

CHAPTER 3

Description of Alternatives

3.1 Overview

CEQA requires an evaluation of the comparative effects of a range of reasonable alternatives to a project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project (CEQA Guidelines §15126.6(a)). The EIR is to consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. The nature and scope of the alternatives to be discussed is governed by the “rule of reason.” The discussion of alternatives is to focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede, to some degree, the attainment of the project objectives, or would be more costly (CEQA Guidelines §15126.6(b)).

The range of potential alternatives shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the project’s significant adverse effects. The EIR also should identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination (CEQA Guidelines §15126.6(c)). The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project (CEQA Guidelines §15126.6(d)). CEQA requires evaluation of a “No Project Alternative” to allow agencies and the public to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The “No Project” analysis shall discuss existing conditions at the time the environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved (CEQA Guidelines §15126.6(e)).

This Chapter describes the process that was used to identify and screen alternatives for consideration, provides the rationale for why some alternatives were eliminated from consideration, and describes those alternatives that were carried forward for analysis in this EIR. The potential environmental impacts of the alternatives carried forward are analyzed in comparison to the proposed Project in each of the 18 resource areas in Sections 4.1 through 4.18. The results of the comparative analysis of each of the 18 resource areas are summarized in Chapter 5, which compares the conclusions of the impact analyses for both alternatives against the conclusions for the Project.

3.2 Alternatives Development and Screening Process

To develop a range of alternatives for analysis, the following methodology was used:

1. Develop an understanding of the Project, identify the need for and basic objectives of the Project, and consider the significant adverse impacts that the Project may have;
2. Consider input received during the scoping process that relates to Project alternatives;
3. Identify and evaluate reasonable feasible alternative locations to the proposed site, if any;
4. Identify and evaluate other reclamation technology alternatives, if any, that have the potential to avoid or substantially lessen any of the significant effects of the Project;
5. Identify and evaluate whether alternative approaches could provide a reasonable feasible alternative to the Project; and
6. Consider the scenario of not implementing reclamation as proposed, i.e., the No Project Alternative.

The Project is described in Chapter 2; the statement of Project Purpose and Need is provided in Section 2.4, and Project Objectives are presented in Section 2.5. The Scoping Report is provided in Appendix A. Because all of the surface mining-related disturbances subject to reclamation under SMARA are located in the Project Area, no alternative sites were suggested during scoping or are analyzed in the EIR. However, the offsite disposal of overburden is evaluated as a possible alternative. The process used to identify and screen alternatives to the Project is described in the following sections.

3.2.1 Alternatives Screening Methodology

The screening of alternatives to the proposed Project was completed using a three-step process:

Step 1: Clarify the description of each alternative to allow comparative evaluation.

Step 2: Evaluate each alternative using CEQA criteria (defined below).

Step 3: Determine the suitability of each alternative for full analysis in the EIR. Infeasible alternatives and alternatives that clearly offered no potential for overall environmental advantage were removed from further analysis.

Following the three-step screening process, the advantages and disadvantages of the remaining alternatives were carefully weighed with respect to CEQA's criteria for consideration of alternatives:

- Does the alternative meet most basic project objectives?
- Is the alternative feasible from a legal, regulatory, and technical perspective?

- Does the alternative avoid or substantially lessen any significant effects of the Project (including consideration of whether the alternative could create significant effects potentially greater than those of the Project)?
- Is the alternative reasonable, in that its analysis will foster informed decision making and meaningful public participation?

3.2.2 Consistency with Project Objectives

Alternatives considered must be capable of eliminating or reducing significant environmental effects even if they “impede to some degree the attainment of project objectives” (CEQA Guidelines §15126.6(b)). Therefore, it is not required that each alternative meet all of the Applicant’s objectives. The objectives of the Project are discussed in Section 2.3.

3.2.3 Feasibility

CEQA Guidelines §15364 defines feasibility as “. . . capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” In addition, CEQA requires that the County, as CEQA lead agency for the Project, consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, and jurisdictional boundaries in determining the range of alternatives to be evaluated in the EIR (CEQA Guidelines §15126.6(f)). The three principal feasibility components evaluated in the screening analysis were:

- ***Environmental Feasibility:*** Is the alternative feasible from an environmental perspective, i.e., would it result in the reclamation of mined lands to a usable condition that is readily adaptable for open space land uses and would not create a danger to public health or safety?
- ***Legal Feasibility:*** Does the alternative comply with the requirements of SMARA (Pub. Res. Code §§2772 through 2773), its implementing regulations (14 Cal. Code Regs. §§3500 through 3505), other legally-applicable regulations (e.g., air and water quality standards), and County standards regarding reclamation of mined lands?
- ***Technical Feasibility:*** Can the alternative be accomplished considering available technology?

If an alternative was found not to meet one of the primary feasibility criteria, it was deemed infeasible without reviewing whether it met the other feasibility criteria. Furthermore, per CEQA Guidelines §15091, as part of project approval, findings would be made regarding the alternatives’ ultimate feasibility: “No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding.”

Consistent with CEQA Guidelines §15126.6(b), this initial screening analysis does not focus on relative economic factors or costs of the alternatives (as long as they are found to be potentially economically viable).

3.2.4 Potential to Eliminate Significant Environmental Effects

To be considered fully in an EIR, an alternative must have the potential to “avoid or substantially lessen any of the significant effects of the project” (CEQA Guidelines §15126.6(a)). At the screening stage, it is neither possible nor legally required to evaluate all of the impacts of the alternatives in comparison to the Project with absolute certainty, nor is it possible to quantify impacts.

The potential significant environmental effects of the Project are listed in **Table 3-1**. This impact summary was prepared using a liberal definition of “potentially significant” so as to avoid excluding alternatives that could provide some overall environmental benefit. Also, because this screening-level impact summary was developed prior to completion of the EIR analysis, identifies more “potentially significant” impacts than subsequently were identified in the detailed analysis presented in Section 4 of this EIR.

**TABLE 3-1
SUMMARY OF PRELIMINARY SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS
OF THE LEHIGH PERMANENTE QUARRY RECLAMATION PLAN AMENDMENT**

Issue Area	Impact
Aesthetics	<ul style="list-style-type: none"> Potential interim effects (i.e., during the proposed reclamation period) on views from the valley floor and more distant locations of activities and conditions in the EMSA
Air Quality	<ul style="list-style-type: none"> Potential for interim construction dust and/or equipment exhaust emissions exceeding local air district significance thresholds; potential for long-term adverse health risk implications from Toxic Air Contaminant emissions
Biological Resources	<ul style="list-style-type: none"> Potential interim and/or long-term impacts to aquatic habitat in Permanente Creek and the watershed downstream of the Project Area resulting from runoff from the Project Area that contains selenium and/or from offsite peak flows from a 100-year storm event
Cultural Resources	<ul style="list-style-type: none"> Potential demolition of contributing structures to a proposed Kaiser Permanente Quarry Mining District
Hydrology and Water Quality	<ul style="list-style-type: none"> Potential interim and/or long-term impacts to water quality in Permanente Creek and the watershed downstream of the Project Area resulting from runoff from the EMSA that contains selenium and/or from offsite peak flows from a 100-year storm event
Noise	<ul style="list-style-type: none"> Potential nighttime noise impacts to the sensitive receptor nearest to the northern end of the EMSA

Based on this methodology, each potential alternative was evaluated for its ability to meet most of the basic Project objectives, its feasibility, and its ability to avoid or substantially lessen one or more of the potential significant effects of the Project and not create significant unmitigable impacts of its own.

3.2.5 Reasonableness

The range of alternatives required in an EIR is governed by a “rule of reason,” which requires an EIR to consider only those alternatives that are necessary to permit a reasoned choice. In other words, alternatives considered fully in an EIR must be reasonable, selected to foster meaningful public participation and informed decision making (CEQA Guidelines §15216.6(f)). The selection

of unrealistic alternatives whose implementation is speculative or remote, or whose environmental impacts cannot reasonably be ascertained, would not contribute to a useful analysis.

3.3 Summary of Screening Results

The alternatives summarized in Table 3-2 are those that have been selected through the alternative screening process for consideration in the EIR. Of them, two reclamation alternatives would substantially meet most of the basic project objectives, would be feasible, and would avoid or reduce potentially significant environmental effects of the Project; the No Project alternative also is included as required by CEQA. These alternatives have been carried forward for more detailed analysis in the EIR:

- Alternative 1: Complete Backfill Alternative
- Alternative 2: Central Materials Storage Area Alternative
- No Project Alternative

The remaining alternatives summarized in **Table 3-2** have been rejected from further consideration in the alternatives analysis due to infeasibility, not achieving project objectives, or not avoiding or substantially lessening significant environmental effects of the Project.

3.3.1 Alternatives Evaluated in Detail in this EIR

3.3.1.1 Alternative 1: Complete Backfill Alternative

Description

The Complete Backfill Alternative would be similar to the Project in all respects except that overburden materials stored in the EMSA would be backfilled into the Quarry pit upon the conclusion of mineral extraction activities. The EMSA was designed to accept total overburden placement of approximately 6.5 million tons (approximately 4.8 million cubic yards) and to provide overburden storage for the surface mining operation until approximately 2015, when final contouring and revegetation would occur. Under Alternative 1, the approximately 4.8 million cubic yards of overburden stored in the EMSA would be returned to the Quarry pit during reclamation Phase 2.

As a result, final contours in the EMSA would be comparable to what is shown in Figure 5 of the 1985 Reclamation Plan, the Quarry pit's lowest areas would be raised and thereby provide additional support to quarry walls. Removal of mining overburden from the EMSA would abate the notice of violation related to mining related use of this area, remove an existing source of selenium and thereby preclude its mobilization into downstream waterways, and return views from the valley floor and beyond to a pre-mining condition.

Removing the EMSA also would not meet an objective of the Project, which is the screening of views of and noises associated with the industrial uses occurring at the Cement Plant from the valley floor and recreational areas in the vicinity of the Project Area.

**TABLE 3-2
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS
LEHIGH PERMANENTE QUARRY RECLAMATION PLAN AMENDMENT**

Alternative	Project Objectives Criteria	Feasibility Criteria	Reasonableness	Environmental Criteria
Passes Screening				
<p>Alternative 1: Complete Backfill Alternative</p> <ul style="list-style-type: none"> • EMSA materials would provide additional backfill materials for the Quarry pit. • Elevation and contours of the post-reclamation EMSA would be comparable to conditions existing before overburden storage began in that area • Elevation and contours of the Quarry pit would reflect the addition of materials against the north wall. • Interim BMPs would be implemented to manage stormwater run-off pending final reclamation. • Final reclamation of the EMSA would occur during Phase 3, upon the completion of which views could be available from the Valley into the (reclaimed) Quarry pit 	<p>Passes. Alternative 1 would enable the Applicant to continue operations and, thereby, maintain a local, reliable, and economic source of Portland cement-grade limestone and construction aggregate for the same duration as the Project; reclaim the site, apply applicable SMARA reclamation standards, and avoid or eliminate residual hazards to the environment and public health and safety.</p>	<p>Passes. No elimination factors were identified.</p>	<p>Passes. Effects reasonably could be ascertained; implementation would be neither speculative nor remote.</p>	<p>Meets environmental criteria.</p> <p><u>Aesthetics</u>: Would not avoid or substantially lessen effects of the Project on views of the EMSA, since transport of the overburden materials back into the pit could extend the duration before work in the EMSA is complete.</p> <p><u>Air Quality</u>: Would not avoid or substantially lessen significant air quality or health risk-related effects because work would be required in the EMSA over a longer period than under the Project.</p> <p><u>Biological Resources</u>: Would avoid or substantially lessen long-term selenium-related water quality effects to downstream aquatic habitats by precluding runoff containing selenium from this area.</p> <p><u>Cultural Resources</u>: Would not avoid or substantially lessen significant impacts to historic resources because demolition of contributing structures to the Kaiser Permanente Quarry Mining District would continue to occur.</p> <p><u>Hydrology and Water Quality</u>: Would avoid or substantially lessen long-term selenium-related water quality effects to downstream watercourses by precluding runoff containing selenium from this area.</p> <p><u>Noise</u>: Would not avoid or substantially lessen significant nighttime noise impacts related to work at the northern end of the EMSA because additional work would be required in that area that could be undertaken during nighttime hours.</p> <p><u>New Impacts</u>: Could cause new long-term aesthetic impacts associated with increasing the visibility of industrial components in and adjacent to the Project Area, including industrial uses associated with the Cement Plant, for visitors to adjacent recreation areas, nearby scenic roadways, and the valley floor.</p>
<p>Alternative 2: Central Materials Storage Area Alternative</p> <ul style="list-style-type: none"> • Stockpiling of overburden materials from the Quarry pit in the EMSA would cease immediately; • Stockpiling would begin in a 52.2-acre area located east of the Quarry pit and immediately west of (and contiguous with) the EMSA. • Development of the CMSA would allow reclamation activities in the western and central parts of the EMSA, which are closer to sensitive receptors than the CMSA, to begin immediately upon Project approval. 	<p>Passes. Alternative 2 would enable the Applicant to continue operations and, thereby, maintain a local, reliable, and economic source of Portland cement-grade limestone and construction aggregate for the same duration as the Project; reclaim the site, apply applicable SMARA reclamation standards, and avoid or eliminate residual hazards to the environment and public health and safety.</p>	<p>Passes. No elimination factors were identified.</p>	<p>Passes. Effects reasonably could be ascertained; implementation would be neither speculative nor remote.</p>	<p>Meets environmental criteria.</p> <p><u>Aesthetics</u>: Would avoid or substantially lessen short-term impacts of the Project on views of the EMSA because reclamation of the most visible areas of the EMSA could begin immediately upon project approval.</p> <p><u>Air Quality</u>: Would lessen health risks, since activities at the CMSA would be located further from the nearest residential receptors.</p> <p><u>Biological Resources</u>: Would reduce short-term selenium-related impacts from the EMSA because the EMSA would be capped sooner than would occur under the Project (thereby shortening the duration in which selenium-containing runoff could leave the area and drain to Permanente Creek) and because interim drainage controls would be implemented at the CMSA to manage run-off until final reclamation of the area is achieved.</p>

**TABLE 3-2 (Continued)
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS
LEHIGH PERMANENTE QUARRY RECLAMATION PLAN AMENDMENT**

Alternative	Project Objectives Criteria	Feasibility Criteria	Reasonableness	Environmental Criteria
Passes Screening (cont.)				
<p>Alternative 2: Central Materials Storage Area Alternative (cont.)</p>				<p><u>Cultural Resources</u>: Would not avoid or substantially lessen significant impacts to historic resources because demolition of contributing structures to the Kaiser Permanente Quarry Mining District would continue to occur.</p> <p><u>Hydrology and Water Quality</u>: Would reduce short-term drainage impacts from the EMSA because the EMSA would be capped sooner than would occur under the Project (thereby shortening the duration in which selenium-containing runoff could leave the area and drain to Permanente Creek) and because interim drainage controls would be implemented at the CMSA to manage run-off until final reclamation of the area is achieved.</p> <p><u>Noise</u>: Would avoid or substantially lessen nighttime noise impacts of the Project because of the CMSA's increased distance between active work areas and the nearest receptors.</p> <p><u>New Impacts</u>: Would not cause new impacts relative to the Project.</p>
<p>No Project Alternative</p> <ul style="list-style-type: none"> • The Permanente Quarry would continue operations at the baseline mining rate, which is less than the maximum rate expected under the Project • Mining the same total amount of material from the Quarry pit would take approximately 7 years longer than under the Project • No overburden would be stored at the EMSA; all overburden would instead go to the Quarry west wall • Reclamation would occur approximately 7 years later than for the Project, but would be substantially similar in scope and duration 	<p>Passes. Although the No Project Alternative would result in a reduced rate of mining compared to the Project, a local source of limestone and construction aggregate would be maintained and reclamation of the site in accordance with SMARA reclamation standards would occur, albeit at a later date.</p>	<p>Passes. No elimination factors were identified.</p>	<p>Passes. Effects reasonably could be ascertained; implementation would be neither speculative nor remote.</p>	<p>Meets environmental criteria.</p> <p><u>Aesthetics</u>: Would not avoid or substantially lessen aesthetic impacts of the Project because, although no further overburden storage would occur at the EMSA, reclamation of visible portions of the Project Area would begin later than is proposed in the RPA.</p> <p><u>Air Quality</u>: Would avoid or substantially lessen air quality impacts of the Project because annual and maximum daily emissions would be lower than under the RPA. Would lessen health risks, since overburden placement activities would be located further from the nearest residential receptors.</p> <p><u>Biological Resources</u>: Would avoid or substantially lessen long-term aquatic habitat impacts of the Project because no additional selenium-bearing overburden material would be stored at the EMSA.</p> <p><u>Cultural Resources</u>: Would not avoid or substantially lessen significant impacts to historic resources because demolition of contributing structures to the Kaiser Permanente Quarry Mining District would continue to occur, albeit 7 years later than is proposed for the RPA.</p> <p><u>Hydrology and Water Quality</u>: Would avoid or substantially lessen interim water quality impacts of the Project because no additional selenium-bearing overburden material would be stored at the EMSA.</p> <p><u>Noise</u>: Would avoid or substantially lessen nighttime noise impacts of the Project because overburden placement activities would be located further from the nearest receptors.</p> <p><u>New Impacts</u>: Would not be expected to cause new impacts relative to the Project.</p>

TABLE 3-2 (Continued)
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS
LEHIGH PERMANENTE QUARRY RECLAMATION PLAN AMENDMENT

Alternative	Project Objectives Criteria	Feasibility Criteria	Reasonableness	Environmental Criteria
Fails Screening				
<p>Offsite Disposal of Overburden</p> <ul style="list-style-type: none"> • Overburden storage in the EMSA would cease and reclamation of the EMSA would begin immediately • Any overburden not stored in the Quarry pit would be transported offsite by truck or rail. 	<p>Passes. Would meet most of the basic objectives of the Project.</p>	<p>Passes. No elimination factors were identified.</p>	<p>Fails. Effects could not reasonably be ascertained; implementation would be speculative.</p>	<p>Fails.</p> <p><u>Aesthetics</u>: Could substantially lessen significant effects of the Project related to views of reclamation activities in the EMSA by initiating and completing re-vegetation of the EMSA on an expedited basis.</p> <p><u>Air Quality</u>: Would not avoid or substantially reduce air quality or health risk-related impacts due to the duration necessary to complete reclamation.</p> <p><u>Cultural Resources</u>: Would not avoid or substantially lessen significant impacts to historic resources because demolition of contributing structures to the Kaiser Permanente Quarry Mining District would continue to occur.</p> <p><u>Hydrology and Water Quality</u>: Would not avoid or substantially reduce water quality impacts related to polluted runoff or potential violations of existing water quality standards.</p> <p><u>Noise</u>: Would not avoid or substantially lessen significant effects of Project-related noise associated with work in the EMSA.</p> <p><u>New Impacts</u>: Could cause new ore more intense air quality impacts related to offsite transport of the materials. Could cause significant impacts related to waste disposal.</p>

Project Objectives

Alternative 1 would meet all of the basic Project objectives.

Feasibility

No legal, regulatory, or technical feasibility issues were identified that would eliminate Alternative 1 from consideration.

Lessen Significant Environmental Impacts

Alternative 1 would not lessen impacts related to interim (reclamation-phase) activities in the EMSA because activities would continue to occur in that area that would be visible from nearby recreational areas, the valley floor, and more distant locations in the viewshed. It also would not avoid or reduce interim impacts to Permanente Creek related to surface runoff that would continue to be generated in this area until the area is capped and revegetated. Over the longer term, Alternative 1 would eventually remove limestone material in the EMSA during reclamation that could oxidize and thereby cause selenium to mobilize in stormwater runoff that could affect water quality conditions, including secondary effects on aquatic habitat, in downstream watercourses. It also would create certainty that, following the completion of reclamation, selenium-containing runoff from this area would not reach Permanente Creek.

Potential New Impacts Created

Alternative 1 would be expected to cause new long-term aesthetic impacts associated with increasing the visibility of industrial components in the vicinity of the Project Area, and would reduce or eliminate the beneficial environmental effects of the Project related to reducing the visibility of the Cement Plant, adjacent to the Project Area. Visitors to the adjacent RSA County Park/Preserve, motorists on nearby scenic roadways including I-280, and other viewers on the valley floor would have clearer views of the Cement Plant than under the Project. Alternative 1 also would eliminate an existing feature (the EMSA), which shields some of the noise generated within the site from being heard by offsite sensitive receptors.

Reasonableness

The effects of Alternative 1 reasonably could be ascertained and its implementation would be neither speculative nor remote.

3.3.1.2 Alternative 2: Central Materials Storage Area Alternative

Description

The Central Materials Storage Area (CMSA) Alternative would be similar to the Project in all respects except that reclamation of the eastern and central portions of the EMSA (as it exists as of reclamation plan amendment approval) would begin immediately, and overburden generated by continued mining in the Quarry pit would be stored in an area farther removed from the closest viewers and air quality- and noise-sensitive receptors. Reclamation activities in the EMSA would

be the same as under the Project (including installation of a “cap” to prevent selenium-containing surface runoff from reaching Permanente Creek) except that such activities would begin immediately upon reclamation plan amendment approval and no new materials would be stockpiled in that area. Mitigation measures recommended to address interim Project impacts (i.e., impacts that could occur while reclamation activities are underway) for the EMSA also would be implemented to avoid or reduce impacts associated with the CMSA before final reclamation of the CMSA begins, which would occur upon the conclusion of mineral extraction in the Quarry pit during reclamation Phase 2.

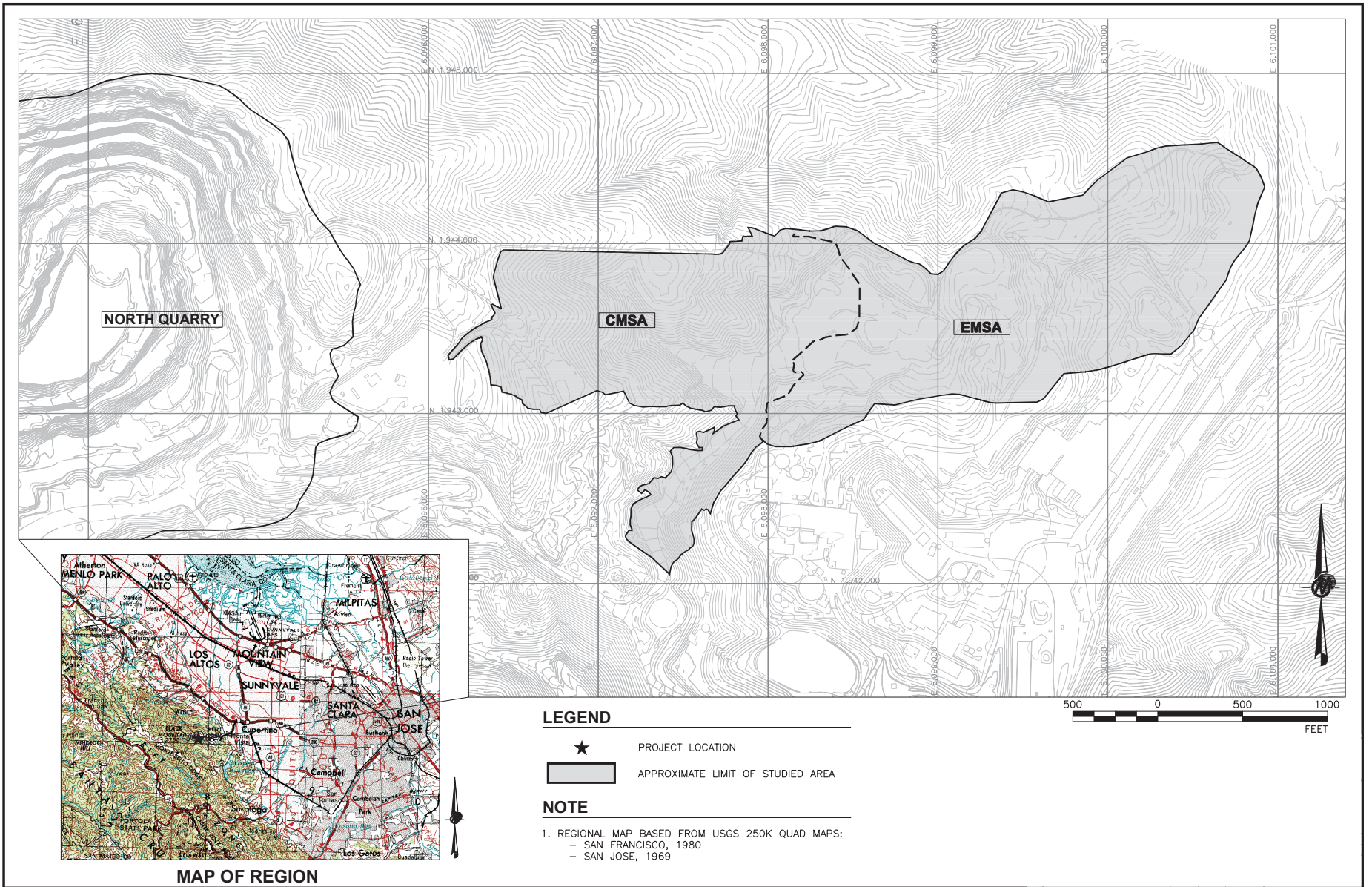
The description of Alternative 2 is based on an overburden storage area included in the Comprehensive RPA, which the Applicant submitted to the County in 2010 and which has been superseded by the Project. It is informed by details and analysis provided in the Comprehensive RPA, including the supporting reports listed below. Implementation of Alternative 2 would occur in accordance with the engineering and other expectations established in these reports, except as noted below.

- Chang Consultants, 2010. *Drainage Report for the Permanente Quarry* (May 21, 2010)
- Golder Associates, Inc., 2010. *Geotechnical Evaluations and Design Recommendations, Permanente Quarry Reclamation Plan Update, Santa Clara County, California* (May 2010)
- Golder Associates, Inc., 2010. *Geotechnical Evaluations and Design Recommendations, East and Central Materials Storage Areas, Permanente Quarry Reclamation Plan Update, Santa Clara County, California* (May 2010).

The CMSA would be approximately 52.2 acres located east of the Quarry pit and contiguous with the western edge of the EMSA. It would accommodate overburden generated by mining of the Quarry pit during reclamation Phase 1 and then would be reclaimed. Development of the CMSA would allow reclamation activities in the eastern and central parts of the EMSA, which are closer to sensitive receptors than the CMSA, to begin immediately upon Project approval.

During the development of the CMSA, its elevations would range from 775 to 1,270 feet amsl. Final overall slopes would be 2:6(H):1.0(V) or flatter. Benches generally would be established at 40-foot vertical intervals. Interbench slopes would be 2H:1V. The static factor of safety (FOS) for global stability (crest of slope to toe of slope) would be approximately 1.7; the static FOS for interbench slopes would be 1.4. These factors are considered acceptable. Seismically-induced displacements would range from 3 to 13 inches, which also is considered acceptable.

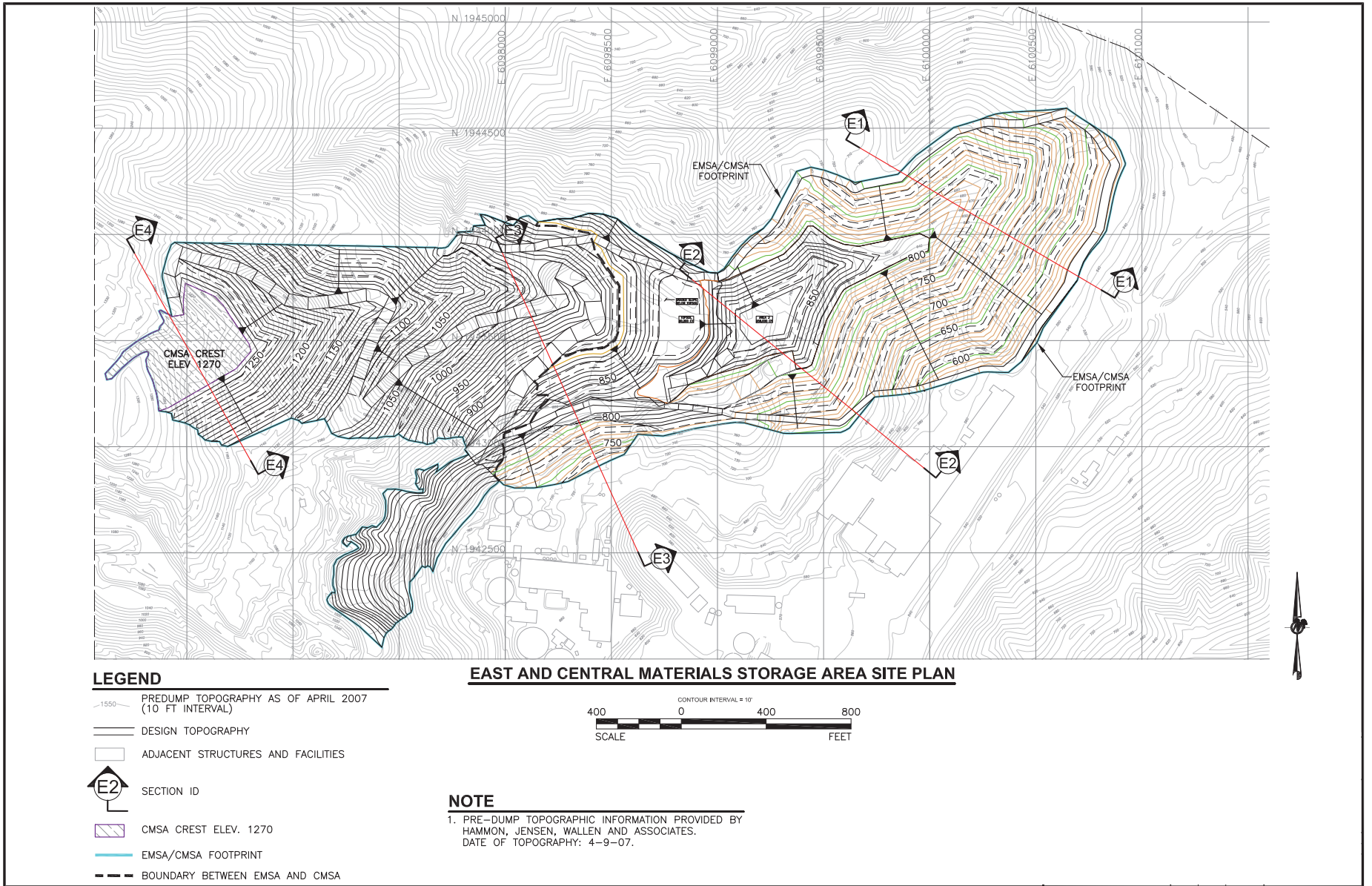
Connection between the CMSA’s eastern edge and the flat pad at the western end of the EMSA would be accomplished via an approximately 11-acre area that overlaps the western edge of the EMSA. This linkage would be designed to minimize any interference with reclamation activities in the EMSA. To the extent that minor portions of the EMSA would be affected by connection activities, affected areas would be reclaimed as part of the CMSA. See **Figure 3-1** and **Figure 3-2**.



SOURCE: Golder Associates

Lehigh Permanente Quarry Reclamation Plan Amendment. 211742

Figure 3-1
Site Location Map



A perimeter road would be graded around the CMSA, and a series of drainage ditches, swales, and sedimentation basins would provide drainage control. The erosion control methods would be designed to accommodate a 20-year storm event, and would control erosion and sedimentation during operations in the CMSA as well as after reclamation of the area is complete. For example, during reclamation activities, the following actions would be implemented to protect surface water quality: runoff from limestone materials would be isolated by capping reclaimed areas and by constructing an effective surface drainage system. The cap system would involve placement of 1-foot thick layer of run-of-mine non-limestone rock (i.e., greywacke, chert, and/or greenstone) over areas where limestone materials are used as general fill for reclamation; plus the placement of a minimum of 6 to 12 inches of growth media over all disturbed areas. The run-of-mine non-limestone rock could be stockpiled during the remainder of mining in the Quarry pit or taken from the portion of the WMSA where borehole logs indicate pockets of non-limestone material may be found. Reclamation in the CMSA would be accomplished by grading to final contours, preparing a suitable growing zone (including by ripping, discing or other means as necessary), applying a growth medium, instituting erosion control measures, and then revegetating the area. Maintenance and monitoring would occur as proposed for the EMSA.

Project Objectives

Alternative 2 would meet all of the basic Project objectives.

Feasibility

No legal, regulatory, or technical feasibility issues were identified that would eliminate Alternative 2 from consideration.

Lessen Significant Environmental Impacts

Alternative 2 would avoid or substantially lessen impacts of the Project related to views of the Project Area from the valley floor and as far away as I-680 because reclamation of the most visible areas of the EMSA from those vantages would begin immediately upon project approval. Further, because the CMSA would be located adjacent to the western side of the EMSA and would be lower in elevation than the existing height of the EMSA, the reclaimed EMSA would likely shield views of the CMSA from the valley floor. Alternative 2 also would reduce noise and health risk-related air quality effects relative to the Project because overburden storage (and therefore subsequent reclamation) would occur farther from sensitive receptors. Drainage impacts of the Project also would be reduced by Alternative 2 because the EMSA would be capped sooner than would occur under the Project (thereby shortening the duration in which selenium-containing runoff could leave the area and drain to Permanente Creek) and because interim drainage controls would be implemented at the CMSA to manage run-off until final reclamation of the area is achieved.

Potential New Impacts Created

Alternative 2 would not be likely to create any new significant impacts.

Reasonableness

The effects of Alternative 2 reasonably could be ascertained and its implementation would be neither speculative nor remote.

3.3.1.3 No Project Alternative

Description

A traditional No Project Alternative would consist of a scenario in which a Reclamation Plan does not exist. However, such a scenario is not being considered in this analysis because all mining activities are legally required to have a SMARA-compliant Reclamation Plan. As such, the No Project Alternative cannot consider a scenario that does not include some form of SMARA-compliant reclamation, as the Quarry would consequently not be compliant with California law. The No Project Alternative in this document, therefore, identifies a scenario that would be reasonably expected to occur in lieu of approving the proposed Reclamation Plan.

Under the No Project Alternative, it is expected that mining would continue at the Quarry at the baseline rate.¹ However, SMARA mandates that the Project Area be reclaimed in compliance with all regulatory criteria. The Project is intended to fulfill this legal requirement and abate the issues related to Orders to Comply/Notices of Violation (NOVs) issued by the County in 2006 and 2008 related to deviations from the 1985 Reclamation Plan (i.e., engaging in mining activities outside the approved reclamation boundary). Under the No Project Alternative, the proposed Reclamation Plan would not be approved, these NOVs would not be abated, and the Applicant would remain in violation of SMARA and County requirements because an approved reclamation plan would not encompass all mining-related operations and disturbance. This would result in no additional placement of overburden at the EMSA.

Ultimately, however, in order to address the existing NOVs, a SMARA-compliant reclamation plan would have to be developed, approved following its evaluation under CEQA, and implemented by the Applicant. It is expected that such a reclamation plan would be substantially similar in scope and level of activity to that proposed as the Project, including reclamation of the EMSA to address the existing overburden material at that location. So under the No Project Alternative, the principal difference compared to the Project is not whether reclamation would begin, but rather when reclamation would begin.

The baseline (11-year average) annual limestone production rate for the Quarry is reported by the Applicant to be 2,600,000 metric tons (ALG, 2011). The total limestone production under reclamation Phase 1 is estimated by the Applicant to be 42,300,000 metric tons (ALG, 2011). Thus, under the No Project scenario in which mining would continue at the baseline rate, it would take approximately 16 years to reach the same total production as would be reached in 9 years

¹ Quarry operations are characterized by fluctuating production, in response to continually changing market demands. Accordingly, baseline production is based on an average over the 11-year period from January 1, 2000, to December 31, 2010, which includes periods of relatively high production as well as relatively low production at the Permanente Quarry in response to changing market demands.

under the Project. It is expected that reclamation Phases 2 and 3 of the Project would occur at the end of the 16-year mining period.

Similar to the Project, the No Project scenario would occur in the three phases shown in **Table 3-3**. The No Project Alternative would occur from 2008 through 2037; a total of 30 years.

**TABLE 3-3
“NO PROJECT” PHASING AND RELATED ACTIVITIES**

Phase	Years	Start Date	End Date	Activities
Phase 1	16	2012	2027	Quarry operations continue at the baseline rate; EMSA reclamation commences in 2023 and is completed in 2027. Reclamation of the Exploration Area and PCRA occur as under the Project.
Phase 2	5	2028	2032	Quarry infill and WMSA reclamation.
Phase 3	5	2033	2037	Final reclamation, including of the Rock Plant and Surge Pile.

Under the No Project Alternative, quarrying activities have occurred since the baseline date of June 2007 and would continue to occur at the baseline production rate through 2027. Overburden storage at the EMSA is assumed to have occurred from 2008 through 2011. During the first 11 years of Phase 1 (from 2012 through 2022) of the No Project Alternative, Quarry-related operations would occur at the baseline production rate with no overburden storage in EMSA (overburden would instead be placed in the Quarry West Wall). During the next 5 years of Phase 1 (from 2023 through 2027) of the No Project Alternative, Quarry-related operations would continue at the baseline production rate and in addition would include reclamation of the EMSA. EMSA reclamation would be completed in 2027.

During Phase 2 (a total of 5 years from 2028 through 2032) of the No Project Alternative, the WMSA stockpile would be excavated and the Quarry pit would receive the WMSA material as backfill. During Phase 3 of the No Project (a total of 5 years from 2033 through 2037), Quarry pit backfilling would be completed, the Rock Plant would be dismantled and removed, and the remaining disturbed areas would be reclaimed.

Project Objectives

The No Project Alternative would meet all of the basic Project objectives, although reclamation would occur approximately 7 years later than under the Project.

Feasibility

No legal, regulatory, or technical feasibility issues were identified that would eliminate the No Project Alternative from consideration.

Lessen Significant Environmental Impacts

Because the No Project Alternative would not involve additional overburden storage at the EMSA, but would involve reclamation of the currently existing (smaller) EMSA, Project impacts related to

the proximity of the EMSA to sensitive receptors would be lessened (namely, noise and health risk). Also, since mining would occur at a lower average rate compared to the Project, the No Project Alternative would result in lessened annual and maximum air pollutant emissions. The No Project Alternative would also avoid or substantially lessen water quality impacts of the Project because no additional selenium-bearing overburden material would be placed at the EMSA.

Potential New Impacts Created

The No Project Alternative would not be likely to create any new significant impacts.

Reasonableness

The effects of the No Project Alternative reasonably could be ascertained and its implementation would be neither speculative nor remote.

3.3.2 Alternatives Rejected from Detailed Consideration

As discussed in Section 3.2, alternatives were assessed for their feasibility, ability to achieve basic project objectives, and ability to reduce the significant environmental impacts of the Project. Based on these screening criteria, the alternatives eliminated from further consideration are presented in Table 3-2 and are summarized as follows:

- Alternative locations to the proposed site; and
- Alternative overburden disposal.

Each of these alternatives is discussed below, including the rationale for not carrying it forward for more detailed environmental review.

3.3.2.1 Alternative Sites

The range of alternatives analyzed in an EIR “shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project” (CEQA Guidelines §15126.6(f)). The County has determined that no feasible alternative locations to the Project Area exist because none of the significant effects of implementing the RPA to effect final reclamation of the Permanente Quarry would be avoided or substantially lessened by implementing reclamation activities in any other location. “Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR” (CEQA Guidelines §15126.6(f)). Consequently, no other locations are analyzed in the EIR.

3.3.2.2 Alternative Overburden Disposal

The County initially considered whether it would be feasible to require the Applicant dispose of overburden generated by continued mineral extraction in the Quarry pit offsite.

Offsite disposal of overburden materials could be affected by transporting the material by truck or rail to another location for permanent placement. Although the concept is clear, too little is

known about whether the materials would be transported by truck or rail or some combination of the two, which would affect the analysis of air and GHG emissions, transportation and traffic, noise and other resources. Too little also is known about the range of possible destinations, distances, remaining capacities of solid waste disposal facilities that could accommodate the overburden and about whether some marketable or other use could be made of the materials, thereby avoiding their disposal in a landfill. Further, because the rate of mining is driven by market forces, there also is insufficient certainty about how much material would be transported each year, much less about whether any truck transport would occur during peak or non-peak hours. Specifics about the myriad possible temporary onsite collection locations and systems also would be speculative. For example, would materials be moved from the point of extraction to the collection location by conveyor or truck? Given the general lack of certainty or definition of an offsite disposal alternative, the County has determined that any analysis of potential environmental impacts would be too speculative for evaluation (see CEQA Guidelines §15145).

References – Description of Alternatives

Ashworth Leininger Group (ALG), 2011. *Air Quality Emission Calculation Worksheets for the “No Project”*. December 5, 2011.