted by the USFWS to conduct surveys for this species and the surveys shall be conducted according to the accepted USFWS protocol. Reports of the results of these surveys also shall be submitted to the Department of Regional Planning and USFWS. If any sensitive species are present, the applicant shall contact the appropriate trustee agency for recommended recovery and relocation procedures.	Project lifetime prior to vegetation removal.	County of Los Angeles Department of Regional Planning/USFWS/ CDFG.	Onsite verification during and following vegetation clearing/report submittal.	Periodically, throughout Project lifetime.
B10.	Prior to the initiation of any water extraction for mining activities, the applicant shall incorporate baseline data of presence of sensitive riparian species into the Habitat Protection Plan. This baseline data shall consist of the mapping of all riparian vegetation habitats, both upstream and downstream from the production wells for a distance of no less than 1,000 feet. In addition, protocol surveys within this riparian habitat shall be conducted for the presence of least Bell's vireo, southwestern willow flycatcher, yellow-billed cuckoo and the southwestern arroyo toad as part of this baseline data. The surveys shall be conducted by a biologist who is permitted by the USFWS to conduct surveys for these species and the surveys shall be conducted according to the accepted USFWS protocol.	Prior to water extraction.	County of Los Angeles Department of Regional Planning/USFWS/ CDFG.	Report submittal/onsite verification.	Prior to water extraction.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
Biological Opinion Terms and Conditions					
BO1.	The measures proposed by CEMEX in the biological assessment and summarized in the Federal biological opinion are incorporated as terms and conditions of the biological opinion and shall be included by the BLM as conditions of the mining and reclamation plan for the proposed Project.	During preparation of the Mining and Reclamation Plan.	BLM/County of Los Angeles Department of Regional Planning.	Review of Mining and Reclamation Plan by Agencies to ensure that biological mitigation measures are included.	As required during preparation of the plan.
BO2a.	If the water quality and quantity parameters reach the action levels defined in the biological opinion (table titled Comparison of Unarmored Threespine Stickleback Habitat Requirements and Monitoring Plan Action Levels) the BLM shall require CEMEX to notify the appropriate BLM office and to cease pumping water from the alluvium of the Santa Clara River until the action levels defined in the table are again achieved.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS/CDFG	Review of Mining and Reclamation Plan by Agencies. Report of water quality and quantity monitoring data by CEMEX review and by Agency.	As required during Project lifetime.
BO2b.	If pumping has been suspended until at least the water quality and quantity standards defined by the action levels are once again achieved, the BLM shall limit the amount of water pumped from the alluvium of the Santa Clara River by CEMEX to a rate and amount that will not result in fluctuations of the water level, water temperature, or oxygen level. This limitation shall remain in effect until the onset of rains during the next wet season.	Project lifetime, after implementation of measure BO2a.	BLM/County of Los Angeles Department of Regional Planning.	Review of Mining and Reclamation Plan by Agencies. Report of water quality and quantity monitoring data by CEMEX. Site visits by Agency as required.	As required from the implementation of measure BO2a to the onset of rains during the next wet season.
BO3.	The BLM shall ensure that CEMEX uses only herbicides approved for spraying in and near aquatic sites, such as Rodeo, within 100 feet of the Santa Clara River when water flow is present in the river. Other herbicides may be used, according to their label restrictions, to control giant reed on upper floodplain terraces.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning.	Review of Mining and Reclamation Plan by Agencies. Site visits by Agency as required.	As required during the preparation of the plan. Site visits as required during Project lifetime.
BO4.	The BLM shall require CEMEX to prepare an annual report for its review by December 1 of each year the mine is in operation or reclamation phases. After BLM's review, the report shall be forwarded to USFWS by January 15. The report shall document the effectiveness of the monitoring plan proposed by CEMEX and the terms and conditions, a summary of the information that was collected regarding water quality and quantity from the previous year, a summary of the results obtained from the habitat monitoring, and the results of any work to remove exotic species. If appropriate, the report shall also recommend modifications to the monitoring plan and terms and conditions to enhance the protection on unarmored threespine stickleback while making them more workable for CEMEX and the BLM.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Monitoring Report by CEMEX. Review of Annual Monitoring Report by Agencies.	Annually by December 1 (BLM) and January 15 (USFWS).

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BO5.	On locating dead unarmored threespine sticklebacks, initial notification must be made in writing to the USFWS Division of Law Enforcement and by telephone and writing to the Ventura Field Office within three working days of its finding. The report shall include the date, time, location of the carcass, a photograph, cause of death, if known, and any other pertinent information. Care shall be taken in handling dead specimens to preserve biological material in the best possible state for later analysis. The remains of unarmored threespine sticklebacks shall be placed with the Los Angeles County Museum of Natural History. Arrangements regarding proper disposition of potential specimens shall be made with the museum by the project monitor prior to implementation of the action.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Report by CEMEX. Review of report by Agencies.	Within 3 working days of location of dead unarmored threespine stickleback
BO6.	The BLM and CEMEX will remove other exotic species from the habitat of the unarmored threespine stickleback when possible. In particular, any individuals of the African clawed form that are encountered should be destroyed.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning USFWS	Report by CEMEX. Review of Report by Agencies.	Annually by December 1 (BLM) and January 15 (USFWS).
Biological Opinion Mitigation Measures and Terms and Conditions for the Arroyo Toad					
BO7.	Potential impacts to the Arroyo Toad shall incorporate the provisions of the Federal biological opinion as follows: <u>Construction of Wells and Pipeline.</u> a. A qualified biologist will conduct a training session for all well and pipeline installation personnel prior to construction of Project wells and pipelines. The training session will focus on information on the arroyo toad, indications of its activity, limits on project disturbance, keeping the site clear of trash and debris, and notifying monitors immediately if indicators of the toad are encountered. b. Access to well development sites will be limited to pre-existing access routes to the greatest extent possible; vehicle travel related to well development will be limited to daylight hours (Lorentzen pers. comm.). c. The footprint of new disturbance areas will be minimized to the maximum extent feasible; new disturbance will be monitored by an onsite biologist responsible for overseeing construction monitoring activities. d. A water pollution control plan will be developed for	During well and pipeline construction.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Report by CEMEX. Review of Report by Agencies.	As required during construction of wells and pipeline.

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	pipeline installation and well development prior to site disturbance. The plan will be developed to the satisfaction of the qualified biologist. e. The limits of project disturbance for well and pipeline installation will be clearly defined and marked in the field and reviewed by a monitoring biologist prior to initiation of work (Lorentzen pers. com). f. The well development will be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars. g. If well development cannot be conducted without placing equipment or personnel in sensitive habitats, the development will be timed to avoid the breeding season, or be timed so that work within or near the stream channel is conducted during the dry season. h. Silt fencing or other sediment trapping materials will be installed around the well construction sites to minimize the transport of sediment and debris. Care will be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream. An onsite biological monitor will oversee such activities. i. Equipment storage, fueling, and staging areas will be located on upland sites and a spill prevention control and countermeasures plan specific to the well and pipeline installation will be used. j. No fill material will be deposited into watercourses. k. The project biologist will visit the work site periodically throughout the duration of the well and pipeline installation to ensure that all practicable measures are being employed to avoid incidental disturbance of habitat and species. l. The removal of native vegetation will be minimized, and overseen by the onsite biological monitor. m. To avoid attracting predators of arroyo toad, the site will be kept as clean of debris as possible. n. Exclusionary fencing will be placed around well development sites at the direction of the onsite biological monitor. For a period of seven days, three times each day, prior to well installation, the qualified biologist will inspect the exclusionary fence lines and				

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	remove any amphibians (including arroyo toads) and reptiles collected in capture pits. [(The "capture pits" are pitfall traps that would be located inside the fencing (Lorentzen pers. com.).] Removed animals will be relocated to suitable habitat adjacent to, and outside of, the area of disturbance. o. If it is to be installed above ground, the pipeline will be elevated to allow arroyo toads and other amphibians to cross underneath.				
BO8.	Water Withdrawal. a. Three additional monitoring wells will be installed and will be designated MW4, MW5, and MW6. b. Two of the monitoring wells (MW4 and MW5) will be installed up gradient of the easternmost production well for the operation. c. Monitoring well MW6 will be installed in the vicinity of permanent monitoring stations P2 and P3 as described in section 3.2.4.3 of the biological assessment (Bureau 1996). d. These three wells will be equipped and operated to provide for continuous monitoring of groundwater elevations at each well. In addition, the static groundwater elevation for each well will be recorded weekly. Static groundwater elevation is assumed to be the elevation of the groundwater 24 hours after all pumping has ceased (recovered head). e. Data generated from these wells will be reviewed weekly by CEMEX. (i) Data from monitoring well MW4, the farthest upstream well, will be monitored to ensure that the pumping at any of the production wells does not have an effect on the surface water flowing to the bedrock channel, as described in section 6.2 of the supplemental biological assessment (Bureau 2001a). (ii) The groundwater elevation in MW5 will be monitored to ensure that the groundwater elevations of MW4 are not influenced by any of the production wells. (iii) The relationship between the static groundwater elevation in MW4 and MW6 will be determined.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Monitoring Report by CEMEX. Review of Annual Monitoring Report by Agencies.	Annually by January 31 (see No. 8 below).

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	This relationship will be used to quantify effects of project pumping on groundwater elevations at MW6. Data from MW4 and MW6 will be compared to ensure that project water extractions do not reduce surface flows downstream of Pole Canyon Fault near P2 to an extent that it would be detrimental to the riparian and aquatic habitat of the arroyo toad and other sensitive species. f. Pumping of the easternmost production well will be regulated so that water diversions from the underflow do not affect surface water flowing into the bedrock channel. Pumping will be curtailed if water levels in MW4 and MW5 indicate that pumping effects are detrimental to the maintenance of surface flows through the bedrock channel.				
BO9.	The Bureau shall ensure that the education program includes information on all relevant aspects of the protective program for the arroyo toad (reasonable and prudent measure 1): A Service-approved biologist shall conduct a training session for all project personnel prior to the onset of any ground-disturbing activities within the action area. At a minimum, the training shall include a description of the arroyo toad and its habitat; the general provisions of the Endangered Species Act; the necessity for adhering to the provisions of the Act; the penalties associated with violating the provisions of the Act; the specific measures that are being implemented to conserve the arroyo toad during mining and associated operations; and the boundaries within which the specific actions may be accomplished. The program shall also cover the restrictions and guidelines that must be followed by all construction personnel to reduce or avoid effects on these species during project implementation.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Report by CEMEX. Review of Annual Report by Agencies.	Prior to the onset of any ground-disturbing activities.
BO10.	The Bureau shall ensure that only qualified personnel handle arroyo toads and only in an appropriate manner and for the minimal amount of time required (reasonable and prudent measure 2): a. Only qualified personnel authorized under the auspices of this biological opinion shall handle arroyo toads. The Bureau or CEMEX shall submit the credentials of biologists who they wish to handle arroyo toads to the Service, for its review and approval, at least 15 days prior to the	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS Annual Report by CEMEX.	Review of Annual Report by Agencies.	a. 15 days prior to the onset of activities by biologists.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	onset of the activities which they may be authorized to conduct. b. When capturing and removing arroyo toads from work sites, the Service-approved biologist shall minimize the amount of time that animals are held in captivity. During this time, they shall be maintained in a manner that does not expose them to temperatures or any other environmental conditions that could cause injury or undue stress. c. To avoid transferring disease or pathogens between aquatic habitats during the course of surveys and handling of arroyo toads, the Service-approved biologist shall follow the Declining Amphibian Population Task Force's Code of Practice. You may substitute a bleach solution (0.5 to 1.0 cup of bleach to 1.0 gallon of water) for the ethanol solution. Care shall be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat. d. When conducting pitfall trapping, the Service-approved biologist shall ensure that all open traps are checked in the morning before temperatures or other environmental factors become stressful to trapped arroyo toads. If pitfall traps will be inactive, they shall either be removed from the ground and the hole backfilled or the lid shall be securely closed.				b. When capturing and removing arroyo toads. c. When handling arroyo toads. d. When conducting pitfall trapping.
BO11.	The Bureau shall require CEMEX to remove arroyo toads from the areas where monitoring wells are to be installed (reasonable and prudent measure 3): Arroyo toads shall be removed from the area of temporary disturbance around all monitoring wells to be installed in potential habitat. The procedures proposed by the Bureau and CEMEX, as modified by these terms and conditions, shall be implemented during the installation of the monitoring wells.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Report by CEMEX. Review of Annual Report by Agencies.	During installation of monitoring wells.
BO12.	The Bureau shall require that the water pipeline be elevated through habitat of the arroyo toad and be maintained in a manner that does not impede the movement of arroyo toads (reasonable and prudent measure 4): a. The water pipeline shall be elevated above the surface of the ground when in arroyo toad	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Report by CEMEX. Review of Annual Report by Agencies.	a. During construction of water pipeline.

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	habitat. The pipeline need not be elevated when crossing extensive disturbed areas that, in the opinion of the Service-approved biologist, are unlikely to support arroyo toads; the pipeline may be buried on either side of a road when it crosses a road within arroyo toad habitat. b. When determining the height to which the pipeline should be elevated, the Bureau shall ensure that arroyo toads would have free unimpeded passage and consider whether vegetation or debris flows could block movement of individuals. c. At least once per year, the Service-approved biologist shall inspect the water line where it traverses habitat of the arroyo toad to determine whether debris or vegetation along the pipeline could impede movement of arroyo toads. In making this determination, the Service-approved biologist shall consider whether arroyo toads could be expected easily to cross or move around any obstructions. d. If the Service-approved biologist determines that the movement of arroyo toads past the pipeline is substantially impeded, the Bureau shall ensure that CEMEX removes the blockage as soon as possible. The Service-approved biologist shall oversee the removal, using the same precautions when handling and moving arroyo toads as described elsewhere in these terms and conditions. e. The Service-approved biologist shall ensure that any maintenance activity along the pipeline in habitat of the arroyo toad is conducted in a manner that minimizes the potential for injury or mortality. The Service-approved biologist shall define work areas in conjunction with the project manager, remove arroyo toads from harm's way (if necessary), and implement other protective measures, as described in these terms and conditions to protect arroyo toads during maintenance activities.				of water pipeline. b. During construction of water pipeline. c. At least once per year. d. At least once per year. e. Prior to any maintenance activity.
BO13.	The Bureau shall ensure plans relating to the inadvertent release of hazardous materials are in place prior to the onset of ground-disturbing activities (reasonable and	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning.	Annual Report by CEMEX. Review of Annual Report	Prior to the onset of any ground-disturbing activity.

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	prudent measure 5): Prior to the onset of any ground-disturbing activity within or adjacent to arroyo toad habitat, the Bureau shall review CEMEX plans to prevent the inadvertent spills of hazardous materials and to remediate any such spill that may occur. These plans shall specifically discuss the implications of spills in habitat of the arroyo toad and include methods to remediate these spills in the least damaging manner.		USFWS	by Agencies.	
BO14.	The Bureau shall ensure that effects to arroyo toads that may occur during monitoring activities are avoided or reduced (reasonable and prudent measure 6): a. The Service-approved biologist shall inspect areas to be used for biological, hydrological, and other monitoring prior to their use by workers. b. Biological (other than that directed at arroyo toads), hydrological, and other monitoring shall not be conducted within or adjacent to arroyo toad breeding pools or in areas where metamorph arroyo toads are abundant. The determination of abundance of metamorphs shall be made by the Service-approved biologist. The primary criterion to be used in determining if work in a given area must be delayed is whether the monitoring activities are likely to result in mortality of several metamorphs. If the Service-approved biologist makes this determination and mortality cannot be avoided through the implementation of site- and instance-specific measures, the monitoring activity shall be delayed until such time when metamorphs are no longer abundant; alternatively, the monitoring shall be moved to another site. When in doubt regarding whether metamorphs should be considered abundant or site- and instance-specific protective measures, the Service-approved biologist shall contact the Service and Bureau for guidance; telephone contact may be used to expedite resolution of the issue.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Report by CEMEX. Review of Annual Report by Agencies.	a. Prior to the use of areas for biological, hydrological, and other monitoring. b. Prior to the use of areas for biological, hydrological, and other monitoring.
BO15.	The Bureau shall require CEMEX to reduce the level of take of arroyo toads associated with the removal of giant reed (reasonable and prudent measure 7):	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning.	Annual Report by CEMEX. Review of Annual Report	Prior to removal of giant reed.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	a. The Service-approved biologist shall inspect areas where removal of giant reed is proposed prior to the onset of removal activities. b. If arroyo toads or suitable habitat is present, the Service-approved biologist shall define where trails, staging areas, and other general sites of disturbance may occur. Sensitive areas, such as breeding pools and sites where numerous animals may be in burrows, shall be marked and avoided. c. If avoidance of arroyo toads outside of breeding pools is not possible, the Service-approved biologist shall move these individuals to a nearby safe location. d. Breeding pools that contain tadpoles or eggs of arroyo toads shall be avoided until all individuals have left the water. e. These procedures may be used to remove salt cedar (Tamarix ssp.) and other non-native species.		USFWS	by Agencies.	
BO16.	The Bureau shall ensure that protective measures for the arroyo toad are consistently implemented (reasonable and prudent measure 8): a. The Service-approved biologist(s) shall have the authority to stop specific work activities until appropriate corrective measures are taken when unintended effects to arroyo toads occur. If an arroyo toad is observed within a designated work area and cannot be avoided, all work shall stop until the animal leaves the work area or until it is captured and relocated by a Service-approved biologist to outside of the work area to avoid injury or mortality. b. If CEMEX does not implement the protective measures for the arroyo toad, the Bureau shall suspend work on the mining operation until such time that CEMEX is again in full compliance.	Project lifetime.	BLM/County of Los Angeles Department of Regional Planning. USFWS	Annual Report by CEMEX. Review of Annual Report by Agencies.	a. When unintended effects to arroyo toads occur, or if an arroyo toad is observed within a designated work area. b. During review of Annual Report.
Cultural Resources					
CR1.	Under current construction plans, the historic archaeological site (LAN 1847H) will be avoided. However, to ensure that the site is not disturbed by	Project design and prior to construction.	California Office of Historic Preservation/BLM/	Representative archaeological monitor shall review site plan and	As required during Project construction.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	construction activities, the site will be fenced under the direction of an archaeological monitor. With this measure, the site will be avoided and protected, which is a preferred mitigation measure under CEQA.		County of Los Angeles Department of Regional Planning.	direct the manner in which the archaeological site LAN-1847 shall be fenced and avoided.	
CR2.	If future construction plans cannot avoid and protect the site, all construction will cease and an archaeological test program that includes archival research will be necessary to determine the site's importance. If the site is found to be important, a data recovery program will be implemented to mitigate impacts to a less-than-significant level.	Prior to disturbance of the site.	California Office of Historic Preservation/BLM/ County of Los Angeles Department of Regional Planning.	Representative archaeological monitor shall conduct an archaeological test program including archival research to determine significance of site and need for excavation.	Report to Department of Regional Planning prior to clearance of vegetation.
CR3.	A walk-over survey shall be conducted prior to grading new mining areas. If during the walk-over survey, pre-construction or construction phases of the Project, historic properties are discovered, CEMEX will consult with the BLM to make reasonable efforts to avoid, minimize, or mitigate potential adverse effects to such properties. To aid in the resolution of any adverse effects, CEMEX would notify the BLM within 48 hours of the discovery of the site. The BLM will consult with the State Historic Preservation Officer (SHPO) and any Indian tribe that might attach religious or cultural significance to the affected property. CEMEX will be guided in its approach to any discovered sites by the provisions in 36 CFR Part 800 and appropriate consultation with the BLM.	Prior to disturbance of the site.	California Office of Historic Preservation, BLM/County of Los Angeles Department of Regional Planning.	Representative archaeological monitor shall conduct an archaeological test program including archival research to determine significance of site and need for excavation.	At such time that avoidance of historic archaeological site LAN-1874H becomes infeasible.
	If any sites are found that might contain human remains, associated or unassociated funerary objects, sacred objects, or items of cultural patrimony as those terms are defined by the Native American Graves Protection and Repatriation Act (25 U.S.C. Section 3001), CEMEX will cease the activity in the area of discovery, make a reasonable effort to protect the items discovered before resuming such activity, and provide notice, pursuant to U.S.C. Section 3002(d).				
	Following the notification under this subsection, and upon certification by the Secretary of the department or the head of any agency or instrumentality of the United States or the appropriate Indian Tribe that notification has been received, CEMEX will resume activities in the area of discovery after 30 days of such certification. In addition, CEMEX will notify the Los Angeles County Coroner. If the Coroner determines that the burials are Native American, a Most Likely Descendant designated by the California Native American Heritage Commission will be				

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	notified and a reburial plan will be formulated, following procedures required by Public Resources Code, Sections 5097.94, 5097.98, 5097.99, and Health And Safety Code, Section 7050.5.				
Visual Qualities					
VQ1.	Reclamation and revegetation will occur starting every growing season after mining activity has ceased in particular areas.	Project lifetime and following mine closure.	County of Los Angeles Departments of Public Works/Regional Planning.	Onsite verification of completion of performance criteria for successful site revegetation as set forth in the reclamation plan (Section 2.2).	During concurrent mining reclamation processes and upon completion of the final reclamation plan.
VQ2.	During the final phase of reclamation, the roads will be resloped to conform with the surrounding topography.	Final phase of reclamation (after 20 years).	Los Angeles County Departments of Public Works/Regional Planning.	County Landscape Engineer and DRP shall monitor resloping practices.	Following mine closure during final phase of reclamation.
VQ3.[10]	No longer applicable due to elimination of NFSA with implementation of Mitigation Measure VQ5, Mitigated Mining Cuts.				
VQ4.	The RNFSA Project will incorporate modern lighting systems that direct lights to specific areas and will prevent stray lighting from spilling over into surrounding areas. No lighting will be directed upward.	Project design and stage 4 of construction (1-2 years).	Los Angeles County Departments of Public Works/Regional Planning.	County Engineer shall review the project site plan and inspect lighting following installation.	During project design and stage 4 of construction.
VQ5.	A modified approach to Mining Cuts 3 and 4 would reduce visual impacts. Mine Cut 3 would be modified so that there would be no access road construction or cut slopes visible on the north side of the northeast-southwest trending ridge (as shown on Figure 2.1-8 of the AEIDEIR). Mine Cuts 3 and 4 would still occur, but excavation activities would commence from the south side of the ridge generally out of the direct line of sight from the Antelope Valley Freeway. In order to minimize the reduction in ridgeline elevation, access roads which were to be left in place at the end of mining (as shown on Figure 2.1-11 of the AEIDEIR) will be mined out instead. This will leave a smooth overall serrated slope on the south side of the ridge. Additional excess fines would be backfilled into the quarry floor at elevation 1925. Implementation of this modified approach would eliminate the need for the NFSA.	As part of Final Project approvals.	Los Angeles County Departments of Regional Planning/ Public Works.	Approved by County, BLM, of Final Plan of Mining Cuts.	Prior to Project implementation.
Traffic					
T1.	Mitigation measures are required for the Soledad Canyon	Project lifetime if	County of Los Angeles	Traffic volumes shall be	Traffic volumes will be

[10] See CEQA Findings Section 3.2.1.A.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	Road/Antelope Valley Freeway NB and SB ramps intersections, and the east approach of Soledad Canyon Road to the Bee Canyon Project's most easterly access road that were determined to have significant cumulative impacts. The roadway improvements and traffic signal controls required to achieve an acceptable LOS are presented in Table 3.1.11-15 of the AEIDEIR. These improvements will be required with or without the Project if the other related projects are developed as currently proposed. It is recommended that the intersection traffic volumes be monitored by County DPW and Caltrans to determine if and when the mitigations are required.	required.	Department of Public Works - Traffic Division. California Department of Transportation (Caltrans).	periodically monitored throughout Project lifetime to determine need for roadway improvements. If improvements are required, CEMEX will pay its pro-rata share of the improvements as stated in Mitigation Measure T1.	measured throughout Project lifetime. If and when improvements are required CEMEX shall pay its pro rata share.
	Pursuant to Los Angeles County Traffic Impact Analysis Guidelines (DPW 1997), the Project's pro-rata percent share of the improvements is 9.1 percent to widen and modify the east approach of Soledad Canyon Road to provide two through lanes and one exclusive right-turn lane (add one westbound through lane). CEMEX's pro-rata shares of the traffic signal installation costs will be 6.5 percent of the cost for the intersection at SR-14 SB ramp/Soledad Canyon Road, and 9.1 percent of the cost at SR-14 NB ramp/Soledad Canyon Road. This share was determined based on the average of the a.m. and p.m. peak hour traffic volumes entering the interchange.				
T2.	Access to the site will be relocated from its existing location on Soledad Canyon Road to a point opposite of the existing access road for the C.A. Rasmussen mining operations on the south side of Soledad Canyon Road. This would create a conventional four-way intersection on Soledad Canyon Road. The RNFSA Project will provide one shared left-turn/through lane and one exclusive right-turn lane on the north approach and aligned with the existing access road for the C.A. Rasmussen facility. A left-turn lane and one shared through/right-turn lane on both the east and west approaches on Soledad Canyon Road will be provided. The westbound merging lane will be designed with adequate sight distance to the satisfaction of the County Department of Public Works Traffic and Lighting Division. All striping improvements will also be approved by the Department. Project proposed access improvements are shown on Figure 3.1.11-4 of the DEIR. Some trees and shrubs to the east and west of the access road will be cleared, as necessary, to afford an unimpeded view of oncoming traffic. In computing the required slope easements along Soledad	Project lifetime.	County of Los Angeles Department of Public Works - Traffic Division.	County Engineers shall: Review and approve planned access roadway improvements. Monitor traffic volumes to determine need for traffic signal installation. If improvements are required, CEMEX will pay its pro-rata share of the improvements as stated in Mitigation Measure T2.	During project design phase and construction for planned access roadway improvements. Traffic volumes shall be measured throughout the Project lifetime. If and when traffic signal installation becomes necessary, CEMEX shall pay its pro-rata share.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
	Canyon Road, the applicant will include that area which may be required for line of sight to the satisfaction of the County DPW. Additionally, the applicant will submit a geotechnical report for the DPW review and approval addressing the stability of any proposed side slope gradients greater than 2:1. If and when actual traffic conditions would warrant a traffic signal, CEMEX's pro-rata shares of the traffic signal installation costs for the Project access road/Soledad Canyon Road intersection will be 100 percent.				
T3.	The Applicant will contribute its fair share of costs to resurface the specific section(s) of pavement on Soledad Canyon Road. Paving shall be accomplished prior to the start of Phase 2 or at a later date as substantiated with a revised traffic index analysis, which includes trucks generated by other projects.	Prior to Phase 2 mining operations (within 10 years).	County of Los Angeles Department of Public Works - Traffic Division.	The LA County Department of Public Works - Traffic Division will monitor road quality and determine when repaving is necessary.	Prior to Phase 2 mining operations (within 10 years).
T4.[11]	This mitigation has been superceded by Project Condition 13.				
Land Use					
LU1.	The County will review and approve the proposed Reclamation Plan to reclaim mined lands to a usable condition. Under the proposed Reclamation Plan, at the conclusion of the Federal Contracts, CEMEX will reclaim the RNFSA Project processing site and/or all inactive disturbed areas. Any areas not used for continued mining will be reclaimed and revegetated for use as open space. Upon approval of all applicable permits and plans, the Project will be deemed consistent with state, regional, and local land use policies and designations.	During project design phase.	County of Los Angeles Departments of Public Works/Regional Planning.	The LA County Department of Public Works shall review and approve the proposed Reclamation Plan.	During project design phase, prior to construction.
Public Health and Safety					
PHS1.	Detailed emergency response plans are presented in the SPCCP and will be strictly followed.	Project lifetime.	CRWQCB Occupational Safety and Health Administration (OSHA)	Review and comment. The Project site shall also be subject to unscheduled site visits by CRWQCB and OSHA inspectors.	During development of SPCCP and throughout Project lifetime.
PHS2.	All Mine Safety and Health Administration (MSHA) and other applicable regulations will be strictly enforced.	Project lifetime.	MSHA	Project site shall be subject to unscheduled visits by MSHA inspectors to ensure compliance with MSHA	Throughout Project lifetime.

[11] See CEQA Findings, Section 2.11.2.A.

No.	Mitigation Measure Description	Time Frame For Implementation	Monitoring Agency	Verification/Monitoring Action	Timing of Verification
				regulations.	
PHS3.	Public access will be restricted to reduce the potential for accidents. Active mining areas will be fenced, and signs will be posted restricting access to Project site.	Project lifetime.	MSHA	MSHA inspectors shall verify proper public access restriction measures are in place during unscheduled site visits.	Throughout Project lifetime.
PHS4.	The facility will be gated to control public access.	Project lifetime.	MSHA	MSHA inspectors shall verify proper public access restriction measures are in place during unscheduled site visits.	Throughout Project lifetime.
PHS5.	Compliance with all regulations and requirements of OSHA, MSHA, and all applicable County 1994 Uniform Fire Codes will be observed.	Project lifetime.	MSHA OSHA LACFD	Unscheduled site visits by OSHA, MSHA, and LACFD to ensure compliance with all applicable safety regulations and fire codes.	Throughout Project lifetime.
PHS6.	CEMEX will not remove topsoil on high wind days.	Project lifetime.	SCAQMD	Periodic review and approval of Fugitive Dust Plan by Agency.	At regular intervals throughout Project lifetime.

Abbreviations
DHS = Department of Health Services
DPW = Department of Public Works
DRP = Department of Regional Planning
CEMEX = Transit Mixed Concrete, CEMEX
San. Dist. = County Sanitation District
LACFD = Los Angeles County Fire Department
BLM = Bureau of Land Management
SCAQMD = South Coast Air Quality Management District

TAB F

CEMEX Soledad Canyon Project Conditions

1. Unless otherwise apparent from the context, the term "permittee" shall include the applicant and any other person, corporation, or other entity making use of this grant.

2. This grant shall not be effective for any purpose until the permittee has filed at the office of the Department of Regional Planning its affidavit stating that it is aware of, and agrees to accept, all of the conditions of this grant.

3. The permittee shall defend and indemnify the County, its agents, officers, and employees from any writ of mandate action, claim or cause of action, including but not limited to, any action brought pursuant to 42 U.S.C. §1983 against the County or its agents, officers, or employees other than an action by the permittee or the United States, to attack, set aside, void or annul this permit approval, or any settlement agreement and/or judicial consent decree entered in the case entitled CEMEX, Inc. v. County of Los Angeles, U.S.D.C. Case No. CV-02-747-DT (FMOx) ("CEMEX v. County"), which action is brought within one year of the adoption by the United States District Court of a consent decree in the CEMEX v. County case. The County shall within fifteen working days notify the permittee of any such action and the County shall cooperate fully in the defense.

   The permittee's obligations to defend and indemnify the County shall consist exclusively of the following:

   (i) payment for all legal costs of permittee-designated litigation counsel, which counsel shall defend permittee and the County, to the extent requested by the County, in any such action;

   (ii) indemnification for the costs of reasonable County staff time incurred in the defense of said action, exclusive of any County Counsel or County-retained outside counsel fees and costs; and

   (iii) payment of plaintiffs' attorneys fees to the extent awarded in any action challenging this permit, settlement agreement, or judicial consent decree in the CEMEX v. County case, although permittee shall not be obligated to indemnify the County for any damages awarded in any such action, unless said damages award is based on the adequacy of the process (i.e., settlement or consent decree) in resolving CEMEX, Inc. v. County of Los Angeles, U.S.D.C. Case No. CV-02-747-DT (FMOx), in which case the permittee shall be obligated to indemnify the County. To the extent the parties have any dispute over whether a damages award

falls within this exception, they agree to submit the issue to Judge Layn R. Phillips, for binding determination.

Notwithstanding any other provision in this Project Condition 3 or any other provision in these Project Conditions generally, if the County fails to notify the permittee of any claim, action or proceeding within fifteen working days of notice or service thereof, or if the County knowingly and materially facilitates, induces, or assists in the bringing or prosecution of said claim, or if the County fails to cooperate fully in the defense, the permittee shall not thereafter be responsible to defend or indemnify the County. To the extent the parties have any dispute over whether a particular claim triggers the above referenced indemnity obligation, the parties agree to submit the issue to Judge Layn R. Phillips for binding determination. Notwithstanding any other provision in these Project Conditions, permittee shall not be obligated to commence any payments towards any of the funds, fees, exactions or other Project Conditions as otherwise required by Project Conditions 36 and 37 herein, until such time as permittee and the County prevail in any action described in this Project Condition 3, including prevailing on appeal, and, Project implementation commences. With respect to Project Condition 12(c), the parties agree that in the event litigation is pending, and the Director of Public works has made the necessary determinations as required by Project Condition 12(c), the payments will be made incrementally as follows: (a) $300,000 upon commencement of Project implementation; and (b) the balance upon commencement of exportation of products from the Project.

4. In the event that any claim, action, or proceeding as described in Project Condition 3 above is filed against the County, the permittee shall within ten days of the filing pay the Department of Regional Planning an initial deposit of $5,000, from which actual costs shall be billed and deducted for the purpose of defraying the expenses involved in the Department's cooperation in the defense, including but not limited to, depositions, testimony, and other assistance to permittee or permittee's counsel. The permittee shall also pay the following supplemental deposits, from which actual costs shall be billed and deducted:

   a. If during the litigation process, actual costs incurred reach 80 percent of the amount on deposit, the permittee shall deposit additional funds sufficient to bring the balance up to the amount of the initial deposit. There is no limit to the number of supplemental deposits that may be required prior to completion of the litigation.

   b. At the sole discretion of the permittee, the amount of an initial or supplemental deposit may exceed the minimum amounts defined herein.

Permittee shall pay the cost for collection and duplication of records and other related documents according to Los Angeles County Code Section 2.170.010.

5. This grant will terminate upon termination of the permittee's mineral extraction and completion of the reclamation of the site pursuant to authorization by the Bureau of Land Management under Federal Contracts CA 20139 and CA 22901, unless the right to mine is earlier terminated by abandonment or a change of use.

6. If any provision of this grant is held or declared to be invalid by a challenge brought by a party other than the permittee or the United States of America, the remaining provisions of this permit and the privileges granted hereunder shall remain in effect.

7. The subject mine shall be maintained and operated in full compliance with the conditions of this grant, and with any law, statute, ordinance or other regulation determined to be legally applicable to the subject property. Nothing in this Project Condition 7, or in any other Project Condition herein, shall in any way be deemed to be a waiver by permittee of federal preemption.

8. Pursuant to Los Angeles County Code Section 22.56.1460, the permittee shall pay to the County of Los Angeles Department of Public Works such sums as are necessary to compensate said department for expenses incurred while reviewing and inspecting the premises to determine the permittee's compliance with the permit conditions and applicable laws.

   If any inspection discloses that the subject property is being used in violation of any one of the conditions of this grant, the permittee shall be financially responsible and shall reimburse the Department of Public Works and the Department of Regional Planning for all additional enforcement efforts necessary to bring the subject property into compliance.

   If the subject property is being used in violation of any of the conditions of this grant, or any provisions of the Surface Mining and Reclamation Act, the County may institute enforcement proceedings and seek administrative penalties pursuant to Public Resources Code Section 2774.1.

9. The grant allows surface mining for sand and gravel, aggregate processing, a ready-mixed concrete batching plant, and ancillary uses as described in the Project Revised Final Environmental Impact Report, November 2001 ("Project FEIR"), subject to the following restrictions as to use:

   a. The permittee shall submit to the Director of Planning four (4) copies of a Final Mining and Reclamation Plan, which shall be a composite of the project description, the Mining and Reclamation Plan (including the revegetation plan), mitigations and mitigation monitoring contained in the FEIR and the additional provisions of these conditions. If the Director

finds the plan to be conforming, the Director shall forward copies to the Department of Public Works and the Office of Mine Reclamation. No work shall commence under this grant until the Director transmits a conforming copy of the Final Mining and Reclamation Plan to the Department of Public Works and the Office of Mine Reclamation. All mining and reclamation shall comply with the provisions of the final plan. Any revisions to the plan shall be submitted to the Director for a finding of conformance.

b. No product shall be delivered from the subject property (except for product delivered to install road improvements as required by the FEIR) until the road improvement requirements of Project Condition 11 have been completed to the satisfaction of the County Department of Public Works. The permittee shall place evidence of such completion on file with the Director of Planning.

c. The permittee shall comply with all geotechnical mitigation measures listed in the Project FEIR.

d. Temporary slopes shall not be created that will interfere with the construction of finished slopes conforming to the requirements of the Mining and Reclamation Plan.

e. Unless otherwise specified in the Mining and Reclamation Plan temporary slopes affecting off-site property shall meet the requirements of Chapter 70 of Title 26 of the County Code.

f. The permittee shall implement measures to prevent erosion of adjacent lands by waters discharged from the site of mining operations and the off-site discharge of sediment. The permittee shall comply with all flood control and water quality mitigation measures listed in the Project FEIR including the Stormwater Pollution Prevention Plan (SWPPP).

g. Sediment shall not be discharged into off-site water bodies that will result in higher concentrations of silt than existed in such water prior to surface mining operations. The permittee shall comply with all flood control and water quality mitigation measures listed in the Project FEIR including the Stormwater Pollution Prevention Plan (SWPPP).

h. Stockpiles of overburden and minerals shall be managed to minimize water and wind erosion.

i. The removal of vegetation and overburden in advance of surface mining shall be kept to a minimum.

j. In addition to the air and water quality mitigation measures listed in the Project FEIR, the permittee shall comply with applicable rules and regulations of the Regional Water Quality Control Board and the Air Quality Management District.

k. The permittee shall implement reasonable and practicable measures to protect the habitats of fish and wildlife during surface mining operations. The permittee shall comply with all water resource and biological resource mitigation measures listed in the Project FEIR including the Habitat Protection Plan.

l. Surface mining operations and related structures shall not be located within 50 feet of any public street or highway or any lot or parcel of land other than the project site as defined in the Project FEIR unless the written consent of the owner of such property is first secured and recorded in the Los Angeles County Recorder's Office, and except where the contiguous property is currently or intermittently being mined in the same manner.

m. All mining operations, including aggregate processing and stockpiling, shall occur within the portion of the subject site which is north of Soledad Canyon Road. The development of water facilities, including water wells, pumping and pipeline facilities to provide water to the mining project, is permitted near the Santa Clara River as depicted in and as subject to the mitigation measures described in the Project FEIR.

n. The permittee shall comply with all air quality, noise control, and visual quality mitigation measures listed in the Project FEIR. The sound walls required by the Project FEIR near River's End Trailer Park shall be constructed by the permittee within one year of the effective date of this grant to the satisfaction of the Department of Public Works, and shall be continuously maintained by the permittee for the life of this grant. The sound walls near the proposed Bee Canyon Mobile Home Park shall be constructed within one year of the effective date of the approval of that project (if it is approved and constructed) to the satisfaction of the Department of Public Works, and shall be continuously maintained by the permittee for the life of this grant.

o. The boundaries of all property used or intended to be used for surface mining operations shall be posted within 90 days following the effective date of this mining permit, and permanently thereafter, with signs displaying the message "SURFACE MINING' in letters not less than four inches in height, and in letters not less than one inch in width, the message "This property may be used at any time for the extracting and

processing of sand and gravel and similar materials by Ordinance No. 1494, County of Los Angeles." Such signs shall be posted not more than 500 feet apart and displayed in such a manner as to give reasonable notice to nearby persons of the message contained thereon. Signs shall be promptly replaced as needed. The permittee shall cause such signs to be removed upon completion of all on-site mining and reclamation activities.

p. Except in cases of declared public emergencies, as directed by public agencies, the hours of operations shall be;

1. On Sunday of each week, the operations shall be closed for all blasting, aggregate excavation, crushing, screening, and processing operations;

2. Monday through Saturday of each week, the hours of operations shall be 5:00 a.m. to 10:00 p.m. for all aggregate mining, excavation, transporting and conveying, crushing, screening, processing; and stockpiling activities;

3. Blasting operations are prohibited between the hours of 7:00 p.m. and 7:00 a.m weekdays and Saturdays and precluded at any time on Sundays or holidays in conformance with provisions of the County Noise Ordinance; and

4. Project Conditions 9.p.1, 9.p.2, and 9.p.3 notwithstanding, 24 hours per day, seven days per week shall be the hours for all supply deliveries, all mobile equipment, aggregate plant, and batch plant maintenance activities, all batch plant operations, and all aggregate and concrete product loading and transportation shipment activities.

q. The permittee shall provide benches to control drainage on slopes or to provide access, or for public safety in conformance with the approved Mining and Reclamation Plan.

r. Unless otherwise specified in the approved Mining and Reclamation Plan, topsoil removed in surface mining operations shall be stored by the permittee at the site of mining operations and shall be used in future reclamation of the site.

s. Before commencement of any surface mining activity, the area to be used for such operations shall be enclosed with a fence as required by Chapter

11.48 of the County Code, where feasible and necessary as reasonably determined by the Director of Public Works.

t. The overnight storage of explosives on-site for use in mining operations is prohibited.

u. The permittee shall comply with the cultural resource mitigation measures contained in the Project FEIR and the November 2001 Project FEIR Mitigation Monitoring and Reporting Program.

v. The applicant shall post a sign at the facility entrance at a location visible to the public that provides the agency names and telephone numbers for their enforcement agents of the Regional Water Quality Control Board, the Air Quality Management District, and the County Department of Public Works.

w. The permittee shall be responsible for assuring that exiting trucks are legally covered and/or loaded. Allowing illegally loaded or covered vehicles to exit shall be a violation of these conditions.

x. The permittee shall complete reclamation of land affected by surface mining operations within one year of the completion of mining operations or as otherwise specified in the approved Mining and Reclamation Plan.

y. Final slopes shall be engineered and contoured so as to be geologically stable, to control drainage therefrom, and to blend with the surrounding topography where practical, in accordance with the approved Mining and Reclamation Plan.

z. The permittee shall revegetate all exposed lands that have been denuded by mining operations to provide sufficient ground cover and to control erosion from such lands. Revegetation shall occur in accordance with the revegetation specifications and monitoring schedule contained in the approved Mining and Reclamation Plan.

aa. The facility is authorized to mine up to 69.2 million tons of material to produce 56.1 million tons of total product (sand and gravel). Since actual annual production will vary with market demand and market demand can fluctuate by 20%, no more than 5.0 million tons of product per year may be produced and shipped during the life of the permit except in emergency situations as declared by a public agency. Compliance with the November 2001 Project FEIR Mitigation Monitoring and Reporting Program will ensure that the impacts analyzed in the Project FEIR are adequately mitigated.

ab. This grant prohibits the storage of fines material and other mining wastes on the north side of the ridgeline in the area identified as the North Fines Storage Area (NFSA).

ac. The permittee shall contract with a qualified biologist acceptable to the Department of Regional Planning to conduct a training session for all well and pipeline installation personnel prior to construction of Project wells and pipelines. The training session shall focus on information on the arroyo toad, what to look for in terms of indications of toad activity, limits on project disturbance, keeping the site clear of trash and debris, and that monitors should be immediately notified if indicators of the toad are encountered. Training of personnel shall be an ongoing process for the period of the permit and shall address all of the potential endangered/ threatened species for the area. The qualified biologist shall coordinate the preparation of a training video and a field-use pamphlet. The training video shall be shown to all new employees as part of the new employee orientation process. At a minimum, the training video shall describe the sensitive species and the habitat; provide the general provisions of the Endangered Species Act and penalties associated with Act violations; provide indicators for signs of presence of each of the species; and provide the restrictions and guidelines that must be followed by all personnel to reduce or avoid effects on the species during all project activities.

10. The submitted Mining and Reclamation Plan is approved, subject to the following modifications and conditions:

a. The permittee shall make the site available for inspection by the Department of Public Works upon request by an authorized representative of said Department. The permittee shall upon request by the County, make the site available for inspection by the Department of Regional Planning. Use of the subject property during the term of this grant as a Class1, 2 or 3 Waste Disposal Site (landfill), as those terms are used in the California Code of regulations is prohibited. Only marketable products: aggregate materials, including sand, gravel, and rock products, construction base, ready-mixed concrete and natural fines shall be exported from the site. Other excavated material shall be retained on site and used, as available, to backfill the mine cut areas in accordance with the Federal approvals for the Project. Permanent side slopes shall be backfilled consistent with the approved Mining and Reclamation Plan and pursuant to the geotechnical mitigations in the Project FEIR.

b. The permittee shall provide financial assurances for the completion of reclamation as required by Section 2770 and 2773.1 of the California Public Resources Code and Title 22 of the Los Angeles County Code and shall provide to the Department of Public Works such information as the Department deems necessary to set the amount of the assurances.

c. Should the mine become "idle" as defined in Section 2727.1 of the California Public Resources Code, the permittee shall comply with all requirements for submission of an interim management plan as set forth in Section 2770 of said Code and Title 22 of the Los Angeles County Code.

d. The permittee shall, within one year of any of the following events, unless otherwise specified in the approved Mining and Reclamation Plan, remove all machinery and other facilities not permitted by applicable zoning regulations and reclaim all mined areas not already reclaimed:

- Upon abandonment of the mine without intent to reopen;

- Upon revocation or expiration of the permittee's right to mine;

- If the mine becomes "idle", as defined in Section 2727.1 of the California Public Resources Code, and the permittee is required to reclaim because the mine is considered abandoned pursuant to the provisions of Section 2770 of said Code.

The permittee shall notify in writing the Director of Planning of any of the above occurrences within 30 days of any such occurrence.

e. The permittee shall file a covenant with the County Recorder containing the following statement within 30 days following the effective date of this grant:

"This property is subject to Mining and Reclamation Plan 91165-(5), requiring, together with other conditions, the completion of a reclamation program before use of the property for a purpose other than surface mining, except as otherwise provided in said plan. Agents of the County of Los Angeles and the State of California may enter upon such land to enforce the Mining and Reclamation Plan and to effect reclamation, subject to compliance with applicable provisions of law."

f. The permittee shall demonstrate at the building permit stage that the proposed structures are adequately protected from flood hazards.

g. The permittee shall submit final plans for sedimentation control facilities and on-site/off-site drainage improvements to the Department of Public Works for review and approval.

11. The permittee shall provide the following dedications and improvements prior to the commencement of any commercial mining or batch plant operation on the site except if an earlier trigger is stated. Said dedications and improvements shall be provided to the satisfaction of the Department of Public Works:

a. Dedicate 50-feet of right of way and slope easements from the latest IEC-approved centerline of Soledad Canyon Road to the satisfaction of the Department of Public Works. This shall occur prior to building permit issuance.

b. Provide one shared left-turn/through lane and one exclusive right-turn lane on the north approach and align with the existing access road for the C.A. Rasmussen mining facility.

c. Provide sufficient pavement on Soledad Canyon Road to provide a left-turn lane and one shared through/right-turn lane on both the east and west approaches.

d. Provide adequate sight distance and westbound merging lane to the satisfaction of the Department of Public Works.

e. Submit a detailed signing and striping plan to the Department of Public Works for review and approval.

f. Provide detailed road construction plans, including a grading plan, to the Department of Public Works for review and approval prior to any construction of road improvements.

g. The permittee shall demonstrate at the building permit stage that the proposed structures are adequately protected from flood hazards.

h. The permittee shall submit final plans for sedimentation control facilities and on-site/offsite drainage improvements to the Department of Public Works for review and approval.

12. The permittee shall provide funding to the Department of Public Works for the following future improvements in the vicinity of Soledad Canyon Road:

a. <u>State Route 14 Northbound Ramps/Soledad Canyon Road</u>

Prior to issuance of a building permit, the permittee shall provide its proportionate share of funding to the Department of Public Works to widen and modify the east approach of Soledad Canyon Road to provide two through lanes and one exclusive right-turn lane (add one westbound through lane). The project's share for this improvement is 9.1 percent. The permittee shall submit engineering cost estimates of the improvements to the Department of Public Works for approval and determination of the permittee's proportionate share of the funding, unless such determination has previously been made and approved by the Department of Public Works.

b. State Route 14 Southbound Ramps/Soledad Canyon Road

Prior to issuance of a building permit, the permittee shall provide its proportionate share of funding to the Department of Public Works to modify the westbound approach of Soledad Canyon Road to provide two left-turn lanes and one through lane, and modify the eastbound approach of Soledad Canyon Road and the State Route 14 southbound on-ramp to accommodate the two westbound left-turn lanes and one through lane. The project's share for this improvement is 6.5 percent. The permittee shall submit engineering cost estimates of the improvements to the Department of Public Works for approval and determination of the permittee's proportionate share of the funding, unless such determination has previously been made and approved by the Department of Public Works.

c. Soledad Canyon Road from State Route 14 to Bee Canyon Wash

CEMEX shall contribute its proportionate share towards the design, construction engineering, right of way acquisition, incidental costs, and construction costs, to widen Soledad Canyon Road between SR-14 northbound ramps to Bee Canyon Wash with a third lane which can serve as an alternative passing lane for the eastbound and westbound upgrade portions of the roadway. The current estimated amount is $600,000 (which is based on DPW's pro rata estimate of 30.7 percent for Phase II, which is inclusive of Phase I pro rata share) for construction costs of the widening and said estimate does not include the permittee's fair share for the proportionate costs of design, construction engineering, right of way and other incidental costs. The permittee shall be required to make such fair share payment upon a reasonable and good faith determination by the Director of Public Works that the roadway improvements are required based on the cumulative projects' actual implementation.

13. In lieu of Mitigation Measure T4 of the November 2001 Project FEIR Mitigation Monitoring and Reporting Program, which will not be implemented, the permittee will limit the Project's total (both inbound and outbound) truck trips to eight in the a.m. peak hour (6:00 a.m. to 7:00 a.m.) and twenty total (both inbound and outbound) truck trips in the p.m. peak hour (5:00 p.m. to 6:00 p.m.) for Phases I and II. The Transportation Management Plan ("TMP"), attached hereto as Exhibit A, shall limit outbound truck trips to 57 during the hour prior to the a.m. peak hour (5:00 a.m. to 6:00 a.m.) and 57 outbound truck trips during the hour following the a.m. peak hour (7:00 a.m. to 8:00 a.m.) The permittee will implement the following measures to limit the above-noted inbound truck trip limits: (i) the provision of a recorded telephone message delineating the truck limits; (ii) signage at the Project entrance; (iii) provision of flyers delineating these limits to truck drivers; and (iv) company literature indicating these truck limits. The failure of these measures to achieve the inbound limits shall not constitute a violation of the permit. This mitigation is subject to exception in cases of emergency as declared by a public agency. In the event of special projects, which may involve the need for aggregate or ready-mixed concrete for a continuous placement of ready-mixed concrete, this mitigation measure is subject to exception as reasonably determined by the Director of Public Works.

14. The permittee shall enter into a secured agreement with the Department of Public Works to pay for its pro-rata share of the traffic signal installation costs at the following intersections:

    a. <u>Project Access Road/Soledad Canyon Road</u>
    The permittee shall pay the entire cost.

    b. <u>SR 14 Southbound Ramps/Soledad Canyon Road</u>
    The permittee shall pay its share, estimated to be 6.5 percent.

    c. <u>SR 14 Northbound Ramps/Soledad Canyon Road</u>
    The permittee shall pay its share, estimated to be 9.1 percent.

    Traffic signals shall only be installed when actual traffic conditions warrant the signals.

15. Consistent with all other conditions of this permit, provisions shall be made for all natural drainage to the satisfaction of the Department of Public Works.

16. The permittee shall implement in a timely manner all mitigation measures in the Project FEIR in accordance with the attached January 2004 Project FEIR Mitigation Monitoring and Reporting Program. As a means of ensuring the effectiveness of the mitigation measures, which are conditions of approval, the permittee shall submit mitigation monitoring reports to the Department of Regional Planning as follows:

a. At the time of building permit issuance, including verification of payment of applicable fees;

b. Annually;

At the time of submittal for the first report noted above, the permittee shall make an initial deposit of the sum of $5,000.00 with the Department of Regional Planning to defray the cost of reviewing and verifying the information contained in the reports required by this condition. These funds shall be replenished to a balance of $5,000.00, if at any time the funds balance drops to less than $1,000.00.

17. All mining, batch plant operation, and product transportation shall not be commenced during any second stage smog alert declared by the South Coast Air Quality Management District that is applicable to the Project area.

18. The project will require the filing of a Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code. The Notice of Determination will not be filed until the appropriate fees required by the California Department of Fish and Game are paid. The fees are based on the type of environmental document approved for this project; the current maximum amount is $875.00.

19. The subject property shall be developed and maintained in substantial compliance with the FEIR and the approved Mining and Reclamation Plan. In the event that subsequent revised plans are submitted they must be accompanied by the written authorization of the mineral estate owner.

20. The permittee shall provide three (3) copies of a sign plan, which may be incorporated into a revised plot plan, submitted to and approved by the Director of Planning before issuance of a building permit. The sign plan shall show the size, type, and location of all signs on the subject property.

21. The permittee shall provide three (3) copies of a landscape plan, which may be incorporated into a revised plot plan, submitted to and approved by the Director of Planning before issuance of a building permit. The landscape plan shall be in conformance with the requirements of the Biological Resources section of the Project FEIR. The permittee shall provide landscaping along the Soledad Canyon Road north street frontage, to the satisfaction of the Director of Planning, consisting of attractive native vegetation (drought tolerant species). The landscape plan shall show the size, type, and location of all plants, trees, and watering facilities. All landscaping shall be maintained in a neat, clean and

healthy condition, including proper pruning, weeding, removal of litter, fertilizing and replacement of plants when necessary.

22. All structures shall conform with the applicable requirements of the Division of Building and Safety of the Department of Public Works.

23. The subject facility shall be developed and maintained in compliance with the applicable requirements of the Los Angeles County Department of Health Services. Adequate water and sewage disposal facilities shall be provided to the satisfaction of said Department, however, commercially available water may be imported pursuant to Project FEIR Mitigation Measure WR2, and a septic tank that is designed for routine pumpout may be installed pursuant to Project FEIR Mitigation Measure WQ4.

24. Upon receipt of this letter, the permittee shall contact the Fire Prevention Bureau of the Los Angeles County Fire Department to determine what measures, if any, may be necessary to protect the property from fire hazard and as reasonably determined by the Fire Department shall be implemented.

25. The permittee shall secure any necessary permits from the South Coast Air Quality Management District and shall fully comply with the terms of said permits.

26. All structures, walls, and fences open to public view shall remain free of extraneous markings, drawings, or signage. These shall include any of the above that do not directly relate to the business being operated on the premises or that do not provide pertinent information about said premises.

27. In the event such extraneous markings occur, the permittee shall remove or cover said markings, drawings, or signage within 24 hours of such occurrence, weather permitting. Paint utilized in covering such markings shall be of a color that matches, as closely as possible, the color of the adjacent surfaces. The only exceptions shall be seasonal decorations or signage provided under the auspices of a civic or non-profit organization.

28. The permittee shall submit quarterly compliance reports to the County and shall keep and maintain accurate records and logs and provide them to the County Compliance Monitor, Department of Public Works personnel, and Department of Regional Planning personnel within a 72-hour notice. Such records and/or logs shall include the following:

    a. An accounting of total aggregate product shipped off-site on a monthly basis, and the total amount of material mined on a yearly basis.

b. The number of daily truck trips inbound and outbound from the project site. These records shall be kept on an hourly basis.

29. The permittee shall insure that all loads leaving the site shall have their loads covered, or have free board as required by state law, to minimize fugitive air-borne particulate matter.

30. **County Compliance Monitor.** The permittee shall provide site access to, and shall fund certain costs annually during the term of this grant of, a compliance monitor. The compliance monitor shall be an independent contractor, not otherwise employed by the County, and shall be selected jointly by the County and permittee. The engagement of the compliance monitor shall be for a term of one year, with said engagement to be reviewed annually by the County and permittee, and subject to renewal by consensus or to termination by either County or permittee. If terminated, a new compliance monitor shall be selected under the same terms described above. The compliance monitor's duties shall consist of the following: (i) on-site monitoring one day per month, for up to eight hours that day, to be funded by permittee; (ii) off-site reporting for up to four hours per month, to be funded by permittee; and (iii) on-site monitoring for one additional day per month, for up to eight hours that day, to be funded by the County and said determination for the necessity for said monitoring shall be at the County's sole discretion.. The permittee shall be responsible for providing advance notice to the compliance monitor of any extra-ordinary or unusual maintenance activities that occur on Sundays. The compliance monitor shall be assigned to the project site to monitor the operator's compliance with the approved surface mining permit and the approved Mining and Reclamation Plan and with all the project conditions and mitigation measures approved for this project, including those conditions/mitigation measures addressing site reclamation. The compliance monitor shall report jointly to the County (DPW and DRP), the United States Bureau of Land Management ("BLM"), and permittee. The compliance monitor shall prepare and submit monthly written compliance reports jointly to the County, the BLM, and permittee that shall include, but not be limited to, the status of the permittee's compliance with the conditions of approval and conformance with the Project FEIR Mitigation Monitoring and Reporting Program, and a summary of non-compliance incidents and specific actions taken by the permittee to correct any non-compliance. The compliance monitor shall notify the permittee's on site manager of any non-compliance, and if corrective action is not timely taken, shall notify the Director of Planning, the BLM, and permittee. Nothing in this Project Condition 31 shall in any way abridge or waive permittee's due process or other rights, protections, or obligations relating to asserted non-compliance, as set forth in the Surface Mining and Reclamation Act (SMARA), federal law, or County Codes.

31. **Permit Compliance Inspection Deposit.** The permittee shall deposit with the Department of Regional Planning the sum of $6000.00. The fee shall be placed in a performance fund that shall be used exclusively to compensate the Department of Regional Planning for all expenses incurred while inspecting the premises and meeting with the County Compliance Monitor to determine the permittee's compliance with the conditions of approval. The fee provides for twenty (20) annual inspections and a maximum of forty (40) unannounced inspections (which may be conducted twice yearly or more frequently if necessary).

32. A **Community Advisory Committee (Committee)** shall be created which will serve as a liaison between the permittee and the community and as a means for the community to communicate with the County and other regulatory agencies regarding the operation of the mine. This Committee shall consist of seven (7) members who will be appointed by the Director of Planning or his designee and whose appointments shall be subject to confirmation by the Supervisor of the Fifth Supervisorial District. The Committee shall be comprised of representatives of the following organizations in the numbers specified:

- Stonecrest Homeowner's Association (1)
- Sand Canyon Homeowner's Association (1)
- Sulfur Springs School District (1)
- River's End Trailer Park (1)
- Agua Dulce Town Council (1)
- Acton Town Council (1)
- City of Santa Clarita (1)

The Committee shall be composed of persons who reside or represent businesses (not including construction materials businesses) and public agencies in the vicinity of the project. The governing board of each represented organization shall annually provide written notice to the permittee and the Department of Regional Planning of the names of its designated representative. Failure of the governing boards to annually report the names of their representative shall not be construed as a violation of this grant.

Upon appointment of the Committee, the permittee shall do the following: provide up to six times per year qualified personnel to attend the Committee meetings; provide funding for the County's cost of coordinating the Committee meetings, not to exceed $1,000 for the year's operating costs, for the life of the permit; and provide up to four times per year accommodations for Committee meetings. Meetings shall be open to the general public and conducted in accordance with generally accepted meeting protocol.

The Committee procedures shall be determined by the membership. The activities of the Committee may include but are not limited to the following: discussion of issues related to project operations at the Soledad Canyon Mine, discussion of reclamation activities, review of compliance reports, and the preparation and submission of written reports to the Regional Planning Commission or the Director of Planning. The Director of Planning shall designate a representative to serve as coordinator for the Committee.

Throughout the term of this permit, the Committee shall meet at least on a semi-annual basis but the frequency of meetings shall be determined by the membership and shall not conflict with the permittee's minimum notification requirements contained herein. In addition to the meetings of the Committee, the permittee shall also meet with the community at large at least annually. The meeting time, location and agenda shall be coordinated with the Director of Planning, and the permittee shall provide adequate written notice by posting at the project site, on the permittee's Internet Website and publication in a newspaper of general circulation a minimum of 15 calendar days prior to the meeting. The permittee shall also be responsible for providing the same written notice to the members of the Committee.

33. The permittee shall post a changeable-copy sign, both in English and Spanish, on the subject property at a location visible to motorists traveling in both directions on Soledad Canyon Road, providing advance-notice to the public of the days and approximate hours during which blasting events may be conducted on the site. The sign shall be at least 4 square feet in size but shall not exceed 9 square feet. In addition the permittee shall provide the same information on blasting events, in advance of occurrence, on the operator's Internet Website.

34. The permittee shall provide a toll-free telephone number to the community to facilitate communication twenty-four hours each day the facility is in operation regarding any issues arising from operation of the facility. This telephone number shall be conspicuously posted, along with the operator's Internet Website address in conjunction with the following sign requirements. The permittee shall post a minimum of one exterior sign at the entrance to the subject site in English and Spanish, displaying the name of the facility operator, the contact telephone numbers for the facility site manager, the Department of Regional Planning Zoning Enforcement Section and the County Compliance Monitor and the Air Quality Management District. The sign shall be at least 4 square feet in size but shall not exceed 9 square feet. The sign shall include the toll-free "hotline" telephone number to facilitate complaint resolution and the operator's Internet Website address. The sign shall be conspicuously posted throughout the term of the grant at the main entrance and shall be visible and accessible to the public traveling in both directions along Soledad Canyon Road. The permittee shall implement a program to address and promptly resolve problems should they

occur. The permittee shall take reasonable and necessary actions to mitigate complaints should they occur.

35. The permittee shall publish a quarterly newsletter (in English and Spanish) to be distributed to neighboring property owners and residents within a one-mile radius of the subject property, and to Committee members, the Departments of Regional Planning and Public Works, and the County Compliance Monitor. Said newsletter shall include the names and telephone numbers of emergency and community liaison personnel, a summary of recent mitigation monitoring reports, solicitation of community input, information regarding employment opportunities, the "hotline" telephone number, and the mine operator's Internet Website address. The operator shall post and make available the quarterly newsletter at their Internet Website.

36. **Open Space/Visual, Air Quality, and Traffic Fund.** In order to address environmental concerns raised by members of the public in the surrounding communities, the permittee shall deposit funds into an interest bearing Open Space/Visual, Air Quality, and Traffic Fund, established for the express purpose of improvement, enhancement and replenishment of open space, parks, trails, and traffic improvements, in the communities proximate to the mining operation and to assist in the improvement and enhancement of air quality. Monies in the Fund shall primarily be used to benefit the surrounding communities in closest proximity to the Project and no monies shall be spent on projects or programs outside jurisdictional boundaries of the greater Santa Clarita Valley. The Director of Planning shall seek authority from the Board of Supervisors before making expenditures from the Fund.

Payment by CEMEX to the Fund will be as follows:

A.	Initial payment due at commencement of operations:	$350,000;
B.	Yearly installments for the next ten years:	$100,000;
C.	Payment at the end of Year Eleven:	$200,000.
	Total payments:	$1,550,000.

Yearly installments in paragraph B., above, to be paid on or before the anniversary of the Initial Payment set forth in paragraph A., above (i.e., every twelve months). The payments required in paragraphs B and C above shall be made with interest such that the net present value of this component of the settlement (i.e., paragraphs A, B, and C) at the time of the Initial Payment is $1,550,000 (net present value interest rate of 7%).

37. **Clean School Bus Program.** In order to provide additional benefit to the community, the permittee agrees to the following: The permittee shall contribute $275,000.00 which may be used by the following local school districts in

connection with a local or AQMD-coordinated clean school bus program. The school districts include: William S. Hart Union High School District; Sulphur Springs Union School District; Saugus Union School District; and Acton-Agua Dulce Unified School District. These monies may be utilized towards the purchase of alternative fuel buses, lower-emitting diesel buses, or particulate trap retrofits for existing buses in order to provide a benefit to school children. The permittee shall remit the lump sum payment to the Director of Regional Planning following successful completion of any action as described in Project Condition 3 herein, and, following start-up of Project operations.

38. **Liability Insurance.** The permittee shall maintain liability insurance in a minimum amount of $50,000,000. To the extent that the Federal Contracts stipulate higher amounts for coverage, then the required amounts shall be consistent with those required by the Federal Contracts.

39. **Exhaust Particulate Filter Truck Retrofit.** The permittee shall install, maintain and operate particulate filters that achieve 95 percent or greater reduction in diesel exhaust particulates, within five years from the effective date of this grant, on the following equipment operating on the Soledad Canyon project site, based on currently available technology:13 cu. yd. pit loaders, 100-ton haul trucks, front end loaders, 35-ton dump trucks, and water trucks. All trucks within the applicant's fleet stationed and/or operating from the Soledad Canyon project site, including cement trucks, shall be required to meet the emissions standards of the Environmental Protection Agency and California Air Resources Board.

    Since significant advances in emission-control technology for heavy equipment are anticipated in the future, the permittee may review new technologies for their feasibility and effectiveness and may implement alternative methods for achieving equivalent or better diesel particulate reductions in place of particulate filters subject to the prior written authorization of the Director of Planning. Such alternative methods may include, but are not limited to, conversion of some equipment to alternative or dual-fuel technology, purchase of lower emitting equipment, and use of low sulfur diesel.

40. **Cultural Resource.** The permittee shall immediately cease activity in the area of a newly discovered cultural resource item, as listed in paragraph 2 of Project FEIR Mitigation Measure CR3, on the subject property, and, within 72 hours of the discovery, report such finding to the Department of Regional Planning.

TAB G

FINAL
ENVIRONMENTAL IMPACT REPORT

VOLUME 6 - TECHNICAL APPENDICES

SOLEDAD CANYON

SAND AND GRAVEL MINING PROJECT

STATE CLEARINGHOUSE NO. 91111066

PROJECT NO. 91165
LOS ANGELES COUNTY
DEPARTMENT OF REGIONAL PLANNING

APRIL 2001

Hilltop Geotechnical, Inc.

HIGHLAND OFFICE - *27210 E. 3rd Street, Highland, CA 92346 (909) 862-0897*
RUNNING SPRINGS OFFICE - *P.O. Box 663, Running Springs, CA 92382 (909) 867-5593*

March 23, 2001

CEMEX California Aggregates, Inc.
1201 West Gladstone Street
Azusa, California 91702

Project No. 97018
Report No. 9

Attention: Mr. Brian Mastin

Subject: Slope Stability Review for "Maximum Extent of Mining Reduced North Fines Storage Area Alternative with Modified Approach to Mining Cuts"
Proposed Soledad Canyon Aggregate Facility
Soledad Canyon Area
Los Angeles County, California

References:

1. **Hilltop Geotechnical, Inc.** September 30,1997, *Supplemental Slope Stability Evaluations, Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California,* Project No. 97018, Report No. 5.

2. **Hilltop Geotechnical, Inc.** October 14,1997, *Surficial Slope Stability Evaluations, Final Reclaimed Contour Configurations, Proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California,* Project No. 97018, Report No. 6.

3. **Hilltop Geotechnical, Inc.** January 28, 1998, *Slope Stability Evaluation for the "Optional Approach" To Mining, Temporary and Reclaimed Contour Configurations Proposed Soledad Canyon Aggregate Facility Soledad Canyon Area Los Angeles County, California*, Project No. 97018, Report No. 8.

4. **Dan Pellow,** March 22, 2001, *RNFSA Project with Mitigated Mining Cuts* ("Modified Approach").

5. **Dan Pellow**, Undated, *Maximum Extent of Mining Reduced NFSA Alternative with Modified Approach to Mining Cuts - Figure 1,* ("Modified Approach").

In accordance with your request, we have reviewed our slope stability evaluations with respect to the Referenced Nos. 4 and 5 plan contour configurations for the maximum extent of mining and the reclaimed contours at the end of mining for the Reduced North Fines Storage Area

Alternative with Modified Approach to Mining Cuts at CEMEX's proposed Soledad Canyon Aggregate Facility, Soledad Canyon Area, Los Angeles County, California.

The purpose of this slope stability review was to augment the prior general stability analysis and evaluate the temporary cut slopes during mining and the final slope configurations planned for the reclamation of the site using the "Modified Approach" to mining plan in order to comply with the Los Angeles County Department of Public Works stipulations regarding factors of safety.

Los Angeles County Department of Public Works and generally accepted geotechnical industry standards for minimum factors of safety for permanent slopes are 1.5 and 1.1 for static and pseudo-static (seismic) loading conditions, respectively, and 1.25 under static conditions for temporary cut slopes.

Specific slope stability evaluations were previously conducted for the Referenced Nos. 1, 2 and 3 Plans. It is our understanding that all previous slope stability evaluations have been reviewed and approved by the Los Angeles County Department of Public Works. To aid in final design of the mining plan, additional generic slope stability analyses were also performed to evaluate the maximum slope heights and inclinations for static conditions and pseudo-static conditions for final reclaimed slopes as well as static conditions for temporary cut slopes. The results of the generic slope stability analyses for final reclaimed slopes and temporary slopes are summarized in the following table.

SUMMARY OF SUPPLEMENTAL GENERIC
SLOPE STABILITY EVALUATIONS

Slope Inclination	Maximum Slope Height (ft.)	Static Factor of Safety	Pseudo-Static Factor of Safety (a=0.16g)
1:1 with 15' Benches Every 100 Vertical Feet (1.15:1 Overall)	350	1.5	1.1
1.1:1 with 15' Benches Every 100 Vertical Feet (1.25:1 Overall)	525	1.5	1.1
1.15:1 with 15' Benches Every 100 Vertical Feet (1.30:1 Overall)	700	1.5	1.1
1:1 Temporary Cut	440	1.25	NA

All proposed slope heights and cut slope inclinations for the "Modified Approach" to mining cuts for temporary cut slopes and final reclaimed slopes are lower and/or flatter than those presented in Table No. 1. Accordingly, based upon the results of prior slope stability evaluations and review of the referenced Nos. 4 and 5 plans, it is our opinion that the proposed temporary cut slopes and the final reclamation cut and fill slopes for the "Modified Approach" to mining cuts are considered stable under both static and seismic loading based upon Los Angeles County Department of Public Works and geotechnical industry accepted standards.

CLOSURE

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical engineers practicing in this or similar localities. No other warranty, express or implied, is made. The scope of our services did not include any environmental assessment or study for the presence or absence of hazardous or toxic materials in structures, soil, surface water, groundwater or air, below or around this site. This report was prepared for the use of the CEMEX and their designates in cooperation with our office to be used as an aid in the design of the proposed project. We cannot be responsible for the use of this report by others without observation of the grading operation by our personnel. This report is not a bidding document, and any contractor reviewing this report must draw his/her own conclusion regarding specific construction techniques to be used on this project.

The analyses and recommendations in this report are based in part upon data obtained from prior laboratory tests and geotechnical analyses performed by others. The nature and extent of variations of the native materials and fill soils beyond those present in the laboratory samples may not become evident until construction. If conditions are encountered during construction that appear to be different than those indicated by this report, this office should be notified since it may be necessary to reevaluate the recommendations of this report.

This office should be advised of any changes in the project scope or proposed mining. In the event that any changes of the project are planned, the conclusions and recommendations contained in this report shall be reviewed and the report should be modified or supplemented as necessary.

If you have any questions after reviewing the findings and recommendations contained in this report, please do not hesitate to contact this office. This opportunity to be of professional service is sincerely appreciated.

Respectfully submitted,

HILLTOP GEOTECHNICAL, INC.

Mark Hulett, CEG 1623

President

MH/ao

Attachments:

Reference No. 4 - RNFSA Project with Mitigated Mining Cuts

Reference No. 5 - Maximum Extent of Mining Reduced NFSA Alternative with Modified Approach to Mining Cuts - Figure 1

This office should be advised of any changes in the project scope or proposed mining. In the event that any changes of the project are planned, the conclusions and recommendations contained in this report shall be reviewed and the report should be modified or supplemented as necessary.

If you have any questions after reviewing the findings and recommendations contained in this report, please do not hesitate to contact this office. This opportunity to be of professional service is sincerely appreciated.

Respectfully submitted,

HILLTOP GEOTECHNICAL, INC.

Mark Hulett, CEG 1623

President

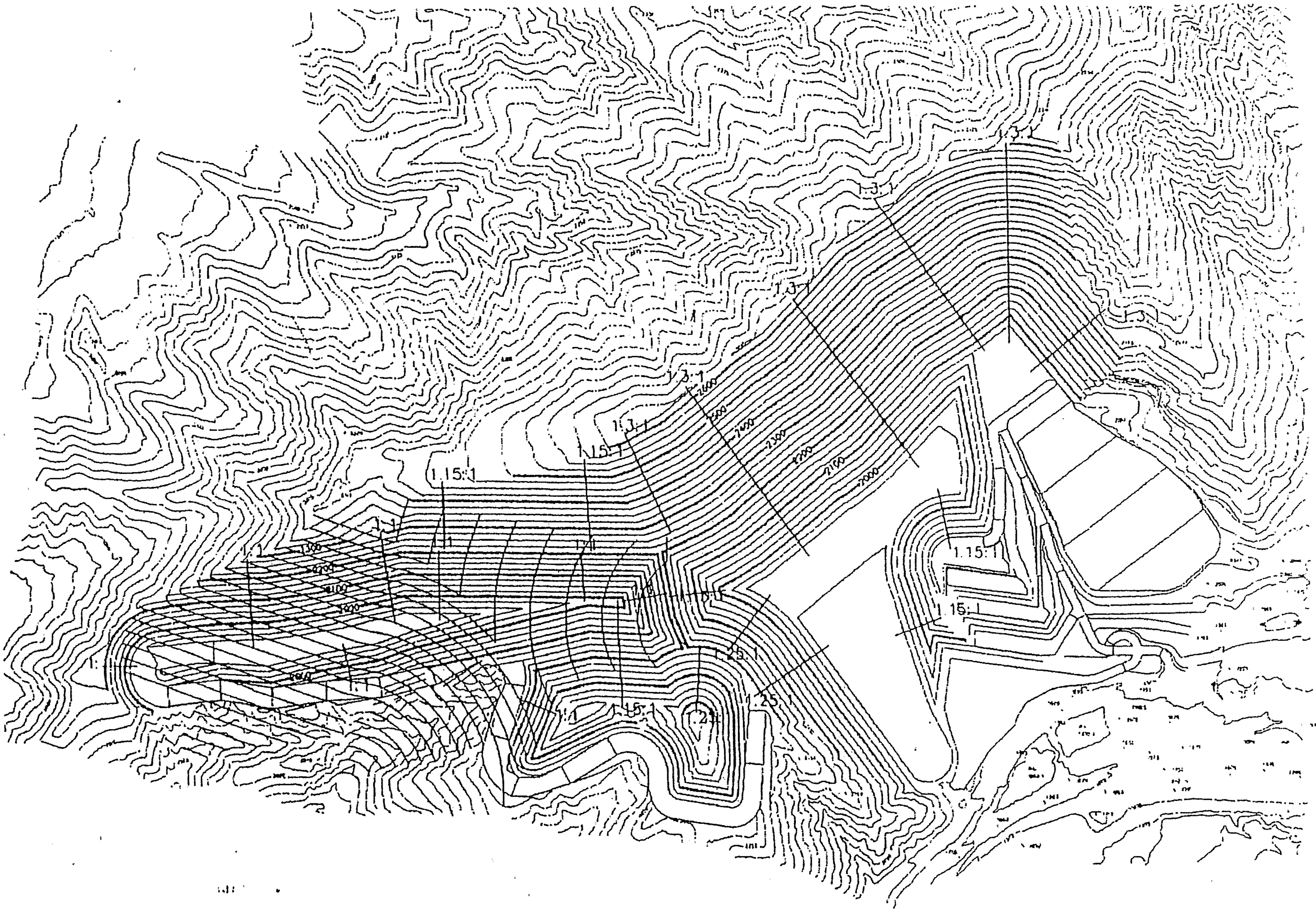
REGISTERED GEOLOGIST
MARK
EDWARD HULETT
E.G. No. 1623
Exp. 12/31/01
ENGINEERING
STATE OF CALIFORNIA

MH/ao

Attachments:

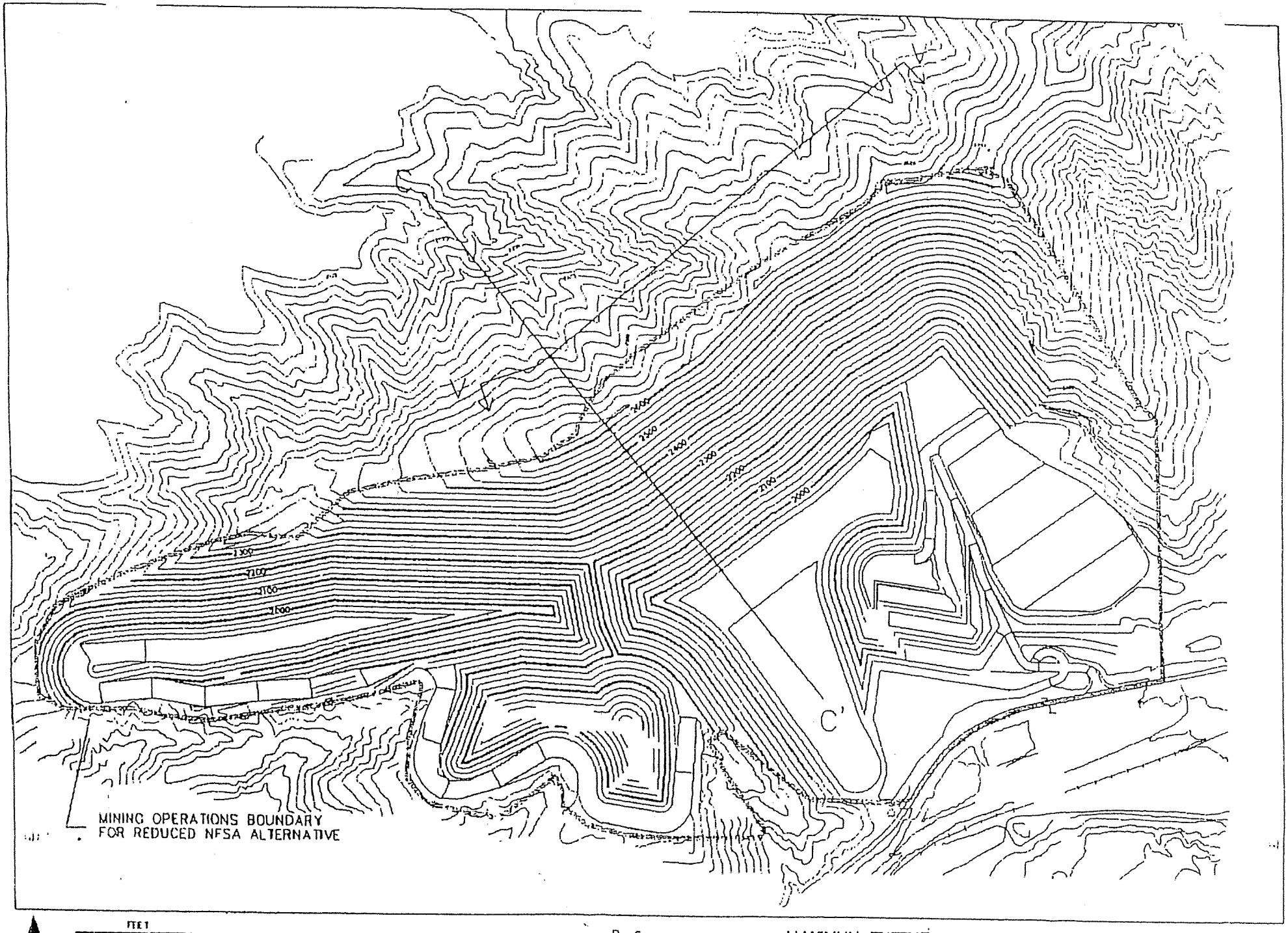
Reference No. 4 - RNFSA Project with Mitigated Mining Cuts

Reference No. 5 - Maximum Extent of Mining Reduced NFSA Alternative with Modified Approach to Mining Cuts - Figure 1



Reference No 4 RNFSA Project With Mitigated Mining Cuts

1 IN. = FT.



Source: DANIEL J. PELLOW CONSULTING

Reference No. 5

MAXIMUM EXTENT OF MINING REDUCED NFSA ALTERNATIVE WITH MODIFIED APPROACH TO MINING CUTS
FIGURE 1

WEST COAST
ENVIRONMENTAL
AND ENGINEERING

4253 Transport Street, Suite A
Ventura, CA 93003
Phone 805/644-7976 Fax 805/644-5929

444 South Flower Street, 31st Floor
Los Angeles, CA 90071
Phone 213/229-0075 Fax 213/229-0088

www.wcenviro.com

March 23, 2001

Mr. Brian R. Mastin, Environmental Affairs Manager
CEMEX
P. O. Box 575
Azusa, CA 91702-0575

Subject: **Addendum to the Drainage Concept For the RNFSA Project with Mitigated Mining Cuts** **TR110**

Reference: 1. Drainage Concept For Transit Mixed Concrete Company Soledad Canyon Project, Prepared by C. A. Rasmussen Company, dated June 1993.

2. Addendum to the Drainage Concept For Optional Approach to Mining Cuts, dated March 26, 1998

Dear Mr. Mastin:

Purpose

The Addendum to the Drainage Concept For Optional Approach to Mining Cuts (RNFSA Project), dated March 26, 1998 has been evaluated to determine what, if any changes would be required if the Reduced North Fines Storage Area Project (RNFSA) with Mitigated Mining Cuts is adopted. The evaluation was limited to changes in the drainage areas and what effect these changes would have on the size of the basins and culverts which are estimated in Reference 1.

Discussion

The RNFSA Project with Mitigated Mining Cuts described in the CEMEX letter to Dr. Daryl Koutnik, County of Los Angeles Department of Regional Planning, dated March 14, 2001, will not affect the conclusions in Reference 2 above with the exception that Desilting Basins A, B and C will no longer be needed. These basins were associated with the North Fines Storage Area. There will be no NFSA with the Mitigated Mining Cuts Plan, so there will be no Desilting Basins A, B and C.

While there are some changes in the outline of the drainage areas for Desilting Debris Basins 2E and D, these changes will not require redesign of the Basins. The drainage area for

Desilting Debris Basin D is not as large with the Mitigated Mining Cuts Plan as it originally was under the Concept Plan, see Table 1. The size of this basin was not decreased under the Optional Plan, reference 2, so it is still sufficient. The drainage area for Desilting Debris Basin 2E has changed slightly with additions in some places and deletions in others. These changes cancel each other out and leave the total area essentially the same.

Table 1 - Drainage Areas in Acres - Concept, RNFDA Project and Mitigated

Basin	Exist	Concept max	RNFSAI max	Mitigated max	Comment
1	N/A	15	22[A]	22[A]	No change from optional plan
2E	N/A	148	138	138	No Change
A	34	39	34	N/A[B]	N/A
B	52	52	45	N/A[B]	N/A
C	14	14	14	N/A[B]	N/A
D	27	45	20	24	No Change
F	35	35	20	20	No Change

A RNFSA and Mitigated Plans anticipate aggregate processing plant removal while Concept Plan did not.
B There will be no North Fines Storage Area under the Mitigated Plan. Since basins A, B and C were for the North Fines Storage Area they are no longer needed.

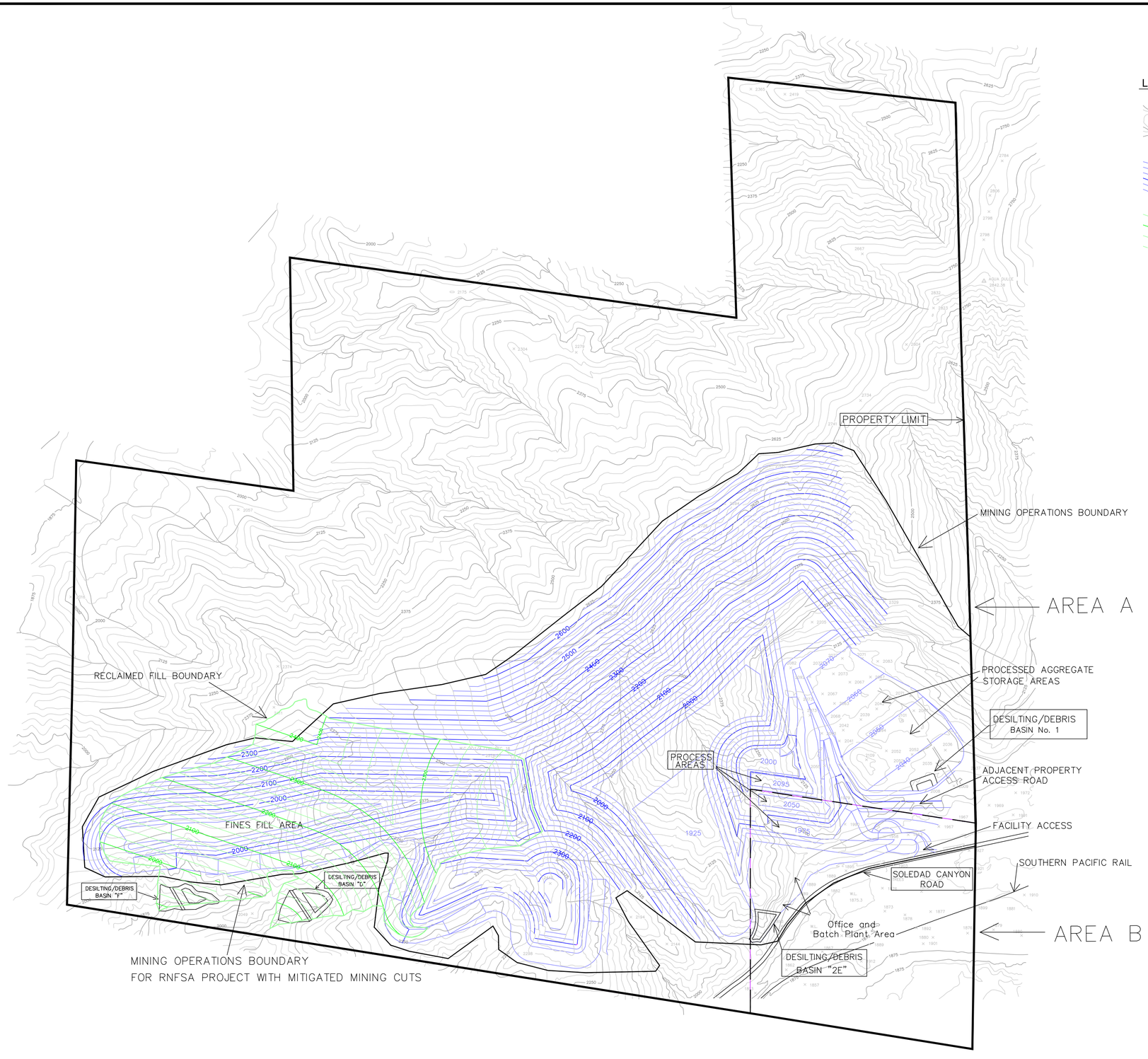
There will be no changes to the Hydrology Summary which was described in Reference 2. The culvert Hydrology Summary on Page 13 of Reference 1 will not change. The discussion of Basic Function during Lessor Storm Events, Page 14, and Design Criteria Requirements Summary, Page 16, of Reference 1 remains valid for the Mitigated Mining Cuts Plan.

Respectfully submitted,

Bill Smith, P. E.

REGISTERED PROFESSIONAL ENGINEER
BILLY A. SMITH
No. C 051173
Exp. 9/30/01
CIVIL
STATE OF CALIFORNIA

TAB H



LEGEND

Existing Contours (Gray)

Maximum Extent of Mining Contours (Blue)

Reclaimed Fill Contours (Green)

Final Reclamation Plan Figure

Soledad Canyon Project
L.A. County #91-165(5)
CEMEX Construction Materials, L.P.

WEST COAST ENVIRONMENTAL AND ENGINEERING

PROJECT: CEM102-300-03			
DRAWN BY: DJP	DATE: 10/16/03	REVISION: 11/26/03 BAJ	
APPROVED BY: DSM	DATE: 10/29/03	PRINTED: 1/12/04	
DRAWING: Exhibit-A_11-26-03.dwg		SCALE: As Shown	

Prepared by Daniel J. Pellow,
California Registered Civil Engineer #28164,
Dated Oct. 16, 2003

TITLE:
SOLEDAD RECLAMATION PLAN

PREPARED FOR:
CEMEX CONSTRUCTION MATERIALS, INC.

N

SCALE: 1" = 300'
0 300

CONTOUR INTERVAL: 25 FT

SHEET: 1/1

DATE: 10/16/03

DANIEL J. PELLOW CONSULTING
2030 ROUTE 66, SUITE 300, GLENDORA, CA. 91740
PHONE: (626) 335-0656 FAX: (626) 852-9408

FINANCIAL ASSURANCE COST ESTIMATE (Exhibit G)

CEMEX, Inc.
Soledad Canyon Project
12101 Soledad Canyon Road
Los Angeles County, CA

January, 2004

Prepared for: Los Angeles County Department of Public Works
900 S. Fremont Ave., 3rd Floor
Alhambra, California 91803

Prepared by: West Coast Environmental and Engineering
1838 Eastman Avenue, Suite 200
Ventura, CA 93003

FINANCIAL ASSURANCE COST ESTIMATE
CEMEX, Inc.
Soledad Canyon Project

January, 2004

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ATTACHMENTS
Attachment A: Curtis Plant Demolition Estimate

FINANCIAL ASSURANCE COST ESTIMATE
CEMEX, Inc.
Soledad Canyon Project

January, 2004

1.0 INTRODUCTION

In accordance with the Surface Mining and Reclamation Act (SMARA) Public Resources Code Section 2710 et seq, (as amended) surface mining operators are required to submit lead agency approved financial assurance costs for reclamation. The financial assurances are required so the public will not bear the cost of reclaiming abandoned surface mining operations. In the event of such abandonment or financial incapability, the funds will be used by the lead agency or the Department of Conservation to reclaim the mined site.

This financial assurance calculation has been prepared specifically for the CEMEX, Inc. (CEMEX) proposed Soledad Canyon Sand and Gravel Mining Operation located at 12101 Soledad Canyon Road, Los Angeles County, California. CEMEX is currently pursuing a Surface Mining Permit from Los Angeles County, Project Number 91-165-(5). The site is located in Sections 9 and 16 of Township 4 North, Range 14 West; San Bernardino Base and Meridian. The site is within an unincorporated area of Los Angeles County, north of Soledad Canyon Road and west of Agua Dulce Canyon. Mining has been conducted intermittently on the site since 1958.

The amount of financial assurance required is based not only on the type of facility that exists, but also the amount of past mining and disturbances that would require reclamation. This amount is calculated on a site-specific basis and is adequate to ensure that the lead agency or the Department of Conservation can reclaim the portion of the land which has been disturbed. Therefore, the amount of financial assurance required for a mining operation may vary from year to year and may increase or decrease in price over the life of the mining operation.

The amount of financial assurance for the proposed Soledad Facility has been calculated based on an analysis of the physical activities necessary to implement the approved reclamation plan after the first year of mining has been completed. These activities include cut and fill of slopes, plant structures and equipment removal, revegetation, and a percentage to cover contingency costs. Unit costs for these activities were estimated from Means Heavy Construction Cost Data (2003) and a third party estimate for revegetation costs developed for the operator's Ventura County Facility (Fruit Growers Laboratory, 1996). The estimated costs include removal of the mill previously operated by Curtis Sand and Gravel.

2.0 PRIMARY RECLAMATION ACTIVITIES

2.1 Cut and Fill

Description of Task:

Existing areas mined in the past and areas mined during the first year will require cut and fill to obtain the final slopes described in the reclamation plan.

Methods to be Used:

Total cut and fill will be balanced in the field to insure no import or export of fill material. Earthwork necessary for site reclamation in areas where topography has no physical restriction can be accomplished by excavating a balanced cut and fill using a dozer and then doing compaction on fill areas as necessary. Therefore, there is no added cost for the fill (see A and B below). Cost of slope toe keys based on verbal estimate from Mark Hulett, Hilltop Geotechnical.

Miscellaneous Information:

Means (2003) reference for balanced cut and fill (cut only in Means): 02315-410-4220, assumes 150' haul distance

Means (2003) reference for fill: 02315-120-4220, assumes 150' haul distance

Cost Estimates:

A. Equipment - List all equipment required to complete identified task.

Activity	Equipment	Quantity	Unit	$/Unit	Cost ($)
for balanced cut & fill - existing disturbed area	dozer	281,694[1]	Yd^3	1.71	$481,697
for fill - desilting basins	dozer	17,424	Yd^3	0.80	$13,939
				Total Equipment Cost for this Task	*$495,636*

B. Labor - List all labor categories to complete identified task.

Activity	Labor Category	Quantity	Unit	$/Unit	Cost ($)
for balanced cut & fill - existing disturbed area	equipment operator/laborer	281,694[1]	Yd^3	0.70	$197,186
for fill	equipment operator/laborer	17,424	Yd^3	0.33	$5,750
				Total Labor Cost for this Task	*$202,936*

C. Miscellaneous

Item	Quantity	$/Unit	Cost ($)
slope toe keys		10% of total[2]	$69,857
		Total Miscellaneous Cost for this Task	*$69,857*

[1] Average End Area Calculations provided by Bill Smith, P.E.

[2] Cost based on verbal estimate from Mark Hulett, Hilltop Geotechnical.

D. Direct Cost for this Task

Equipment Cost	*$495,636*
Labor Cost	*$202,936*
Miscellaneous Cost	*$69,857*
TOTAL DIRECT TASK COST	***$768,429***

2.2 Asphalt, Sign, Fence Removal

Description of Task:

Remove asphalt, signs, and chain link fence on site.

Methods to be Used:

Asphalt will be removed with a demolition hammer, front end loader and backhoe. A backhoe will be used for sign and fence posts.

Miscellaneous Information:

Means (2003) reference for asphalt removal: 02220-875-1750
Means (2003) reference for sign removal: 02220-875-0860
Means (2003) reference for fence removal: 02220-875-0700

Cost Estimates:

A. Equipment - List all equipment required to complete identified task.

Activity	Equipment	Quantity	Unit	$/Unit	Cost ($)
asphalt removal	loader, backhoe	9,886	Yd^3	2.09	$20,662
sign removal	backhoe, truck	18	signs	1.70	$31
fence removal	backhoe, truck	3,900	Lin. Ft.	0.49	$1,911
Total Equipment Cost for this Task					*$22,604*

B. Labor - List all labor categories to complete identified task.

Activity	Labor Category	Quantity	Unit	$/unit	Cost ($)
asphalt removal	equipment operator laborers	9,886	Yd^3	2.66	$26,297
sign removal	equipment operator laborers	18	signs	7.00	$126
fence removal	equipment operator laborers	3,900	Lin. Ft.	1.45	$5,655
				Total Labor Cost for this Task	*$32,078*

C. Materials - List all materials required to complete identified task (include disposal costs).

Item	Quantity	$/Unit	Cost ($)
N/A			$0
		Total Materials Cost for this Task	*$0*

D. Direct Cost for this Task

Equipment Cost	*$22,604*
Labor Cost	*$32,078*
Materials Cost	*$0*
TOTAL DIRECT TASK COST	***$54,682***

2.3 Pipe, Gunite, Riprap Removal from Debris Basins

Description of Task:

Removal of pipes, gunite, and rip rap from debris basins.

Methods to be Used:

Pipes will be removed using a backhoe. Gunite and rip rap will be demolished using front end loader and breaking equipment.

Miscellaneous Information:

Means (2003) reference for pipe removal: 02220-875-3300
Means (2003) reference for gunite removal: 02220-550-0240
Means (2003) reference for rip rap removal: 02220-550-2500

Cost Estimates:

A. Equipment - List all equipment required to complete identified task.

Activity	Equipment	Quantity	Unit	$/Unit	Cost ($)
pipe removal	backhoe	600	Lin. Ft.	2.74	$1,644
gunite removal	loader, breaking equipment	3,600	Ft^2	0.34	$1,224
rip rap removal	loader, breaking equipment	600	Ft^2	1.68	$1,008
				Total Equipment Cost for this Task	*$3,876*

B. Labor - List all labor categories to complete identified task.

Activity	Labor Category	Quantity	Unit	$/unit	Cost ($)
pipe removal	equipment operator, laborers	600	Lin. Ft.	8.05	$4,830
gunite removal	equipment operator, laborers	3600	Ft^2	2.00	$7,200
rip rap removal	equipment operator, laborers	600	Ft^2	10.00	$6,000
				Total Labor Cost for this Task	*$18,030*

C. Materials - List all materials required to complete identified task (include disposal costs).

Item	Quantity	$/Unit	Cost ($)
N/A			$0
		Total Materials Cost for this Task	*$0*

D. Direct Cost for this Task

Equipment Cost	*$3,876*
Labor Cost	*$18,030*
Materials Cost	*$0*
TOTAL DIRECT TASK COST	***$21,906***

2.4 Pipe and Inlet Removal

Description of Task:

Removal of pipe from drop inlets and culverts. Inlet removal from drop inlets. Ripping of compacted areas.

Methods to be Used:

Pipes and inlets will be removed using a backhoe. Compacted areas will be ripped using a dozer.

Miscellaneous Information:

Means (2003) reference for pipe removal: 02220-875-3300
Means (2003) reference for inlet removal: 02220-875-0020
Means (2003) reference for ripping: 02315-800-1600

Cost Estimates:

A. Equipment - List all equipment required to complete identified task.

Activity	Equipment	Quantity	Unit	$/unit	Cost ($)
pipe removal	backhoe	2,290	Lin. Ft.	2.74	$6,275
inlet removal	backhoe	8	each	54.50	$436
ripping	dozer	10,000	Yd^3	1.88	$18,800
				Total Equipment Cost for this Task	*$25,511*

B. Labor - List all labor categories to complete identified task.

Activity	Labor Category	Quantity	Unit	$/unit	Cost ($)
pipe removal	equipment operator laborers	2,290	Lin. Ft.	8.05	$18,435
inlet removal	equipment operator laborers	8	each	161.00	$1,288
ripping	equipment operator laborers	10,000	Yd^3	0.60	$6,000
				Total Labor Cost for this Task	*$25,723*

C. Materials - List all materials required to complete identified task (include disposal costs).

Item	Quantity	$/Unit	Cost ($)
N/A			$0
		Total Materials Cost for this Task	*$0*

D. Direct Cost for this Task

Equipment Cost	*$25,511*
Labor Cost	*$25,723*
Materials Cost	*$0*
TOTAL DIRECT TASK COST	***$51,234***

3.0 REVEGETATION

Description of Task:

Revegetate disturbed areas after final demolition and grading.

Methods to be Used:

Based on Ventura County test plot results (Fruit Growers Laboratory, 1996), seeding will be done by imprinting. Mulching will not be required. Revegetation costs are based on costs for a similar mine in Ventura County.

Cost Estimates:

A. Equipment - List all equipment required to complete identified task.

Equipment	Quantity	Cost ($)
seed imprinter purchase price	1.0	$25,000
Total Equipment Cost for this Task		*$25,000*

B. Labor - List all labor categories to complete identified task.

Labor Category	Quantity	$/Hour	Cost ($)
included in total cost/acre			N/A
Total Labor Cost for this Task			*N/A*

C. Areas - List all areas to be revegetated.

Area to be Revegetated	Quantity	Unit	$/Unit	Cost ($)
old mine area and buttresses	21.4	acre	3,000	$64,200
grading plan area	25.7	acre	3,000	$77,100
haul road	12.5	acre	3,000	$37,500
desilting basins D, F, 2E, 1	1.8	acre	3,000	$5,400
maintenance		10% total $3,000/acre cost		$18,420
Total Materials Cost for this Task				*$202,620*

D. Direct Cost for this Task

Equipment Cost	*$25,000*
Labor Cost	*N/A*
Areas Cost	*$202,620*
TOTAL DIRECT TASK COST	*$227,620*

4.0 PLANT STRUCTURES AND EQUIPMENT REMOVAL

4.1 Equipment Removal

Description of Task:

Demobilize leased portable plant.

Methods to be Used:

A portable leased plant will be operating on the site at the end of the first year.

Cost Estimates:

A. Equipment - List all equipment required to complete identified task.

Equipment	Quantity	Units	$/Unit	Cost ($)
trucking equipment provided by portable plant owner				$6,000
			Total Equipment Cost for this Task	*$6,000*

B. Labor - List all labor categories to complete identified task.

Labor Category	Quantity	Units	$/Unit	Cost ($)
crew provided by portable plant owner				$6,000
			Total Labor Cost for this Task	*$6,000*

C. Demolition - List all structures and equipment to be dismantled or demolished.

Structure / Equipment	Type of Material	Volume (cubic feet)	Unit Cost Basis*	Disposal Cost**	Cost ($)
conveyors					$0
crushers					$0
screw					$0
log washer					$0
decks					$0
screens					$0
kohlburg washer					$0
electrical system					$0

* Equipment on site is leased, therefore there will be no dismantling cost.
** Equipment on site is leased, therefore there will be no disposal cost.

D. Direct Cost for this Task

Equipment Cost	*$6,000*
Labor Cost	*$6,000*
Demolition Cost	*$0*
TOTAL DIRECT TASK COST	***$12,000***

4.2 Structure Removal

Description of Task:

Remove all structures including footers and foundations.

Methods to be Used:

Dismantle and remove all salvageable equipment. Demolish and scrap equipment and associated material which is not salvageable. All equipment removal costs are based on estimate for removal and salvage of similar equipment at a Ventura County mine.

Cost Estimates:

A. Equipment - List all equipment required to complete identified task.

Equipment	Quantity	$/Hour	# of Hours	Cost ($)
for reclaim tunnels	1	120	36	$4,320
for water system	1	120	28	$3,360
for office trailers	1	120	16	$1,920
miscellaneous	1	120	8	$960
			Total Equipment Cost for this Task	*$10,560*

B. Labor - List all labor categories to complete identified task.

Labor Category	Quantity	$/Hour	# of Hours	Cost ($)
for reclaim tunnels	4	12.50	146	$7,300
for water system	4	12.50	112	$5,600
for office trailers	4	12.50	64	$3,200
miscellaneous	4	12.50	32	$1,600
			Total Labor Cost for this Task	*$17,700*

C. Demolition - List all structures and equipment to be dismantled or demolished.

Structure / Equipment	Type of Material	Volume (cubic feet)	Unit Cost Basis*	Disposal Cost**	Cost ($)
reclaim tunnels					$0
water system					$0
office trailers					$0
miscellaneous					$0
				Total Demolition Cost for this Task	*$0*

* Equipment on site is leased, therefore there will be no dismantling cost.
** Equipment on site is leased, therefore there will be no disposal cost.

D. The complete removal of the Curtis plant will be completed by TW Construction. TW Construction will provide personnel and equipment to demolish and dispose of the complete rock plant structure and all associated components. The proposed work was estimated in a lump sum of approximately $42,940 (see estimate, Attachment A). This estimate was adjusted for inflation by a factor of 3% per year, compounded, resulting in a lump sum of $48,329.

E. Direct Cost for this Task

Equipment Cost	*$10,560*
Labor Cost	*$17,700*
Demolition Cost	*$0*
Curtis Plant Removal Cost	*$48,329*
TOTAL DIRECT TASK COST	***$76,589***

5.0 SURPLUS / SALVAGE VALUE

1.	Total cost to dismantle/demolish plant structures and equipment pursuant to the approved reclamation plan.	$ 88,589
2.	Net salvage value of the plant structures and equipment.*	$ 0**
3.	Subtract Line 2 from Line 1.	$ 88,589

4. If Line 3 is greater than $0, enter this amount on the total plant structures and removal cost line under Section 8 (Summary of Costs). If Line 3 is less than $0, enter $0 on Line 3 in Section 8.

* This is the value of plant structures, buildings and equipment on a salvage basis - i.e. after the structures and equipment have been removed for sale or use off-site. In order to include net salvage value in the financial assurance calculation, the operator must provide a letter of agreement, signed contract, bid or quote from an independent company which provides industrial dismantling or equipment salvage services, or is in the business of buying and selling scrap metals or similar products.

** The temporary equipment on site is leased and the Curtis Plant has no salvage value, therefore no salvage value has been included in the financial assurance calculation.

6.0 MISCELLANEOUS COSTS

Examples of this type of cost could include temporary storage of equipment and materials off-site, special one-time permits (e.g. transportation permits for extra wide or overweight loads, etc.), decommissioning a process mill (e.g. decontamination of equipment), or disposal of warehouse inventories.

Item/Task	Quantity	$/Unit	Cost ($)
N/A			$0
		Total Miscellaneous Costs	*$0*

7.0 MONITORING

Monitoring Task	$/Visit	# Visits/Year	# of Monitoring Years	Cost ($)
revegetation - first year	1,000	6	1	$6,000
revegetation - to fifth year	1,000	2	4	$8,000
			Total Monitoring Costs	*$14,000*

*Revegetation monitoring costs are based on a revegetation monitoring cost estimate for a similar Ventura County mine.

8.0 SUMMARY OF COSTS

1.	Total of all Primary Reclamation Activities Costs (Section 2 Total)	$896,251
2.	Total of all Revegetation Costs (Section 3 Total)	$227,620
3.	Total of all Plant Structures & Equipment Removal Costs (Section 5 Net Total)	$88,589
4.	Total of all Miscellaneous Costs (Section 6 Total)	$0
5.	Total of all Monitoring Costs (Section 7 Total)	$14,000
6.	***Total of Direct Costs*** *(Sum of Lines 1 through 5)*	***$1,226,460***
7.	Supervision* (4.0 % of Line 6)	$49,058
8.	Profit & Overhead (8% of Line 6)	$98,117
9.	Contingencies (7.0 % of Line 6)	$85,852
10.	Mobilization (1% of Line 6)	$12,265
11.	***Total of Indirect Costs*** *(Sum of Lines 7 through 10)*	***$245,292***
12.	***Total Estimated Cost of Reclamation*** *(Sum of Lines 6 and 11, rounded to the nearest $10)*	***$1,471,750***

* The Financial Assurance Guidelines recommend that when reviewing and approving a financial assurance cost estimate, lead agencies should include their administrative cost to draw on the financial assurance and implement the reclamation plan, should it become necessary.

ATTACHMENT A

Curtis Plant Demolition Estimate

TW CONSTRUCTION

License #585756 HAZ

1111 E. Commonwealth Ave., Suite E • Fullerton, CA 92831 • (714) 447-4780 - FAX (714) 447-1082

April 16, 1999

Transit Mixed Concrete Company
1201 W. Gladstone St.
Azusa, CA. 91702-0575
ATTN.. Mr. Brian Mastin

Subject: Attached proposal and bid for the demolition and disposal of the rock plant at your Soledad Canyon Quarry.

Dear Mr. Mastin:

The attached proposal price is high due to the one year validity requirement. The cost to dispose of the old "Curtis" rock plant, if the work were to be performed in the next 30 days would be closer to the $ 10,000.00 mark.

Please allow us the opportunity give you another bid when the work is closer to the actual performance date.

If you have any questions, please do not hesitate to call me at (714) 447-4780.

Sincerely,

Tim Wilson

Tim Wilson
T. W. Construction

cc. Bill Smith

TW CONSTRUCTION

License #585756 HAZ

1111 E. Commonwealth Ave., Suite E • Fullerton, CA 92831 • (714) 447-4780 - FAX (714) 447-1082

April 16, 1999
Proposal 30142

Transit Mixed Concrete Company
1201 W. Gladstone St.
Azusa, CA. 91702-0575
ATTN. Mr. Brian Mastin

Subject: Proposal and bid for the demolition and disposal of the rock plant at your Soledad Canyon Quarry.

Dear Mr. Mastin:

T.W. CONSTRUCTION (T.W.C.) is please to submit this proposal and bid for the scope of work below.

Scope of work:

1. Provide personnel and equipment to demolish and dispose of complete rock plant structure and all associate components.

Firm price $ 42,940.00

Note: The above proposal price is valid one calendar year from proposal date.