

NOTICE OF PREPARATION

Date: March 12, 2012

To: State Clearinghouse, Responsible Agencies, Trustee Agencies and Interested Parties

From: Rachel Wyse, Assistant Planner
Department of Planning and Community Development
Stanislaus County
1010 10th Street, Suite 3400
Modesto, CA 95354
(wyser@stancounty.com)

Subject: **Notice of Preparation (NOP) of a Draft Environmental Impact Report for the Proposed Riddle Surface Mining Permit and Reclamation Plan (Use Permit Application No. 2010-13; Williamson Act Cancellation Application No. 2010-04)**

State Clearinghouse (SCH) No. 2011062047

NOP Public Comment Period: March 13, 2012 through April 13, 2012
(CEQA Early Consultation Period: June 16, 2011 through July 5, 2011)

PROJECT OVERVIEW

Stanislaus County will serve as the Lead Agency under the California Environmental Quality Act (CEQA)¹ for the preparation of an Environmental Impact Report (EIR) for the Riddle Surface Mining Permit and Reclamation Plan ("Riddle Surface Mine" or "Project"), which proposes to establish a sand and gravel surface mine and material processing plant complex on two (2) noncontiguous properties ("Project Site") totaling 436± acres. The Project Site is located in unincorporated Stanislaus County, approximately 2 miles west of the City of Newman, 1.3 miles east of Interstate 5, and about 0.5 mile south of Orestimba Creek (see Figure 1). The Project Site is in agricultural production in the A-2-40 (General Agriculture) zoning district. The regional setting is rural within predominantly agricultural uses.

The project applicant, Calaveras Materials Inc. (CMI), has applied for a Conditional Use Permit and a Williamson Act Contract Cancellation for Assessor Parcel Numbers 026-020-032, 026-020-033, and 026-020-034. The property owners filed Williamson Act Contract notices of non-renewal in 2005.

The North Site is located at 26861 Eastin Road, at the southwest corner of Eastin and W. Stuhr Roads, and consists of two (2) parcels totaling 315± acres. The South Site is located at 3030 Orestimba Road, west of Eastin Road and south of Orestimba Road, and contains one (1) 121± acre parcel. The Project Site is located in Sections 15 (North Site) and 22 (South Site), Township 7 South, Range 8 East, Mt. Diablo Base and Meridian, as depicted on the United States Geological Survey (USGS) Newman, California (1971) 7.5-minute topographic quadrangle (Figure 2).

¹ California Public Resources Code, Division 13, Sections 21000 through 21177 are commonly known as the California Environmental Quality Act (CEQA). Implementing procedures for CEQA are found in California Code of Regulations, Title 14, Chapter 3, Sections 15000 through 15387, commonly known as the CEQA Guidelines.

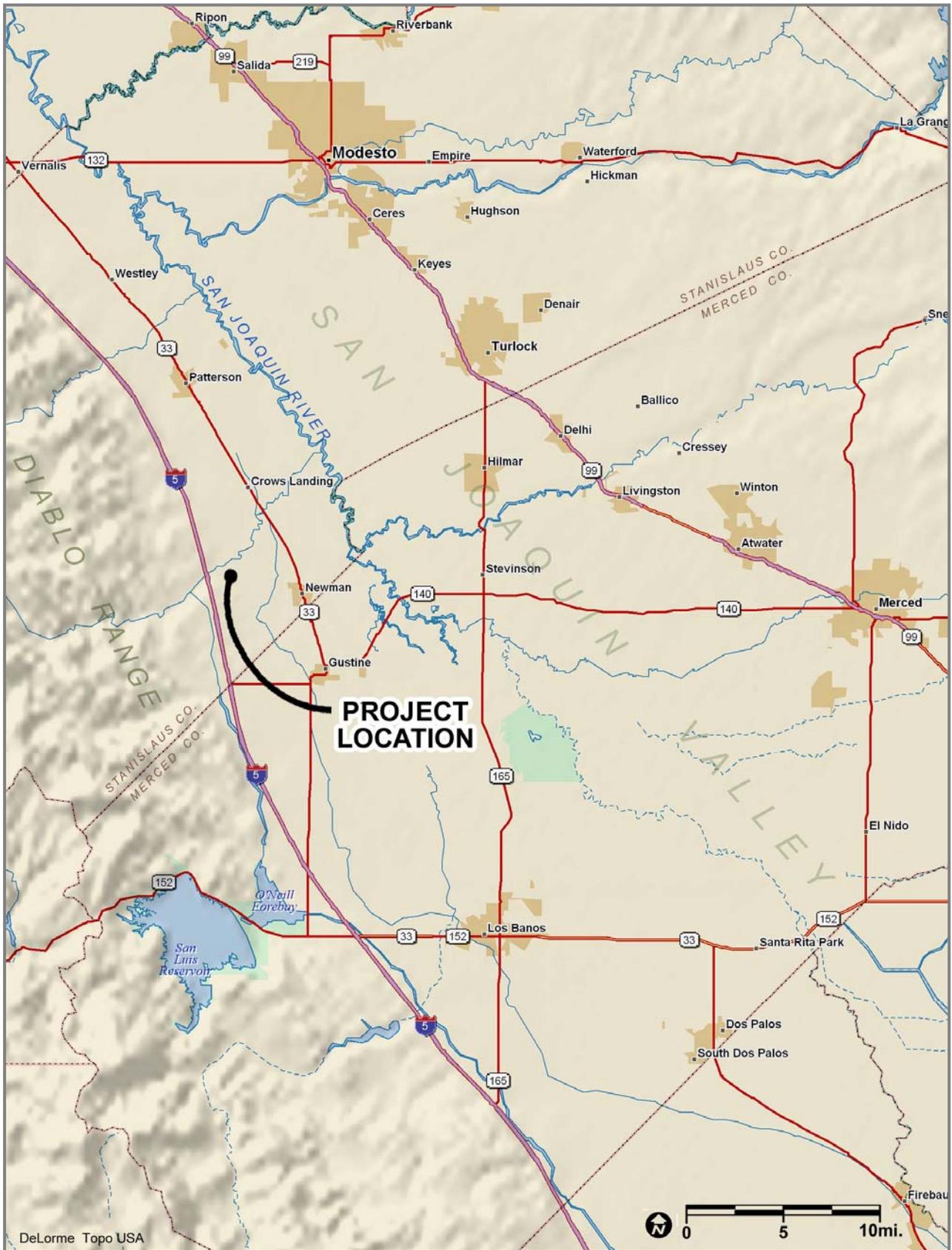


FIGURE 1: REGIONAL LOCATION

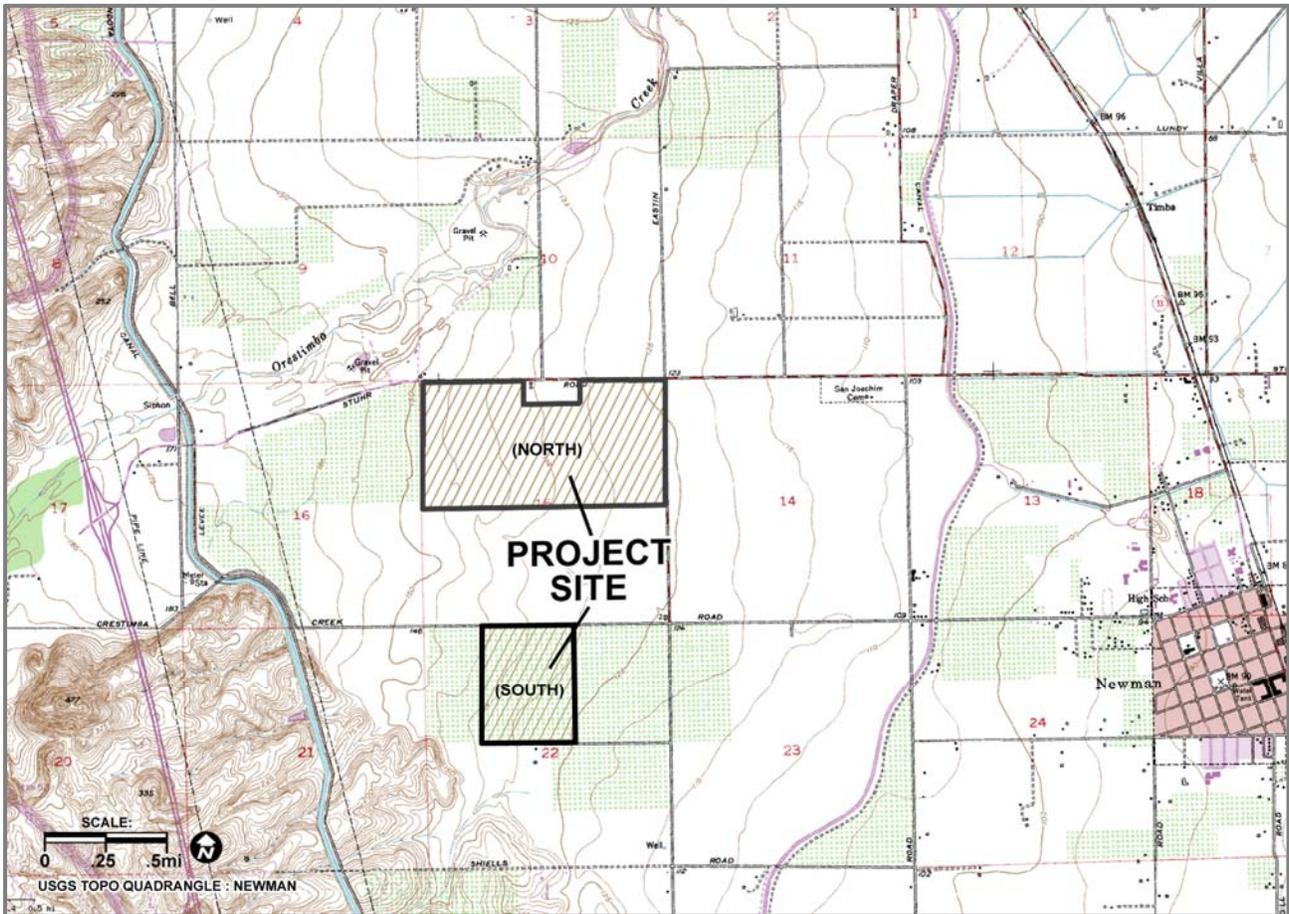


FIGURE 2: USGS MAP

Latitude / Longitude coordinates (decimal degrees):

North Site - 37.329389° North / 121.076245° West

South Site - 37.315329° North / 121.078048° West

Basemap: USGS 7.5-minute map series, Newman quadrangle, rev. 1971

The Project proposes to excavate an estimated 62 million tons of sand and gravel over a 50-year period at an average rate of 1.5 million tons per year. Dry mining operations would occur to a depth of approximately 65 feet below ground surface (bgs), at which point operations would switch to a wet mining approach. Both mining and reclamation activities will be phased. Depending on market demand, mining will progress at rate of 10 acres per year and will operate concurrently with reclamation activities. Mining will first be conducted on the North Site, then move to the South Site, and then return to the North Site to complete mining on the portion used for the Plant Complex.

The Plant Complex will include an aggregate processing plant; a ready-mix concrete batch plant; a hot-mix asphalt plant; an asphalt and concrete recycling plant; ancillary mining and processing equipment; sales and distribution equipment; storage, maintenance, and administrative facilities; scale and scale house; and parking area.

Two single-family dwellings on the North Site would likely remain until mining begins on the eastern half of that property. The two single-family dwellings on the South Site would be removed upon initiation of mining at that site, estimated at 20 to 25 years from now. The Reclamation Plan proposes to retain agriculture as a continuing on-site activity until a given phase is deemed necessary to mining. This will enable both mineral extraction and agricultural production to operate simultaneously in different areas of the Project Site, as determined feasible by the property owners and mine operators.

Reclamation Plan Overview

In conformance with the State Mining and Reclamation Act (SMARA), the applicant has included a Reclamation Plan that establishes the project phasing. The processing plant will be dismantled, and the Plant Complex site will be mined and reclaimed as a part of the final phase. The Project Site will be reclaimed as reservoirs, which will be designed conducive to one or more end uses. End uses may include, but are not limited to, reservoirs to provide irrigation water to surrounding agricultural production, or surface water storage reservoirs incorporated into the County flood control system. Final reclamation depth on the North Site is expected to average 130 feet bgs. The reclamation depth on the South Site will average 70 feet bgs. Exposed slopes in the pits will be reclaimed and revegetated for erosion control concurrently with mining.

More detailed information regarding the proposed Project, as well as the draft Reclamation Plan and supporting technical studies, are available online at:

<http://www.stancounty.com/planning/pl/act-projects.shtm>

PURPOSE OF THE NOP

EIR Notification

Compliance with CEQA is required before the County can consider whether to approve the Riddle Surface Mine project. The County has prepared this Notice of Preparation to inform all responsible and trustee agencies and the Governor's Office of Planning and Research of the forthcoming EIR. The NOP and accompanying documents provide sufficient information about the proposed project and its potential environmental impacts to allow agencies and individuals to make a meaningful response related to the scope and content of the EIR and to the environmental information that pertains to each agency's statutory responsibilities.

EIR Scoping

Section 15082(b) of the State CEQA Guidelines requires that each responsible and trustee agency, as well as the Office of Planning and Research, provide the Lead Agency with specific detail about the scope and content of the environmental information related to the responsible agency's area of statutory responsibility to be included in the draft EIR. Specific concerns related to the Proposed Project are sought in order to provide a document that best informs decision-makers and the general public. At a minimum, public agency responses should identify:

1. The significant environmental issues and reasonable alternatives and mitigation measures which the Responsible Agency will need to have explored in the EIR; and
2. Whether the agency will be a Responsible Agency or Trustee Agency for the Proposed Project.

Public responses to significant environmental issues, reasonable alternatives and mitigation measures are also welcomed. Comments to the NOP are most helpful when they disclose additional information about possible environmental issues. Commenters should explain the basis for their comments and support the comments by substantial evidence such as data, references, expert opinion, or other facts.

EIR ISSUE AREAS

Initial Study Findings

The County prepared a *CEQA Initial Study and Environmental Checklist* (Initial Study) for the Proposed Project. An Initial Study is a preliminary analysis prepared by a Lead Agency to determine the appropriate CEQA document. Since the Initial Study concludes that the project may have a significant effect on the environment, an EIR will be prepared. The Initial Study also is used to focus the EIR on

the probable environmental effects and allows the Lead Agency to avoid unnecessary analysis on those effects that are not potentially significant. The Initial Study is available for download in Adobe Acrobat PDF format at <http://www.stancounty.com/planning/pl/act-projects.shtm>, and incorporated by reference herein. The Initial Study is also available for review at the Stanislaus County Department of Planning & Community Development offices at 1010 10th Street, Suite 3400, Modesto, CA 95354.

Although the Initial Study indicates that some preliminary findings might be “*No Impact*,” “*Less Than Significant Impact*,” or “*Less Than Significant With Mitigation Included*,” the County has determined that the EIR will cover the following environmental topics:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Public Services
- Transportation/Circulation
- Utilities/Service Systems

For each of the environmental concerns listed, the EIR will include a description of existing setting, potential impacts of the Proposed Project, cumulative effects, and recommended mitigation measures for any significant impacts. As applicable based on Early Consultation responses (see below) and NOP comments, summary impact statements and corresponding mitigation measures from the Initial Study will be carried forward into the EIR.

For the reasons provided in the Initial Study, the project will have No Impact, or a Less Than Significant Impact, on Population/Housing and Recreation. Those issues will not be analyzed further in the EIR.

Early Consultation Responses

The County initiated an Early Consultation process with responsible and trustee agencies to solicit recommendations on the appropriate type of environmental document for this project, including the scope and content (i.e., the range of actions, alternatives, mitigation measures, and significant effects to be analyzed). The Reclamation Plan and thirteen (13) technical studies were (and remain) available for review at <http://www.stancounty.com/planning/pl/act-projects.shtm>.

The County received written comments from the following agencies during the consultation response period (June 16 to July 5, 2011):

- Stanislaus County Agricultural Commissioner’s Office and Sealer of Weights & Measures
- California Department of Transportation (Caltrans), District 10
- City of Newman
- California Public Utilities Commission (CPUC)
- San Joaquin Valley Air Pollution Control District (SJVAPCD)
- California Department of Conservation, Office of Mine Reclamation (OMR)
- Stanislaus County Environmental Review Committee (ERC)

The County considered the Early Consultation comments and confirmed that an EIR is the appropriate CEQA document for the project. The comments also serve as a basis for revisions and additions to the Reclamation Plan and the project technical studies. These changes will be reflected in the draft EIR and its technical appendices.

DEADLINE FOR COMMENT SUBMITTAL

All responses to the NOP should be sent at the earliest date, but must not be received by the County later than 30 days after receipt of this notice. It is anticipated that this deadline will be **April 13, 2012**. Written or e-mail comments regarding the project must be sent to:

Rachel Wyse, Assistant Planner
Department of Planning and Community Development
Stanislaus County
1010 10th Street, Suite 3400
Modesto, CA 95354
E-mail: wyser@stancounty.com
Phone: (209) 525-6330

All commenters must include their full name and contact information with their comments.

PROJECT FILES

Copies of this NOP, the Initial Study, the Reclamation Plan, and other project information are on file and available for review at the County office address shown above. Further information may be obtained from the following website: <http://www.stancounty.com/planning/pl/act-projects.shtm>

PUBLIC MEETINGS/HEARINGS

A public scoping meeting will be held during the NOP public review period to receive oral and written comments from agencies and the public on the scope and content of the forthcoming draft EIR. The scoping meeting is scheduled from **6:00 p.m. to 8:00 p.m. on Thursday, March 29, 2012** and will be held at:

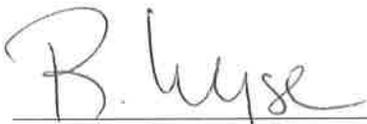
City of Newman Council Chambers
1200 Main Street
Newman, 95360

A public hearing on the Proposed Project and the EIR is anticipated for Summer/Fall 2012. Please contact the County using the above contact information to be notified of the availability of the EIR and/or public hearing.

DATE PREPARED

March 12, 2012

Lead Agency Signature



Rachel Wyse, Assistant Planner
Department of Planning & Community Development



Stanislaus County Planning and Community Development

1010 10th Street, Suite 3400
Modesto, California 95354

Phone: (209) 525-6330
Fax: (209) 525-5911

CEQA INITIAL STUDY

Adapted from CEQA Guidelines APPENDIX G Environmental Checklist Form, Final Text, December 30, 2009

1. **Project title:** Riddle Surface Mining Permit and Reclamation Plan – Use Permit Application No. 2010-13; Williamson Act Cancellation Application No. 2010-04
2. **Lead agency name and address:** Stanislaus County
1010 10th Street, Suite 3400
Modesto, CA 95354
3. **Contact person and phone number:** Rachel Wyse, Assistant Planner
(209) 525-6330
4. **Project location:**

The Riddle Surface Mine (“Mine” or “Project Site”) consists of two noncontiguous properties, including the 315-acre North Site at 26861 and 26863 Eastin Road (County Assessor’s Parcel Numbers 026-020-033 and 026-020-034), and the 121-acre South Site at 3030 Orestimba Road (APN 026-020-032).

The Mine is west of Eastin Road, approximately 2 miles west of the City of Newman in Sections 15 (North Site) and 22 (South Site), Township 7 South, Range 8 East, Mt. Diablo Base and Meridian.
5. **Project sponsor’s name and address:** Calaveras Materials Inc. (CMI)
7675 North Ingram Avenue, Suite 103
Fresno, CA 93711
6. **General plan designation:** Agriculture
7. **Zoning:** General Agricultural District (A-2)
8. **Description of Project:**

The Riddle Surface Mine Project proposes to develop and reclaim an aggregate (sand and gravel) surface mine and materials processing Plant Complex on two noncontiguous properties totaling 436-acres in western Stanislaus County. The Project would extract approximately 62 million tons of sand and gravel from below the existing grade, process these materials on-site, and transport finished materials off-site for use in construction projects throughout the region over a 50-year period. Stuhr Road, Eastin Road, and Orestimba Road will be used to access both the North Site and South Site of the Riddle Surface Mine.

Mining is proposed to begin on the North Site and then continue at the South Site. Mining in the North Site would occur to an approximate average depth of 130 feet below ground surface. At the South Site, mining would occur to an approximate average depth of 70 feet below ground surface. An estimated minimum 28-acre processing area will house the Plant Complex at the southwest corner of the North Site. Mining of the Plant Complex site will occur after mining of the South Site has been completed.

The following major components comprise the Riddle Surface Mine Project:

- An open-pit surface mine (both sites)
- A Plant Complex to be located on the North Site, consisting of the following:
 - aggregate processing plant
 - ready-mix concrete (RMC) batch plant
 - hot-mix asphalt (HMA) plant
 - asphalt and concrete recycling
 - product stockpiles
- Ancillary mining and processing equipment, as well as sales/distribution equipment
- Storage, maintenance, and administrative facilities
- Various site improvements for access, safety, and other requirements
- Mining the Plant Complex site upon depletion of all other areas
- Reclamation of all disturbed areas of the Project Site to reservoirs designed conducive to several potential end uses, including agricultural irrigation support and/or surface water storage as a component of the County's flood control system.

Stanislaus County (County), the Lead Agency under CEQA, is being requested to consider the following discretionary approvals as part of the Surface Mining Permit and Reclamation Plan application:

- Conditional Use Permit (focused on mining operations)
- Reclamation Plan (focused on reclamation standards)
- Financial Assurance Cost Estimate & Instrument (focused on assuring the ability to execute the reclamation plan)
- Williamson Act Contract Cancellation (All parcels are enrolled in a Williamson Act Contract for which non-renewals were filed in 2005)

9. Surrounding land uses and setting:

Land uses in the area are agricultural, including row crops and orchards.

North: Almond processing plant/almond orchard and row crops

South and East: Row crops

West: Row crops, sand/gravel and ready-mix concrete plants (northwest at Orestimba Creek), and Valley Sun Products tomato processing facility (adjacent to South Site)

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

Stanislaus County Environmental Resources Department:

- *Hazardous Materials Division:* Hazardous Materials Business Plan; Tank Facility Statement
- *Environmental Health Division:* Permitting for water well destruction, water well construction, and septic system installation.

Central Valley Regional Water Quality Control Board (CVRWQCB): After Project approval, consultation with the CVRWQCB will determine whether any of the following must be prepared before construction activities begin, and whether permits must be obtained prior to operation of the Plant Complex, including the wash water/settling ponds.

- Waste Discharge Requirements (WDRs)
- Construction/Industrial Storm Water Pollution Prevention Plans (SWPPP)

San Joaquin Valley Air Pollution Control District (SJVAPCD):

- Authority to Construct (ATC)
- Permit to Operate (PTO)

California Department of Fish and Game (CDFG): If California State-listed species are found onsite, coordination with the Department would be required to determine if an incidental take permit is necessary.

U.S. Fish and Wildlife Service (USFWS): In the case that federally-listed species are found onsite, consultation with the U.S. Fish and Wildlife Service would be required.

U.S. Environmental Protection Agency (EPA): EPA ID Number

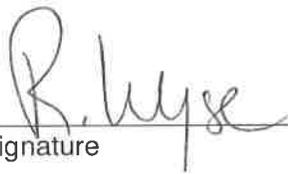
ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input checked="" type="checkbox"/> Agriculture Resources | <input checked="" type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities / Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)
On the basis of this initial evaluation:

- I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

March 9, 2012

Date

Rachel Wyse

Printed name

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration.

Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

- a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
 - 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
 - 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
 - 9) The explanation of each issue should identify:
 - a) the significance criterion or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significant.

ISSUES

I. AESTHETICS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		X		
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X		

Discussion:

RGP Planning & Development Services (RGP) prepared an Aesthetic Impact Assessment dated December 13, 2010 to identify any potentially adverse visual impacts that might result from the proposed surface mining and reclamation operation. The report contains photos of the Project Site from various viewpoints, as well as computer-simulated views of the Project at both the mining and reclamation phases. The assessment uses the U.S. Bureau of Land Management’s (BLM) “Scenic Quality Rating Criteria” scale, which assigns quantitative measures to key landscape components in order to determine changes in visual quality. The complete report is on file with the County Planning Department.

Potentially Sensitive Viewpoints

Potentially sensitive viewpoints are based on land uses that are commonly considered as visually sensitive. A “scenic vista” is defined as an area that is signed and accessible to the public for the express purposes of viewing and sightseeing, as designated by a Federal, State, or local agency. A “scenic highway” is any stretch of public roadway that is designated as a scenic corridor by a Federal, State, or local agency. Additionally, residential viewers typically have extended viewing periods, and views from public parks, recreational trails, and/or important historic sites have high visual sensitivities and all are therefore considered sensitive viewpoints.

Based on those criteria, Figure 8 in the Aesthetic Impact Assessment identified the following sensitive viewpoints from where the Project mining and reclamation activities could potentially be seen:

- *Orestimba Scenic Vista:* This scenic vista, which is located along the west side of the Interstate 5 Freeway in Stanislaus County, was designated in 1974 to provide views of “Orestimba.” This is a local Native American word for “meeting place,” and the vista overlooks nearby rocks and a sycamore grove where mission padres met with the local native American tribes. It was also a favorite watering place for travelers on “El Camino Viejo” that traversed the west side of the valley from San Pedro to San Antonio. The scenic vista has also been designated as a scenic overlook for the California Aqueduct, which provides water from the Sacramento/San Joaquin Delta to the southern San Joaquin Valley and Central Coast regions of California. Both of these scenic resources are located west of Interstate 5.
- *Interstate 5 Scenic Highway:* The entire stretch of the I-5 Freeway passing through Stanislaus County, from the Merced County line to the San Joaquin County line, is designated as a scenic highway by Caltrans. This designation is also recognized in the Circulation Element of the Stanislaus County General Plan (Chapter 2).

- *Neighboring Residences:* Five residences located near the Project Site have been divided into three separate vantage point categories representing views from along the northern side of West Stuhr Road, and also from the south and west of the South Site.

Summary of Scenic Quality Ratings

The Aesthetic Impact Assessment includes visual simulations of each sensitive viewpoint for the pre-Project (current baseline), Project (during mining), and post-Project (completion of mining and reclamation) timeframes. The before and after visual quality of each view simulation was numerically rated based on seven criteria that were summed to create a “Scenic Quality Rating” score for each time period. The criteria are the presence and characteristics of seven key landscape components: landform, vegetation, water, color, adjacent scenery, scarcity and cultural modifications. By comparing the difference in visual quality from the baseline to post-Project visual conditions, the significance of Project-related visual impacts were quantified.

Overall, one to two points were deducted from the cultural modifications criterion scores to account for the slight visual contrast that would be created by the new Plant Complex constructed on the North Site. The exception was the I-5 Scenic Highway viewpoint, which experiences no quantitative change in visual quality. In all instances, the scale of the Project features do not dominate the visual landscape or impede views from any of the vantage points, as summarized below for checklist items a) through c).

a): Scenic Vistas

For Viewpoint A (Orestimba Scenic Vista), given the distance of the Project Site (i.e., about 1.5 miles), the character and nature of the existing land uses that surround the site, and the disturbed baseline condition of the site, the Project’s visual changes are only marginally different from what is presently seen. The scale of the Project features do not dominate the visual landscape or impede views from this vantage point. In addition, views of both the Orestimba and California Aqueduct landmarks (for which the vista was designated) are to the west of the I-5 Freeway. Hence, visitors who are viewing either landmark will be facing the opposite direction from the Project Site, which is east of the I-5 Freeway. For these reasons, the visual impacts to the Orestimba Scenic Vista that could occur during the Project phase are considered less than significant.

While the Project might be seen from Viewpoint B (Interstate 5 Scenic Highway), viewers at this vantage point are not likely to perceive any changes caused by the Project. This is because the Project is screened from view throughout most of the local scenic highway due to the large berms that border the edge of the freeway. The high travel speeds and limited view duration of motorists, as well as the 1.3 to 1.5-mile distance to the Project, also diminish Project visibility from the I-5 Freeway. Other factors that reduce view sensitivity include the character and nature of the existing land uses that surround the Project Site, existing vegetation that partially impedes views of the site, and the disturbed baseline condition of the site. For these reasons, visual impacts to the Interstate 5 Scenic Highway are considered less than significant.

b): Scenic Resources

As indicated above, the only nearby scenic resources are the California Aqueduct and the rocks and sycamore grove that comprise the Orestimba Native American meeting place. Both of these scenic resources are located west of Interstate 5 and will not be impacted by the Project.

c): Visual Character

For all vantage points considered under Viewpoint C (Neighboring Residential Views), portions of the Plant Complex and/or excavation equipment may be visible from these residences. This results in cultural modifications deductions (-2 points from pre-Project conditions) from the overall scenic quality ratings for those views during the Project period, whereas the post-Project score improves by one point after removal of

the Plant Complex equipment and structures. For the Project and post-Project periods, the 50-foot-wide vegetated buffer that will be constructed along the Project's northern boundary will screen, or partially screen, these views and will promote the landscape characteristics of the edge of the Project Site. Portions of the Plant Complex that will continue to be visible during operations do not visually exceed the scale or type or visual characteristics of other cultural modifications that surround the Project Site, such as the mining and processing facilities immediately north of Stuhr Road. Nonetheless, additional points have been subtracted from the cultural modifications score to account for potential viewer sensitivity. Therefore, the Aesthetic Impact Assessment specifies mitigation in the form of tall evergreen vegetation along key portions of the Plant Complex perimeter in order to soften the appearance and reduce this visual impact. With the mitigation incorporated, visual impacts to the residences located along West Stuhr Road (receptors C1, C2 and C3) and west of the South Site (receptor C5) will be less than significant.

Impacts to the residence at Hoyer Road (receptor C4) will be less than significant without mitigation because the view is primarily limited to views of the South Site. In the near term, the Plant Complex and excavation equipment on the North Site will be more than a mile from the receptor and will not be dominant visual elements in the view. Some of the Plant Complex equipment will be distantly visible for approximately 30 to 40 years before mining begins on the South Site. However, the 50-foot-wide vegetated buffer around the North Site, combined with the visual "softening" effect of the taller trees that will be planted around the Plant Complex (see Mitigation Measure 1, below), will sufficiently minimize the visual contrast of those structural elements. In the long term, when quarrying begins on the South Site, the Plant Complex will remain in its location on the North Site. At maturity, the 50-foot-wide landscape buffer surrounding the South Site will screen both the nearby excavation equipment and the distant Plant Complex from view.

d): Light and Glare

The issue of light and glare is typically associated with excessively bright nighttime lighting that crosses over property lines and illuminates off-site yards or bedroom windows. It is also associated with the condition that occurs when excessive nighttime lighting creates a "skyglow" effect. The proposed Project will provide nighttime security lighting in the Plant Complex area and at the Project Site entrance. In the event that nighttime lighting is used that could potentially create an issue with light and/or glare, a mitigation measure has been included below to ensure that any potential for significant impacts is avoided. This potentially significant impact is therefore considered less than significant with mitigation incorporated.

Mitigation:

1. Prior to operation of the processing plant, the operator shall submit a landscape plan for approval by Stanislaus County Planning Department. The purpose of the plan shall be to incorporate several tall evergreen plant species (e.g., California pepper, valley oak, sycamore, and/or eucalyptus) along key points of the plant perimeter to soften and naturalize its appearance at off-site views. The objective shall be selection of trees that may grow from thirty (30) feet to fifty (50) feet tall at a rate of two (2) feet or more per year. Appropriate tree selection, placement, and maintenance shall be determined by a licensed landscape architect or arborist.
2. The operator shall use high-pressure sodium (or other IDA approved fixtures, instead of mercury-vapor fixtures) and/or cut-off fixtures (upwardly shielded) for any required nighttime lighting of the operations. The lighting shall also be designed to confine illumination to the Project Site, and/or to areas that do not include light-sensitive uses.

References: RGP Planning & Development Services, Aesthetic Impact Assessment for Riddle Surface Mine, December 13, 2010

<p>II. AGRICULTURE RESOURCES -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. – Would the project:</p>	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
<p>a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>	X			
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>			X	
<p>c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</p>				X
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>				X
<p>e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?</p>				X

Discussion:

a): Conversion of Designated Farmland

The approximately 436-acre Project Site is identified by the California Farmland Mapping and Monitoring Program (FMMP) as Prime Farmland and is presently farmed for almonds, oat hay, and olives. However, the Project is proposing to extract aggregate resources from the same 436-acre site in response to its recent designation by the State as a known aggregate resource of regional significance. To maximize the Project Site’s agricultural resources and productivity, the Reclamation Plan proposes to retain agriculture as a

continuing on-site activity until a given phase is deemed necessary to mining. This will enable both mineral extraction and agricultural production to operate simultaneously in different areas of the Project Site. Though incremental during mining, the majority of Prime Farmland acreage on-site will be converted to mineral extraction uses.

Mining operations are among the few land uses to be recognized by the State as interim land uses. For this reason, the Surface Mining and Reclamation Act (SMARA) requires that a reclamation plan establish performance standards to prepare the Project Site for its end use. The proposed end use would be the permanent land use for the Project Site once mining has terminated. The Project Site will be reclaimed as reservoirs, which will be designed conducive to one or more end uses. End uses may include, but are not limited to, reservoirs to provide irrigation water to surrounding agricultural production, and/or surface water storage reservoirs incorporated into the County flood control system. These and other potential end uses will be more fully evaluated in the EIR.

Stanislaus County currently implements a requirement for the mitigation of farmland conversion by residential uses. However, that requirement does not apply to the proposed Mine Project. Unlike residential development projects, which can occur in a variety of locations, mining projects are strictly limited to areas that contain valuable geologic deposits. Thus, the subject Mine Project cannot be moved and is limited to the lands on which the mineral deposits are found. The mineral deposits that are confirmed as aggregate resources are further limited in geographic extent and in their ability to be extracted in order to meet regional market demands.

The State Department of Conservation classifies areas of known important mineral commodities, referred to as "Mineral Resource Zones" (MRZ) so that these areas may be given land use consideration by local agencies in their general plan preparation process. As described in greater detail in Checklist Section XI (Mineral Resources), in September 2011 the State Mining and Geology Board (SMGB) designated the Project Site as Mineral Resources Zone 2a (MRZ-2a) under the California Mineral Land Classification System. Thus, the Project Site is of prime importance because it contains known economic mineral deposits and is formally recognized by the State as containing Portland Cement Concrete (PCC)-grade aggregate resource in sufficient quantities to be of regional significance. The MRZ-2a classification by the State also requires the County to recognize this resource and implement measures to protect the resource from incompatible uses for future extraction, while balancing the competing resource objective posed by on-site and surrounding agricultural uses.

The California Geological Survey (CGS) (2006) indicates that Stanislaus County's projected 50-year aggregate demand is approximately 344 million tons compared to a total estimate of 51 million tons permitted resources to meet the demand. The permitted resources constitute only approximately 15 percent of the 50-year demand for Stanislaus County. The currently permitted supply is less than a 10-year supply under normal economic conditions. This data clearly demonstrates the shortage of locally available aggregate resource to meet the demand.

In comparison with high quality farmland (i.e., Prime, Unique, and Farmland of Statewide Significance), which constitutes 38 percent (368,981 acres) of all County land, the County's designated MRZ-2a resources are only 2 percent (20,935 acres, including the Project Site) of the County land area. Thus, high value farmland is relatively plentiful in the County, whereas high value mineral land is not. The importance of permitting mining uses in areas where mineral resources are present is set forth in the County General Plan's policies (see Checklist Section X, Land Use and Planning). Although the mineral resource policies apply to the Project Site and may take precedence over the County's other competing land use policies, the conversion of designated farmland will require further evaluation in the EIR.

b) Agricultural Use Zones/Williamson Act

The proposed mineral extraction activities and the subsequent establishment of reservoirs designed conducive to one or more end uses, including agricultural irrigation support, are permitted uses in the A-2 General Agriculture zoning district, subject to the approval of a use permit. Section 21.20.030 *Uses requiring use permit* of the County's zoning ordinance identifies commercial excavation of earth, minerals, building materials together with the necessary apparatus and appurtenances incidental thereto as a permitted use under the Tier Three category of the A-2 zoning district, subject to approval of a use permit. Tier Three uses are categorized as not being directly related to agriculture, but may be difficult to locate in an urban area.

The County recognizes mineral resources as important resources that exist onsite and should be protected for future use. Accordingly, the General Plan contemplates that where competing agricultural and mineral resources coexist, the Project Site could be used for mineral extraction. These significant aggregate resource areas are protected by the Mineral Resources plan designation, coupled with policies and implementation measures under Goal Nine in the Conservation/Open Space Element that emphasize their conservation and development. This designation offers protection from incompatible land uses that would prevent the extraction of this mineral resource.

The Project will not be substantially detrimental to or conflict with agricultural uses of other properties in the vicinity given that adequate design features and mitigation measures will be implemented to minimize any potential adverse impacts the Project may have on surrounding agricultural uses. For instance, the Stanislaus County Agricultural Commissioner's Office and Sealer of Weights & Measures commented during the Early Consultation period with concerns that increased dust caused by the mining operation could increase spider mite populations and reduce plant growth. Although the issues will be fully analyzed in the EIR, the Reclamation Plan presently includes PDF 2 (Dust Suppression), which will minimize the release of airborne dust and emissions through a regular schedule of water application to dampen stockpiles, exposed mine surfaces, and on-site access roads. Dust suppression activities will be intensified during periods of high winds. Buffer and setback provisions in the Project will also minimize dust movement and deposition off-site. These and other design features and mitigation measures are expected to prevent surrounding agricultural operations from having to modify their operations to accommodate the proposed use and vice versa, which, in turn, is not anticipated to impact the economic productivity of the sites.

As part of the Project, the applicant is also seeking cancellation of Williamson Act Contract No. 74-1616 (APN 026-020-033), Contract No. 1616 (APN 026-202-034), and Contract No. 96-4301 (APN 026-020-032), for which Notices of Non-Renewal were filed with the County Recorder for all three contracts on September 7, 2005. The contract cancellation request by the applicant is in conformance with requirements established by the Stanislaus County Williamson Act Uniform Rules. Therefore, the Project will not conflict with existing zoning for agricultural use, nor will it conflict with a Williamson Act contract.

c) Forest and Timberland

The Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production as the Project Site is zoned A-2 General Agriculture District for the purpose of commercial agricultural (crop) production. No impact would occur.

d) Forest Conversion

The County does not recognize the Project Site as forest land; therefore, the Project will not result in loss of forest land. No impact would occur.

e) Farmland/Forest Land Conversion

Other than the aforementioned changes (response a) and b), above), no other changes would be involved in the proposed Project. Impacts of farmland conversion will be less than significant.

Mitigation: None

References: Riddle Surface Mining Permit & Reclamation Plan prepared by RGP Planning & Development Services in September 2010; California Department of Conservation, California Geological Survey, Aggregate Availability in California – Map Sheet 52, 2006; California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. June 2010. Rural Land Mapping Edition Stanislaus County Important Farmland 2008, Sheet 2 of 2. California Department of Conservation, Division of Land Resources Protection; Stanislaus County General Plan and Support Documentation¹

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	X			
d) Expose sensitive receptors to substantial pollutant concentrations?	X			
e) Create objectionable odors affecting a substantial number of people?			X	

Discussion:

Air Permitting Specialists, an air quality modeling and permitting firm, prepared an *Analysis of Air Quality and Public Health Risks* (Air Quality Analysis, or AQA) of the Project in June 2011. The assessment was undertaken in consideration of San Joaquin Valley APCD’s permitting requirements, and uses the guidelines and significance thresholds established in the adopted Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI), as revised in 2002. The complete report is on file with the County Planning Department.

Based on input during the Early Consultation period, the AQA will be revised to consider an air emissions baseline from ongoing agricultural activities on the Project Site. The AQA will calculate the baseline contribution of agricultural vehicles, machinery, and operations (i.e., land preparation and harvesting) for comparison with future (with Project) peak daily and average annual emissions and determination of the Project’s net effects. The following information was obtained from the agricultural operator in November 2011 and constitutes the baseline agricultural and ground-disturbance activities on-site for all environmental topics, including air quality.

The 315-acre North Site is entirely farmed, with the western 140 acres split between oat hay and almonds and the eastern 175 acres all almonds. Oat hay is harvested once a year and the ground is mowed at least once after harvest. Almonds are harvested two times a year (there are two varieties), and the harvesting is a

very dusty process since it involves vacuuming up dirt, leaves, and almonds and kicking out everything but almonds. The almond fields are mowed three to four times a year. Almonds usually take three applications of fungicide and three applications of fertilizer. The 121-acre South Site is entirely in olive orchards. The olive field is sprayed with herbicide three times a year; harvesting usually takes place once per year. Typical equipment used includes an almond harvester, oat hay harvester, mower, and tractors for spraying herbicides, fungicides, and fertilizer.

The Reclamation Plan includes Project Design Feature 3 (Agriculture Retention), which states that agriculture will be retained as a continuing on-site activity until a given phase is deemed necessary to mining.

Two single-family dwellings are present at the southeast corner of the North Site. With mining starting at the western boundary, and the Plant Complex operating at the southwest corner, the houses would not be removed initially. Rather, they would be removed as mining progresses toward the residences, likely when mining begins on the eastern half of the North Site. The circumstances under which removal will occur is to be evaluated in the EIR. The two single-family dwellings on the South Site would be removed upon initiation of mining at that site, estimated at 20 to 25 years from now.

a): Air Quality Plan Consistency

State and Federal Air Quality Planning

A summary of state and federal ambient air quality standards is shown in Table 1-1 of the Air Quality Analysis. The federal Clean Air Act (CAA) requires that states submit State Implementation Plans (SIPs) providing for attainment of the federal air quality standards within certain periods of time. The California Clean Air Act (CCAA), in turn, establishes an air quality management process that generally parallels the federal process. The CCAA, however, focuses on attainment of the State ambient air quality standards that, for certain pollutants and averaging periods, are more stringent than the comparable federal standards.

The CCAA requires that air districts (i.e., SJVAPCD) prepare an air quality attainment plan if the district violates State air quality standards for carbon monoxide (CO), sulfur dioxide (SO₂), oxides of nitrogen (NO_x), or ozone (O₃). No locally prepared attainment plans are required for areas that violate the State PM-10 particulate matter standards.

The air quality attainment plan requirements established by the CCAA are based on the severity of air pollution problems caused by locally generated emissions. Upwind air pollution control districts are required to establish and implement emission control programs commensurate with the extent of pollutant transport to downwind districts.

Since the Project will comply with all applicable rules and regulations established by the SJVAPCD (see checklist items b) and c) below), the Project is deemed consistent with State and federal air quality planning.

Local Air Quality Management

The Project Site and Stanislaus County are located within the San Joaquin Valley Air Basin (SJVAB). The San Joaquin Valley Air Pollution Control District (SJVAPCD) has jurisdiction over most air quality matters in the SJVAB, including implementation of certain programs and regulations required by the federal CAA, and the CCAA. The SJVAPCD programs and regulations that are relevant to the Project are discussed in detail in the following section. Since the Project will comply with all applicable rules and regulations established by the SJVAPCD (see checklist items b) and c) below), the Project is deemed consistent with local air quality planning.

b): Ambient Air Quality Standards

Both the State of California and the federal government have established ambient air quality standards for several different air pollutants. An air quality standard defines the maximum amount of a pollutant that can be present in outdoor air without harm to the public's health. Both the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (USEPA) are authorized to set ambient air quality standards.

The entire San Joaquin Valley Air Basin (SJVAB), including Stanislaus County, has been designated a non-attainment area for ozone because concentrations of this pollutant often exceed the state and federal standards. The same geographic area is classified as nonattainment for the federal particulate matter 2.5 microns or less in aerodynamic diameter (PM-2.5) standards, while the County alone is considered a non-attainment area for particulate matter 10 microns or less in aerodynamic diameter (PM-10). The entire SJVAB, including Stanislaus County, has been designated an attainment area for the carbon monoxide air quality standards. Therefore, the pollutants of greatest concern in Stanislaus County are ozone and particulate matter (PM-10 and PM-2.5). A summary of state and federal ambient air quality standards is shown in Table 1-1 of the AQA, and Table 1-2 of the report presents air quality monitoring data from the nearest monitoring station in Modesto.

Since the Project will not exceed any of the thresholds established for criteria pollutants (see following), impacts to ambient air quality standards will be less than significant.

c): Criteria Pollutants**Sources and Health Effects**Ozone

Ozone is not emitted directly into the air, but is formed by photochemical reactions in the atmosphere. Ozone precursors, which include reactive organic gases (ROG) and oxides of nitrogen (NO_x), react in the atmosphere in the presence of sunlight to form ozone. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem.

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials.

A project is considered to have a significant impact on ozone precursor emissions if it would generate more than 10 tons per year of either ROG or NO_x.

Inhalable Particulate Matter

PM-10 conditions in Stanislaus County are a result of a mix of rural and urban sources, including agricultural activities, industrial emissions, dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere. Health concerns associated with suspended particulate matter focus on those particles small enough to reach the lungs when inhaled. Few particles larger than 10 microns in diameter reach the lungs.

Particulate matter is known to bypass the body's defense mechanisms and becomes deeply embedded in the lung, and also can disrupt cellular processes. Research has demonstrated a strong linkage between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks. Particle pollution may significantly reduce lung function growth in children (California Air Resources Board).

SJVAPCD policy is that compliance with Regulation VIII generally reduces particulate matter impacts to less than significant, and only large or high intensity construction projects near sensitive receptors may require mitigation beyond Regulation VIII.

Carbon Monoxide

Carbon monoxide standards have not been exceeded in recent years, and for that reason the SJVAB is designated “attainment” for CO. However, high CO concentrations occur in areas of limited geographic size, sometimes referred to as hot spots. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations. As a result, CO hotspots remain an air quality management concern in the SJVAB.

Carbon monoxide is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream.

The Project’s impact on CO emissions would be considered potentially significant if it causes or contributes to an exceedance of State or federal ambient CO standards. This is determined by screening or modeling. In this instance, the Project would have a significant impact if it degrades operation of an intersection to level of service (LOS) E or F, or substantially worsens an intersection already operating at LOS F.

Air Quality Impacts from Construction Emissions

The maximum construction-related emissions would occur at the North Site where about 40 acres would be graded and a 1-mile long, 40-foot wide access road would be paved. Construction emissions lasting up to six months would be associated with grading, paving and the use of temporary electric diesel generators. The main air emissions would consist of fugitive dust and gaseous air pollutants from paving and portable electric generation. Construction-related emissions rates are shown in Table 1-3 of the AQA. For construction-related emissions, SJVAPCD applies the same thresholds of significance cited above for ozone, particulate matter and carbon monoxide, but only for the construction period. Ozone precursors (NO_x and ROG) must meet the 10 tons/per year criterion.

The AQA determined that construction-related impacts would be considered less than significant with the implementation of the Regulation VIII measures required in Tables 6-2 and 6-3 of the GAMAQI guidelines.

Air Quality Impacts from Operating Emissions

Operation of the proposed surface mine would generate air pollutants both from on-site activities and off-site truck and employee travel. On-site activities include mining, material handling and processing, asphalt production, concrete production, and material recycling. Off-site emissions are associated mainly with transporting the finished products, employee travel and delivery of fuel and supplies to the Project Site.

All of the Project activities, processes, emissions sources, emissions types, and the methodologies for calculating pollutant-specific impacts are listed in Table 1-4 of the AQA, while Table 1-5 provides a quantitative summary of the overall Project emissions. In addition to on-site and off-site emissions, the AQA also factors avoided emissions resulting from the Project being sited at the current location (see *Net Regional Emissions* discussion below). The Project emissions are then compared to the SJVAPCD GAMAQI thresholds of significance noted previously.

Although used as the basis for the AQA quantitative emissions summaries, the following descriptions of plant technologies, operations, and emissions control equipment are subject to change during the various design and air permitting processes.

Aggregate Mining

Various extraction methods will be employed to mine the rock. The highest particulate matter emissions would occur for extraction above the groundwater level. Extraction above groundwater would occur throughout the life of the operations based on the Project’s mining progression. For this scenario, conventional surface mining methods would be used that involve extraction and transfer of material by off-

road trucks or overland conveyor to the processing plant. No blasting would be used to dislodge the material before extraction. Below the groundwater level, an excavator, dragline or dredge may be used for extraction. This would be essentially a wet process that would release only negligible amounts of fugitive dust.

Aggregate Processing

The aggregate processing plant would process the rock transported from the mining area and would consist of the following components:

- Surge pile
- Primary rock crushing, screening, and circuit
- Secondary rock crushing and screening operation
- Product stockpiles
- Conveyors
- Product load-out

Emissions calculations and air quality permit applications are based on the processing of 1.5 million tons per year of aggregate, or about 6,000 tons per day. The 1.5 million tons is a maximum aggregate processing number and includes aggregate allocated to the hot-mix asphalt and ready-mix concrete operations. The plant processing operations would occur from five to six days a week, for a total of 260 to 312 days per year. Loading would occur six days per week.

Air pollutants released from these processes include fugitive dust (PM-10 and PM-2.5) from crushing, screening, conveying operations and from the movement of mining equipment on unpaved roads. To minimize dust, water sprays would be used on all crushers, screens and conveyor transfer points as appropriate. The total fugitive dust emissions from quarrying operations are shown in AQA Table 1-6.

Trucks, dozers, loaders and other equipment are powered by diesel engines and therefore are a source of diesel exhaust emissions. This consists of diesel particulate, NO_x, ROG, CO, CO₂ and SO₂. Equipment exhaust emissions from the aggregate plant are summarized in AQA Table 1-7, with detailed calculations provided in the AQA Appendix.

As described in the *Project Emissions Controls* section below, the plant would be subject to SJVAPCD permitting requirements and federal new source performance standards, which stipulate the use of best available control technology (BACT) to reduce emissions. Mobile equipment would be subject to the State's emission standards for off-road equipment.

Hot-Mix Asphalt Plant

The drum type hot-mix asphalt plant will produce asphaltic concrete consisting of aggregate and liquid asphalt cement. The aggregate may include recycled asphalt pavement (RAP) and other recycled materials. The plant will operate six days a week and will produce an average of 1,600 tons per day (499,200 tons per year) of asphaltic concrete. The process would likely employ a natural gas-fired parallel-flow drum mix batch plant rated at 150 to 200 million BTUs per hour. The finished product would be loaded from storage silos onto delivery trucks.

Although appropriate air pollution control technologies will be used, their selection will be subject to review and possible modification by the SJVAPCD during the permitting process. Emissions from the dryer will be reduced with the use of controls such as low-NO_x burners and fabric filters. Silos would likely be equipped with fabric filters. Asphalt vapors and organic emissions (from truck load-out areas) would be subject to controls such as blue smoke filters. The plant would be permitted under SJVAPCD new source review rules and regulations. These regulations require use of best available emission control technology (BACT) to reduce dust, odors, and emissions of NO_x, ROG, SO₂ and CO.

The AQA notes that there is a trend in the industry toward the use of a warm-mix process, which uses a lower temperature and reduces energy consumption by 50 percent. The Project may eventually employ the warm-mix process in combination with or in place of the hot-mix process. Therefore, the emissions in AQA

Table 1-8 and the AQA Appendix overstate future emissions by 25 to 50 percent, depending on the amount of warm and hot-mix asphalt that will be produced.

Ready-Mix Concrete Plant

The ready-mix concrete batch plant would use sand and gravel extracted from the mine to produce ready-mix concrete. The process involves mixing water, sand, cement and coarse aggregate (i.e., gravel, crushed stone, fly ash and/or recycled materials). The raw materials are gravity fed from a weighing hopper onto mixer trucks for off-site transport. The plant will operate six days a week and will produce an average of 500 cubic yards (1,000 tons) per day, or 156,000 cubic yards (313,000 tons per year) of concrete.

The plant would be permitted under SJVAPCD regulations requiring the use of BACT to reduce dust (PM-10 and PM-2.5). Dust from the storage silos would be controlled using appropriate technologies, such as fabric filters. Emissions from the concrete plant are summarized in AQA Table 1-9, with detailed calculations provided in the AQA Appendix.

Recycling Plant

The asphalt and concrete recycling plant would crush broken concrete and asphalt to produce base rock for use under roadways or recycled materials for production of hot-mix asphalt. The crushing and screening process will operate six days per week and will produce an average of 700 tons per day (156,000 tons per year). The crushed and screened rock would be transported to the job sites and used onsite in the manufacture of hot-mix asphalt.

The plant would be permitted under SJVAPCD regulations requiring the use of BACT to reduce dust (PM-10 and PM-2.5) from rock-crushing, conveyors, and storage piles. Emissions from the recycling plant are summarized in AQA Table 1-5, with detailed calculations provided in the AQA Appendix.

Transport Trucks and Employee Traffic

Trucks are expected to transport aggregate, asphalt, ready-mix concrete and recycled materials to job sites in Stanislaus, San Joaquin and Merced Counties. The AQA used CARB's EMFAC model to calculate mobile source emissions based on the daily volume of trucks and employee vehicles (see section XVI Transportation/Traffic) and an average trip length of 25 miles. There would also be onsite truck emissions from truck idling, which was assumed to be no more than 5 minutes per truck, as mandated by State regulations which limit truck idling to a maximum of 5 minutes.

The EMFAC model output is provided in the AQA Appendix. Table 1-5 of the AQA shows that daily and annual mobile source emissions will not exceed significance thresholds when avoided regional emissions are factored (see Net Regional Emissions discussion below).

Project Emissions Controls

The SJVAPCD has adopted several rules and regulations that would be applicable to the proposed Project. District Regulation VIII (Fugitive PM₁₀ Prohibitions, Rules 8011-8081), is a series of rules designed to reduce PM-10 emissions (predominantly dust/dirt) generated by human activity, including construction, road construction, bulk materials storage, landfill operations, etc. This regulation will apply to both Project construction and operations.

During construction, the owners, developers, and/or successors-in-interest will have to comply with SJVAPCD Regulation VIII (Fugitive Dust Rules). Specifically, this will include the following dust control practices, drawn from Tables 6-2 and 6-3 of the District Regulation VIII, during construction:

1. All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized against dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover.

2. All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized against dust emissions using water or chemical stabilizer/suppressant.
3. All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
4. When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least six inches of freeboard space from the top of the container shall be maintained.
5. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)
6. Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
7. Limit traffic speeds on unpaved roads to 15 mph; and install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
8. Visible Dust Emissions (VDE) from construction, demolition, excavation or other earthmoving activities related to the Project shall be limited to an opacity of 20% or less. The opacity limitation is defined in District Rule 8011, Appendix A. The dust control measures specified above shall be applied as required to maintain the VDE standard.

Other District rules that would be applicable to the proposed Project include the following:

- District Rule 2201 (New and Modified Stationary Source Review Rule) applies to all new stationary sources and all modification of existing stationary sources which are subject to the District permit requirements and, after construction, emit or may emit one or more affected pollutants. The Project will require Authority to Construct and Permit to Operate permits under this rule.
- District Rule 4002 (National Emission Standards for Hazardous Air Pollutants)
- District Rule 4102 (Nuisance) applies to any source operation that emits or may emit air contaminants or other materials. This rule would be applicable if it creates a public nuisance.
- District Rule 4202 (Particulate Matter) limits the concentration of particulate matter in the exhaust stream. This rule is applicable to the hot mix plant dryer exhaust and to the concrete batch plant.
- District Rule 4309 (Dryers, Dehydrators, Ovens) limits NO_x and CO emissions from liquid and gaseous fuels. This rule applies to the dryer in the asphalt plant.
- District Rule 4641 (Asphalt Paving and Maintenance Operations) limits VOC emissions by restricting the application and manufacture of certain types of asphalt for paving and maintenance operations.

In addition to the District rules, the Project is also subject to federal new source performance standards (NSPS) for: a) non-metallic mineral processing plants, and b) the location of projects in non-attainment areas. The NSPS requirements are codified in 40 CFR 60 Subpart OOO and they limit particulate matter emissions from stacks, limit opacity of fugitive and stack emissions, and limit emissions from wet screening operations. The federal requirement related to locating plants in nonattainment areas is codified in 40 CFR 52.24 and applies to this Project since Stanislaus County is designated as non-attainment for the federal 8-hour ozone standard.

Net Regional Emissions

A 2007 Caltrans economic assessment¹ of aggregate supplies found that that permitting new aggregate sites would lead to shorter haul distance, with a corresponding reduction in emissions from trucks. Overall, the study concluded that the following potentially significant benefits could result from permitting and expanding additional construction aggregate supply sources in California:

- A reduction in emissions from trucks with the reduction in truck miles of travel for hauling aggregates;
- Shorter hauling distance reducing aggregate-truck miles of travel and the cost of the materials;
- Reduction of pavement deterioration from fewer truck miles traveled;
- Reduction in project delays due to lack of aggregate supply in the area, which leads to increased project costs; and
- Reduction in aggregate-related truck miles of travel would also reduce traffic congestion and potentially reduce traffic accidents on roads.

Based on the findings above, the AQA similarly estimates that the Project will result in a net reduction in regional emissions. Since aggregate supplies serve a regional demand, rather than local, aggregate demand in the market area would have to be met by importing from other, more distant sources if the Project is not implemented. This would increase the vehicle miles traveled (VMT) and, in turn, increase emissions in the local air basin. According to recent studies cited in the AQA, it is estimated that transportation costs associated with delivery of aggregate will generally exceed production costs if travel distances exceed 20 miles. Therefore, as economics dictate that aggregate producers reduce transportation costs, an environmental benefit is realized in the form of reduced VMT.

The markets for aggregate, asphalt, and concrete will be driven by demand, rather than by the supply of materials that will be produced by the Project. As a result, production will shift from existing nearby production facilities to the proposed Mine for those customers that are closer to the Project Site. This is because transportation costs are a major component of the cost of delivered aggregate.

Figure 1-2 of the AQA shows the location of other aggregate producing facilities in the Project region. Based on market overlap for aggregate deliveries, the Project would have a haul (transportation) advantage for about 13 percent of the market area. This equates to about 800,000 tons of material with a haul advantage of about 7 miles. In other words, there would be 14 miles (roundtrip) of avoided truck miles if customers could be served from the Project instead of from other suppliers. This equates to 448,000 avoided truck miles annually based on 25 tons per truckload. The AQA estimates that approximately 53 percent of the truck miles associated with transporting aggregate from the Project would be avoided miles resulting in avoided mobile source (off-site transport/haul trucks) emissions as material would not have to be transported from other, more distant sources. Using the same market capture assumptions, the AQIA also factored in the avoidance of emissions from on-site operations (asphalt production, on-site equipment, and truck idling).

The calculations of on-road truck emissions, on-site emissions, and avoided emissions are included in AQA Table 1-5. The result of the analysis shows that when the avoided emissions are factored, Project emissions would be below the thresholds of significance set by the SJVAPCD. However, SJVAPCD commented on the AQA during the Early Consultation process and does not concur with all aspects of the avoided emissions calculation methodology. One aspect of the avoided emissions methodology that requires resolution is whether to factor avoided NO_x emissions, which will primarily be released by trucks hauling finished products to customers throughout the market area. If total on-road truck-related NO_x emissions quantities are not reduced by the avoided quantity, then the Project would generate NO_x emissions well in excess of the threshold of significance, which is 10 tons per year. Locally, the area meets 1-hour and annual ambient air quality standards for NO_x and the Project would not lead to a violation of those local NO_x standards. The main impact of the Project-related mobile source NO_x emissions would be the formation of ozone, which is a

¹ California Department of Transportation. February 2007. *Construction Aggregate Supply Limitations: Estimates of Economic Impact*.

regional, secondary air pollutant for which the SJVAB, including Stanislaus County, has been designated a non-attainment area. Due to the dispersed nature of the Project's truck emissions, therefore, the impacts would be regional, not local, and potentially subject to reductions based on the premise of reduced regional truck miles. The issue will be revisited in a revised AQA and in the EIR in order to determine the significance of Project emissions.

Air Toxics

The CARB's Air Toxics Program establishes the process for the identification and control of toxic air contaminants and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Under the Toxic Air Contaminant (TAC) Identification Program, the state has identified compounds that involve potential health risks. Among those substances are diesel particulate matter.

Subsequent stages of the Air Toxics Program involved the identification of the need for regulation to reduce risks from TACs, and the establishment of the AB 2588 air toxics "Hot Spots" program, which requires facilities to report their air toxics emissions, ascertain health risks, and to notify nearby residents of significant risks. A health risk is considered significant if the cancer risk exceeds 10 in a million or if non-cancer hazard indices are greater than 1, as determined by a health risk assessment.

The AQA included a health risk assessment that determined that diesel exhaust particulate from on-site mining trucks and diesel-fueled equipment (e.g., dozers, loaders, and excavators) would be the principal source of Project-generated toxic air emissions. Diesel exhaust is released over a wide area that includes the active mining areas, unpaved roads, and the Plant Complex. A second, smaller source of toxic air pollutants is the hot-mix asphalt plant, which would contribute to the formation of various gaseous and metal air pollutants through combustion of natural gas. However, the quantities and toxicity of these compounds are well below those of diesel particulate. As a result, the risk analysis focused on diesel particulate.

Cancer Health Risks

The risk assessment calculated the concentration of toxic air pollutants in the vicinity of the Project Site using the AERMOD dispersion model (see AQA Figure 1-3), which incorporates toxic emissions rates and local wind patterns. The modeled concentrations were then used to calculate residential (70-year) cancer risk by multiplying the annual concentration of diesel particulate by its toxicity factor. The results of the analysis show that maximum lifetime cancer risk as a result of exposure to toxic air pollutants would occur at the Plant Complex eastern boundary and would be 0.86 cancers per million (8.6×10^{-7}). That figure is well below the 10 in one million cancer risk significance threshold and the Project would not cause significant cancer health risks to individuals living or working near the Project Site. Impacts would be less than significant.

Non-Cancer Health Risks

Certain air pollutants are known to cause non-cancer health effects, such as asthma. Two types of non-cancer health effects are possible: 1) acute non-cancer health impacts, and 2) chronic non-cancer health impacts. Both non-cancer health impacts are evaluated in terms of a hazard index (HI). An HI greater than 1.0 signifies that health impacts would be significant. For diesel particulate, both CARB and OEHHA have established a chronic non-cancer concentration. However, these agencies have not established acute non-cancer concentration levels.

The AQA risk assessment calculated the Project's maximum chronic health index at 0.2, which indicates that non-cancer health effects associated with the Project are less than significant.

d): Sensitive Receptors

The preceding evaluations of Project-related impacts on criteria pollutant levels, air quality standards, and air toxics have all considered sensitive receptors. In all instances, impacts to those receptors have been found to be less than significant. However, based on Early Consultation input by the SJVAPCD, diesel exhaust will

be reassessed in the EIR as a health risk pollutant.

e): Odors

Potential sources of odors may be diesel exhaust from trucks and process odors from the hot-mix asphalt plant. The asphalt plant would be equipped with blue smoke filters that would capture odor fumes and effectively abate any odors. Given that the Project is located in a rural area where the nearest residences to the asphalt plant are 0.3 mile away and the town of Newman is more than 2 miles away, odor impacts would not be significant. Diesel exhaust will be further evaluated in the EIR as an odor source.

Mitigation: None

References: Air Permitting Specialists, Analysis of Air Quality and Public Health Risks – Riddle Surface Mining and Reclamation Project, Stanislaus County, June 2011; California Department of Transportation, *Construction Aggregate Supply Limitations: Estimates of Economic Impact*, February 2007.

IV. BIOLOGICAL RESOURCES -- Would the project:				
	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Discussion: ESR, Inc., a biological consulting firm, prepared a *Biological Assessment* of the Project Site in September 2010. The study drew on information from the California Natural Diversity Database (CNDDDB), the Inventory of Rare and Endangered Vascular Plants of California, and a series of reconnaissance level field surveys conducted during non-consecutive days between April 19, 2009, November 3, 2009 and February 18, 2010. The reconnaissance surveys included habitat mapping and assessment, inventorying of species, and photographic documentation of Project Site conditions. The complete report is on file with the County Planning Department.

a): Plant and Wildlife Species

The focus of the Biological Assessment effort was the identification of sensitive biotic resources that might be adversely affected by the development of the Project. Such resources included State and federally listed threatened and endangered species, State and federally listed species of concern, federal candidate species, California rare species, and California Native Plant Society listed species (hereafter referred to as "special status species"). In addition, biotic habitats protected by State or federal law, or otherwise considered sensitive according to the CEQA Guidelines, were assessed and depicted on aerial photos or topographic maps.

Site Overview

Stanislaus County is located within the California Floristic Province - San Joaquin Valley Sub-region. This Sub-region is characterized predominantly as grassland that has undergone extensive agricultural conversion. The entire Project Site has been used for agricultural production and ancillary uses from 1957 to the present. Row crop production occurred from 1957 through 1979 at which time it was converted to an almond orchard. In 2007, the property owner removed 140 acres of aged almond trees on the western half of the North Site and the land was extensively scraped and graded flat. The North Site is highly managed by mechanical means with only vestiges of ruderal vegetation present between the rows of the trees and along some of the northern margin of the property that borders Stuhr Road. Also in 2007, the South Site was converted to non-orchard crops and, at the time of the biological site surveys, was an open agriculture field with no identifiable crop and primarily covered in ruderal vegetation. As of November 2011, the North Site is entirely farmed, with the western 140 acres split between oat hay and almonds and the eastern 175 acres all almonds. The 121-acre South Site is entirely in olive orchards.

The Project Site exhibits no "native" habitat and has been extensively manipulated to conform to the agricultural practices utilized at the property. Using CDFG's Wildlife Habitat Relationship System (WHRS) to classify communities, the Biological Assessment (p. 26) identifies primary habitats on the Project Site as Agricultural Habitat and Ruderal/Urban Habitat.

In the eastern half of the North Site, the almond (*Prunus dulcis*) orchard habitat is classified as "Deciduous Orchard" in the WHRS. Broad-leaved weedy forbs that survive mechanical tillage, scraping and/or the application of narrow-leaf herbicides include common fiddleneck (*Amsinckia menziesii*), shepherd's purse (*Capsella bursa-pastoris*), long-beaked filaree (*Erodium botrys*), henbit (*Lamium amplexicaule*), and common mallow (*Malva neglecta*).

The western half of the North Site and the South Site are Ruderal/Urban Habitat since the limited vegetation consists primarily of non-native weedy and/or invasive ruderal species or agricultural/ornamental plants. The area lacks a consistent biological community structure. This habitat is classified as "Urban" and "Barren" wildlife habitat types by WHRS. It provides limited resources for wildlife and is used primarily by species tolerant of human activities. Weedy species sighted include wild oat (*Avena fatua*), black mustard (*Brassica nigra*), cheatgrass (*Bromus tectorum*), yellow star thistle (*Centaurea solstitialis*), bindweed (*Convolvulus arvensis*), pineapple weed (*Matricaria matricariodes*), common purselane (*Portulaca oleraceae*), common groundsel (*Senecio vulgaris*), blessed milkthistle (*Silybum marianum*), and dandelion (*Taraxacum officinale*).

The disturbed and altered condition of these lands greatly reduces their habitat value and ability to sustain rare plants or diverse wildlife assemblages. Regionally occurring special status plant species were evaluated to have a notably low potential to occur at the property or within the surrounding area due to the actively managed acreage, fragmentation, marginal fringe impacts, and the lack of non-developed habitat.

Special Status Plant Species

According to ESR biologists, the native habitat quality, biodiversity and density are exceedingly low due to the agricultural practices exercised at the Project Site and among the surrounding properties. The Biological Assessment included a California Natural Diversity Database (CNDDDB) search that identified no special status plant species as potentially occurring on the Project Site or within five miles of its perimeter. Additionally, a search of USFWS-designated Critical Habitat for special-status species found none within five miles of the Project. The nearest Critical Habitat Unit is about 35 miles away, east of the City of Merced.

No sensitive plant species are anticipated to be impacted primarily due to the lack of suitable habitat on and near the Project Site, as well as the extensive, long-term mechanical and chemical management of the Site. Impacts will be less than significant.

Special Status Wildlife Species

The CNDDDB search identified no special status wildlife species as potentially occurring on the Project Site, no special status wildlife species were listed as potentially occurring within one mile of its perimeter. Twelve special status wildlife species are listed beyond the one-mile radius but within the five miles of its perimeter. Table 3 of the Biological Assessment (ESR 2010) provides a complete listing of the special-status wildlife species identified by the database searches. None of the special-status species were found on the Project Site during the biological survey. Due to the lack of suitable habitat on-site, those species will not be impacted. As noted previously, no Critical Habitat Units exist in the Project vicinity. Impacts will be less than significant.

Foraging and Nesting Raptors

The Project area may potentially provide minimal foraging habitat for various raptors such as Swainson's hawks, American Kestrels, Red-tailed Hawks, owls, etc. However, such raptors do not appear to use the Project Site for active foraging due to the lack of suitable habitat for prey species. No evidence of fossorial burrows was observed at or near the Project Site. This is once again likely due to the extensive agricultural management of the location.

The Biological Assessment states that it is not necessary to actually locate a nest to confirm breeding status. Any indication of breeding (territorial males, adults carrying nest material or food, the presence of newly fledged young, etc.) is acceptable evidence of nesting. However, due to the current state of disturbance and continued use of the Project Site for agricultural purposes, the potential as a raptor breeding or nesting site is considered by ESR to be exceedingly low. The Biological Assessment indicates that no evidence of past breeding attempts was noted within or around the overstory. No evidence was observed of nesting raptors near any of the trees, utilities, or buildings.

Future nesting attempts in the overstory of the orchard by raptors is not reasonably likely. The graded land and the orchard habitat could not potentially be used by ground-nesting raptors such as Northern harrier (*Circus cyaneus*) and Short-eared owl (*Asio flammeus*) due to the extensive and frequent mechanical management practices used on-site. Consequently, ground-nesting raptors are not anticipated to breed on the Project Site.

Based on the preceding information, the Project would not cause the removal or disturbance of habitats during the nesting period, nor would it destroy nests, cause incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. It is improbable that the Project would result in impact to nesting raptors, and the Project biologist has determined that the potential for such impacts is less than significant.

b): Riparian Habitat and Other Natural Communities

The Project Site is located on the gently sloping alluvial fan formed by Orestimba Creek, located approximately 1,900 feet (0.36 mile) at its closest point northwest of the North Site, flowing from the Diablo Range. According to the Biological Assessment (p. 9), the Project Site does not support any Waters of the U.S., wetlands, vernal pools, or other special habitat classifications including, but not limited to, riparian habitats, flyways, and other waterfowl habitats.

The Site is not located within a designated Natural Resource Area, and does not encompass any Key (rare) Vegetative Habitat, Key Wildlife Habitat or Significant Wildlife Habitat. The Site does not support oaks, sycamore woodlands or grassland communities, which are characteristic of the floristic central Sierra Nevada Foothills Sub-region in which it is situated. The Project Site also does not support riparian vegetative communities associated with Orestimba Creek or any other drainage feature. Additionally, no wetland features, including vernal pools, swales or complexes are present on the Project Site. All water delivered to the Project Site is piped or pumped to an established irrigation system.

Due to the disturbance regimes and lack of appropriate habitat, impacts on habitat value (i.e., importance, desirability, benefit, etc.) for special status species and sensitive biotic habitats are anticipated to be low and less than significant.

c): Wetlands and Waters of the U.S.

The Biological Assessment included a National Wetland Inventory (NWI) search to assess whether the Project property is listed within the collated database for wetlands. The nearest jurisdictional water (freshwater emergent wetland) is across Stuhr Road, approximately 0.16 miles northwest of the North Site. That wetland feature is at the site of the existing sand and gravel mine that operates along the south side of Orestimba Creek. Based on the NWI results and the corroborating biological field survey, no impacts to Waters of the U.S. will occur since there are no wetlands, vernal pool, swales or complexes located on the Project Site.

d): Wildlife Movement Corridors

Movement corridors are characterized by the regular movements of one or more species through relatively well defined landscape features. They are typically associated with ridgelines, wetland complexes, and well-developed riparian habitats. Therefore, the agricultural and urban/ruderal habitats would not be expected to function as established movement corridors given their lack of well-defined landscape features.

The Biological Assessment includes CNDDDB mapping showing San Joaquin kit fox (federally Endangered and State Threatened) occurrences west of Interstate 5 and the Delta Mendota Canal, over three miles south/southwest of the Project Site. Although the San Joaquin kit fox can utilize agricultural land, the CNDDDB records do not indicate its migration east of the canal in the five-mile search area around the Project Site. Further, any potential corridor movement in the project vicinity would likely occur along Orestimba Creek; however, no such sightings have been recorded in the CNDDDB. Finally, although the general potential exists for the species to forage on agricultural lands, none of the regionally occurring special-status species were found on the Project Site during the biological survey. Due to the lack of suitable habitat on-site, the Biological Assessment concluded that San Joaquin kit fox will not be impacted, either directly through habitat modifications or indirectly by corridor impedance. Impacts to movement corridors are expected to be less than significant.

e): Biological Resource Policies

The Stanislaus County General Plan identifies specific policies regarding biological resources. Specifically, Chapter 3 of the Conservation and Open Space Element discuss the County's goals and policies regarding fish and wildlife habitat and vegetation resources. These are listed below:

Goals

- Goal 1: Encourage the protection and preservation of natural and scenic areas throughout the county.
- Goal 2: Conserve water resources and protect water quality in the County.
- Goal 10: Protect fish and wildlife species of the County.

Policies

- Policy 2: Assure compatibility between natural areas and development.
- Policy 3: Areas of sensitive wildlife habitat and plant life (e.g., vernal pools, riparian habitats, flyways, and other waterfowl habitats), including those habitats and plant species listed in the General Plan Support Document or by state or federal agencies shall be protected from development.
- Policy 4: Protect and enhance oak woodlands and other native hardwood habitat.
- Policy 30: Habitats of rare and endangered fish and wildlife species shall be protected.

The Stanislaus County General Plan is consistent with the Federal and State Endangered Species Acts, CEQA, and Section 1603 of the Fish and Game Code. While the biological assessment analyzes the proposed Project’s consistency with the General Plan pursuant to CEQA Section 15125(d), the final determination is ultimately subject to the Stanislaus County Board of Supervisors. Additionally, the County does not have a tree preservation policy. No impacts to oaks, oak woodlands, sycamores or sycamore woodlands will occur since there are no oaks or sycamores located on the property. As such, the Project will not conflict with any known policies protecting biological resources, including a tree preservation policy or ordinance. No impacts will result.

f): Habitat Conservation Plans

There are no local, regional, or State habitat conservation plans applicable to the Project or its immediate surroundings. No impacts related to conflicts with such a plan would result.

Mitigation: None

References: ESR, Inc. Biological Assessment - Riddle Project, Stanislaus County, September 15, 2010

V. CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

Discussion:

SWCA Environmental Consultants (SWCA), a cultural and biological resources consulting firm, conducted literature and records searches for historical, archaeological, and paleontological resources on and near the Project Site. SWCA also conducted an intensive cultural resources field survey of the North Site on several days in April and May 2007. SWCA compiled the records search and field survey results in a Cultural Resources Assessment dated February 25, 2008.

The report was completed under the provisions of Public Resources Code Section 5024.1, Section 15064.5 of the State CEQA Guidelines, and Sections 21083.2 and 21084.1 of the CEQA Statutes. The format of the report follows Archaeological Resource Management Reports (ARMR): Recommended Contents and Format (Office of Historic Preservation 1990). The complete report is on file with the County Planning Department.

a) and b): Historical and Archaeological Resources

Extensive accounts of California and local prehistory, ethnography, and history are provided in the Cultural Resources Assessment and should be consulted for further information.

Records Search Results

To determine whether prehistoric or historic resources were previously recorded within the Project area, the California Historical Resources Information System's (CHRIS's) Central California Information Center (CCIC), located at the University of California, Stanislaus, performed a cultural resources records search for the Project area in April 2007. The records search covered a one-mile radius around the Project Site. According to the files, no cultural resource studies have been conducted and no cultural resources have been recorded within a one-mile radius of the Project Site.

SWCA contacted the Native American Heritage Commission (NAHC) in April 2007, requesting a search of their Sacred Lands File for traditional cultural resources, as well as a list of Native American contacts that may have additional knowledge of cultural resources in the area. The reply from the NAHC states that the search failed to indicate the presence of Native American sacred lands or traditional cultural properties within the immediate Project area. In May 2007, SWCA sent letters to the contacts provided by the NAHC, but received no responses from Native American contacts.

Field Survey Results

SWCA surveyed the approximately 315-acre North Site, which is almost entirely flat with predominantly sandy gravel soils. At that time (April/May 2007), on-site vegetation consisted of mostly mature almond orchard with some cleared agricultural land. Approximately 75 percent of the acreage was covered by short grass with narrow corridors between the trees, with a ground visibility of about 35 percent. The southeastern portion of the North Site was newly planted with almond trees, allowing even better visibility at approximately 95 percent. Recent agricultural activities have since removed most of the mature almond trees.

During the cultural resource pedestrian survey, SWCA archaeologists examined the North Site for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., postholes, foundations) or historic debris (e.g., metal, glass, ceramics).

The southeast corner of the North Site contains a staging area, and several assorted farm equipment and two farming related buildings. The two buildings are modular and relatively new, probably post-1995, and have no historical significance. No prehistoric and no historic-era cultural resources were identified during the field survey.

Based on the records search results and the negative field survey, the Project will not cause significant adverse impacts to known cultural resources. No additional cultural resources work is recommended for the North Site.

Despite the current lack of cultural resource evidence on-site, the possibility exists that cultural resources could be discovered during construction grading, trenching, augering, and/or excavation work. In such an instance, work must be halted in the immediate area and a qualified archaeologist notified to evaluate the resource(s) encountered and to recommend the development of mitigation measures for potentially significant resources consistent with CEQA Guidelines Section 15126.4(b). The basic measures that must be employed are provided in the Mitigation section that follows. With implementation of those measures, potential impacts to cultural resources would be reduced to a level that is less than significant.

c) Paleontological Resources and Geologic Features

The University of California, Berkeley conducted a search of their paleontological resources database. The known fossil resources in Stanislaus County are located in the east foothills, and around the City of Modesto. The closest known vertebrate fossil localities are located east of Gustine (approximately 6 miles away) and southeast of Patterson (approximately 7 miles away). The Patterson area fossils are from the Tertiary Period and the Miocene Epoch, and the fossils near Gustine are from the Cretaceous Period. The closest invertebrate fossils are located within the City of Gustine (approximately 8 miles from the Project area), and they date from the Oligocene Epoch.

The Project area is underlain by the Quaternary-aged (Holocene) San Luis Ranch Alluvium, which is recent alluvium consisting of undifferentiated fan and terrace deposits. Recent alluvium in this area has a very low paleontological sensitivity. No fossils were identified during the field survey. Based on the record search results, and negative field survey no further work is deemed necessary. Since the mining will not occur below the alluvium, SWCA determined that paleontological monitoring is not required or recommended. Therefore, Project-related excavations in the recent alluvium will not negatively impact non-renewable fossil resources. The proposed Project will cause no significant adverse impacts to paleontological resources.

d) Human Remains

There was no surface evidence of human remains during SWCA's field survey of the North Site. Although unlikely, the discovery of human remains is always a possibility. California Health and Safety Code Section 7050.5 addresses that possibility, stating that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a Most Likely Descendent (MLD). The MLD shall complete the inspection of the site within 24 hours of notification, and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Mitigation:

1. The Project Applicant shall obtain the services of a qualified cultural and paleontological consultant to implement a contractor education program to ensure that construction personnel are aware of potentially sensitive archaeological and paleontological resources. The program may take the form of a brochure to help personnel with cultural and paleontological resources identification, or other materials deemed appropriate by the consultant and/or the Stanislaus County Department of Planning and Community Development.

2. If any subsurface cultural resources, including either prehistoric or historic resources, are encountered during construction of the Project, all construction activities in the vicinity of the encounter shall be halted until a qualified archaeologist can examine these materials and make a determination of their significance. The Stanislaus County Department of Planning and Community Development shall be notified, and the owners, developers and/or successors-in-interest shall be responsible for mitigation of any significant cultural resources pursuant to the CEQA Guidelines. The developer/operator shall be responsible for halting construction, obtaining a qualified archaeologist and notifying the Stanislaus County Department of Planning and Community Development if any subsurface cultural resources are encountered during construction of this Project.

3. If human remains are encountered at any time during the development of the Project, all work in the vicinity of the find shall halt and the County Coroner and the Stanislaus County Department of Planning and Community Development shall be notified immediately. If it is determined that the remains are those of a Native American, the Coroner must contact the Native American Heritage Commission within 24 hours. At the same time, a qualified archaeologist must be contacted to evaluate the archaeological implications of the find. The CEQA Guidelines detail steps to be taken when human remains are found to be of Native American origin. The developer/operator shall be responsible for halting construction and notifying both the County Coroner and the Stanislaus County Department of Planning and Community Development if any human remains are encountered at any time during development of this Project. If remains are determined to be those of a Native American, the developer/operator shall obtain a qualified archaeologist to evaluate the archaeological implications of the find.

References: SWCA Environmental Consultants, Cultural Resources Assessment for the Calaveras Materials Inc. Project, February 25, 2008

VI. GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	

<p>c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?</p>			<p>X</p>	
<p>d) Be located on expansive soil, as defined in Table 1804.2 of the California Building Code (2007), creating substantial risks to life or property?</p>			<p>X</p>	
<p>e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?</p>			<p>X</p>	

Discussion:

Geocon Consultants, Inc. (Geocon), a geologic and geotechnical engineering firm, conducted a subsurface investigation and limited geotechnical testing on the Project Site in November 2006. The resulting site data was supplemented by a review of published documents, geologic maps and other geological and geotechnical literature, and compiled in a Soils, Geologic, and Geohazards Evaluation, updated December 10, 2010. The complete evaluation is on file with the County Planning Department.

BSK Associates (BSK), a civil and geotechnical engineering firm, further analyzed the November 2006 test boring data from Geocon to provide recommendations for slope stability under seismic and static conditions, among other geotechnical design issues. The analysis and recommendations are provided in a Geotechnical Data Review and Evaluation Report, dated August 20, 2009. The complete evaluation is on file with the County Planning Department.

The following sections provide summary baseline information with a focus on the Project’s potential effects. The Geocon and BSK reports provide detailed technical descriptions of the regional and local geologic settings and subsurface soil conditions.

a.i): Earthquake Fault Rupture

Based on Geocon’s site reconnaissance and review of geologic maps and reports (2010), the Project Site is not located on any known active fault traces. In addition, the Project Site is not in an Alquist-Priolo Earthquake Fault Zone (formerly referred to as a Special Studies Zone). Therefore, the risk of fault surface rupture on the Project Site is low and considered less than significant.

a.ii): Seismic Groundshaking

The site is located in an area of California with moderate regional seismicity. In general, the Project will experience relatively moderate intensity ground motion, primarily from low magnitude earthquakes closer to the Project Site and large earthquakes on more distance faults.

To determine the distance of known active faults within 50 miles of the Project Site, Geocon used the computer program EQFAULT (Version 3). The 50-mile radius is commonly used because seismic attenuation is generally sufficient to minimize damage to most structures at distances greater than 50 miles. The radius search produced 21 faults (see Table 4.3 of Geocon 2010), with the Great Valley Fault, Segment 8 as the closest source of potential ground motion at the Project Site. Geocon used a California Geological Survey (CGS) computer model to estimate probabilistic seismic ground motion, or the “Design Basis Earthquake” ground motion, which is defined as the Peak Ground Acceleration (PGA) with a 10 percent chance of exceedance in 50 years (475-year return period). For an alluvial soil type and design magnitude of 6.6, the estimated PGA at the Project Site is approximately 0.40g (1.0g is the acceleration due to gravity at the earth’s surface). A similar USGS model run by BSK estimated 0.44g PGA at the Project Site.

While listing PGA is useful for comparison of potential effects of fault activity in a region, other considerations are important in seismic design, including frequency and duration of motion and soil conditions underlying the Project Site. Like other sites in the region, the Project Site could be subject to strong seismic groundshaking in the event of a major earthquake along the faults listed in Geocon (2010) or other area faults.

The State of California regulates development in California through a variety of tools that reduce potential hazards from earthquakes or other geologic hazards. The California Building Code (CBC), Unreinforced Masonry Building Law, Alquist-Priolo Earthquake Fault Zoning Act and the State of California Seismic Hazards Mapping Act govern development in potentially seismically active areas. The CBC contains provisions to safeguard against major structural failures or loss of life caused by earthquakes or other geologic hazards. As such, and based on Geocon's review of the Project, the seismic design measures specified in local building codes will reduce the risk to persons and structures on the Project Site to a level that is less than significant during and after mining.

Additionally, an evaluation of engineered slope stability under seismic conditions is provided in checklist item a.iv), *Landslides and Slope Stability*. The stability analysis also finds that the effects of the proposed slope design will be less than significant under varying groundwater elevations and seismic conditions.

a.iii): Seismic-Related Ground Failure

Liquefaction

Liquefaction of granular soils can be caused by strong vibratory motion due to earthquakes. Soils that are highly susceptible to liquefaction are medium- to fine-grained, loose, granular and saturated at depths of less than 50 feet below the ground surface. The liquefaction of soils causes surface distress, loss of bearing capacity, and settlement of structures that are founded on the soils, including berms, levees and roads. Geocon's site investigation found that underlying materials are coarse-grained deposits interbedded with and confined by cohesive units, and that groundwater was deeper than 50 feet below the ground surface. Based on the predicted seismic accelerations, and soil and groundwater conditions encountered at the Project Site, Geocon determined that liquefaction potential is low on the Site and that impacts would be less than significant.

BSK, in its subsequent review of Geocon's 2006 test boring data, also concluded that the potential for liquefaction to occur at the Project Site, during or after the proposed aggregate mining operations, is very low. Based on their understanding of the geologic setting and information obtained from Geocon's test borings, soil deposits below the groundwater table (typically at or below a depth of 60 feet) are expected to be in a relatively dense state. These soils have been subjected to relatively high overburden stresses and numerous seismic events for thousands of years and should be in a state of equilibrium with respect to the current tectonic environment. Since the relative density of these soils will not change as overburden materials are removed during mining operations, the potential for liquefaction is not expected to change due to the planned mining operations and would be less than significant.

Lurch Cracking and Lateral Spreading

Although the potential for lurch cracking and lateral spreading is very low for the Project Site in its current condition, the proposed cut slopes for the open-pit mining areas of the Site may be susceptible and could result in free face failures during a seismic event if not properly constructed. Therefore, an evaluation of engineered slope stability under seismic conditions is provided in checklist item a.iv), *Landslides and Slope Stability*. The stability analysis finds that the proposed slope design will meet all minimum safety factors under varying groundwater elevations and seismic conditions. Insofar as the mined slopes are properly engineered for the Project Site conditions, the risk to persons on adjacent properties is less than significant during and after mining.

Seismic Settlement

Due to the well-drained and generally consolidated nature of the observed geologic materials on the Project Site, the risk of seismic settlement is anticipated to be low (Geocon 2010) and impacts will be less than significant.

a.iv): Landslides and Slope Stability

There is no potential for landsliding or slope failure on the Project Site in its current condition.

Pit and reclamation slope global stability are not anticipated to be geologic constraints for the Project Site. Based on the anticipated subsurface materials and proposed reclamation slope angles, the slopes will be globally stable pursuant to standard SMARA reclamation practices if proper engineering, construction, revegetation and erosion control measures are incorporated into the Project. Temporary excavations will be performed in accordance with applicable Occupational Safety and Health Administration Division of Industrial Safety and Mine Safety and Health Administration requirements.

BSK analyzed the stability of slopes that will be constructed during the reclamation phase of mining. The analysis used data from three soil profiles by Geocon and considered static and seismic conditions, as well as the impact that groundwater fluctuations will have on slope stability. Detailed modeling methods and input parameters are provided in the BSK evaluation (pp. 5-7). The finished slopes created during the mining process are generally anticipated to have the following profiles:

- Level ground surface surrounding aggregate pit.
- Finished slopes surrounding aggregate mine will be 2H:1V with 12-foot wide horizontal benches every 30 feet in height down to the groundwater table.
- Below the groundwater table the slope inclination will be 1H:1V or flatter down to the bottom of the pit.

With final slopes constructed 2H:1V above the groundwater table and 1H:1V below the groundwater table, the analysis indicates that the proposed slopes should be grossly stable for both static (safety factor > 1.5) and seismic (safety factor > 1.15) conditions. The table below summarizes the lowest safety factors that were calculated for various groundwater conditions.

Summary of Minimum Safety Factors

Groundwater Condition After Construction of Final Slopes	Design Case	Minimum Safety Factors
Design Level	Static	2.05
	Seismic	1.47
Design Level +10 feet	Static	2.05
	Seismic	1.47
Design Level -15 feet	Static	1.69
	Seismic	1.31
Source: BSK, 2010		

BSK notes that the possibility of the groundwater table rising to shallower depths and/or the presence of perched groundwater may occur due to irrigation, seasonal effects, or other factors not evident at present. The deeper groundwater is when mining operations take place (i.e., height of 2:1 slope is greater), the higher the factor of safety of the finished slopes will be after the reclamation phase. Thus, BSK assumed a shallow groundwater depth for a conservative "design level" condition. The table shows that if the groundwater table rises after construction of the final slopes, the factor of safety against slope failure is not affected. Conversely, if the groundwater table drops after construction of the final slopes, the factor of safety would be reduced. For all conditions analyzed, however, impacts related to slope stability are deemed less than

significant. The detailed slope stability analyses are provided in Appendix A of the BSK evaluation.

b): Soil Erosion and Loss of Topsoil

The Site currently slopes at approximately 0.25 to 0.5 percent to the east, with water being captured and controlled by an existing system of surface drains and ditches. Upon commencing each mining phase, all topsoil in that phase will be removed. During mining and after reclamation, most of the Project Site will drain internally to the pits on the North and South Sites. Water not entering the pits will continue to drain to the existing system of surface drains and ditches. See Checklist Section IX (Hydrology and Water Quality) for a detailed description. The Plant Complex will operate as a zero-discharge facility by retaining all runoff on-site and preventing stormwater discharges to off-site surface waters.

Based on a review of the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS), three soil types are present on the Project Site, including Zacharias gravelly clay loam (0 to 2% slope), Vernalis loam (0 to 2% slope), and Elsalado fine sandy loam (0 to 2% slope), which primarily consists of coarse sandy and sandy loams. These soils reportedly have low plasticity and slight erosion potential. This soil is also characterized by moderate infiltration rates and a well-drained drainage class. The soils observed during the field reconnaissance are consistent with those mapped on the USDA inventory (Geocon 2010).

Geocon reviewed the Mining Permit and Reclamation Plan depicting pre-mining conditions, proposed operations during mining, and reclaimed mine site topography. Based on the premise that adequate drainage is imperative to reduce the potential for erosion or differential soil movement, Geocon's review concluded that the Project will have no significant impacts on drainage outside of the pit area; therefore, the risks of substantial soil erosion or runoff-induced loss of topsoil on the Project Site are less than significant.

c): Geologic Instability

Geologic instability potentially resulting in lateral spreading, subsidence, liquefaction or collapse is addressed in checklist item a.iii) above. Slope stability and landslides are addressed in checklist item a.iv). Both evaluations find impacts to be less than significant with implementation of proper geotechnical design. No mitigation measures are necessary.

d): Expansive Soils

The Vernalis clay loam, Zacharias gravelly clay loam, and Elsalado fine sandy loam soils mapped on-site have low plasticity and low linear extensibility (Geocon 2010). Therefore, the risk posed by expansive soils on the Project Site is less than significant.

e): Soils for Septic or Alternative Waste Water Disposal

The Vernalis clay loam, Zacharias gravelly clay loam, and Elsalado fine sandy loam soils mapped on-site have slow to moderate percolation rates ranging from less than 0.6 inch per hour up to approximately 2.0 inches per hour (Geocon 2010). Any onsite wastewater treatment systems, including percolation ponds for water quality, will be properly engineered for the Project Site conditions and will not pose a significant impact.

Mitigation: None

References: Chang Consultants, CEQA-Level Hydrology Study for the Riddle Surface Mine, September 23, 2010; Geocon Consultants, Inc., Soils, Geologic, and Geohazards Evaluation, December 10, 2010; BSK Associates, Geotechnical Data Review and Evaluation, August 20, 2009

VII. GREENHOUSE GAS EMISSIONS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Discussion: In light of the growing scientific consensus and public awareness of global climate change, and the passage of Assembly Bill 32 (The California Global Warming Solutions Act of 2006), the potential impact of the proposed Project on global warming is evaluated. AB 32 requires that the California Air Resources Board adopt a reduction strategy of rules and regulations to bring greenhouse gas (GHG) emissions to that of 1990 by 2020. This strategy has yet to be outlined by the CARB, and the 1990 GHG emissions level has not yet been determined for Stanislaus County. In addition, SJVAPCD and/or Stanislaus County have not established thresholds of significance for GHG emissions.

Despite lack of specific regulatory guidance and uncertainty in the 1990 baseline emissions inventory, the Analysis of Air Quality and Public Health Risks (2011) calculated GHG emissions (see AQA Table 1-12). As shown, approximately 89 percent of the 6,708 tons of carbon dioxide (CO₂) generated annually by the Project is associated with transportation of aggregate. The Project emissions represent 0.0017 percent of Statewide emissions (390 million tons) in 2004.

The AQA notes that the Project-related CO₂ emissions are not “new” emissions. As noted previously, if the Project were not built, aggregate and other material would be produced elsewhere leading to higher emissions as a result of vehicle miles traveled from more distant plants. As a result, it would be more accurate to say that the proposed Project would “move” emissions from other locations to the Project location. Globally, there would be a reduction in emissions as a result of this Project due to a decrease in vehicle miles traveled. Impacts would be less than significant.

Mitigation: None

References: Air Permitting Specialists, Analysis of Air Quality and Public Health Risks – Riddle Surface Mining and Reclamation Project, Stanislaus County, June 2011; Stanislaus County General Plan and Support Documentation¹.

VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	

<p>c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</p>				<p>X</p>
<p>d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</p>				<p>X</p>
<p>e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?</p>				<p>X</p>
<p>f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?</p>				<p>X</p>
<p>g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</p>				<p>X</p>
<p>h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?</p>				<p>X</p>

Discussion:

a) and b): Hazardous Materials

The use of hazardous materials during mining operations could pose a potential health and safety hazard to operational workers if a significant spill or accident occurred. The use of hazardous materials during mining operations would include maintenance supplies and operational stores. Hazardous materials used as part of daily operations or for maintenance of on-site equipment and vehicles would primarily include:

- | | |
|---|------------------------------|
| Fuels (diesel, gasoline, and natural gas) | Lubricating grease |
| Asphalt oil | Bottled oxygen and acetylene |
| Motor oils | Cleaning solvents |
| Automatic transmission fluids | Lubricating grease |
| Paints and thinners | Brake fluids |
| Hydraulic fluids | Antifreeze |

Most of these hazardous materials would be limited to factory-supplied containers of 55-gallon drums or less. These hazardous materials would be stored within the maintenance shop building in accordance with state and local regulations. However, it would be necessary to transport many of these chemicals to on-site locations for repair or maintenance of equipment and/or vehicles. The use of chemicals at localized areas presents the greatest risk of accidental spills, but such use would be limited to small quantities of 5 gallons or less, and any spill would be cleaned up and disposed of in accordance with governmental regulations. Therefore, the transportation of these chemicals would be a less than significant impact to on-site locations.

Operation of the processing facility would require on-site storage of fuels. The primary on-site heating chemical would be propane, CNG and/or diesel for heating the asphalt and/or drying and heating the aggregate for use in the asphalt plant. Fuels (e.g., gasoline and diesel) and oils would also be transported and stored to service and refuel various on-site vehicles, particularly the equipment used for aggregate mining.

The potential for accidental release or spillage of oils, hydraulic fluids, fuels and other hazardous materials will be minimized by adherence to prevention, containment and cleanup measures that will be specified in the Hazardous Materials Business Plan (HMBP) and/or the Spill Prevention Control and Countermeasure (SPCC) Plan. At a minimum, those plans will address the following:

- Aboveground tank leak and spill control
- Vehicle leak and spill control
- Vehicle and equipment maintenance
- Vehicle and equipment fueling
- Industrial spill prevention response
- Operating practices record-keeping and internal reporting

The SPCC Plan will be prepared in compliance with 40 CFR 112 and the Above Ground Petroleum Storage Act (Health and Safety Code Section 25270). With regard to petroleum-based oils, fuels, lubricants and solvents, the SPCC plan will specify operating procedures and control measures to prevent the occurrence of discharges, as well as countermeasures to contain, clean up, and mitigate the effects of any such discharges.

The Hazardous Materials Business Plan (HMBP) will contain information on the location, type, quantity, and health risks of hazardous materials stored and used on-site. The HMBP will include an emergency response plan, and will better prepare emergency response personnel for handling a wide range of emergencies that could potentially occur on-site.

The Project will comply with applicable regulations regarding hazardous materials transport, storage, use and disposal. Moreover, the required containment and response plans will ensure that potential releases of fuels and other chemicals do not create a significant hazard to the public. Impacts will be less than significant.

c): Hazardous Emissions Near a School

The Project Site is not located within ¼ mile of any existing or proposed school. The nearest schools, Orestimba High School and Yolo Junior High School, are both located more than two miles east in the City of Newman. The Project does not have the potential to create hazardous or non-hazardous emissions that would affect those schools. No impact will result.

d): List of Hazardous Materials Sites

Pursuant to California Government Code Section 65962.5(e), the applicant has submitted a signed statement to the County indicating consultation with the latest State of California Hazardous Waste and Substances Sites List on file with the Planning Department and the California State Department of Toxic Substances Control web site (<http://www.envirostor.dtsc.ca.gov/public>). According to the State web site, the Project is not located on a site that is included on the List.

Additionally, the applicant will be required to demonstrate, to the satisfaction of the Stanislaus County Environmental Resources Department, that the site containing (or formerly containing) residences or farm buildings, or structures, has been fully investigated (via Phase I and/or II studies) prior to the issuance of a grading permit. Any discovery of underground storage tanks, former underground storage tank locations, buried chemicals, buried refuse, or contaminated soil will be brought to the immediate attention of the County.

e) and f): Public and Private Airport Safety Hazards

The Project is not located within an airport land use plan or within the vicinity of a public or private airstrip. The Project would not subject employees of the mine to increased hazards from aircraft. No impact will occur.

g): Emergency Response and Evacuation

No emergency response or evacuation plans have been adopted for the area. The Project is an aggregate mine that would be constructed in a rural area that would be served by the West Stanislaus County Fire Protection District. No impact would occur.

h): Wildland Fire Hazard

The Project Site is adjacent to irrigated agriculture and is not located within a wildland fire hazard area. No impact would occur.

Mitigation: None

References: Geocon Consultants, Inc. Phase I Environmental Site Assessment, October 2006; EMKO Environmental, Inc., Riddle Surface Mine Hydrology and Water Quality Environmental Assessment, December 2010; State of California Hazardous Waste and Substances Sites List, <http://www.envirostor.dtsc.ca.gov/public>, accessed on August 18, 2010

IX. HYDROLOGY AND WATER QUALITY -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

Discussion: Kenneth D. Schmidt and Associates (KDSA), a groundwater consulting firm, prepared a report documenting existing groundwater conditions at and in the vicinity of the Project Site. The report includes a literature review of groundwater and geology studies on the regional and local scales, several of which were prepared for and reviewed by the Central California Irrigation District (CCID), Eastin Water District, and the City of Newman. The complete report is on file with the County Planning Department.

EMKO Environmental, Inc., a geology and hydrogeology engineering firm, prepared a *Hydrology and Water Quality Environmental Assessment* of the Project in December 2010. The assessment involved review of publicly-available data and reports, aerial photos, field observations, and site-specific data collection for its evaluation of surface water drainage, groundwater flow, groundwater supply, and water quality. The study also drew on information from the Existing Groundwater Conditions report (KDSA 2010) to evaluate effects on groundwater. The complete report is on file with the County Planning Department.

Chang Consultants, a civil engineering firm, prepared a *CEQA-Level Hydrology Study for the Riddle Surface Mine* in September 2010. The study evaluated the Project Site design, plant operation, and best management practices (BMP) for their ability to avoid exceeding the CEQA thresholds of significance. The complete report is on file with the County Planning Department.

The following sections provide background information about existing surface water and groundwater sources, water quality, and usage. The information is foundational to the checklist responses that analyze that Project’s effects on surface water and groundwater.

Existing Surface Water Overview

Surface Water Quality

The primary surface-water feature in the area is Orestimba Creek, which is approximately 1,900 feet (0.36 mile) north of the North Site and flows toward the northeast. The average depth to groundwater is approximately 70 feet below the base of the channel of Orestimba Creek, such that the creek is a “losing stream” in the vicinity of the Project Site. In addition, there is an active mining operation within the floodplain of Orestimba Creek directly northwest of the North Site. Since Orestimba Creek has no hydrologic connection to the Project Site, this section only summarizes water quality for comparative purposes. EMKO (2010) provides measurement data for average annual flow and discharge rates at Orestimba Creek.

Surface water is provided to both the North and South Sites for irrigation by buried pipes from the Delta Mendota Canal, located approximately one mile to the west. The only other surface water onsite is from direct rainfall, which is conveyed and/or detained via perimeter ditches and detention basins. The surfaces of both sites are graded to minimize runoff and maximize the use of applied irrigation water.

The EMKO assessment (pp. 9-10) summarizes a broad array of water quality parameters in recent samples taken from the Delta Mendota Canal and for Orestimba Creek. The Delta Mendota Canal sample data represents the quality of the water used for irrigation at the Project Site, whereas the Orestimba Creek sample represents the quality of the surface runoff from the watershed in the Project vicinity. As indicated, the water quality is comparable except that the Delta Mendota Canal generally has lower levels of chloride, higher levels of iron and manganese, and lower total dissolved solids.

The Delta Mendota Canal sample had a TDS level of 315 mg/L and Orestimba Creek had a level of 410 mg/L. The secondary drinking water standard for TDS is 500 mg/L, whereas the objective for agricultural use is 450 mg/L.

Overall, the water quality within both the Delta Mendota Canal and Orestimba Creek is very good, and meets agricultural and drinking water standards, as well as applicable objectives of the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins.

Baseline Water Use

Current and past water use at the Project Site has been for agricultural irrigation. Irrigation water is supplied primarily from the Delta Mendota Canal, although groundwater has been used in the past and may be used again in the future. According to the landowner, the average annual irrigation application is approximately four (4) acre-feet per acre for the almonds grown on the 315-acre North Site and three (3) acre-feet per acre for the drip-irrigated olives grown on the 121-acre South Site. Based on those factors, current annual water consumption is approximately 1,260 AF on the North Site and 360 AF on the South Site.

Existing Groundwater Overview

Groundwater Sources

In the western San Joaquin Valley in general, and specifically in the Project vicinity west of Newman, most groundwater wells tap the aquifers comprised of older alluvium and Tulare Formation deposits. A major confining bed is present beneath much of the west side of the San Joaquin Valley. This clay is termed the Corcoran Clay or "E-clay" and generally divides the groundwater into the upper and lower aquifers. Regionally, the clay also separates waters of low total dissolved solids (TDS) below the clay from higher TDS waters left above due to evapotranspiration. Local well logs indicate that the E-clay pinches out near the west edge of the Project Site, and is not present farther to the west.

The base of the lower aquifer is generally considered to be the top of consolidated sedimentary formations or the top of saline groundwater (water with an electrical conductivity greater than 3,000 micromhos per centimeter). Wells located west of the Project area, near the Delta Mendota Canal, reportedly encountered consolidated formations at depths of about 150 feet. Near the town of Newman, the depth to saline groundwater has been reported to be approximately 900 feet below ground surface.

Depending on the base of the fresh groundwater, most of the groundwater near and west of Newman is pumped from either shallow wells tapping the upper aquifer, or deeper wells tapping both the upper and lower aquifers (composite wells). KDSA (2010) includes subsurface geologic cross-sections showing wells, test holes and monitored (spring 2008) groundwater levels along north-south and east-west transects in relation to the Project Site. As shown, the consolidated-rock groundwater base generally increases in depth, and unconsolidated alluvium increases in thickness, from west to east.

Major sources of groundwater recharge include seepage of water from Orestimba Creek, percolation of irrigation return flow (irrigation water applied in excess of crop evapotranspiration) from areas irrigated with canal water supplies, and canal seepage. Recharge to the lower aquifer is from stream flow seepage west of where the Corcoran Clay is present, groundwater inflow, and downward leakage of groundwater from the upper aquifer, through the Corcoran Clay. Discharge from the lower aquifer is from pumping and groundwater outflow to the northeast.

Groundwater Supply Wells

Most irrigation wells in the Eastin Water District north and east of the Project range from about 200 to 500 feet deep. The shallower of these wells tap the upper aquifer, whereas the deeper wells normally tap both aquifers. However, several wells in the area tap solely the lower aquifer, including some public supply wells in the City of Newman. As noted above, KDSA (2010) states that public supply wells in the City of Newman are often completed in the lower aquifer, below the Corcoran Clay. Based on the screened intervals of supply wells compared to the depth of mining, and the groundwater flow direction, the proposed mining Project will not have any effect on groundwater under the City of Newman.

Figure 4 of KDSA (2010) shows that on or immediately adjacent to (<100 feet) the Project Site are three (3) domestic wells, three (3) irrigation wells, and one (1) unused irrigation well. The active domestic well at the southeast corner of the North Site is reportedly about 500 feet deep. Within about one-half mile of the Project Site are another two (2) domestic wells, seven (7) irrigation wells, and two (2) industrial wells.

As of Spring 2008, water-level elevations ranged from about 55 feet above mean sea level (AMSL) near the Main Canal to 82 feet AMSL near Eastin and Moorehead Roads. A recharge ridge was indicated beneath Orestimba Creek. The direction of groundwater flow was generally away from the creek in the part of the area north of Orestimba Creek Road. Groundwater was flowing toward a pumping depression west of the City of Newman.

Based on supply (primarily composite) well data from Spring 1999, groundwater beneath the North Site was flowing toward the southeast toward a pumping depression east of the Project Site. Water-level elevations beneath the Project Site ranged from about 65 to 70 feet AMSL.

A long-term water-level hydrograph for regional supply well 14E1 is provided in KDSA (2010). It indicates that the water level has fallen during drought periods, such as in 1990-94, and risen during wet periods. Overall, the water levels in other measured wells in the vicinity have been similarly stable over the long term, with seasonal fluctuations.

Groundwater Monitoring Wells

Geocon Consultants, Inc. installed four (4) monitoring wells on the North Site and one (1) monitoring well on the South Site in November 2006 (see KDSA 2010, Table 2 [construction data] and Appendix A [geologic logs]). Water levels and groundwater quality have been monitored at these wells, when possible, since January 2007. For December 2007, KDSA (2010) reports depths to water ranging from about 70 to 93 feet, with water-level elevations ranging from a high of 67.2 feet AMSL near the southwest corner of the North Site, to a low of 56.1 feet AMSL near the northwest corner of the North Site. Water-level elevations on the South Site ranged from about 61 to 64 feet AMSL, east to west. The direction of groundwater flow was to the northeast beneath the North Site and to the east beneath the South Site.

Approximately nine months later, in September 2008, monitoring data indicated a drop in groundwater elevation. The high and low water-level elevations at the North Site were recorded at 64.8 feet AMSL (southwest corner) and 43.8 feet AMSL (northwest corner). Water-level elevations on the South Site ranged from about 58 to 60 feet AMSL, east to west. The direction of groundwater flow was primarily to the north beneath the North Site and to the northeast beneath the South Site.

Similar to the supply well data, monitoring well hydrographs in KDSA (2010) illustrate the seasonal water-level trend, with highest water-level elevations in the winter and spring and lowest elevations in the summer and fall.

Existing Groundwater Quality

Both KDSA (2010) and EMKO (2010) provide summaries of groundwater quality at five on-site monitoring wells for samples taken in 2007, 2008, and 2010. Key findings with respect to the latest data are as follows:

- Total Dissolved Solids (TDS): TDS levels range from 540 mg/L to 1170 mg/L, with the higher levels located along the north side of the North Site. The South Site has levels in the 730-780 mg/L range. TDS levels above 1,200 mg/L are considered an indicator of poor water quality.
- Nitrate (as nitrogen) is present above its drinking water standard of 10 mg/L, with 2010 levels ranging from about 15 to 28 mg/L in all of the wells, except for RFO-1 on the South Site. Sources of the high nitrate concentrations include natural geologic materials associated with the Coast Range to the west, nitrogen fertilizers, and possibly tomato processing wastewater.
- Chloride (83 to 265 mg/L [exceeds 250 mg/L MCL at one well]) and sulfate (54 to 187 mg/L) levels are elevated, which in some wells limits the use of groundwater for irrigation of the almond orchards. MCLs present a point of comparison but are not of any relevance for the Project since it does not propose to use groundwater as a drinking water source.
- The pH levels are neutral to slightly alkaline, ranging from 6.8 to 7.4.
- Iron (<50 to 80 µg/L) and manganese (<10 µg/L) levels are relatively low compared to groundwater in other locations of the San Joaquin Valley. Arsenic levels are less than 2 µg/L at all wells. Concentrations of each are well below the respective MCLs.
- Chromium (6 to 22 µg/L) was detected below its drinking water standard and Basin Plan limit of 50 µg/L.

The groundwater samples were also analyzed for the pesticides dibromochloropropane (DBCP), ethylene dibromide (EDB), and 1,2,3-trichloropropane (TCP). None was detected in any of the samples.

Overall, the groundwater quality is marginal with respect to TDS, salts and nitrate, and exceeds Regional Water Quality Control Board (RWQCB) Basin Plan Objectives as well as agricultural and drinking-water standards.

Groundwater Pumpage

According to KDSA (2010), pumpage at the North Site has been limited to one private domestic well, while Del Puerto Irrigation District canal water has been used for crop irrigation since about 1990. At the South Site, two irrigation wells have been used for irrigation. At present, groundwater is not used for irrigation and is not part of the baseline water usage.

Immediately east of the Project, in the Eastin Water District, canal water has not been available, and well pumpage has been the primary source of irrigation water. Farther east in the CCID, District wells located along the Main Canal are used to supplement canal water, primarily from the Delta Mendota Canal.

a): Water Quality Standards and Waste Discharge Requirements

Project Effects on Surface Water Quality

The Project will not contribute pollutants to surface waters via runoff or discharge. Runoff from the mining areas will be eliminated since these areas will no longer be irrigated and all precipitation that falls on these areas will be retained within the pits. Gravelly cut slopes will not be very susceptible to erosion; nonetheless, incorporation of 2:1 slopes, benches, and grass revegetation would minimize any erosion within the pit. Surrounding the pit, ground-surface slopes will be very gentle (less than 3 to 4 percent) and drainage

swales, waddles, and silt fences will be used to control erosion. The Plant Complex will operate as a zero-discharge facility by retaining all runoff on-site and preventing stormwater discharges to off-site surface waters. For these reasons, erosion and siltation will also be minimized, both on- and off-site.

Although groundwater currently exceeds Basin Plan limits for some constituents and cannot be discharged to surface water without special permitting provisions (e.g., NPDES), the Project will not be dry-mined; therefore, there will not be a need for dewatering and discharge of pumped groundwater to surface waters.

Since the Project Site will drain internally, there will be no offsite discharges of stormwater and the applicant anticipates submitting a No Exposure Certification (NEC) and/or No Discharge Certification (NDC) pertaining to stormwater. Nevertheless, pending the outcome of consultation with the CVRWQCB after Project approval, the Project might be required to implement a Storm Water Pollution Prevention Plan (SWPPP) during construction and/or an Industrial SWPPP throughout its life. If required by the CVRWQCB, the Industrial SWPPP would contain specific site design, source control, and treatment control best management practices needed to meet water quality standards at all times during operations. The Industrial SWPPP could also include a monitoring and reporting requirement to ensure the BMP effectiveness. As determined necessary by the CVRWQCB and Stanislaus County, the Project would also address waste discharge requirements, including requirements on surface runoff that can enter groundwater through infiltration or other means. The effects of surface water discharge and infiltration to groundwater are addressed below in the discussion of Project Effects on Groundwater Quality. Since the Project does not propose discharges that would violate water quality standards in surface waters, this impact is considered less than significant.

The California Department of Conservation, Office of Mine Reclamation (OMR) commented during the Early Consultation period and suggested that *“due to the proposed depth of the mining at the North Site, its proximity to Orestimba Creek, and that groundwater will be encountered, the hydrologic studies prepared for the site should be supplemented to evaluate the potential impact the mining operation will have on water levels and water quality in Orestimba Creek.”* The comment also requested evaluation of the hydrologic budget of the site.

As indicated previously, Orestimba Creek is approximately 1,900 feet (0.36 mile) north of the North Site and flows toward the northeast. The average depth to groundwater is approximately 70 feet below the base of the channel of Orestimba Creek, such that the creek is a “losing stream” in the vicinity of the Project Site. In addition, there is an active mining operation within the floodplain of Orestimba Creek directly northwest of the North Site. Since Orestimba Creek has no surface hydrology connection to the Project Site, the proposed mining operation will not have any potential effects on water levels or water quality in the creek.

The issue of Project water use from surface and groundwater sources is addressed in checklist item b) below.

Project Effects on Groundwater Quality

Mining will not occur below the E-Clay and thus will not affect water quality or quantity within the lower aquifer. The water that will be present in the pits during mining operations and following reclamation is part of the upper aquifer groundwater system. The groundwater contains elevated levels of TDS, nitrate, and various salts such as chloride and sulfate, but the Project will not increase those levels by evapoconcentration. Although some exposed groundwater will evaporate from the pits, the evaporation will not measurably affect the water quality because the volume of groundwater exposed in the pits is small in comparison to the total volume of groundwater in the aquifer. Additionally, the volume of water in the pits will be maintained by the natural inflow and outflow of groundwater each year, thus preventing evaporative concentration of water constituents. By migrating through the pits with the natural groundwater flow, the water in the pits also will not stagnate. Finally, all of the precipitation that falls on the Project Site will recharge groundwater. Currently, only a small fraction of the precipitation reaches groundwater due to the effects of runoff, interception storage, and evapotranspiration. Together, groundwater flow and enhanced recharge of local rainfall will minimize any effects of evapoconcentration and will prevent the Project from exacerbating the conditions where groundwater quality standards are already exceeded.

Project activities could potentially degrade groundwater quality in three ways. First, irrigation runoff could potentially enter the pits. Second, equipment or vehicles could potentially leak hazardous oils or fuels in the pits. These both relate to direct exposure of groundwater during mining operations and in the pits following reclamation. The third mechanism is percolation of water from settling ponds to the underlying water table. All three potential degradation mechanisms are discussed below.

Irrigation Runoff

Exposed groundwater in the mine cells will not experience water quality degradation since irrigation runoff will not be discharged to the mine cells or settling basins. Rather, existing irrigation runoff ditches and culverts will be maintained or modified as necessary to direct irrigation and stormwater runoff away from the active mining areas and reclaimed pits. If any ditches or culverts are disrupted or removed due to the mining operations, they will be replaced in such a manner that runoff will not enter the mine pits. In addition, if access roads into the pit are necessary (e.g. during active mining), the road will contain a rounded berm at least one foot high across the entrance to the pit so that stormwater cannot enter the pit along the access road.

Equipment or Vehicle Contact

Since both mining and agricultural activities will be occurring simultaneously for several decades, active mining pits and reclaimed water basins will be surrounded by a soil berm at least two to three feet high to prevent vehicles from inadvertently entering the pits or basins, and to prevent stormwater or irrigation runoff from entering the pits or basins.

As noted in Section VIII, *Hazards and Hazardous Materials*, the potential for oil, hydraulic fluids and/or fuels to leak from equipment or vehicles and enter exposed groundwater will be minimized by adherence to specific prevention, containment and cleanup measures in the Hazardous Materials Business Plan and/or the Spill Prevention Control and Countermeasure (SPCC) Plan. At a minimum, those plans will address the following:

- Aboveground tank leak and spill control
- Vehicle leak and spill control
- Vehicle and equipment maintenance
- Vehicle and equipment fueling
- Industrial spill prevention response
- Operating practices record-keeping and internal reporting

Percolation from Settling Ponds

The Applicant will file a Report of Waste Discharge (ROWD) with the CVRWQCB and, based on the information submitted, a decision will be made as to whether Waste Discharge Requirements (WDRs) are required or a waiver will be issued for operation of the settling ponds. The ROWD will describe the engineering and construction methods that will be used in the settling ponds to retain the direct rainfall and run-on from a 100-year, 1-hour storm event, and provide appropriate data regarding the expected water quality within the settling ponds compared with adjacent surface water and groundwater. It is preliminarily estimated that the proposed two acres of settling ponds will adequately meet the 100-year capacity requirement. Based on a design storm depth of less than three inches and a conservative assumption that it all becomes runoff, total runoff from the estimated 28-acre processing area would be no more than 8 acre-feet. That volume of runoff would require a depth of about four feet in the two acres of ponds. With a planned initial depth of about 15 to 20 feet below ground surface, and with periodic sediment removal, the ponds would retain the 100-year storm and provide adequate mandatory freeboard. Since groundwater is much deeper below the surface, and since the settling ponds will receive fines that are washed from the aggregate

materials that currently make up the existing upper aquifer, it is expected that the water quality within the settling ponds will be comparable to the groundwater quality in the monitoring wells. Therefore, any percolation of water from the settling ponds will not degrade groundwater quality.

Additionally, the settling ponds will be constructed as zero-discharge facilities with respect to surface water, so discharge to surface water, including on-site irrigation ditches, will not be conducted. Water from the settling ponds may be used for dust control, but in amounts that will not result in any runoff to surface water bodies.

b): Groundwater Supplies and Recharge

Project Water Use

A new groundwater well will be established adjacent to the Plant Complex to provide water for the aggregate and ready-mix concrete plants, as well as for dust suppression, landscape irrigation, and domestic supply for the administration building. An adequate flow rate will be established to supply an initial (start-up) peak volume of approximately 768,750 gallons per day (535 gpm). Thereafter, 95 percent (730,315 gpd/510 gpm) will be from recycled process water and 5 percent (38,440 gpd/27 gpm) from fresh water. Although these flow rates will likely change as Project design progresses to a more detailed level, they will remain consistent as mining operations shift from the North Site to the South Site.

Consumptive Water Uses

The total water usage for the Project includes 1) water that will be used for mining and production activities, and 2) water that evaporates from the mine pits after mining reaches the depth of the water table.

Water for mining and production activities will be obtained from on-site wells and includes the following:

- Water for dust control (i.e., water sprayed on roads with water trucks, misters used on conveyor lines and stockpiles, truck washing associated with the asphalt batch plant, and at the recycling plant);
- Water that remains in the product after the aggregate is washed to remove the fine sediments;
- Water used in the ready-mix concrete plant;
- Water used to wash aggregate concrete and asphalt trucks before they leave the facility; and
- Water lost to evaporation from settling and water-recycling ponds.

The Project will include mining to depths ranging from approximately 70 to 130 feet bgs. Once groundwater is encountered, wet mining methods will be employed to extract the aggregate, so dewatering will not occur.

Total consumptive water usage for mining and production activities will remain relatively constant over time and is conservatively estimated at 110.4 acre-feet per year (AFY) or 115,293 gallons per day (GPD) (EMKO, p. 23-24). Table 6 in the EMKO study provides detailed total estimated net water use. The current baseline amount of water used to irrigate the North and South Sites is approximately 1,620 AFY. Thus, the Project water demand is substantially less than baseline water use. Existing agricultural irrigation consumes imported canal water, whereas the Project would only use groundwater. As discussed below, the proposed groundwater pumping rates would not adversely affect yields at surrounding wells.

Evaporative Losses

Water that evaporates from the mine pits will reach its maximum amount at the conclusion of the mining activities, assuming that reclamation is conducted concurrently with mining. Total evaporative losses from the mine pits will range from 375 AFY when one-half of the North Site is mined (i.e., 97.5-acre² water surface area), to 751 AFY when the North Site is reclaimed (i.e., 195-acre water surface area), to an estimated maximum of 1,151 AFY when the entire mine is reclaimed (i.e., 300-acre water surface area). The maximum

² Water surface area is less than the ground surface area because of the 2:1 (horizontal:vertical) side slopes.

evaporation rate assumes that the Plant Complex is mined and reclaimed and that the water table beneath the South Site exceeds an elevation of 70 feet AMSL. When the water table is below 70 feet AMSL, only part of the floor of the South Site will be covered with water. Therefore, the amount of evaporation from the South Site after mining will vary depending on the groundwater elevation.

Combined Consumption and Losses

As mining progresses, it will supplant the agricultural operations on the same land area. When almost half of the North Site has been mined, approximately 145 acres of almond orchard will have been removed and evaporative losses will average about 375 AFY. Combined with the 110 AFY water demand for processing and dust control, consumption and evaporation will total about 485 AFY, which is less than the 580 AFY currently required to irrigate the same 145 acres.

When all but the Plant Complex portion of the North Site has been mined and the quarry shifts to the South Site, the operations water demand will remain at 110 AFY and the North Site evaporation will increase to 751 AFY, for a total of 861 AFY, which is less than the current baseline irrigation requirement of 1,160 AFY for the same 290 acres.

Finally, when mining is complete and the 436-acre Project Site is fully reclaimed to its end use, the maximum evaporative loss will range from about 840 AFY to 1,151 AFY, depending on local groundwater elevations. These values are well below the current irrigation demand of 1,620 AFY for the entire Project Site.

Despite the groundwater consumption and evaporative losses, the impacts to the underlying aquifers and to the surrounding groundwater users would be less than significant for two primary reasons. First, the Project would pump groundwater from the upper (shallow) aquifer. The long-term sustained pumping rate of 27 gpm is nominal compared to typical irrigation pumping rates of several hundred to over a thousand gallons per minute. Considering the extent of the upper aquifer, the Project's sustained groundwater pumping rate would be relatively minor. Second, many agricultural wells draw primarily from the deep aquifer, which has higher quality water than the upper aquifer. Pumping in the deep aquifer has created a downward vertical gradient, whereby water levels are higher in the shallow aquifer than they are in the deep aquifer. The clay layer separating the two aquifers precludes significant flow of groundwater between the two aquifer zones. Since the Project-related pumping and evaporative losses would only occur in the shallow aquifer, there would be no adverse effects on the deep aquifer or its production wells. Therefore, potential impacts would be less than significant.

c): Hydromodification Resulting in Erosion or Siltation

The Project will not substantially alter any drainage patterns, nor alter any streams or rivers, in a manner that would increase the potential for erosion or siltation, either on- or off-site.

The Project is designed to meet the requirements of SMARA Section 3706, which outlines "Performance Standards for Drainage, Diversion Structures, Waterways, and Erosion Control." As such, runoff will be managed and the Project Site reclaimed in a manner that will minimize erosion and sedimentation. The existing off-site and perimeter drainage facilities described in checklist item e) below will continue to intercept and convey easterly-flowing stormwater and agricultural runoff from adjacent properties, and from proposed at-grade access roads and concurrent agricultural operations at the Project Site. However, runoff from the ground surface that is to be mined will be eliminated since these areas will no longer be irrigated and all precipitation that falls on these areas will be retained within the pits. Therefore, perimeter flow volumes to existing facilities will decrease as mining progresses and the quarry gets larger, and flows will be conveyed without causing erosion or siltation. The perimeter landscaping buffer will minimize exposed soils outside the pits, reduce erosion, and control surface drainage. Finally, the Plant Complex will operate as a zero-discharge facility by retaining all runoff on-site.

The creation of large pits and ponds within the majority of the North and South Sites will permit runoff storage, but will not cause erosion or siltation. Exposed slopes in the pits will be reclaimed and revegetated

for erosion control concurrently with mining. Fines that are placed in the ponds could reduce infiltration; however, ponds will be mucked periodically and the area of the settling ponds will be very small compared to the overall Project and will be removed when the plant area is mined. Under post-Project conditions, the on-site runoff will be primarily confined within the pits, and will only leave through evaporation or as groundwater. Impacts are expected to be less than significant.

In response to comments made by OMR during the Early Consultation period, the applicant will consult with County Public Works to determine how the Project Site would fit into the County's flood control system, and to obtain documentation confirming the need for such a structure.

d): Hydromodification Resulting in Flooding

The general Project area is relatively flat and the Project Site does not receive or convey large off-site flows. As noted, most site drainage will be stored in the quarry pits on the North and South Sites. The Project does not propose a large increase in impervious surfaces with the potential to substantially increase runoff by preventing infiltration into the ground. The anticipated impervious surfaces will be from an approximately one-half mile paved access road, some of the Plant Complex facilities, and the maintenance and administrative buildings. These impervious surfaces will be primarily at the North Site and will be a small percentage of the overall site area. Therefore, the Project will not increase the rate or amount of surface runoff that could result in on- or off-site flooding.

In fact, the Project will cause a significant overall decrease in the rate and volume of surface runoff from the Project Site. The large volume of retention provided by the pit will mitigate any minor increase in runoff associated with the impervious surfaces. The depth to stored water in the pit will be well over 50 feet, providing ample freeboard for the pits to retain direct rainfall and pit wall runoff. Therefore, this impact is considered less than significant.

e): Stormdrain Capacity and Runoff Pollutants

Please see checklist items a) and c) indicating that Project effects on surface water and groundwater quality will be less than significant.

Existing Drainage Facilities and Runoff Patterns

As summarized from Chang (2010), topographic mapping and field investigations show that stormwater and agricultural runoff generally flow in an easterly direction on and near the North Site, and southeasterly on and near the South Site. The Project Site has an average slope of less than one percent.

North Site Drainage

Given the easterly flow gradient, runoff does not enter the North Site across its eastern boundary. West Stuhr Road forms the northern drainage boundary for the Project Site since the elevated roadway prevents surface runoff from entering the site from the north. The southern site boundary is adjacent to a slightly elevated dirt road and a series of irrigation ditches that combine to form the southern drainage basin boundary for the Project Site because they prevent surface runoff from entering the site from the south.

The largest tributary drainage area is to the west. Off-site runoff is intercepted and stored behind an earthen berm along the western site boundary, and excess flows are conveyed across West Stuhr Road to the north via a 21-inch diameter pipe located at the north end of the berm.

Runoff from the 315-acre North Site either ponds along the westerly edge of Eastin Road, which is elevated above the adjacent ground, or is conveyed into storm drain pipes near the westerly edge of the road. Existing stormdrain facilities include an 18-inch by 18-inch catch basin located at the southwest corner of the intersection of West Stuhr Road and Eastin Road. The catch basin connects to a storm drain that conveys flow in a southerly direction in Eastin Road. An 8-inch PVC pipe is located just west of Eastin Road near the southeasterly site corner and is directed toward the roadway.

South Site Drainage

The southeasterly flow direction prevents off-site runoff from entering the South Site across its eastern or southern boundaries. The northern boundary of the South Site is adjacent to Orestimba Road, which is slightly elevated and has an irrigation ditch and natural swale on its north and south sides, respectively. A westerly off-site area consisting of a narrow strip along the south side of Orestimba Road is tributary to the swale. The road and adjacent drainage features combine to form the northern drainage basin boundary for the Project Site because they convey surface runoff eastward and prevent it from entering the site from the north.

Although the largest tributary drainage area is to the west, it includes the Valley Sun sun-dried tomato facility, which detains on-site or causes the majority of off-site runoff to be conveyed south around the perimeter of the South Site rather than onto the Project Site. This is achieved by use of a corrugated metal barrier at the bottom of the fence that runs along the common boundary of the Valley Sun facility and South Site. Storm runoff outlets the Valley Sun facility at its southern boundary through a pipe, then continues overland to the south, and ultimately enters an underground stormdrain just beyond the southwest corner of the South Site. The pipe sizes are estimated to be 8 to 12 inches in diameter.

Runoff from the 121-acre South Site flows overland to the detention basin at the southeast corner of the Project Site. Based on field observations, the basin and the Valley Sun stormdrain pipe possibly connect to a stormdrain system that conveys flow east along Hoyer Road.

Project Drainage Requirements

The Project will create pits over the majority of both sites, which will function as retention basins that capture and store the majority of the on-site runoff. The average annual on-site runoff volume, excluding infiltration into the natural ground surface, is the on-site acreage multiplied by the average annual precipitation (10.7 inches). This total volume will be the same under pre- and post-Project conditions since it is merely a function of the surface area and precipitation. As a result of the pits, however, the runoff discharging from the North and South Sites will be much smaller in flow rate and volume than existing conditions. This will reduce the Project impact on existing drainage facility capacities. The pits will also allow infiltration of the non-agricultural portion of site runoff, which will provide surface water quality benefits.

There are no known planned stormwater drainage systems near the Project. The existing roads, berms, and ditches around the North Site will continue to prevent off-site runoff from entering the Project Site. There may be some minor off-site flows that reach the Project Site; however, these can be conveyed along the Project Site perimeter by small drainage ditches and swales. Similarly, Orestimba Road and the Valley Sun facility will continue to limit the tributary off-site drainage area affecting the South Site. Flows from the narrow strip along the south side of Orestimba Road will continue to be conveyed eastward along the northerly site perimeter with a drainage swale.

In total, the Project will not adversely alter any drainage patterns in a manner that would exceed the capacity of existing or planned stormwater drainage systems, nor will the Project provide substantial additional sources of polluted runoff. Impacts will be less than significant.

f): Water Quality Degradation

The Project-related impacts to water quality, both from stormwater discharges and from exposure of the underlying groundwater, are addressed in checklist items a), c) and e), above. The Project might be subject to an Industrial SWPPP and/or WDRs to document and ensure compliance with applicable water quality standards. The determination about permitting requirements for stormwater retention and process water impoundments will be made by the CVRWQCB. Although additional permit requirements might be imposed, the proposed Project design will ensure that water quality impacts are less than significant.

g) and h): 100-Year Flood Hazard

Orestimba Creek is the closest watercourse to the Project Site. The main creek channel is located about 1,900 feet (0.36 mile) north of the North Site and flows in a northeasterly direction. The Orestimba Creek 100-year floodplain has been mapped by the Federal Emergency Management Agency (FEMA). The 2008 FEMA Flood Insurance Rate Map (FIRM) for Orestimba Creek near the Project shows that the 100-year floodplain does not extend south of West Stuhr Road. There are no other known flood hazard delineation maps of the creek. The Project Site is located south of West Stuhr Road and west of Eastin Road, which is outside of the 100-year floodplain.

Since the Project does not involve the construction of any housing, and no part of the Project is within the 100-year flood hazard area, this impact is considered less than significant.

i): Catastrophic Flood Risk

The Project will not include the placement of structures, or involve active operations by employees, within flood hazard areas that could result in significant loss, injury, or death. There are no significant dams along Orestimba Creek upstream of the Project Site, and no levees along Orestimba Creek near the Project Site. The Project does not involve the construction of any levees or dams. Therefore, this impact is considered less than significant.

j): Inundation by Seiche, Tsunami, or Mudflow

Seiches occur most frequently in enclosed or semi-enclosed basins such as lakes, bays, and harbors. There are no such waterbodies near the Project Site. The reclaimed pits are not large enough for a significant seiche to form due to either seismic shaking or slope failure. In addition, the pits will have over 50 feet of freeboard, which will prevent any oscillations of the water surface from leaving the basins.

The Project is not near the coast or a large lake, so it is not susceptible to inundation by a tsunami.

Mudflow is movement of a large mass of loose sediment (commonly suspended particles and silt) and water. The areas surrounding the Project are so level that they will not cause mudflow. Within the Project mining pits, the slope angles and geologic materials are not conducive to the formation of mudflows. These impacts are less than significant.

Mitigation: None

References: Chang Consultants, CEQA-Level Hydrology Study for the Riddle Surface Mine, September 23, 2010; Kenneth D. Schmidt and Associates, Existing Groundwater Conditions in the Vicinity of the Proposed Riddle Surface Mine, Stanislaus County, California, September 2010; EMKO Environmental, Inc., Riddle Surface Mine Hydrology and Water Quality Environmental Assessment, December 2010; FEMA Map Sheet 06099C0930E. 2008. Accessed at FEMA Map Service Center <<http://msc.fema.gov>>

X. LAND USE AND PLANNING -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Discussion:

a): Community Division

The Project Site is currently used for agricultural purposes and is completely surrounded by agricultural uses. There are no established communities in close proximity to the proposed Project Site; therefore, no impact would occur.

b): Land Use Plan, Policy or Regulation Conflict

Mining operations on lands within the A-2 zoning district are classified as a Tier Three use requiring a Use Permit as established in Chapter 21.20.030(C) of the Stanislaus County Zoning Ordinance. Consistent with the zoning district, the Stanislaus County General Plan designates the Project Site as Agriculture and subject to a Mineral Resources overlay, which emphasizes the conservation and development of identified mineral deposits. The Mineral Resources section of the Land Use Element states that “*land with this overlay designation shall be zoned for General Agriculture (A-2) or a Planned Development (PD) that is consistent with the underlying designation (Agriculture) and will not interfere with the ultimate excavation of the minerals from the area.*” (County General Plan, Designations, p. 1-29) Accordingly, the General Plan contemplates that where competing agricultural and mineral resources coexist, the Project Site could be used for mineral extraction.

Sufficient design measures have been implemented as part of the buffer and setback requirements to minimize any potential impacts to surrounding agricultural uses. These include establishing an adequate buffer setback from adjoining properties as well as establishing a landscape buffer along the perimeter of the Project Site. Insofar as the Project will implement State and County land use plans, policies, and regulations concerning the protection and utilization of mineral resources while maintaining compatibility with adjacent agricultural uses, impacts would be less than significant.

c): Conservation Plans

The Project Site is not within the boundaries of a habitat conservation plan or natural community conservation plan. No impact would occur.

Mitigation: None

References: RGP Planning & Development Services, Land Use Impact Assessment for Riddle Surface Mine, December 9, 2010

XI. MINERAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Discussion:

In September 2011, the State Mining and Geology Board (SMGB) approved the California Geological Survey’s (CGS) *Special Report 223, Mineral Land Classification of the Proposed Riddle Surface Mine Property Site, Stanislaus County, California – for Construction Aggregate*. CGS *Special Report 223* was prepared in response to, and supports SMGB’s approval of, a petition by CMI to classify the Riddle Surface Mine property as mineral resources land under section 2761 of the Surface Mining and Reclamation Act (SMARA), based on the discovery of valuable deposits of Portland Cement Concrete (PCC)-grade aggregate at the Project Site. Therefore, the Project Site is now subject to the Mineral Resources Zone 2a (MRZ-2a) category of the California Mineral Land Classification System.

For a mineral deposit to be considered significant, and thus eligible for MRZ-2a classification, the deposit must meet criteria established by the SMGB for material quality, marketability, and economic value. Land included in MRZ-2a is of prime importance because it contains known economic mineral deposits. Significance of the deposit is determined by evaluating the quality of the deposit, its suitability as a marketable commodity, and by calculating the volume, tonnage and value of available aggregate resources contained within the property. Classification of both the northern 315-acre and southern 121-acre parcels as MRZ-2a for construction aggregate was based on *Special Report 223*, which concluded that:

- Aggregate test results indicate that the material present on the Project Site meets the specifications for a variety of construction aggregate uses up to and including PCC-grade aggregate.
- Aggregate resources exceed the minimum economic threshold value established by the SMGB.

Operation of the Riddle Surface Mine would augment the existing aggregate supply in the region and contribute to future aggregate supply, which is needed in Stanislaus County (CDMG 1993). With the Project Site formally recognized by the State as containing aggregate resource of regional significance, the Project proposes to mine those resources for the purpose of making them available for local and regional consumption. No adverse impacts to those mineral resources would occur. The MRZ-2a classification by the State also requires the County to recognize this resource and implement measures to protect the resource from incompatible uses for future extraction, while balancing competing resource objectives. Please see discussions in Checklist Sections II (Agriculture Resources) and X (Land Use and Planning).

Geocon (2010) reviewed the Project Site for geologic resources other than aggregate. Based on the observed site conditions, and review of the geological maps for the area, economic deposits of precious or base metals are not expected to underlie the Project Site. Commercial deposits of oil and gas are not known to occur on the Project Site or in the immediate vicinity. No impacts would occur.

Mitigation: None

References: California Division of Mines and Geology, *Special Report 173, Mineral Land Classification of Stanislaus County, 1993*; Department of Conservation, *California Geological Survey Special Report 223, Mineral Land*

Classification of the Proposed Riddle Surface Mine Property Site, Stanislaus County, California – for Construction Aggregate, 2011; Department of Conservation, California Geological Survey, Aggregate Availability in California – Map Sheet 52, Updated 2006; RGP Planning & Development Services, Riddle Surface Mining Permit & Reclamation Plan, September 2010; Geocon Consultants Inc., Mineral Resource Evaluation Report 3030 Orestimba Road and 26861 & 26863 Eastin Road Newman, California, February 2007; Geocon Consultants, Inc., Soils, Geologic, and Geohazards Evaluation, December 10, 2010

XII. NOISE -- Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Discussion:

Giroux & Associates, an acoustics and noise consulting firm, prepared a *Noise Impact Assessment (NIA)* in November 2010. The NIA analyzes noise generated by on-site activities (mining, processing, and load-out of aggregate products) and off-site truck traffic. The assessment addresses the Project's compliance with applicable noise level standards of Stanislaus County and recommends mitigation to ensure compliance with those standards. The complete NIA, with extensive background on noise and acoustical terminology, is on file with the County Planning Department.

a): Noise Level Exposures

Stanislaus County Noise Exposure Standards

The Stanislaus County General Plan Noise Element establishes acceptable noise level limits for both transportation and non-transportation noise sources. For residential uses affected by transportation noise sources (off-site traffic in this case), the Noise Element establishes a limit of 60 dB L_{dn} (or CNEL). Agricultural uses are not considered to be noise sensitive, but the NIA considered residential dwellings

located on agriculturally-designated properties to be sensitive, and the 60 dB Ldn criterion was assumed to be applicable.

For residential uses affected by stationary noise sources, the Noise Element identifies 55 dB L_{eq} daytime (7 a.m. to 10 p.m.) and 45 dB L_{eq} nighttime (10 p.m. to 7 a.m.) noise level standards.

Existing Ambient Noise Environment

The existing ambient noise environment in the immediate Project vicinity is consistent with that of typical rural areas and is defined primarily by natural sounds (e.g., wind, birds, insects), but is also affected by local roadway traffic and agricultural production.

The closest noise-sensitive receivers to the proposed mining activities are the residences located immediately north of the North Site and immediately south of the South Site (see NIA Figure 1, *Noise Measurement and Receiver Locations*).

To quantify the existing ambient noise environment in the Project area, three continuous (over four days) and three short-term ambient noise level measurement surveys were conducted. Two of the continuous measurement locations – one at the northwest corner of the North Site and one at the southern boundary of the South Site – are representative of the nearest residential uses to the proposed Project. The detailed results of the continuous and short-term ambient noise measurement surveys are provided in NIA Tables 1 and 2, respectively.

The continuous ambient noise measurement data indicate that current noise exposures in the Project area are near the most stringent Stanislaus County noise criteria. For the four-day monitoring period, the average daytime levels ranged from a low of 44 dB Leq on the South Site to a high of 68 dB Leq on the North Site, adjacent to Stuhr Road, with 4 of 12 measurements above 55 dB Leq. Of the 12 measurements obtained, 10 were below the 60 dB Ldn criterion, while 2 at the northwest corner of the North Site exceeded the criterion.

Existing Traffic Noise Environment

The existing traffic noise is reflected in the noise monitoring data cited above. However, for purposes of establishing a traffic noise baseline, the existing traffic volumes are used as input to a computer model to generate baseline traffic noise levels. Future traffic, including the Project-related traffic component, is later input to identify the incremental increase in noise levels over baseline.

In general, modeled traffic noise is less than 63 dB Ldn at 100 feet from the centerlines of 15 of the 16 existing roadway segments. The segment of SR 33 between Yolo Street and Inyo Avenue has a modeled noise level of 67 dB Ldn at 100 feet. Detailed model inputs and outputs are presented in Appendix D of the NIA.

Project Construction Noise (On-Site Sources)

Noise from Project-related construction activities would add to the noise environment in the immediate Project vicinity. Table 10 of the NIA shows that activities involved in Project construction would generate maximum noise levels ranging from 77 to 85 dB at a distance of 50 feet.

The closest noise-sensitive receiver to the Project Plant Complex is Site 2, which would be more than 1,500 feet from on-site Project construction. Assuming spherical spreading loss (-6 dB per doubling of distance), maximum Project construction noise at Site 2 would be approximately 55 dB (L_{max}). Hourly average noise exposure would be less than this level, and would not be expected to exceed the County's 55 dB Leq daytime noise exposure limit. Therefore, noise associated with on-site construction noise would not significantly impact the closest residential uses.

Delivery of materials and equipment for construction of the Project plants would generate increased heavy truck traffic on local area roadways, most notably Stuhr Road. This additional truck activity is expected to be significantly less than proposed aggregate truck operations during daily use of the facility (i.e., 545 daily truck

trips, 126 of which would be during the AM peak hour). Additional noise due to increased construction truck traffic would be confined to daytime hours, and would be limited to the duration of Project plant construction. This construction noise source is not expected to significantly impact noise-sensitive receivers in the Project area.

Site Operations Noise (On-Site Sources)

Threshold of Significance

For stationary noise sources such as the proposed aggregate extraction and processing operations, Stanislaus County regulates the level of noise that may impact adjacent noise-sensitive uses. For this Project, the evaluation period is considered to be the worst-case hour during which on-site equipment would be operating. If the Project has the potential to exceed the County's noise exposure limits at the closest noise-sensitive uses, such an impact would likely be considered environmentally significant. As indicated previously, the Noise Element identifies 55 dB hourly Leq daytime (7 a.m. to 10 p.m.) and 45 dB hourly Leq nighttime (10 p.m. to 7 a.m.) noise level standards for residential uses affected by stationary noise sources. The maximum allowable levels (Lmax) are 75 dB Lmax and 65 dB Lmax for the daytime and nighttime periods, respectively.

Project-Related Effects

The North Site would include an aggregate processing plant and ready-mix concrete, hot-mix asphalt, and asphalt/concrete recycling plants. Aggregate mining, processing (i.e., crushing, screening, load out), and recycling would be conducted during daytime hours (7 a.m. to 5 p.m.), while other plant activities (i.e., ready-mix concrete and hot-mix asphalt) would be conducted in the early morning/daytime hours (5 a.m. to 3 p.m.).

Daytime Excavation and Processing Activities

Excavation operations are planned to begin on the northwest corner of the North Site and progress to the east and south with approximately 10 acres being mined per year. The excavation operations will maintain a 50-foot to 100-foot buffer from the edge of the property line, and the majority of excavations will be done below grade. No mining operations would occur on the South Site until North Site aggregates are depleted; that is, mining operations at the North and South Sites would not be conducted simultaneously.

Based on predicted noise emissions from various activities and equipment noise sources (see NIA Tables 7 and 8), Project-related noise exposure associated with aggregate mining is predicted to be about 61 dB Leq (62 dB Leq when combined with other daytime activities) at the closest residential receiver location (see Site 2 on NIA Figure 1), which is near the northwest corner of the North Site, across Stuhr Road. The predicted noise level would exceed the applicable daytime noise exposure criterion of 55 dB Leq and is considered potentially significant. The predicted noise levels from excavation on the North Site would drop below the 55 dB Leq criterion when such activities are greater than 900 feet from the residential receiver at Site 2. However, within 900 feet of the residence at Site 2, the Project must implement mitigation to reduce the impact to below a level of significance.

Specifically, a reduction in excavation noise levels of approximately 6 dB at Site 2 would be required to satisfy the Stanislaus County standard of 55 dB Leq at this location. To achieve that noise reduction, the use of a pit "highwall" barrier is proposed in order to intercept or shield the noise source(s) from the receiver(s). The operational details are described in the Mitigation section that follows. Application of this mitigation measure would reduce this potential impact to a level that is less than significant.

During excavation activities at the South Site and aggregate processing (i.e., crushing, screening, load out) at the North Site, distances between noise sources and the nearest sensitive receivers will prevent noise impacts from exceeding the 55 dB Leq daytime noise exposure limit (see NIA Tables 7 and 8). Therefore, no significant noise impacts would result from aggregate excavation and processing activities on the South Site.

Nighttime Processing and Production Activities

The processing area equipment, including hot-mix asphalt, ready-mix concrete, and recycle facilities, will be located in the southwest corner of the North Site. The hot-mix asphalt plant will operate during the hours of 5 a.m. to 3 p.m. Because of the 5 a.m. plant start time, the County's nighttime standard of 45 dB Leq would be applied to this Project noise source from 5 a.m.-7 a.m. and the daytime standard of 55 dB Leq would apply from 7 a.m.-3 p.m.

Project-related noise exposure associated with operation of the hot-mix asphalt plant is predicted to be about 47 dB Leq (49 dB Leq when combined with other nighttime activities) at the closest residential receiver location (also Site 2 on Figure 1 of the NIA). The predicted noise level would exceed the applicable nighttime noise exposure criterion of 45 dB Leq and is considered potentially significant. As a result, noise mitigation is warranted for the asphalt plant component of the Project. Specifically, a 4 to 5 dB reduction in asphalt plant noise levels would be required (when combined with noise emissions of the ready-mix concrete operations) to satisfy the Stanislaus County standard of 45 dB Leq at residential receiver Site 2. To achieve that noise reduction, mitigation measures are proposed to reduce the sound output of the asphalt plant (i.e., quieter equipment) and/or constructing intervening noise barriers to shield the receiver from the noise source. The operational details of each are described in the Mitigation section that follows. Application of the mitigation measures would reduce this potential impact to a level that is less than significant.

Traffic Noise (Off-Site Sources)

Threshold of Significance

Research into the human perception of changes in sound level show that a 3 dB change is barely perceptible and a 5 dB change is clearly perceptible. Therefore, unless traffic noise impacts were to cause noise exposures to increase to an unacceptable level as specified in the Noise Element of the County's general plan, a +4 dB Ldn or CNEL increase should be considered potentially significant.

Project-Related Effects

Project-related traffic noise exposure increases were found to be less than significant on all area roadways. As noted in Table 9 of the Noise Impact Assessment, no substantial traffic noise level increases (+4 dB Ldn or CNEL) are identified for Stuhr Road from I-5 to Draper Road as a result of truck traffic. These impacts are less than significant and do not require any mitigation measures.

Further, the on-road transfer of material from the South Site to the North Site will not have a significant traffic noise impact. The truck hauling impact from hauling materials from the south quarry is calculated to be an increase of +1 dB along Eastin Road. This impact is less than significant and does not require any mitigation measures.

b): Groundborne Vibration or Noise

Vibration-producing activities usually associated with mining operations, such as blasting and pile driving, will not occur as part of the site mining. Aggregate extraction methods for the Project Site may include a combination of equipment including a dragline, floating dredge, excavator and/or loader, bank drag, dozer, and an electric-powered conveyor system. These methods of mining typically produce minimal groundborne vibrations or groundborne noise levels of which should not be sufficient to significantly impact the surrounding sensitive receptors.

c) and d): Ambient Noise Levels

Both temporary (construction-related) and permanent (excavation and plant operations) changes to ambient noise levels have been addressed in checklist response a) above, as summarized from the Noise Impact Assessment (Giroux 2010). As indicated, most impacts will be less than significant and others will be less

than significant with mitigation. Please see checklist response a) for a complete discussion of impacts and mitigation measures.

e) and f): Aircraft Noise

The Project Site is not located within an airport land use plan or within the vicinity of a public or private airstrip of which the Project would expose peoples to excessive noise levels. No impacts would occur.

Mitigation:

1. A pit highwall shall be excavated outside a minimum 900-foot radius from residential noise receiver Site 2 (as shown on Figure 1 of the Noise Impact Assessment). Outside that radius, the operator shall progress excavations sub-grade so the pit wall becomes a barrier to mitigate excavation noise exposure. The highwall may then be advanced toward the northwest corner of the North Site while at all times maintaining a minimum pit floor depth of 17 feet below the receiver ground elevation at Site 2.
2. The Project shall:
 - a. Use hot-mix asphalt plant equipment with lower noise emissions than the reference levels shown in Table 7 of the Noise Impact Assessment; and/or
 - b. Use physical barriers to achieve the required 4 to 5 dB of noise reduction including, but not limited to:
 - Localized noise barriers in the form of suspended curtains attached directly to the noisiest hot-mix asphalt plant equipment, and/or.
 - Positioning of aggregate stockpiles to serve as noise barriers between the hot-mix asphalt plant equipment and Site 2.

References: Giroux & Associates, Riddle Surface Mine Project Noise Impact Assessment, November 16, 2010

XIII. POPULATION AND HOUSING -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			X	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			X	

Discussion:

The proposed Project will not induce substantial population growth, either directly or indirectly. The Project does not include any housing development, nor does it expand infrastructure that would tend to induce residential development and growth. Aggregate mining is recognized as a use required in response to

growth and development, not as an inducement to growth. The Project will require the removal of four single-family residential units, two of which are located on the North Site and two located on the South Site. The property owners who have leased the property to CMI own the four residential units. With mining starting at the western boundary, and the Plant Complex operating at the southwest corner, the houses would not be removed initially. Rather, they would be removed as mining progresses toward the residences, likely when mining begins on the eastern half of the North Site. The circumstances under which removal occurs will be further evaluated in the EIR. The two single-family dwellings on the South Site would be removed upon initiation of mining at that site, estimated at 20 to 25 years from now.

Removal of the four units will not require the construction of replacement housing units to accommodate the displacement of residents. Both the lessee (CMI) and the property owner have come to an agreement to remove the housing units and expect that replacement housing will be readily available in existing housing stock. Impacts would be less than significant.

Mitigation: None

References: RGP Planning & Development Services, Land Use Impact Assessment for Riddle Surface Mine, December 9, 2010

XIV. PUBLIC SERVICES:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?			X	
Schools?				X
Parks?				X
Other public facilities?			X	

Discussion: The County has adopted a standardized condition of approval requiring payment of all applicable Public Facilities Fees, as well as one for the Fire Facility Fees on behalf of the appropriate fire district, to address impacts to public services. The necessary fees will be collected prior to issuance of the building permit. The County will also add a condition of approval to ensure that both the existing and proposed structures comply with all applicable fire department standards with respect to access and water for fire protection. The proposed Project will not create greater demand for parks and schools as no development which would cause a population growth is being proposed. The Project would also not incrementally increase the need for general governmental services.

Mitigation: None

References: Stanislaus County General Plan

XV. RECREATION:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Discussion: The proposed Project will not increase the use of existing parks or other recreational facilities nor will it include recreational facilities given that the proposed use of aggregate mining has no need for recreational facilities. No impact would occur.

Mitigation: None

References: Stanislaus County General Plan

XVI. TRANSPORTATION/TRAFFIC -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		X		
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?		X		
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	X			
e) Result in inadequate emergency access?				X

<p>f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?</p>				<p>X</p>
--	--	--	--	-----------------

Discussion:

VRPA Technologies, a transportation and traffic engineering firm, prepared a Traffic Impact Analysis (TIA) in September 2010. The TIA analyzes traffic conditions related to the development of the proposed Mine Project and identifies potential traffic impacts. The TIA follows Stanislaus County and Caltrans analysis guidelines and evaluation criteria. The complete TIA is on file with the County Planning Department.

a) and b): Circulation System Performance and Standards

Local and Regional Access

The Project Site is located approximately 1.5 miles east of Interstate 5 (I-5) and just west of Eastin Road, with the North Site being located south of West Stuhr Road and the South Site being located south of Orestimba Road.

The TIA provides a description of the County’s Functional Roadway Classification System, which groups streets and highways into classes, or systems, according to the type of service they are intended to provide. Within each of those classes, streets and highways serving the Project Site are as follows:

Interstate 5 (Freeway)

Interstate 5 provides a major service for north-south travelers and serves the interregional travel needs of Stanislaus County residents. Highway 132 and east-west county corridors provide access to this freeway. This freeway is also designated as the only scenic highway in Stanislaus County and is designated as a route for the transportation of radioactive materials.

State Route 33 (Expressway)

This State highway serves as an important transportation link for residents in Grayson, Westley, Patterson, Crows Landing, and Newman since it passes through or near these cities or unincorporated communities. Route 33 runs generally parallel to I-5 in a north-south direction. This route originates in San Joaquin County and terminates in Ventura County.

Stuhr Road (Major)

Although designated a 4-lane Major in the Stanislaus County Circulation Element, Stuhr Road is currently a 2-lane undivided roadway in the study area (i.e., between I-5 and Draper Road). At their design capacity, Majors are intended to carry high volumes of local traffic.

Orestimba Road and Eastin Road (Collectors)

Orestimba Road and Eastin Road are both 2-lane (undivided) Collectors that carry light to moderate traffic and serve adjacent land uses. They collect and distribute traffic from local roadways to higher volume facilities like arterials (e.g., Stuhr Road).

Table 2, *Street Segment Operations*, lists and describes the operating characteristics of all roadway segments connecting to intersections in the TIA study area.

Baseline Traffic Counts

The traffic impact assessment began by obtaining existing AM peak hour (7:00 to 9:00 AM) and PM peak hour (4:00 to 6:00 PM) traffic counts and turning movements at the following 15 intersections in April 2008:

1. Interstate 5 NB Ramps at Stuhr Road
2. Interstate 5 SB Ramps at Stuhr Road
3. Stuhr Road at Bell Road
4. Stuhr Road at Eastin Road
5. Stuhr Road at Draper Road
6. SR 33 at Yolo Street
7. SR 33 at Inyo Street
8. SR 33 at Stuhr Road
9. Orestimba Road at Hardin Road
10. Orestimba Road at Draper Road
11. Orestimba Road at Eastin Road
12. Orestimba Road at Bell Road
13. Hoyer Road at Draper Road
14. Shiells Road at Eastin Road
15. Shiells Road at Draper Road

Those counts were supplemented in June 2010 with 12-hour turning movement counts (7:00 AM to 7:00 PM) for signal warrant analyses at the intersections of Stuhr Road at Eastin Road, Stuhr Road at SR 33, Inyo Street at SR 33, and Yolo Street at SR 33. At the same time, 24-hour traffic counts were conducted for Traffic Index analyses along Stuhr Road and Eastin Road. The baseline traffic conditions and system performance metrics are presented along with future conditions data in the following sections. Traffic count data worksheets are provided in Appendix B of the TIA.

Traffic Analysis Conditions

The TIA analyzes AM and PM peak hour levels of service (LOS) at intersections, as well as LOS for street segments, for the following conditions:

- Existing (2010) Conditions – This is the baseline traffic condition that existed at the time the intersection and segment counts were conducted.
- Existing (2010) Plus Project Conditions – This hypothetical condition adds the Project traffic volumes to the baseline conditions to obtain a relative measure of the Project impacts.
- Near-Term 2011 (Opening Day) Conditions – This condition includes Project traffic added to forecast 2011 traffic, accounting for traffic growth that has occurred since the baseline counts were conducted. No active planning projects in Stanislaus County or the City of Newman would create additional traffic in the study area of the proposed mining Project (see TIA Appendix E).
- Cumulative 2030 Without Project Conditions – This condition accounts for traffic growth that is expected to occur through the year 2030, as estimated via a regional growth rate using the Stanislaus Council of Governments regional travel model. No active or anticipated planning projects in Stanislaus County or the City of Newman would create additional traffic in the study area of the proposed mining Project (see TIA Appendix E).
- Cumulative 2030 With Project Conditions – This condition adds the Project traffic to year 2030 cumulative traffic.

Project Traffic Characteristics

Proposed Vehicular Access

Vehicular access to the North Site will come from West Stuhr Road via a new entrance to be located at the northwest corner of the Project Site. Except for haul trucks transporting material from the South Site, this access point will serve as the single ingress and egress point for all vehicles, which includes material hauling

vehicles, commercial delivery vehicles, and employee and visitor passenger vehicles.

A secondary vehicular access point will also be established at the southeast corner of the Project Site connecting to Eastin Road. This point of ingress/egress will strictly be for haul trucks transporting material from the South Site to the Plant Complex. All other vehicles will use the Stuhr Road access point.

Orestimba Road will provide vehicular access to the South Site via a new entrance to be located at the northeast corner of the site. This access point will serve as the single ingress and egress point for all vehicles, which include material hauling vehicles and employees.

Project Trip Generation

Project trip generation, composed of haul trucks and employee vehicles, is shown in Table 1 below. The AM and PM peak hour trips were determined primarily by comparing several other aggregate plants with the same aggregate production levels.

Table 1: Project Trip Generation

Use	Total Aggregate Sales	Daily Trip Ends ¹	AM Peak Hour		PM Peak Hour			
		Volume	In:Out Split	Volume		In:Out Split	Volume	
				In	Out		In	Out
Aggregate Plant with Asphalt, Concrete & Recycling Plants	1.5 Million tons per year (as aggregate and/or in asphalt and/or concrete)	545 Truck Trips	50:50	63	63	NA	0	0
		36 Employee Trips	10:90	0	4	13:87	1	8
Total Peak Hour Trips				130			9	

¹ Based on Riddle Surface Mine projected operations, as provided by applicant (VRPA 2010)

The capacity analyses for all scenarios were performed assuming a “Passenger Car Equivalent” (PCE) of 2:1 for trucks, which is consistent with the Highway Capacity Manual.

Project Trip Distribution

Figure 3-1 of the TIA illustrates the Project trip distribution, which is based on socioeconomic growth projections and the approximate market area for the proposed Project. The approximate market area for the aggregate plant and hot-mix asphalt plant is a 30-mile radius from the Project Site, and the ready-mix concrete plant has about a 15-mile radius.

Generally, 44 percent of trips will travel west along Stuhr Road toward the I-5 Freeway for northerly and southerly destinations; 30 percent will travel east on Stuhr Road with about half diverting onto SR 33; 25 percent will travel north on Eastin Road; and one (1) percent will travel south on Eastin Road, south of Orestimba Road.

When mining begins on the South Site, approximately 115 daily trips, or 12 trips per hour, will travel from the South Site to the North Site. Those quarry haul truck trips are not reflected in Table 1 above, but they are accounted for in the TIA calculations for daily trip distribution and AM and PM peak hour Project trips.

Analysis of Street Segment Levels of Service

Table 2 provides lane configurations, existing and future (through 2030) AM peak hour traffic volumes, and corresponding levels of service for each street segment. As shown, all of the study segments currently operate at an acceptable level of service C, which is the minimum level of service for Stanislaus County. The segments will continue to operate at LOS C under all future conditions (i.e., with and without the Project) through 2030.

Table 2: Street Segment Operations

Street Segment	Segment Description	Existing		Existing Plus Project		Near-Term (2011)		Cumulative 2030 Without Project		Cumulative 2030 With Project	
		Vol.	LOS	Vol.	LOS	Vol.	LOS	Vol.	LOS	Vol.	LOS
Stuhr Road											
I-5 SB Ramps to I-5 NB Ramps	2-lanes/undivided	55	C	111	C	118	C	108	C	164	C
I-5 NB Ramps to Bell Rd.	2-lanes/undivided	125	C	238	C	255	C	247	C	360	C
Bell Rd. to Eastin Rd.	2-lanes/undivided	145	C	291	C	306	C	290	C	436	C
Eastin Rd. to Draper Rd.	2-lanes/undivided	141	C	218	C	235	C	281	C	358	C
Orestimba Rd.											
Bell Rd. to Eastin Rd.	2-lanes/undivided	18	C	18	C	18	C	67	C	67	C
Eastin Rd. to Draper Rd.	2-lanes/undivided	54	C	54	C	58	C	82	C	82	C
Draper Rd. to Hardin Rd.	2-lanes/undivided	82	C	82	C	90	C	161	C	161	C
Yolo St.											
Hardin Rd. to SR 33	2-lanes/undivided	342	C	342	C	384	C	686	C	686	C
Hoyer Rd.											
Hardin Rd. to SR 33	2-lanes/undivided	282	C	282	C	316	C	562	C	562	C
Shiells Rd.											
Eastin Rd. to Draper Rd.	2-lanes/undivided	18	C	18	C	19	C	36	C	36	C
Bell Rd.											
Stuhr Rd. to Orestimba Rd.	2-lanes/undivided	7	C	7	C	7	C	13	C	13	C
Eastin Rd.											
Stuhr Rd. to Orestimba Rd.	2-lanes/undivided	56	C	80	C	86	C	263	C	287	C
Orestimba Rd. to Shiells Rd.	2-lanes/undivided	25	C	29	C	31	C	50	C	54	C
Draper Rd.											
Stuhr Rd. to Orestimba Rd.	2-lanes/undivided	69	C	69	C	76	C	137	C	137	C
Orestimba Rd. to Hoyer Rd.	2-lanes/undivided	81	C	81	C	88	C	169	C	169	C
Hoyer Rd. to Shiells Rd.	2-lanes/undivided	39	C	39	C	42	C	78	C	78	C
SR 33											
Stuhr Road to Yolo St.	2-lanes/undivided	534	C	558	C	622	C	1,070	C	1,094	C
Yolo St. to Inyo Ave.	2-lanes/undivided	576	C	600	C	672	C	1,155	C	1,179	C

LOS = Level of Service
Vol. = AM Peak Hour Volume

Analysis of Intersection Levels of Service

Table 3 summarizes operations at the study area intersections for each of the analysis conditions.

Table 3: Intersection Operations

Intersection	Peak Hour	Existing		Existing Plus Project		Near-Term (Year 2011)		Cumulative 2030 Without Project		Cumulative 2030 With Project	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Stuhr Rd / I-5 NB Ramps ⁽¹⁾	AM	N/A	A	N/A	A	N/A	A	N/A	A	N/A	A
	PM	N/A	A	N/A	A	N/A	A	N/A	B	N/A	B
Stuhr Rd / I-5 SB Ramps ⁽¹⁾	AM	N/A	A	N/A	A	N/A	B	N/A	A	N/A	A
	PM	N/A	A	N/A	A	N/A	A	N/A	A	N/A	B
Stuhr Rd / Bell Rd ⁽²⁾	AM	N/A	A	N/A	B	N/A	B	N/A	B	N/A	B
	PM	N/A	A	N/A	A	N/A	B	N/A	B	N/A	B

Intersection	Peak Hour	Existing		Existing Plus Project		Near-Term (Year 2011)		Cumulative 2030 Without Project		Cumulative 2030 With Project	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Stuhr Rd / Eastin Rd ⁽²⁾	AM	N/A	B	N/A	B	N/A	B	N/A	B	N/A	B
	PM	N/A	B	N/A	B	N/A	B	N/A	B	N/A	B
Stuhr Rd / Draper Rd ⁽¹⁾	AM	N/A	A	N/A	B	N/A	B	N/A	B	N/A	B
	PM	N/A	B	N/A	B	N/A	B	N/A	B	N/A	B
Yolo St / SR 33 ⁽²⁾	AM	N/A	C	N/A	C	N/A	D	N/A	F	N/A	F
	PM	N/A	C	N/A	C	N/A	D	N/A	F	N/A	F
Orestimba Rd / Hardin Rd ⁽³⁾	AM	13.9	B	13.9	B	17.4	C	19.9	C	19.9	C
	PM	7.9	A	7.9	A	8.1	A	9.0	A	9.0	A
Orestimba Rd / Draper Rd ⁽³⁾	AM	7.4	A	7.4	A	7.5	A	7.6	A	7.6	A
	PM	7.3	A	7.3	A	7.4	A	8.0	A	8.0	A
Orestimba Rd / Eastin Rd ⁽³⁾	AM	7.1	A	7.2	A	7.3	A	7.7	A	7.8	A
	PM	7.4	A	7.6	A	7.6	A	7.6	A	7.7	A
Orestimba Rd / Bell Rd ⁽¹⁾	AM	N/A	A	N/A	A	N/A	A	N/A	A	N/A	A
	PM	N/A	B	N/A	A	N/A	A	N/A	A	N/A	A
Hoyer Rd / Draper Rd ⁽¹⁾	AM	N/A	A	N/A	A	N/A	A	N/A	A	N/A	A
	PM	N/A	A	N/A	A	N/A	A	N/A	A	N/A	A
Inyo Ave / SR 33 ⁽²⁾	AM	N/A	D	N/A	D	N/A	E	N/A	F	N/A	F
	PM	N/A	D	N/A	D	N/A	E	N/A	F	N/A	F
Shiells Rd / Draper Rd ⁽¹⁾	AM	N/A	A	N/A	A	N/A	A	N/A	A	N/A	A
	PM	N/A	A	N/A	A	N/A	A	N/A	A	N/A	A
Shiells Rd / Eastin Rd ⁽²⁾	AM	N/A	A	N/A	A	N/A	A	N/A	A	N/A	A
	PM	N/A	A	N/A	A	N/A	A	N/A	A	N/A	A
Stuhr Rd / SR 33 ⁽³⁾	AM	N/A	C	N/A	D	N/A	E	N/A	F	N/A	F
	PM	N/A	F	N/A	F	N/A	F	N/A	F	N/A	F

DELAY is measured in seconds.
 LOS = Level of Service
 N/A = LOS shown for worst turning movement
⁽¹⁾ One-Way Stop Controlled Intersection
⁽²⁾ Two-Way Stop Controlled Intersection
⁽³⁾ Four-Way Stop Controlled Intersection

Each condition analyzed is presented in detail in the TIA. The following is a summary of the findings and recommendations for each.

Existing (2010) Intersection Conditions

Table 3 shows that all of the study intersections are operating at acceptable levels of service, with the exception of the stop-controlled intersections of Inyo Avenue at SR 33 (LOS D in the AM and PM peak hours) and Stuhr Road at SR 33 (LOS F in the PM peak hour). The intersections of Inyo Avenue at SR 33 and Stuhr Road at SR 33 meet signal warrants based on the Federal Highway Administration’s (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) Eight Hour Vehicular Volume Traffic Signal Warrant. Therefore, a signal is needed at the intersections of Inyo Avenue at SR 33 and Stuhr Road at SR 33.

Existing (2010) Plus Project Intersection Conditions

Table 3 shows that most intersections would continue to operate at acceptable LOS if Project traffic was added to the 2010 roadway network. The AM peak hour LOS at the intersection of Stuhr Road at SR 33 would degrade from C to D. Other peak hour deficiencies would still require signals at the intersections of Inyo Avenue at SR 33 and Stuhr Road at SR 33.

Near-Term Year 2011 (Opening Day) Intersection Conditions

Table 3 shows that signal warrants will continue to be met due to decreasing LOS at the intersections of Inyo Avenue at SR 33 and Stuhr Road at SR 33. Additionally, the intersection of Yolo Street at SR 33 would degrade from LOS C to D during both peak hours and would also warrant a signal. This condition is the first year during which Project traffic would be added to the existing roadway network, along with forecast 2011 traffic. Therefore, as a component of the 2011 cumulative traffic, the Project is responsible for payment of its share of impact fees toward signalization of the three affected intersections. As indicated in Table 4 below, the signalization improvements at those intersections would improve the LOS to C or better for both peak hours.

Cumulative 2030 Intersection Conditions (Without Project)

Table 3 shows that most of the study intersections would operate at acceptable LOS in the year 2030, without the Project. Without signalization, the intersections of Inyo Avenue at SR 33, Stuhr Road at SR 33, and Yolo Street at SR 33 would all operate at LOS F during both peak hours. Signalization improvements are expected to be in place at all three intersections prior to 2030. In addition, the TIA recommends the following lane improvements at two of those intersections in order to maintain acceptable LOS:

- Yolo Street / SR 33
 - Widen the eastbound approach to one (1) left-turn lane and one (1) through lane with a shared right-turn lane
 - Restripe the southbound approach to one (1) left-turn lane with a shared through lane and one (1) right-turn lane
- Inyo Street / SR 33
 - Restripe the southbound approach to one (1) left-turn lane with a shared through lane and one (1) right-turn lane

Cumulative 2030 Intersection Conditions (With Project)

Table 3 shows that intersection performance with the Project in 2030 would be the same as the conditions without the Project. The same intersection signalization and lane improvements would be necessary to maintain acceptable LOS at the intersections of Inyo Avenue at SR 33, Stuhr Road at SR 33, and Yolo Street at SR 33. Therefore, as a component of the 2030 cumulative traffic, the Project is responsible for payment of its share of impact fees toward signalization (assumed to be in place by 2030) and lane improvements at the three affected intersections. Figure E-1 of the TIA illustrates the cumulative 2030 mitigated lane geometry.

Traffic Impact Fee Mitigation

The TIA calculates that the Project traffic represents 6.26 percent of 2030 traffic at the intersection of Stuhr Road at SR 33, 1.69 percent of traffic at the intersection of Yolo Street at SR 33, and 1.82 percent of traffic at the intersection of Inyo Street at SR 33. The Project mitigation is to contribute its proportional share toward the implementation of the identified intersection and lane improvements. The fair-share percentage allocations are provided in the Mitigation section below. The implementing agency(ies) will ensure that the mitigation fees are properly applied toward improvements that alleviate the identified existing and future deficiencies. As indicated in Table 4 below, the signalization and lane improvements at those intersections would improve the LOS to C or better for both peak hours. With payment of mitigation fees, the Project share of traffic impacts would be reduced to a level that is less than significant.

Table 4: Intersection Operations With Mitigation

Intersection	Peak Hour	Existing		Existing Plus Project		Near-Term (Year 2011)		Cumulative 2030 Without Project		Cumulative 2030 With Project	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Yolo St / SR 33	AM	--	--	--	--	24.9	C	28.3	C	28.3	C
	PM	--	--	--	--	26.4	C	31.2	C	31.3	C
Inyo Ave / SR 33	AM	21.5	C	21.4	C	21.8	C	23.8	C	23.9	C
	PM	23.6	C	23.6	C	24.9	C	33.4	C	33.6	C
Stuhr Rd / SR 33	AM	19.6	B	19.6	B	20.9	C	10.3	B	17.4	B
	PM	17.8	B	17.7	B	18.1	B	29.8	C	29.8	C

DELAY is measured in seconds.
LOS = Level of Service

Traffic Index Evaluation

The TIA includes an evaluation of the Project’s impact to the Traffic Index (TI) along Stuhr Road and Eastin Road. The TI is a measure of the number of Equivalent Single Axle Loads (ESALs) expected in the design lane over the design period – in this case, 20 years. A project is considered significant if it increases the TI by one (1) or more. TI calculations are included in Appendix H of the TIA and summarized in Table 5.

Table 5: Traffic Index

Street Segment	Cumulative 2030 Without Project	Cumulative 2030 With Project	Project Increase
	Traffic Index (TI)		
Stuhr Road west of Eastin Road	10.3	11.7	1.4
Eastin Road north of Stuhr Road	8.7	10.4	1.7

Based on the County’s criterion, the Project will have a significant impact. However, the mitigation measure specified below will reduce the Project impact to a level that is less than significant.

c): Air Traffic Patterns

The Project will not impair any air traffic patterns associated with flights departing and arriving into a municipal airport as no airport is in the vicinity of the Project Site. No impact would occur.

d): Traffic Hazards

All design features (i.e., access roads, intersections) will comply with all applicable county transportation standards. Vehicles associated with mining operations (i.e., cargo, trucks, employee vehicles) are similar in nature to the existing agriculture-related vehicles traveling on the surrounding roads in that they are typically larger, slower moving vehicles for the purpose of transporting goods. No conflict would be created by the addition of Project-related vehicles. No impact would occur on or near the Project Site.

The California Public Utilities Commission (CPUC) commented during the Early Consultation period and requested that the Traffic Impact Analysis analyze at-grade railroad crossings along truck routes in an effort to identify and mitigate any potential rail safety conflicts between trains and vehicles. Based on consultation with CPUC, the traffic consultant began analysis of the Stuhr Road/SR 33 at-grade railroad crossing. Their

preliminary review of U.S. Department of Transportation (DOT) Crossing Inventory Information shows that there is less than one movement per day at the Stuhr Road/SR 33 at-grade crossing in the City of Newman. Approximately 15 percent (87 trips) of the daily Project trips will use that at-grade crossing, accounting for about 6.5 percent of peak hour traffic. Despite the relatively low usage reported by federal data, the Project will conduct a 12-hour continuous video log to determine the following:

- number of activations, duration of activations, and length of queues during the AM and PM peak hours;
- effects of the existing activations and queues on adjacent intersections;
- potential impact of the proposed Project's trips (existing and cumulative) to the likelihood of vehicles stopping on the tracks (i.e., whether queue extends from the intersection to or beyond the track); and
- potential impact of the proposed Project's trips (existing and cumulative) to the length of the vehicular queues on the roadway approaches to the crossing.

If determined necessary in consultation with the County, CPUC and/or Caltrans, the revised TIA could require measures to mitigate Project-related traffic impacts on the existing and cumulative peak hour crossing conditions. Pending completion of the rail safety analysis, impacts are deemed potentially significant and will be further evaluated in the EIR.

e): Emergency Access

The proposed Project would include the construction of access roads that would connect the North Site to West Stuhr Road and Eastin Road and the South Site to Orestimba Road. These access roads will be constructed based on county design standards to accommodate emergency access. Therefore, the proposed Project would not adversely affect emergency access and no impact will result.

f): Public Transit, Bicycle and Pedestrian Facilities

Alternative transportation modes within the Project vicinity would not be adversely affected by Project construction and operation. The Project Site primarily consists of agricultural lands and rural residences. Access to the Project Site would be provided via existing roads. There are no adopted alternative transportation plans covering the Project Site and vicinity. Therefore, the proposed Project would not conflict with any adopted policies, plans, or programs that support alternative transportation facilities. There would be no impact.

Mitigation:

1. The applicant shall enter into an agreement with Stanislaus County Department of Public Works to pay traffic impact fees, as determined by Stanislaus County in accordance with County policy. The fee amount shall be based upon the following fair-share percentage allocations at the impacted intersections:

Intersections	Existing Traffic	Project Traffic	Cumulative 2030 With Project Traffic	Fair Share Percentage	Estimated Cost of Improvement	Estimated Fair Share Cost
Stuhr Road / SR 33	554	37	1,145	6.26%	\$ TBD	\$ TBD
Yolo Street / SR 33	752	13	1,521	1.69%	\$600,000	\$10,143.04
Inyo Street / SR 33	699	13	1,412	1.82%	\$300,000	\$5,469.85

Comments by Stanislaus County Public Works during the Early Consultation period indicated that the original estimated cost of improving the Stuhr Road/SR 33 intersection did not accurately reflect the cost of at-grade railroad crossing safety equipment and other pertinent improvements. The traffic consultant, VRPA, has obtained representative costs from Public Works for the types of improvements necessary and, in

consultation with the California Public Utilities Commission (CPUC) and Caltrans, will revise the intersection mitigation measures and fair-share cost accordingly. Those revisions will be reflected in the draft EIR and in an updated Traffic Impact Analysis.

2. The applicant shall enter into an agreement with Stanislaus County Department of Public Works to pay a fee of \$0.055 per ton of material entering or leaving the property via County roadways to offset the traffic impacts to County roads. The agreement shall be in place within three months of the approval of the Use Permit. The fee shall be tied to the Engineering News Record Construction Cost Index.

References: VRPA Technologies, Calaveras Materials Inc. Riddle Surface Mine Traffic Impact Analysis, September 24, 2010

XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

Discussion:

- a) A Report of Waste Discharge (ROWD) will be submitted to the California Regional Water Quality Control Board prior to any discharge of wastewater. This requirement will be reflected in the Conditions of Approval applied to this Project. Impacts will be less than significant.

- b) The source of operational water will be from the groundwater table pumped directly to the processing Plant Complex. Therefore, there is no need for use of a new water treatment facility. All wastewater associated with the processing of aggregate material will be maintained on-site at the sedimentation basin within the active mining quarry and recycled for continued use in the processing of material. Wastewater will not be processed through a treatment facility; therefore, no impact will occur.
- c) All stormwater within the Project Site will be diverted to the mine quarry and retained. Some of this water will infiltrate into the groundwater table and some will be lost due to evaporation. All off-site stormwater will continue to be diverted around the Project Site via the existing stormwater drainage infrastructure. This off-site stormwater diversion has been on-going and existing infrastructure is capable of supporting this flow; therefore, no need exist for the construction or expansion of stormwater drainage facilities. No impact will occur.
- d) As previously noted for checklist item b) in section IX. *Hydrology and Water Quality*, the Project demand for about 110.4 acre-feet per year of groundwater will be supplied by a new production well to be established at the North Site. The well will meet all flow requirements and will not require new or expanded entitlements. Impacts will be less than significant.
- e) The Project does not require the services of a wastewater treatment provider as all wastewater will be maintained and treated on-site. Minimal routine maintenance of the septic system serving the administrative office will be required but should not be substantial in nature. No impact will occur.
- f) Minimal amounts of solid wastes will be generated from the proposed operations given that the proposed aggregate mining use is not people intensive, which tend to generate larger amounts of waste, and the use itself is not one which tends to generate large amounts of waste. Impacts will be less than significant.
- g) The proposed Project will comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste.

Mitigation: None

References: Riddle Surface Mining Permit & Reclamation Plan prepared by RGP Planning & Development Services in September 2010; Chang Consultants, CEQA-Level Hydrology Study for the Riddle Surface Mine, September 23, 2010; Kenneth D. Schmidt and Associates, Existing Groundwater Conditions in the Vicinity of the Proposed Riddle Surface Mine, Stanislaus County, California, September 2010

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		

<p>b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?</p>		<p>X</p>		
<p>c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>		<p>X</p>		

Discussion:

- a) Checklist Section IV (Biological Resources) preliminarily finds that Project impacts to plants, wildlife and habitats would be less than significant. Checklist Section V (Cultural Resources) finds that the Project could adversely affect undiscovered cultural resources and that mitigation would be required to reduce impacts to levels that are less than significant. Both topics will be addressed in the EIR.
- b) The EIR will review the Project in connection with the effects of past projects, other current projects, and probable future projects to ascertain the potential for cumulatively considerable impacts.
- c) The EIR will evaluate whether the Project, after mitigation, has any design features or operational elements that will cause substantial adverse effects on human beings, either directly or indirectly.

C:\Temp\INITIAL STUDY FORM - CURRENT.wpd

¹Stanislaus County General Plan and Support Documentation adopted in October 1994, as amended. Optional and updated elements of the General Plan and Support Documentation: **Agricultural Element** adopted on December 18, 2007; **Housing Element** adopted on April 20, 2010 and pending certification by the California Department of Housing and Community Development; **Circulation Element** and **Noise Element** adopted on April 18, 2006.