

CHAPTER II

Summary

A. Project Description

The project applicant, North Bay Construction, Inc., proposes to develop a quarry (Roblar Road Quarry) in southern Sonoma County, approximately five miles west of the City of Cotati. The project applicant has requested the necessary entitlements from the County of Sonoma to enable development of the quarry. Approval of this request would grant a use permit for mining for a 20-year period, under the terms of the County's Aggregate Resource Management (ARM) Plan, mining regulations, and any approval conditions that are imposed. The proposed project would disturb approximately 70 acres (including a 65-acre quarry pit) of the approximate 199-acre parcel over a 20-year mining period. The Roblar Road Quarry proposes to mine approximately 570,000 cubic yards of quarry material annually (approximately 2,260 cubic yards per day). The County of Sonoma, serving as Lead Agency responsible for administering the environmental review for the proposed project, determined that preparation of an environmental impact report (EIR) is needed for the proposed project because it has the potential to cause significant effects on the environment.

B. Environmental Impacts and Mitigation Measures

Potential environmental impacts of the project are summarized in Table II-1 at the end of this chapter. For each significant impact, the table indicates whether the impact would be mitigated to a less-than-significant level. Please refer to Chapter IV, Environmental Setting, Impacts, and Mitigation Measures, in this EIR for a complete discussion of each impact. As discussed in Chapter I, a reporting and monitoring program for all mitigation measures identified in this EIR would be prepared in accordance with the requirements of Public Resources Code Section 21081.

The proposed project, if implemented, could result in significant adverse environmental impacts. Mitigation measures proposed as part of the project, as well as measures identified by this EIR, would avoid or reduce most of the impacts to a less-than-significant level. The following significant adverse impacts would be unavoidable, even with the implementation of the mitigation measures proposed as part of the project and identified in this report:

- Impact A.1 – Effect of change in land use (introduction of active mining operations) on compatibility with residential land uses in the project vicinity.
- Impact E.8 – Potential secondary impacts from implementation of certain off-site transportation mitigation improvements.

- Impact F.1 – Project emissions of NO_x.
- Impact F.7 – Project contribution to cumulative regional criteria pollutants and TACs.
- Impact I.1 – Substantial alteration in the visual character of the project site and adverse effect on views of the site from both public and private vantage points.

The following significant adverse impacts would be unavoidable if mitigation measures identified in the EIR were found to be infeasible:

- Impact E.2 – Project contribution to Long-Term Cumulative traffic volume at certain study intersections during the weekday a.m. and p.m. peak hours, and Saturday peak hour.
- Impact E.3 – Addition of substantial truck traffic to certain primary haul roads that are designated proposed bikeways and/or are regularly used by bicyclists or pedestrians, and which do not meet current County roadway design standards.
- Impact E.4 – Addition of substantial truck traffic to certain primary haul roads that do meet current County roadway design standards and/or contain limited sight distance.
- Impact E.5 – Inadequate site access.
- Impact E.6 – Project contribution to the degradation of pavement on certain public roads.
- Impact G.2 – Project increase in ambient noise levels at certain sensitive receptors on roadways used to access the quarry.
- Impact G.4 – Project contribution to increase in cumulative noise levels at certain sensitive receptors on roadways used to access the quarry.

If the County approves the project despite the identified significant and unavoidable impacts, the County must state the reasons for its action in writing. This “Statement of Overriding Considerations” must be included in the record of project approval.”

C. Alternatives

This chapter discusses the following alternatives to the proposed project: No Project Alternative consisting of 1A) a No Project - No Subsequent Development Alternative, and 1B) a No Project – Reasonably Foreseeable Development Alternative; 2) Alternative Haul Route / Contracted Sales Only Alternative, and 3) Reduced Production [(285,000 cubic yards (CY)) / Reduced Size (Phases 1 and 2 Footprint) Alternative. Of the alternatives assessed in this EIR, the alternative with the least environmental impact is the No Project – No Subsequent Development Alternative. Section 15126.6(e)(2) of the CEQA *Guidelines* state that if the environmentally superior alternative is the no project alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Consequently, the Alternative Haul Route / Contracted Sales Only Alternative is determined to be the environmentally superior alternative.

**TABLE II-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
A. Land Use and Planning			
Impact A.1: The proposed quarry would introduce active mining operations on a primarily undeveloped site. The effect of this change in land use on compatibility with residential land uses in the project vicinity would be a potentially significant impact.	Potentially Significant	None available beyond those identified in the EIR	Significant and Unavoidable
Impact A.2: The project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the proposed project would have no impact on these resources.	No Impact	None Required	
Impact A.3: The proposed quarry project would result in both temporary and permanent conversion of Farmland on the project site to non-agricultural use. This would be a potentially significant impact.	Potentially Significant	Implement Mitigation Measure A.4	Less than Significant
Impact A.4: The project would conflict with a Williamson Act Contract governing the project site. This would be a potentially significant impact.	Potentially Significant	Mitigation A.4: No development of the project may commence until the Williamson Act contract # 2-387-72 covering the 70-acre portion of the project site is rescinded in accordance with Government Code Section 51256, 51256.1 and 51292, and transfer of a permanent conservation easement on the 244-acre exchange site for future stewardship to an appropriate private land trust or government conservation agency is simultaneously completed.	Less than Significant
Impact A.5: The project would result in both temporary and permanent loss of Grazing Land and Farmland of Local Importance on the project site. The effect of this on the cumulative loss of farmland within Sonoma County would be less than significant.	Less than Significant	None Required	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
B. Geology, Soils, and Seismicity			
<p>Impact B.1: In the event of a major earthquake in the region, seismic ground shaking could result in injury to site workers, increase the potential for slope instability, and cause overturning of tall, non anchored, portable mining equipment. This would be a less than significant impact.</p>	<p>Less than Significant</p>	<p>None Required</p>	
<p>Impact B.2: Rock and soil slopes that are over-steepened due to proposed mining practices could fail causing landslides, bedrock slope failures, and debris flows within the project property. Potential slope failures within the project property could injure on-site workers and trigger excessive erosion. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure B.2a, as recommended in this report: Prior to placement of overburden in the proposed stockpile locations, all areas receiving material shall be cleared and stripped. Where overburden materials are placed on underlying supporting slopes steeper than 6:1 (H:V), the fill area shall be prepared by constructing horizontal benches into firm natural soil or rock. The benches shall be at least 8 feet in width, with a step of at least 4 feet between benches. Overburden stockpile material shall be placed and compacted using conventional heavy equipment. All grading work and fill placement plans shall be in a conformance with SMARO and the UBC and be approved, in writing, by a California registered Geotechnical Engineer and a California Certified Engineering Geologist.</p> <p>Mitigation Measure B.2b, as recommended by the applicant: The applicant shall construct a small sedimentation pond downstream of the toe of the Stockpile Area "B" designed and sized to minimize erosion of any soil material into Ranch Tributary and Americano Creek. The dike of the sedimentation pond shall be placed across the natural swale and the pond constructed similar to the proposed main sedimentation pond at the entrance of the quarry. The sedimentation pond design shall be developed by a Registered Civil Engineer, and submitted to PRMD for approval.</p> <p>Mitigation Measure B.2c, as recommended by the applicant: In areas where cut-slopes intercept saturated seepage zones during construction of access roads, the applicant shall install appropriate improvements into the finished slope (i.e. subsurface drains, localized slope support, or compacted fill buttresses). The final slope treatment must be designed and approved by a California registered Geotechnical Engineer and be consistent with the UBC and be in compliance with the SMARO.</p>	<p>Less than Significant</p>

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Mitigation Measure B.2d, as recommended in this report: A California registered Geotechnical Engineer shall inspect on a quarterly basis the quarry slopes during excavation (in addition to following major storms, earthquakes, or blasting) to assess bedrock fracture and joint conditions. The inspection shall require continued mapping and movement monitoring of the mining slopes to assess slope stability. If a slope condition presents risk to mine safety or the potential for erosion/siltation, repair measures shall be implemented. Engineering recommendations for slope repair or stabilization shall be approved by PRMD and incorporated into the proposed project.</p>	
<p>Impact B.3: Vegetation removal and ground disturbance associated with overburden stripping, overburden stockpiling, quarrying, and grading associated with road construction and construction of ancillary features would result in accelerated erosion and soil loss. This would be a potentially significant impact.</p>	Potentially Significant	<p>Mitigation Measure B.3a: Implement Mitigation Measure B.2b.</p> <p>Mitigation Measure B.3b, as recommended by the applicant: Re-vegetation of the site shall comply, as required, with Section 26A-11-040, part c of the SMARO. The reestablishment of protective vegetative cover greatly reduces the velocity of surface water runoff on natural soils and fill slopes. In turn, this reduced velocity sharply decreases the erosion potential of these materials to near or even below pre-development erosion rates.</p> <p>Mitigation Measure B.3c, as recommended by this report: All surface and subsurface drainage facilities, siltation retention structures, and larger cuts and fills, including overburden stockpiles, shall be inspected quarterly and after major storm events to confirm adequate performance by mine personnel. Such facilities shall be cleaned, and maintained on an annual basis and routinely inspected for erosion and slippage during the rainy season. This measure would reduce the potential for erosion-induced damage and siltation.</p>	Less than Significant
<p>Impact B.4: The use of controlled detonations (blasting) to fracture and loosen rocks during quarry operations excavation may produce vibratory ground motion capable of triggering slope displacement or failure. This would be a less than significant impact.</p>	Less than Significant	None Required.	
<p>Impact B.5: The development proposed as part of the project would not result in significant cumulative impacts with respect to geology, soils or seismicity. This would be a less than significant impact.</p>	Less than Significant	None Required.	

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
C. Hydrology and Water Quality			
<p>Impact C.1: The removal of Wilson Grove overburden material and exposure of bedrock would increase the amount of stormwater runoff leaving the site and increase peak flows in Ranch Tributary and Americano Creek. The additional flows caused by the project could lead to downstream flooding and excessive bank erosion. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure C.1a: At project approval, the applicant shall implement a baseline flow and creek stage monitoring program for the Ranch Tributary and Americano Creek. This program shall continue the flow monitoring program currently underway through the project duration, and as determined by the SCWA and the Sonoma County PRMD, through post-reclamation. The required monitoring program should include two locations of Ranch Tributary (representative of upstream and downstream conditions) and three representative locations on Americano Creek (i.e., upstream location at east property boundary, and locations upstream and downstream of Ranch Tributary). Flow and creek stage monitoring shall be conducted quarterly and following winter storm events. The applicant shall apply the data to design of stormwater discharge facilities to ensure that stormwater discharges from the site do not exceed pre-project flows in Ranch Tributary and Americano Creek. Flow and creek stage data shall also be used to determine discharge rates and shall be compiled for use in obtaining the necessary NPDES discharge permits. The Applicant shall submit baseline flow monitoring data to the Sonoma County Water Agency and Sonoma County PRMD.</p> <p>Mitigation Measure C.1b: The applicant shall prepare, for review and approval by the Sonoma County PRMD, a drainage plan that addresses stormwater runoff from the proposed quarry during active mining and post reclamation. The stormwater drainage plan must ensure that the peak stormwater and seasonal non-stormwater flows are managed to the extent that stormwater flow entering Americano Creek and Ranch Tributary from the project site does not exceed pre-project baseline flows during the 2-, 10-, 25-, 50- and 100-year storm events. The drainage plan shall include specific design criteria that ensure 1) the proposed sediment ponds operate as a stormwater runoff detention feature with the capacity to contain and manage at least a 25-year return storm and 2) alternative on-site stormwater detention strategies are implemented to ensure that stormwater flows are adequately detained so discharges to Americano Creek and Ranch Tributary do not exceed baseline discharge rates. Alternative detention strategies could include alternate detention basins, expanded use of the quarry floor for detention, or expanded use of infiltration areas for percolation and storage. The drainage plan and accompanying design calculations shall demonstrate that on-going and post-reclamation discharges to Americano Creek and Ranch Tributary would not exceed baseline discharge levels.</p>	<p>Less than Significant</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact C.2: During initial construction grading and operation of the proposed project, disturbed and unprotected soil could erode from contact with wind and water causing an increased amount of sediment and other pollutants to be carried downstream through the drainage system. This could contribute to the existing sediment loads in Ranch Tributary, Americano Creek, and Estero Americano. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure C.1c: All on-site drainage facilities shall be constructed according to Sonoma County Water Agency’s Flood Control Design Criteria and the Sonoma County PRMD standards and requirements, and shall be operated and maintained in accordance with the prepared drainage plan during operation of the quarry and post-reclamation.</p> <p>Mitigation Measure C.2a: <i>Develop Water Quality Protection Program.</i> The applicant shall develop and implement a Water Quality Protection Program (WQPP) to control sediment and pollutant runoff from the quarry during its operational life and beyond through post reclamation. All structural elements and processes shall be designed and approved by a professional civil engineer experienced in stormwater management and sediment control. The design shall meet the standards of the Sonoma County SMARO. All hydrologic and engineering calculations, including sediment trap efficiency, shall be submitted to the County for review and approval prior to commencement of project grading.</p> <p>The WQPP consists of several elements, as discussed below, to control the source of sediment and the discharge of that sediment into the adjacent receiving waters of Americano Creek and Ranch Tributary.</p> <p><i>Storm Water Pollution Prevention Plan (SWPPP)</i> As required by the SWRCB (see Regulatory Framework section above), the applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP) that adequately addresses control and reduction of stormwater laden with sediment or other pollutants. The applicant shall submit a copy of the SWPPP to the County PRMD. The applicant shall comply with requirements set forth by the RWQCB in the SWPPP Program for annual reporting and water quality sampling, which typically includes annual reports and reports of failed best management practices (BMPs). The SWPPP shall be regularly updated as BMPs are updated and new BMPs are constructed and/or the quarry operation changes. The SWPPP shall be implemented during the initial stage of quarry construction and stay in effect through the completion of reclamation.</p> <p><i>Aggressive Source Control.</i> The WQPP shall outline and describe source control measures designed to prevent erosion. Specific measures, as cited below, shall be adapted from the most current edition of the <i>Stormwater Best Management Practice Handbook for Construction</i>, published by the California Stormwater Quality Association (CASQA). Equivalent measures deemed more effective by the North Coast RWQCB may be substituted.</p>	<p>Less than Significant</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Reclamation or stabilization of all quarry slopes and the quarry floor (excluding the working/processing/stockpile/loading/access areas) shall be completed by October 1 of each year. Stabilization measures include hydraulic application of surface stabilizing compounds, hydroseeding, mulching, or other measures to prevent erosion. To insure accurate compliance with this condition, the applicant shall submit to the Sonoma County PRMD, a site plan or aerial photograph clearly depicting the extent of mining and reclamation on the site every five years during mining and reclamation and at the completion of reclamation; • In areas not being actively mined, bare soil shall be protected from erosion with the application of hydraulic mulch or hydroseeded; • In areas requiring temporary protection until a permanent vegetative cover can be established, bare soil shall be protected by the application of straw mulch, wood mulch, or mats; • To the extent practical, benches should be back-sloped or provided with rock or straw bale checks so that sediment is trapped on the benches rather than washed into the sediment ponds; and • Benches shall drain into adequately sized pipes or rock-lined channels that convey the runoff to the quarry floor. Outlets of pipes shall have appropriate energy dissipaters to prevent erosion at the outfall. <p>Sediment Retention Measures. The WQPP shall include specific measures to trap eroded sediment on site to prevent a discharge to receiving waters. Specific measures cited below shall be adapted from the most current edition of the CASQA Stormwater BMP handbook for construction. The applicant shall install sediment retention measures prior to winter (on or about October 15) or in areas receiving surface water runoff in the dry season (e.g. the areas receiving seepage from the quarry walls). Sediment retention measures shall be regularly inspected by quarry personnel and corrective action shall be conducted in the event that the measures fail. Inspection and performance of the sediment retention measures shall be included in the SWPPP and included in the required annual report. Equivalent measures deemed more effective by the North Coast RWQCB may be substituted.</p> <ul style="list-style-type: none"> • Silt fences, fiber rolls, and straw bale barriers shall be used on bare slopes not being actively mined to intercept and trap sediment carried by sheet flow; • The program shall include a description of the construction method for the sediment ponds, including the design storm and spillways; 	

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • The applicant shall design the proposed sediment ponds to the maximum size practical for the available space. The sediment pond shall include a forebay to trap coarse soil particles before the runoff enters the main sediment ponds. Recognizing that the sediment ponds may not be large enough to trap very fine particles such as clay, the design shall include supplemental treatment that can be used as needed to meet the water quality discharge criteria for this project. Supplemental treatment may be chemical treatment that promotes fine particle settlement, mechanical filters to remove fine particles, or other measures approved and required by the North Coast RWCQB for this particular project; • All runoff from actively mined or reclaimed areas shall be directed through the sediment pond. Stormwater may be released from the ponds between storm events so long as the water to be released meets the discharge requirements established for this project by the RWQCB; <p>Implement Contaminant-Control BMPs. The applicant shall implement BMPs to reduce the potential for discharge of contaminants to storm water runoff. These BMPs shall be designed by a civil engineer and the design engineer shall oversee BMP installation. To minimize the introduction of contaminants which may degrade the quality of water discharged from the site, the following measures shall be taken:</p> <ul style="list-style-type: none"> • Fueling and maintenance of all rubber-tired loading, grading and support equipment shall be prohibited within 100 feet of drainage ways. Fueling and maintenance activities associated with other less mobile equipment shall be conducted with proper safeguards to prevent hazardous material releases. All refueling and maintenance of mobile vehicles and equipment shall take place in a designated area with an impervious surface and berms to contain any potential spills; • The site shall be controlled by maintaining security fencing and locking gates and posted trespass signs at all vehicular access points to the site to prevent unauthorized entry; • Runoff from the access roads shall be captured and treated either in the main sediment pond or in a separated sediment retention pond located at the base of the access road. The sediment pond shall be designed and constructed to accommodate runoff from the road during a 25-year design storm and be capable of reducing sediment load to not exceed pre-project baseline at the discharge point; and 	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • All chemical dust suppressants and slope stabilization chemicals or polymers, and sediment pond enhancement chemicals or polymers shall be EPA-approved and shall be used strictly according with the manufacturer's directions. An accurate accounting of the kinds and quantities of these materials used on the site shall be maintained by the operator. <p>Mitigation Measure C.2b: Develop and Implement Stormwater Monitoring Program. The applicant shall collect representative samples from all stormwater discharge outfalls (at the location where the discharge leaves the sediment pond or where the discharge leaves the site) while discharges are occurring in compliance with the requirements of General Permit (No. CAS000001) for Discharges of Storm Water Associated with Industrial Activities. Unless specific water quality goals or waste discharge limits are established for the quarry by the RWQCB, discharges shall not exceed water quality objectives outlined in the North Coast RWQCB Basin Plan. Water sampling shall be conducted by a third-party consultant and water samples shall be submitted to a California-certified analytical laboratory for analysis. The Stormwater Monitoring Program required during the project shall be consistent with the pre-project baseline sampling and analysis effort that commenced in 2007. The monitoring program shall include:</p> <ul style="list-style-type: none"> • Collection of samples at upstream and downstream of the quarry outfalls in Ranch Tributary during discharges from the site (at the same frequency as described above); • All of the semi-annual samples shall be analyzed for pH, TSS, turbidity, specific conductance, and total organic carbon (as required by the General Permit) and total and dissolved iron, manganese and petroleum, and oil and grease by a State-certified analytical laboratory (note that this sampling program shall be designed to coincide and work in concert with the water quality sampling required as part of Mitigation Measure C.4; and • The surface water quality data shall be analyzed by a qualified professional for indications of exceedance of water quality benchmarks and/or changing conditions in water quality that could indicate a potential impact to water quality conditions in Ranch Tributary. 	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>The applicant shall submit a monitoring report to the RWQCB with a copy submitted to the Sonoma County PRMD. Frequency of reporting shall be determined by the RWQCB but shall not be less frequent than twice each rainy season. The qualified water quality professional conducting the monitoring shall provide an analysis of the data and an evaluation of the overall effectiveness of the sediment control system. If the water quality objectives have been exceeded, the report shall include analysis as to the specific causes of the exceedances and recommended measures to bring the discharges into compliance.</p> <p>Mitigation Measure C.2c: Implement corrective measures to meet water quality objectives, if necessary. Once mining is underway, if annual surface water monitoring indicates that discharges from the quarry exceeded the water quality objectives, the applicant shall propose changes to the sediment control program that will improve its performance sufficiently to meet the performance criteria. Corrective action may include, but is not limited to, additional source control BMPs, expansion of the existing detention ponds, use of chemical flocculation, installation of mechanical filtration of the discharge, construction of extended wet ponds and/or treatment wetlands. The proposed changes shall be submitted to the RWQCB for comment, revised as needed to address their comments, and then implemented by the applicant. If the performance criteria are not met for two consecutive years, the County will confer with the applicant and the RWQCB and Sonoma County PRMD to determine whether further changes in the sediment control plan are likely to result in compliance. If suitable changes are not identified, then the County shall require the quarry to reduce production as needed to meet the performance criteria.</p> <p>Mitigation Measure C.2d: Maintain and repair storm damage to conveyance and water quality control systems, as necessary. The applicant shall maintain procedures to ensure prompt identification and repair of damage to the drainage and water quality control systems, especially after large storm events. The applicant shall conduct routine inspection and maintenance of the stormwater and sediment control facilities. Stormwater drainage conveyance and outfalls shall be inspected monthly during the dry season and after each rain storm between October and March. If inspections reveal that stormwater conveyance of water quality control facilities (e.g. sediment ponds, energy dissipation structures) are damaged, corrective actions shall be implemented immediately. The applicant shall immediately report, to the Sonoma County PRMD, any storm-related drainage or sediment control system failure that results in discharge of sediment to Ranch Tributary or Americano Creek. The applicant shall submit a written report within 72 hours and describe the occurrence, corrective action, and observed performance of the corrective action.</p>	

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact C.3: Excavation of the proposed quarry could initiate groundwater seepage from the surrounding Wilson Grove Formation and/or the underlying fractured Tolay Volcanics. This condition would contribute to surface water runoff in the quarry that could exceed capacity of drainage and storage features proposed as part of the project. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure C.3: The drainage plan identified in Mitigation Measure C.1 shall account for additional flows created by groundwater seepage expected to occur through the quarry walls. The plan shall consider management of seepage during operation, as well as, in the long term following reclamation and be based on conservative estimates of seepage derived from measured hydraulic conductivities in the weathered and unweathered Wilson Grove Formation and the Tolay Volcanics. The drainage plan shall include measures to ensure that the quarry wall seepage can be managed by stormwater flow conveyance structures and that these structures would no be overwhelmed during the 2-, 10-, 25-, and 100-year storm events large storm events.</p>	<p>Less than Significant</p>
<p>Impact C.4: Excavation of the proposed quarry could cause groundwater which may contain contaminants to enter the quarry walls as seepage. In addition, groundwater from the on-site production wells proposed to be used for quarry operations may contain contaminants. Contaminated water could degrade water quality in Ranch Tributary and Americano Creek if not properly contained and treated prior to discharge. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure C.4a: Due to the anomalous groundwater chemistry results in monitoring well MW-2, and the potential for cross-contamination that may have occurred during the original installation of one or more of the on-site monitoring wells, the applicant shall install a new monitoring well to replace MW-2, and shall redevelop monitoring wells MW-1, MW-3, DW-1 and DW-2. In addition, a new monitoring well (hereafter named well MW-4) shall be installed on the quarry property at a location north of the proposed Phase 3 footprint, in line between wells DW-1 and DW-2. The selected driller shall be experienced in environmental drilling activities and subject to approval by the County. Site selection and installation/ redevelopment work scope shall be developed in consultation with, and approved by, the County. The County shall also provide oversight during installation/ redevelopment of the wells.</p> <p>Mitigation Measure C.4b: Split samples shall be collected under County supervision from the four on-site monitoring wells (MW-1, new MW-2, MW-3 and new MW-4) and two existing onsite production wells (wells DW-1 and DW-2) each quarter to continue to provide water quality data and provide an early warning of potential groundwater contamination, including any potential contamination that could be entering the quarry property from the Roblar Landfill property. The split samples shall go to different State-certified laboratories. Water samples shall be tested for the same suite of analytes used at the adjacent Roblar Landfill during the 2004 through 2008 monitoring events, and at the project site during the 2007/08 monitoring events. The QA/QC protocol for the sampling and analysis program shall be developed in consultation with, and approved by, the County. Quarterly water sample results shall be sent to and reviewed by the Sonoma County PRMD.</p>	<p>Less than Significant</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Mitigation Measure C.4c: In conjunction with the groundwater sampling program, groundwater levels in the three onsite monitoring wells (MW-1, new MW-2, and MW-3), two existing onsite production wells (well DW-1 and DW-2), as well as the adjacent landfill property wells (R-1, R-2 and R-3) shall be measured to allow continued monitoring of groundwater levels and potential localized changes in gradient in the site vicinity.</p> <p>To ensure consistency in measured groundwater level data, prior to mining and as required, all the existing and proposed wells on the quarry and landfill properties to be used for monitoring shall be surveyed by a licensed surveyor for location and elevation, referenced to mean sea level, utilizing the North American Datum of 1988-GEOID 99 (NAVD88).</p> <p>Mitigation Measure C.4d: If sampling detects the introduction of contaminated groundwater in a production well at levels that would exceed the quarry's NPDES surface water discharge limits, the well shall be temporarily taken offline while a treatment system, capable of removing the contaminant from the water, is designed and installed. While the production well is not operating, supplemental water for quarry operations (treated, as appropriate – see Mitigation Measure C.4e) shall be supplied by the proposed sediment ponds, from storage ponds on the quarry floor. If this is not feasible, the applicant shall either temporarily provide water from an off-site source, or temporarily reduce production to limit water demand until well service is restored.</p> <p>Mitigation Measure C.4e: Prior to discharge to Ranch Tributary, the applicant shall regularly sample and analyze all water collected within the quarry for the same suite of analytes used at the adjacent Roblar Landfill during the 2004 through 2008 monitoring events, and at the project site during the 2007/08 monitoring events. The QA/QC protocol for the sampling and analysis program shall be completed by an environmental professional knowledgeable of current surface water/groundwater regulations and sampling procedures. In the event that the discharge water does contain contaminants, surface water discharge to Ranch Tributary shall cease and all discharges shall be contained. Once contained, discharged water shall be treated on-site (e.g., use of activated carbon filters and/or aeration) until concentrations of the chemicals are not detected or the concentrations are within the storm water discharge criteria set forth through the NPDES industrial discharge permit.</p>	

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact C.5: Altering approximately 30 percent of the Ranch Tributary watershed by proposed mining could decrease baseflow in Ranch Tributary and affect flows in Americano Creek. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure C.5a: The applicant shall incorporate into the final project drainage plan a hydrologic strategy that replaces potential baseflow lost due to the quarry operation. This mitigation measures requires a) continuation of the baseflow monitoring program that commenced in Spring 2007, and b) determining from that data whether substantial changes in baseflow is occurring during the operation of the quarry. If a reduction in baseflow due to project activities becomes evident through long term monitoring, the applicant shall design and install a system that passively diverts stored surface water to the Ranch Tributary to replicate pre-project base flows. If necessary, stored surface water shall be treated prior to discharge, consistent with Mitigation Measure C.4b-d. Sonoma County PRMD shall review and approve the monitoring plan and passive surface water diversion system prior to implementation. The applicant shall continue to monitor the passive delivery system to ensure consistent replacement of baseflow. The applicant shall submit quarterly reports to the Sonoma County PRMD that details system monitoring and performance.</p> <p>Mitigation Measure C.5b: If the passive water diversion system described in Mitigation Measure C.5a is required to replicate pre-project base flows in Ranch Tributary, the applicant shall incorporate surface water temperature monitoring in Ranch Tributary and Americano Creek into the base flow monitoring program. Water discharged for base flow maintenance shall comply with the <i>North Coast Water Quality Control Plan</i> Water Quality Objective for temperature, which states that water temperatures in water bodies designated for Cold Freshwater Habitat (COLD) beneficial use shall not be increased by more than 5°F above the natural receiving water temperature. If necessary, the applicant shall install a system that discharges on-site well water (treated, if necessary) instead of, or in combination with, stored water to meet the temperature objective.</p>	<p>Less than Significant</p>
<p>Impact C.6: The proposed quarry could eliminate a groundwater recharge area thereby reducing deep recharge to regional groundwater sources. This would be a less than significant impact.</p>	<p>Less than Significant</p>	<p>None Required</p>	
<p>Impact C.7: Removal of Wilson Grove overburden and excavation into the Tolay Volcanics unit through mining could adversely affect groundwater flow and quality in nearby domestic groundwater wells. This would be a less than significant impact.</p>	<p>Less than Significant</p>	<p>None Required</p>	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact C.8: The proposed project would pump groundwater from two onsite supply wells. The use of the two onsite wells could impact neighboring wells by causing periodic drawdown or lowering of local groundwater levels. This would be a less than significant impact.</p>	<p>Less than Significant</p>	<p>None Required</p>	
<p>D. Biological Resources</p>			
<p>Impact D.1: Project construction and grading activities within the proposed aggregate mining area could disturb or remove wetland and riparian habitat located on-site and directly adjacent to the southern boundary of the site. This would be a significant impact.</p>	<p>Significant</p>	<p>Mitigation Measure D.1a: To mitigate the filling or excavating of potentially jurisdictional wetlands within the proposed project area, the project proponent shall:</p> <ul style="list-style-type: none"> • Conduct a formal wetland delineation in accordance with 1987 <i>Corps of Engineers Wetlands Delineation Manual</i> and have it verified by the U.S. Army Corps of Engineers (Corps). If the Corps and/or CDFG determine that the potentially affected water-associated features are jurisdictional, then the project proponent shall obtain appropriate wetland permits and implement all conditions contained in the Section 404 Clean Water Act permit (possibly an Nationwide permit) from the Corps, Section 1603 Streambed Alteration Agreement from CDFG, and/or Section 401 water quality certification from the Regional Water Quality Control Board. • Compensate for the loss of jurisdictional wetlands at a 2:1 ratio (or as agreed to by the permitting agencies) within the project site boundary, or at a 3:1 ratio (or as agreed to by the permitting agencies) off-site within the local watershed, by creating, restoring or enhancing waters of the U.S., or contributing in-lieu funds to an existing or new restoration project preserved in perpetuity. The restoration effort shall require implementation of a five-year monitoring program with applicable performance standards, including but not limited to establishing: 80 percent survival rate of restoration plantings native to local watershed; absence of invasive plant species; absence of erosion features; and a functioning, and self-sustainable wetland system. <p>Mitigation Measure D.1b: Avoid all potential jurisdictional wetlands and riparian habitat located along the southern boundary (i.e., Ranch Tributary) and the southwestern corner (i.e., seasonal wetlands on valley floor adjacent to Americano Creek) of the property. Prior to construction activities, the project applicant shall take appropriate measures to protect the wetland and riparian habitat located in these areas. The following protection measures are to be included in the grading and Reclamation Plan:</p>	<p>Less than Significant</p>

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Installation of exclusionary construction fencing along the southern property line as well as around the two seasonally wetlands identified on Figure IV.D-1 to protect these features from all project construction and operation activities; • Implementation of measures to control dust in adjacent work areas (please see comprehensive dust control program identified in Mitigation Measure F.4 in Section IV.F, Air Quality); • Maintenance of the hydrologic inputs (flow) to the seasonally wet area in the southwestern corner of the property (please see Mitigation Measure C.5 in Section IV.C, Hydrology and Water Quality); and • The project applicant shall maintain the minimum allowed 100-foot setback for quarry mining operations from stream banks (Americano Creek and Ranch Tributary) and critical habitat areas designated in the Sonoma County General Plan (Chapter 26A, County Code). <p>Mitigation Measure D.1c: Implementation of Mitigation Measure C.5 presented in Section IV.C <i>Hydrology and Water Quality</i> would monitor baseflow conditions in the potentially affected reaches of Ranch Tributary and Americano Creek to determine if quarry operations affect baseflows. If a reduction of baseflows becomes evident, the applicant shall design and install a system that would divert stored surface water from the project site to Ranch Tributary to replicate pre-project baseflows.</p>	
<p>Impact D.2: Project construction and grading activities within the proposed aggregate mining area would impact protected trees. This would be a significant impact.</p>	Significant	<p>Mitigation Measure D.2a: In accordance with Sonoma County Ordinance No. 4014, prior to the start of any clearing, stockpiling, excavation, grading, compaction, paving, change in ground elevation, or construction, the project proponent shall obtain a certified arborist to identify trees proposed for preservation (saved) and trees proposed for removal at the project site on a map. The map shall indicate the size and species of trees proposed for removal and preservation. The project proponent shall save trees identified for preservation on the project site and clearly delineate such trees by constructing short post and plank walls, or other protective fencing material, at the dripline of each tree to hold back fill. The delineation markers shall remain in place for the duration of the work. The placement of the fencing material at the dripline shall be coordinated with a certified arborist.</p>	Less than Significant

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Mitigation Measure D.2b: Where proposed development or other site work must encroach upon the dripline of a tree identified to be saved (see Mitigation Measure D.2a, above), special construction techniques will be required to allow the roots of remaining trees within the project site to breathe and obtain water (examples include, but are not limited to, use of hand equipment for tunnels and trenching, installation of protective fencing, allowance of only one pass through a tree's dripline). Tree wells or other techniques may be used where advisable. Permission from, and inspection by, the PRMD will be required prior to backfilling, if applicable. No burning or use of equipment with an open flame shall occur near or within the dripline (except for authorized controlled burns) of a tree identified for preservation. No parking; storage of vehicles, equipment, machinery, stockpiles of excavated soils, or construction materials; or dumping of oils or chemicals shall be allowed within the dripline of preserved trees.</p> <p>Mitigation Measure D.2c: In coordination with a landscape architect, certified arborist or qualified biologist, the project proponent shall replace all removed protected trees in accordance with the Sonoma County Tree Protection and Replacement Ordinance No. 4014 and incorporate these trees into the reclamation and erosion control plan. Arboreal Value Chart #1 shall be used to determine the number of replaced trees or amount of in-lieu fees.</p> <p>Mitigation Measure D.2d: If any protected tree (as defined in County of Sonoma Ordinance No. 4014) proposed for preservation is damaged or stressed and results in mortality due to mining operations (including changes to shallow groundwater flows), then the project proponent shall replace the protected tree in accordance with the Arboreal Value Chart. If on-site replacement is not feasible, the proponent shall pay in-lieu fees into the County of Sonoma tree replacement fund. Should pruning be required, this will be performed by a certified arborist. No more than 25 percent of a tree's canopy will be removed during the pruning of preserved trees.</p> <p>Mitigation Measure D.2e: In coordination with a landscape architect, certified arborist or qualified biologist, the project proponent shall develop and implement a five-year tree monitoring program for all replaced trees. Appropriate performance standards may include, but are not limited to establishing: a 80 percent survival rate of tree plantings and the ability to be self-sustaining at the end of five years. Additional monitoring periods may be required until the trees successfully establish.</p>	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact D.3: Project construction and grading activities within the proposed aggregate mining area would remove known habitat for California red-legged frog and potential habitat for foothill yellow-legged frog and northwestern pond turtle. This would be a significant impact.</p>	<p>Significant</p>	<p>Mitigation Measure D.3: The project proponent shall implement measures to minimize and avoid take of CRLF that would additionally benefit pond turtles and foothill yellow-legged frog, if present. The following measures are derived from the Programmatic Biological Opinion (PBO) for impacts to California red-legged frog (USFWS, 1999). Projects that impact CRLF, such as the Roblar Road Quarry project, require formal consultation with the USFWS and issuance of a Biological Opinion. The following actions will minimize impacts to these species.</p> <p>Construction-Related Measures</p> <ul style="list-style-type: none"> • A USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training will include a description of the CRLF and their habitat, and the general measures that are being implemented to protect the CRLF as they relate to the project. • The mitigation pond shall be created and suitable for receiving relocated CRLF prior to the removal of Center Pond and surrounding upland habitat. • Following construction of the mitigation pond and no more than 14 days prior to the initiation of grading activities near Center Pond, a USFWS-approved wildlife biologist shall capture all CRLF and other special-status aquatic species and relocate them to the mitigation pond. • A USFWS-approved biologist shall be present during initial grading activities in and surrounding Center Pond until CRLF have been removed. Thereafter, an onsite person shall be designated to monitor onsite compliance with all minimization measures. The USFWS-approved biologist shall ensure that this individual receives training consistent with that outlined in the Biological Opinion. • During all phases of project operations, all trash that may attract CRLF predators shall be properly contained and removed from the site. • The fueling and maintenance of vehicles and other equipment shall occur at least 20 meters from any riparian habitat or water body. 	<p>Less than Significant</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p align="center">Pond Design, Management, and Monitoring</p> <ul style="list-style-type: none"> <li data-bbox="814 423 1535 662"> <p>• The project proponent shall coordinate with the USFWS to select a suitable site for a new mitigation stockpond of equal or greater size to Center Pond within the property boundaries. The location and design of the new pond shall conform to guidelines of the USFWS Recovery Plan for CRLF (USFWS, 2002) and shall also include a permanent upland habitat buffer of no less than 250 feet around the pond. The final pond design shall be approved by the USFWS as a requirement of the project Biological Opinion. The mitigation pond should be created and functioning prior to the initiation of ground disturbing activities within 250 feet of Center Pond.</p> <li data-bbox="814 695 1535 1031"> <p>• The mitigation pond shall be designed to provide CRLF breeding habitat and shall include areas with deep-water cover for adult, juvenile and metamorphic red-legged frogs and shallow areas to provide for tadpole and juvenile rearing. The pond shall be designed to pool to a depth of between 3 to 4 feet and to maintain at least 1.0 foot of standing water through September 15 during years with average rainfall. To ensure sufficient water is available to support CRLF breeding, a qualified hydrologist shall be consulted to assess the amount of water that will be available at the selected site during dry, average, and wet years. A design plan shall be prepared to include a grading plan and cross-section plan indicating pond depth and dimensions. The basin shall be contoured based on the above design, and lined with clay or a similar impervious substrate to ensure water holding capacity that meets minimum performance standards and specifications.</p> <li data-bbox="814 1063 1535 1203"> <p>• The mitigation pond shall be vegetated in accordance with the guidelines set forth in the Red-legged Frog Recovery Plan. Relocated vegetation shall salvage and utilize <i>native</i> emergent and aquatic vegetation from Center Pond whenever possible. Upland habitat surrounding the pond should be seeded with native grassland cover species.</p> <li data-bbox="814 1235 1535 1448"> <p>• An adaptive management plan shall be developed for the mitigation pond consistent with the USFWS Recovery Plan for CRLF (USFWS, 2002) and project Biological Opinion. The plan shall include a program to monitor pond performance over time and discourage the presence of non-native vegetation and bullfrogs. During the initial five year monitoring period, annual hydrologic, vegetation and wildlife surveys shall be performed to document ponding conditions, the establishment of aquatic vegetation and to monitor California red-legged frog use of the pond.</p> 	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact D.4: Project construction and grading activities within the proposed aggregate mining area could disturb active nests of raptors and other special-status birds. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<ul style="list-style-type: none"> • The adaptive management plan shall provide provisions to quantify site conditions relative to performance standards for a period of five years, to include: <ol style="list-style-type: none"> 1. Ability to maintain standing water at a depth of at least 1.0 foot within at least 50 percent of the pond area through September 15 during a year with average rainfall. 2. Presence of CRLF in any life history stage, to be determined by egg mass surveys and focused nighttime surveys for adults and juveniles. 3. The presence of native emergent or aquatic vegetation covering at least 10 percent of the pond edge. 4. Absence of persistent, self-sustaining populations of non-native CRLF predators, particularly bullfrogs. <p>The adaptive management plan shall include contingency measures to respond to inadequate hydrologic conditions (if later identified) and provide for control of non-native vegetation and CRLF predators, if identified in the mitigation pond. If bullfrogs are identified, the preferred management method shall be manual (hand) removal using a gig or other means. This method maintains the availability of aquatic habitat for red-legged frogs and sustains aquatic vegetation. If hand removal of bullfrogs proves ineffective, the pond shall be drained and dried between October 1 and November 15 (following metamorphosis of red-legged frog tadpoles) to break the bullfrog life cycle.</p> <p>An invasive plant species management plan shall be incorporated into the adaptive management plan to provide for the management and removal of invasive aquatic vegetation, if present. The preferred management method shall be for manual (i.e., non-chemical) removal of invasive species, whenever possible.</p> <p>Pond management shall continue for the duration of the proposed project, or as required by the Biological Opinion.</p> <p>Mitigation Measure D.4a: Avoid disturbing active nests of raptors and other special-status birds through preconstruction surveys and creation of no-disturbance buffers during ground-clearing and grading activities associated with initiation of each mining phase.</p>	<p>Less than Significant</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>If site preparation activities (i.e., ground clearing and grading, including removal of trees or shrubs) are scheduled to occur during the non-breeding season (September 1 through January 31), no mitigation is required.</p> <p>If site preparation activities are scheduled to occur during the breeding season (February 1 through August 31), the following measures shall be implemented to avoid potential adverse effects to nesting raptors and other special-status birds:</p> <ul style="list-style-type: none"> • A qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within 500 feet of construction activities where access is available. • If active nests are found during preconstruction surveys, a no-disturbance buffer acceptable in size to CDFG shall be created around active raptor nests and nests of other special-status birds during the breeding season or until it is determined that all young have fledged. Typical buffers include 500 feet for raptors and 250 feet for other nesting special-status birds. The size of these buffer zones and types of construction activities restricted in these areas may be further modified through coordination with CDFG and will be based on existing noise and human disturbance levels at each project site. Nests initiated during construction are presumed to be unaffected and no buffer is necessary. However, the "take" of any individuals will be prohibited. • If preconstruction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, no further mitigation is required. Trees and shrubs within the project footprint that have been determined to be unoccupied by special-status birds or that are located outside the no-disturbance buffer for active nests may be removed. <p>Mitigation Measure D.4b: Although burrowing owls have not been reported from the immediate vicinity of the project site, the project proponent shall avoid disturbing potential burrowing owl burrows through preconstruction surveys and creation of no-disturbance buffers during ground-clearing and grading activities associated with initiation of each mining phase.</p> <ul style="list-style-type: none"> • No more than 2 weeks before grading and ground-clearing activities begin prior to each of the three mining phases, a survey for burrowing owls shall be conducted by a qualified biologist within 500 feet of the earthmoving activities. The survey shall conform to the most current protocol described by the California Burrowing Owl Consortium (presently the 1993 protocol). If burrowing owl habitat is identified during the initial survey, a complete owl survey consisting of four site visits shall be performed as detailed in the Consortium guidelines. 	

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact D.5: Project construction and grading activities could result in direct impacts to American badger and the loss of annual grasslands that support this species. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<ul style="list-style-type: none"> • If occupied owl burrows are found during the surveys, a determination shall be made by a qualified burrowing owl biologist as to whether or not proposed project activities would affect the occupied burrows or disrupt reproductive behavior. If it is determined that the project would not adversely affect occupied burrows or disrupt breeding behavior, project implementation may proceed without any restriction or mitigation measures. If it is determined that the project could adversely affect occupied burrows during the August 31 through February 1 non-breeding season, the subject owls may be passively relocated from the occupied burrow(s) using one-way doors. There shall be at least two unoccupied burrows suitable for burrowing owls within 300 feet of the occupied burrow before one-way doors are installed. The unoccupied burrows shall be located 160 feet from construction activities and can be natural burrows or artificial burrows constructed according to current design specifications. Artificial burrows shall be in place at least one-week before one-way doors are installed on occupied burrows. One-way doors would be in place for a minimum of 48 hours before burrows are excavated. • If it is determined that the project would physically affect occupied burrows or disrupt reproductive behavior during the nesting season (February 1 through August 31) then avoidance is the only mitigation available (California Burrowing Owl Consortium 1993; CDFG 1995). Implementation of ground-clearing and grading activities shall be delayed within 250 feet of occupied burrows until it is determined that the subject owls are not nesting or until a qualified biologist determines that juvenile owls are self-sufficient or are no longer using the natal burrow as their primary source of shelter. <p>Mitigation Measure D.5: Avoid and minimize impacts to badgers through preconstruction surveys prior to ground clearing and grading in annual grasslands habitat or areas that are known or suspected to support badger.</p> <p>Within 30-days prior to initiation of each mining phase, a qualified biologist shall survey for badgers within 100-feet of project activities. If no evidence of badger presence is detected, no further mitigation is required. If evidence of badgers is identified, the following measures are required to avoid potential impacts to this species:</p> <ul style="list-style-type: none"> • Use exclusion techniques to passively relocate any badgers that are present in project areas or within 50 feet of project activities. When outside the project area, but within 50 feet of activities, vacated dens shall be temporarily covered using plywood sheets or similar materials. 	<p>Less than Significant</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact D.6: Project construction and grading activities within the proposed aggregate mining area could disturb active roosts of special-status bat species. This would be a significant impact.</p>	<p>Potentially Significant</p>	<ul style="list-style-type: none"> • To reduce the risk of badger mortality from vehicles, the use of private (non-county operated) haul roads shall be limited to daylight hours during the March to June badger pupping season with gated access. • A 25 mile-per-hour speed limit shall be posted for roads on the site. <p>Mitigation Measure D.6: Avoid disturbing active roosts of special-status bats through preconstruction surveys and creation of no-disturbance buffers during ground-clearing and grading activities associated with initiation of each mining phase, as well as during project activities related to remodeling and/or renewed use of the existing buildings.</p> <p>Prior to construction activities (i.e., ground-clearing and grading, including removal of trees or shrubs, building remodeling, renewed building use) within 200 feet of trees or buildings potentially supporting special-status bats, a qualified bat biologist will survey for special-status bats. If no evidence of bats (i.e., direct observation, guano, staining, strong odors) is present, no further mitigation is required.</p> <p>If evidence of bats in trees on the property is observed, the following measures are required to avoid potential adverse effects special-status bats:</p> <ul style="list-style-type: none"> • A no-disturbance buffer of 100-feet, or other suitable distance determined in coordination with CDFG, will be created around active bat roosts during the breeding season (April 15 through August 15). Bat roosts initiated during construction are presumed to be unaffected, and no buffer is necessary. However, the “take” of individuals will be prohibited. • Removal of trees showing evidence of bat activity will occur during the period least likely to impact the bats as determined by a qualified bat biologist (generally between February 15 and October 15 if winter hibernacula are observed or between August 15 and April 15 if maternity roosts are present). If known bat roosting habitat is destroyed during tree removal activities, artificial bat roosts shall be constructed in an undisturbed area of the property, at least 200 feet from any project activities. The design and location of the artificial bat roost(s) shall be determined by a qualified bat biologist. <p>If evidence of bats in existing buildings on the property is observed, the following measures are required to avoid potential adverse effects special-status bats:</p>	<p>Less than Significant</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> Prior to any remodeling activities and/or renewed use of existing buildings with observed bat activity, a qualified bat biologist shall review design drawings and use plans for the building(s). The biologist shall then make a determination, in coordination with CDFG, whether the bats would need to be evicted in order to implement the remodeling/new use of the structures, or if the bats would not be affected and should remain in the structure. If eviction is deemed necessary, the bats shall be transferred to an artificial roosting site. The artificial roost shall be constructed in an undisturbed area of the property, at least 200 feet from any project activities. The design and location of the artificial bat roost(s) shall be determined by a qualified bat biologist. 	
Impact D.7: Quarry activities associated with the proposed project may result in adverse impacts to the surface hydrology and water quality of on-site and surrounding drainages, including Ranch Tributary and Americano Creek, that may impact special-status fish species known to occur downstream of the project site. This would be a potentially significant impact.	Potentially Significant	As discussed in Section IV.C <i>Hydrology and Water Quality</i> , the implementation of Mitigation Measures C.1 through C.5 would reduce potential hydrology and water quality impacts such as increased peak flows, erosion and sedimentation, water contamination, and baseflow reductions to less than significant. Therefore, the potential impacts to special-status fish species such as increased bank erosion, increased turbidity, spawning habitat degradation, stress or mortality due to water contamination, and reduction of summer and fall habitat availability and quality are not anticipated. No further mitigation is required.	Less than Significant
Impact D.8: Blasting activities associated with the proposed project could result in noise disturbance to special-status wildlife species. This would be a less-than-significant impact.	Less than Significant	None Required	
Impact D.9: Fencing of the proposed project site would result in interference with existing migratory wildlife corridor on the parcel and minor fragmentation of wildlife habitat. This would be a less-than-significant impact.	Less than Significant	None Required	
Impact D.10: The project would not result in a change in land use on the Lakeville Road easement exchange site. Therefore, the effects of the project on existing biological resources present on and adjacent to the Lakeville Road site would be less than significant.	Less than Significant	None Required	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
E. Transportation and Traffic			
<p>Impact E.1: The proposed project would contribute to Near-Term Cumulative traffic volume at study intersections during the weekday a.m. and p.m. peak-hours, and Saturday peak hour. This would be a significant impact at one study intersection.</p>	Significant	<p>Mitigation Measure E.1: Install traffic signals and associated improvements at the intersection of Roblar Road and Stony Point Road. These improvements would improve the level of service at the intersection to LOS B or better during peak hours.</p> <p>This intersection is located within the County's jurisdiction; accordingly, the implementing agency for Mitigation Measure E.1 would be Sonoma County. The County has anticipated the need for the signalization and other improvements at this intersection. The County's preliminary design includes widening all approaches to the intersection, including shoulders; lengthening the northbound left-turn lane; and adding a southbound left-turn lane (for access to the driveway across Roblar Road).</p> <p>These improvements shall be implemented prior to initiation of mining at the proposed quarry. The project applicant shall pay a fair share of the cost of the required improvements. The Sonoma County Department of Transportation and Public Works shall be responsible for preparing a cost estimate of the required improvements.</p>	Less than Significant
<p>Impact E.2: The proposed project would contribute to Long-Term Cumulative traffic volume at study intersections during the weekday a.m. and p.m. peak hours, and Saturday peak hour. This would be a significant impact at certain study intersections.</p>	Significant	<p>Mitigation Measure E.2a: In addition to the signalization and associated improvements identified in Mitigation Measure E.1, provide a dedicated right-turn lane on the southbound approach at the intersection of Stony Point at Roblar Road. This would mitigate the project's impact to a less-than-significant level (i.e., would reduce the project-generated increase in delay to less than five seconds [the threshold of significance]), but not to LOS D or better.</p> <p>This intersection is located within the County's jurisdiction; accordingly, the implementing agency for Mitigation Measure E.2a would be Sonoma County. As discussed in Mitigation Measure E.1, above, the County plans signalization and associated improvements at this intersection fiscal year 2008/09. The County's preliminary design for this intersection identifies a proposed flaring of the southbound approach that may provide room for a dedicated southbound right-turn lane. However, in the absence of final design specifications, it is unknown whether minor additional width may be needed on Stony Point Road beyond that identified in Mitigation Measure E.1 to accommodate this dedicated southbound right-turn lane.</p>	<p><i>Mitigation Measure E.2a:</i> Implementation of Mitigation Measure E.2a would reduce the identified project contribution to the cumulative intersection impact to a less-than-significant level. However, the applicant may need to acquire land from private landowners along Stony Point Road to provide sufficient right-of-way width to implement the identified roadway widening improvements. In addition, the applicant would also need to fund and implement the roadway improvements, and then dedicate any right-of-way land with the road improvements to the County. Because of the need to acquire the right-of-way, the implementation of Mitigation Measure E.2a may not be feasible. If the identified improvements in Mitigation Measures E.2a were found to be infeasible, the traffic safety impacts would be Significant and Unavoidable.</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>The applicant shall be required to pay costs associated with the redesign, potential right-of-way acquisition, and installation of improvements prior to start of mining.</p> <p>Mitigation Measure E.2b: When signal warrants are met, install traffic signals at the intersection of Stony Point Road and Railroad Avenue. The installation of a signal would improve the level of service at the intersection to LOS D or better during the peak hours.</p> <p>This intersection is located within the County's jurisdiction; accordingly, the implementing agency for Mitigation Measure E.2b would be Sonoma County. Regular (annual) monitoring and signal warrant analysis of this intersection shall be conducted until such time warrants for signalization are met. The project applicant shall pay a fair share of the cost of the required improvements. The Sonoma County Department of Transportation and Public Works shall be responsible for preparing a cost estimate of the required improvements.</p> <p>Mitigation Measure E.2c: The signal timing at the intersection of Stony Point Road at SR 116 shall be optimized to improve the capacity of the intersection. Optimization involves changing the timing of an individual traffic signal to better reflect traffic volumes, and can include changing the cycle length or reallocating green time between different phases of a traffic signal. Optimization of the signal timing would mitigate the project's impact to a less-than-significant level (i.e., would reduce the project-generated increase in delay to less than five seconds [the threshold of significance]), but not to LOS D or better.</p> <p>The intersection of Stony Point Road at SR 116 is within the jurisdiction of both Sonoma County and Caltrans. Accordingly, the implementing agencies for Mitigation Measure E.2c would be Sonoma County and Caltrans. Regular (annual) monitoring of this intersection shall be conducted until such time as the need for identified improvements is met. The project applicant shall pay a fair share of the cost of the required improvements.</p> <p>Mitigation Measure E.2d: The signal timing at the intersection of SR 116 at Old Redwood Highway shall be optimized to improve the capacity of the intersection. Optimization of the signal timing would mitigate the project's impact to a less-than-significant level (i.e., would reduce the project-generated increase in delay to less than five seconds [the threshold of significance]), but not to LOS D or better.</p>	<p><i>Mitigation Measure E.2b:</i> Implementation of Mitigation Measure E.2b would reduce the identified project contribution to the cumulative intersection impact to a less-than-significant level. However, the intersection improvement is not currently funded or planned. If these improvements are not in place once signal warrant analysis conducted as part of annual monitoring demonstrates the need for signalization is met, the intersection impact would be Significant and Unavoidable.</p> <p><i>Mitigation Measure E.2c:</i> Less than Significant</p> <p><i>Mitigation Measure E.2d:</i> Less than Significant</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact E.3: The project would add substantial truck traffic to certain primary haul roads that are designated proposed bikeways and/or are regularly used by bicyclists or pedestrians, and which do not meet current County roadway design standards. This would be a significant impact.</p>	<p>Significant</p>	<p>The intersection of SR 116 at Old Redwood Highway is within the jurisdiction of both Caltrans and the City of Cotati. Accordingly, the implementing agencies for Mitigation Measure E.2d would be Caltrans and the City of Cotati. Regular (annual) monitoring of this intersection shall be conducted until such time the need for identified improvements is met. The project applicant shall pay a fair share of the cost of the required improvements.</p> <p>Mitigation Measure E.3a: Improve Roblar Road and Pepper Road (between Mecham Road and Stony Point Road) to meet current County road design standards, including, but not limited to, two 12-foot wide vehicle travel lanes, two six-foot wide shoulders, and associated striping/signage to meet Class II bike facilities. These improvements shall be conducted prior to initiation of quarry mining.</p> <p>Mitigation Measure E.3b: The project applicant shall ensure that all loaded trucks are covered or maintain a six-inch free board to prevent spillage of materials onto haul routes.</p> <p>Mitigation Measure E.3c: The intersection of the proposed access road and Roblar Road shall be kept free of loose gravel and dirt that may accumulate from exiting trucks. In addition to the proposed use of tire wash and tire scraper to loosen dirt from the trucks and their tires, the applicant shall conduct regular sweeping of the intersection of the proposed access road with Roblar Road.</p>	<p>Potentially Significant and Unavoidable. Mitigation Measures E.3a-c would reduce the identified traffic safety hazard impact to a less-than-significant level. However, the roadway improvements identified in Mitigation Measure E.3a are not currently funded or planned. Furthermore, the applicant would need to acquire land from private landowners along portions of Roblar Road and Pepper Road to provide sufficient right-of-way width to implement the identified roadway widening improvements. The existing County right-of-way width on Roblar Road is 50 feet between Valley Ford Road and Orchard Station Road (roughly 4.5 miles), and 60 feet between Orchard Station Road and Stony Point Road (roughly 2 miles). The existing County right-of-way on Pepper Road east of Mecham Road is 50 feet. Some individual parcels on these roads are wider due to previously implemented road improvement projects and other land development. The minimum estimated required right-of-way width to improve the roadways to current County standards would be 60 feet, although additional right-of-way width may be needed in locations constrained by existing topography, utilities, drainage or other factors. The applicant would also need to fund and implement the roadway widening improvements, and then dedicate the right-of-way land with the roadway improvements to the County. As a consequence, the implementation of</p>

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact E.4: The project would add substantial truck traffic to certain primary haul roads that do meet current County roadway design standards and/or contain limited sight distance. This would be a significant impact.</p>	<p>Significant</p>	<p>Mitigation Measure E.4a: Implement roadway improvements for Roblar Road identified in Mitigation Measure E.3a.</p> <p>Mitigation Measure E.4b: The County shall post warning signs on Roblar Road at key locations where sight distance may continue to be limited after implementation of Mitigation Measure E.3a.</p> <p>Mitigation Measure E.4c: The County shall post warning signs on Roblar Road 250 feet ahead of the access driveway that cautions drivers about truck traffic entering and exiting the roadway. The warning signs shall follow guidelines set forth in the <i>California Manual on Uniform Traffic Control Devices</i> (Caltrans, 2006c).</p>	<p>Mitigation Measure E.3a may not be feasible. If the improvements identified in Mitigation Measure E.3a were found to be infeasible, the traffic safety impacts would be Significant and Unavoidable.</p> <p>Potentially Significant and Unavoidable. Mitigation Measures E.4a-c would reduce the identified impacts associated with potential increases in traffic accidents to a less-than-significant level. However, as discussed above (page E-27), the roadway improvements identified in Mitigation Measure E.3a are not currently funded or planned. Furthermore, the applicant would need to acquire land from private landowners along portions of Roblar Road and Pepper Road to provide sufficient right-of-way width to implement the identified roadway widening improvements. In addition, the applicant would also need to fund and implement the roadway improvements, and then dedicate the right-of-way land with the road improvements to the County. As a consequence, the implementation of Mitigation Measure E.3a (and correspondingly, Mitigation Measure E.4a) may not be feasible. If the identified improvements in Mitigation Measures E.3a/E.4a were found to be infeasible, the traffic safety impacts would be Significant and Unavoidable.</p>
<p>Impact E.5: The proposed project would result in inadequate site access. This would be a significant impact.</p>	<p>Significant</p>	<p>Mitigation Measure E.5a: Improve Roblar Road at the proposed access point to the site to accommodate project haul trucks accessing the site. This improvement shall include a left-turn lane for project trucks on the westbound approach, and road widening on the eastbound approach to fully accommodate right-turning trucks.</p> <p>Mitigation Measure E.5b: Design the roadway cross-section to meet the design standards set forth by the American Association of State Highway and Transportation Officials (AASHTO) in <i>A Policy on Geometric Design of Highways and Streets</i>.</p>	<p>Potentially Significant and Unavoidable. Mitigation Measures E.5a-b would reduce the identified impacts associated with potential increases in traffic accidents to a less-than-significant level. The required right-of-way width for the identified improvement would be approximately 80 feet. The County may not currently own the required right-of-way width along this section of Roblar</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact E.6: The proposed project could contribute to the degradation of pavement on public roads. This would be a significant impact.</p>	Significant	<p>Mitigation Measure E.6a: The project applicant shall conduct core sampling and associated testing of Roblar Road and Pepper Road, and review as-builts if available, in order to determine the roadway thickness, and the condition of the base and subbase of the roadways. If such testing indicates the existing roadways are not designed, for and/or in a condition that would not accommodate, long-term project truck traffic, the roadways shall be improved as needed (e.g., overlays or reconstruction) per Caltrans Design Manual standards. The project applicant shall pay the full cost of road improvements, including design and construction.</p> <p>Mitigation Measure E.6b: Prior to mining, the project applicant shall enter into a <i>Roadway Maintenance Agreement</i> with Sonoma County providing their proportionate share of the responsibility to maintain the proposed haul roads.</p>	<p>Road to implement the identified improvements. The applicant may need to acquire land from an adjacent private landowner on Roblar Road to provide sufficient right-of-way width to implement the identified roadway improvements. In addition, the applicant would also need to fund and implement the roadway improvements, and then dedicate the right-of-way land with the road improvements to the County. As a consequence, Mitigation Measure E.5a-b may not be feasible. If the improvements identified in Mitigation Measure E.5a-b were found to be infeasible, the traffic safety impacts would be Significant and Unavoidable</p> <p>Potentially Significant and Unavoidable. Mitigation Measure E.6a-b would reduce the identified roadwear impacts to a less-than-significant level. However, the potential roadway improvements that may be required in Mitigation Measure E.6a are not currently funded or planned. If the improvements identified in Mitigation Measure E.6a were found to be infeasible, the road wear impact would be Significant and Unavoidable.</p>
<p>Impact E.7: Project construction would result in temporary increases in truck traffic and construction worker traffic. This would be a potentially significant impact.</p>	Potentially Significant	<p>Mitigation Measure E.7: The project applicant and/or construction contractor(s) shall develop a construction management plan for review and approval by the Sonoma County Public Works Department. The plan shall include at least the following items and requirements to reduce, to the maximum extent feasible, traffic congestion during construction of this project and other nearby projects that could be simultaneously under construction:</p>	Less than Significant

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact E.8: Implementation of Mitigation Measures E.3a/E.4a and E.5a could result in short-term and/or long-term environmental impacts on land use and agricultural resources, geology and soils, hydrology and water quality, hazardous materials, biological resources, transportation and circulation, air quality, noise, aesthetics and cultural resources. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<ul style="list-style-type: none"> • A set of comprehensive traffic control measures that include designating construction access routes and scheduling of major truck trips and deliveries to avoid peak traffic hours and designated construction access routes; and • Notification of adjacent property owners and public safety personnel regarding scheduled major deliveries. <p>Mitigation Measure E.8a: As part of the grading and construction specifications for the roadway widening, implement best management practices (BMPs) to reduce or eliminate soil erosion during construction. The contractor shall implement these BMPs and be responsible for the inspection and maintenance of the BMPs during construction. These measures shall be incorporated into the Storm Water Pollution Prevention Plan (SWPPP) for the proposed roadway widening (see Mitigation Measure E.8c, below).</p> <p>Mitigation Measure E.8b: A design level geotechnical investigation shall be required to identify site specific geologic conditions and geotechnical constraints and develop adequate engineering design criteria and remedies to reduce the potential for slope instability from cutting and filling of adjacent slopes along the roadway alignments. Methods for reducing potential slope instability effects could include, but are not limited to, slope reconstruction, earth buttress construction, or retaining structures/walls. All recommendations identified by the licensed geotechnical engineer shall be included in the final design and be incorporated into the roadway widening project.</p> <p>Mitigation Measure E.8c: Prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) before commencing with roadway widening construction. As part of this process, a Notice of Intent shall be filed with the State Water Resources Regional Control Board, in compliance with the statewide NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit). The SWPPP shall specify Best Management Practices (BMPs) to control contamination of surface flows through measures to prevent the potential discharge of pollutants from the construction area.</p> <p>The BMPs shall be designed to minimize erosion of disturbed soil areas. BMPs could include, without limitation, silt fences, gravel or sand bags, stormdrain inlet protection, soil stockpile protection, preservation of existing vegetation where feasible, use of straw mulch, dust control, and other measures. The SWPPP will also include protection and spill prevention measures for any temporary onsite storage of hazardous materials used during construction. The project applicant shall adhere to the identified BMPs as well as the waste discharge and stormwater requirements outlined in the permit.</p>	<p>Potentially Significant and Unavoidable. The above-identified mitigation measures would likely mitigate all potential significant impacts to a less than significant level. However, subsequent detailed environmental analysis and County approval would be required for the roadway widening improvements. That analysis may disclose additional impacts and/or identify additional mitigation measures to reduce impacts. However, unless and until that analysis is completed, the impacts are considered Significant and Unavoidable.</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Mitigation Measure E.8d: The proposed storm drain system for the roadway widening improvements shall be designed in accordance with all applicable County and Sonoma County Water Agency (SCWA) drainage and flood control design standards. The drainage plan for the roadway widening improvements shall ensure the proposed drainage facilities are properly sized to accommodate projected stormflows and prevent any potential project flooding on-site and in downstream areas.</p> <p>Mitigation Measure E.8e: To mitigate the filling or excavating of potentially jurisdictional wetlands along the roadway widening alignments, the project proponent shall:</p> <ul style="list-style-type: none"> • Conduct a formal wetland delineation in accordance with 1987 <i>Corps of Engineers Wetlands Delineation Manual</i> and have it verified by the U.S. Army Corps of Engineers (Corps). If the Corps and/or CDFG determine that the potentially affected water-associated features are jurisdictional, then the project proponent shall obtain appropriate wetland permits and implement all conditions contained in the Section 404 Clean Water Act permit (possibly an Nationwide permit) from the Corps, Section 1603 Streambed Alteration Agreement from CDFG, and/or Section 401 water quality certification from the Regional Water Quality Control Board. • Compensate for the loss of jurisdictional wetlands at a 2:1 ratio (or as agreed to by the permitting agencies) within the project site boundary, or at a 3:1 ratio (or as agreed to by the permitting agencies) off-site within the local watershed, by creating, restoring or enhancing waters of the U.S., or contributing in-lieu funds to an existing or new restoration project preserved in perpetuity. The restoration effort shall require implementation of a five-year monitoring program with applicable performance standards, including but not limited to establishing: 80 percent survival rate of restoration plantings native to local watershed; absence of invasive plant species; absence of erosion features; and a functioning, and self-sustainable wetland system. <p>Mitigation Measure E.8f: Avoid all potential jurisdictional wetlands and riparian habitat located along the roadway alignments, as feasible. Prior to construction activities, the project applicant shall take appropriate measures to protect the wetland and riparian habitat located in these areas. The following protection measures are to be included in the grading and Reclamation Plan:</p> <ul style="list-style-type: none"> • Installation of exclusionary construction fencing to protect these features from all project construction and operation activities; and 	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Implementation of measures to control dust in adjacent work areas (please see comprehensive dust control program identified in Mitigation Measure F.4 in Section IV.F, Air Quality). <p>Mitigation Measure E.8g: The contractor shall comply with all laws and regulations (Caltrans Standard Specifications, section 7-1.01). The contractor shall be made aware that, if there is removal of any trees on private property in conjunction with the roadway widening improvements, it must be in accordance with the following: 1) the County Tree Protection and Replacement Ordinance; 2) the Sonoma County Valley Oak Stewardship Guidelines for valley oak trees removed within the Valley Oak Habitat combining district; and 3) the Heritage or Landmark Tree Ordinance. Enforcement of this measure will be through a combination of the DTPW and PRMD staff.</p> <p>Mitigation Measure E.8h: The project proponent shall implement measures to minimize and avoid take of CRLF and CTS that would additionally benefit pond turtles and FYLF, if present. The following measures are derived from the Programmatic Biological Opinion (PBO) for impacts to California red-legged frog (USFWS, 1999). Projects that impact CRLF or CTS require formal consultation with the USFWS and issuance of a Biological Opinion. The following actions will minimize impacts to these species.</p> <ul style="list-style-type: none"> • A USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training will include a description of the CRLF and CTS and their habitat, and the general measures that are being implemented to protect the CRLF as they relate to the roadway widening improvements. • A preconstruction survey for CTS shall be performed by a qualified biologist within 72 hours of new ground disturbances for work areas on Roblar Road between Carniglia Lane and Stony Point Road. Such surveys allow for the identification and relocation of CTS and other special status species that may be present. • A USFWS-approved biologist shall be present during initial grading activities to monitor roadway construction activities within 100 feet of creek corridors and aquatic habitat that could support CRLF. Thereafter, an onsite person shall be designated to monitor onsite compliance with all minimization measures. The USFWS-approved biologist shall ensure that this individual receives training consistent with that outlined in the Biological Opinion. 	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Mitigation Measure E.8i: Implement Mitigation Measure D.4a and D.4b to reduce potential impacts to nesting raptors and other special-status birds.</p> <p>Mitigation Measure E.8j: Implement Mitigation Measure D.5 to reduce potential impacts to badgers.</p> <p>Mitigation Measure E.8k:</p> <ul style="list-style-type: none"> • To the extent possible, the contractor shall schedule truck trips outside of peak commute hours. • Lane closures on Roblar and Pepper Road shall occur only during the hours of 8:30 a.m. and 4:30 p.m. Outside of these hours on Monday through Friday, or on weekends, two lanes of traffic on both roads must be open. • If lengthy delays are anticipated, signs shall be posted to notify motorists that traffic will be subject to delay. • Traffic safety guidelines compatible with Section 12 of the Caltrans Standard Specifications, "Construction Area Traffic Control Devices" shall be followed during construction. Project plans and specifications shall also require that adequate signing and other precautions for public safety be provided during project construction. • For highly sensitive land uses, such as schools, fire and police, the County shall require the construction contractor to develop access plans in consultation with facility owner or administrator. The contractor shall notify the facility owner in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures. • The County shall require the contractor to provide for passage of emergency vehicles through the project site at all times. • The County shall require the contractor to maintain access to all parcels adjacent to the construction zone during construction. <p>Mitigation Measure E.8l: The following dust control measures will be included in the project:</p>	

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Water or dust palliative shall be sprayed on unpaved construction and staging areas during construction as directed by the County. • Trucks hauling soil, sand and other loose materials over public roads shall cover the loads, or keep the loads at least two feet below the level of the sides of the container, or shall wet the load sufficiently to prevent dust emissions. • Paved roads shall be swept as needed to remove soil that has been carried onto them from the project site. • Water or other dust palliative shall be applied to stockpiles of soil as needed to control dust. <p>Mitigation Measure E.8m: Roadway widening construction activities for this project shall be restricted as follows:</p> <ul style="list-style-type: none"> • All internal combustion engines used during construction of this project shall be operated with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code. • Except for actions taken to prevent an emergency, or to deal with an existing emergency, all construction activities shall be restricted to the hours of 7:00 a.m. and 7:00 p.m. on weekdays and 9:00 a.m. and 7:00 p.m. on weekends and holidays. Only work that does not require motorized vehicles or power equipment shall be allowed on holidays. If work outside the times specified above becomes necessary, the resident engineer shall notify the PRMD Environmental Review Division as soon as practical. <p>Mitigation Measure E.8n:</p> <ul style="list-style-type: none"> • Following roadway widening and creation of any cut slopes, the County shall require the contractor to provide landscape improvements. Native shrubs and trees shall be planted to create a landscape that recalls the native landscape of the region. Plants shall be selected that require the least maintenance, and create a sustainable landscape. • If retaining walls are required as part of the roadway widening, the use of natural finishes shall be considered, if feasible. • A maintenance program, including weeding and summer watering shall be followed until plants have become established (minimum of three years). 	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact E.9: Implementation of Mitigation Measure E.2a may require minor additional roadway width on Stony Point Road beyond that planned by the County that could result in additional secondary environmental impacts. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure E.8o: If archaeological materials are discovered during project construction, construction shall cease in the immediate vicinity of the find until a qualified archaeologist is consulted to determine the significance of the find, and has recommended appropriate measures to protect the resource. Further disturbance of the resource will not be allowed until those recommendations deemed appropriate by the County have been implemented.</p> <p>Mitigation Measure E.8p: If paleontological resources or unique geologic features are discovered during project construction, construction shall cease in the immediate vicinity of the find until a qualified paleontologist or geologist is consulted to determine the significance of the find and has recommended appropriate measures to protect the resource.</p> <p>Mitigation Measure E.9: Implement adopted mitigation measures contained in the <i>Signalization of Stony Point Road at Roblar Road, Mitigated Negative Declaration and Mitigation Monitoring Program</i>, Sonoma County PRMD, October 2005.</p>	<p>Less than Significant</p>
<p>F. Air Quality</p>	<p>Significant for NO_x and PM₁₀</p>	<p>Mitigation Measure F.1a: The applicant shall utilize PG&E electricity to power the mobile processing plant instead of using the proposed diesel-powered generator. B switching to PG&E electricity, total project-generated annual NO_x emissions would be reduced by nearly 20 percent in 2007 and by approximately 42 percent in 2027. Furthermore, implementation of this mitigation measure by itself would avoid the significant impact of exceedance of the annual NO_x threshold in 2027 (but not, however, in 2007). The conversion from the diesel generator to PG&E electricity would also have the beneficial effect of reducing other project-generated criteria pollutants, as well eliminating the project's on-site stationary source of diesel emissions (see Impact F.3 for discussion of diesel impacts).</p> <p>The specific electrical loading and requirements of the proposed project shall be determined by PG&E after the project applicant submits a formal application for electrical service. At that time, PG&E would review the proposed project and identify what additional on- and/or off-site electrical requirements would be needed to deliver electrical service to the site.</p>	<p>Significant and Unavoidable for maximum daily emissions of NO_x for 2007 and 2027, and annual NO_x for 2007, however, Less than Significant for annual emissions of NO_x for 2027; and Less than Significant for PM₁₀.</p> <p>Collectively, implementing Mitigation Measures F.1a through F.1c would reduce annual NO_x emissions by approximately 31.7 tons per year in 2007 and by 14.9 tons per year in 2027. As a result, implementation of these mitigation measures would collectively decrease annual NO_x emissions by roughly 50 percent.</p> <p>Nevertheless, total maximum daily NO_x emissions would still exceed the daily</p>

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Mitigation Measure F.1b: The project applicant shall utilize 2007 model engines or newer on-site loaders, dozers, rock trucks, and water truck. As described in the EIR Project Description, the applicant proposes to utilize two dozers, two loaders, two rock trucks and one water truck on-site.</p> <p>By utilizing the latest available model dozers, loaders, rock trucks, and water truck, total project-generated annual NO_x emissions would be reduced by approximately 8 percent in 2007. The use of the latest model mobile equipment would also have beneficial effect of reducing other project-generated criteria pollutants, as well as reducing project on-site mobile diesel emissions (see Impact F.3 for discussion of diesel impacts).</p> <p>Mitigation Measure F.1c: The project applicant shall require that all quarry operator owned off-site-haul trucks, and to the extent feasible, all off-site haul trucks that would be under contract with the quarry operator, use 2003 model or newer trucks. As stated in the EIR Project Description, the applicant estimates that no less than 60 percent of total material produced at the quarry would either be directly used by the applicant or sold under contract. Of this amount, the applicant estimates that 90 percent (or approximately 54 percent of total haul trucks) could be required to use 2003 model or newer haul trucks (the remaining 10 percent would consist of smaller contractors and truck fleets, where it would be infeasible to require use of newer model trucks).</p> <p>With implementation of Mitigation Measure F.1c, the total project-generated annual NO_x emissions would be reduced by approximately 32 percent in 2007. It should be noted any higher percentage use of newer haul trucks would result in further reduction in total estimated NO_x emissions.</p> <p>The use of newer model haul trucks would also have beneficial effect of reducing other project-generated criteria pollutants, as well as reducing project haul truck diesel emissions. Notably, implementation of this measure would reduce total project-generated maximum daily PM₁₀ emissions in 2007 to a less than significant level.</p> <p>Mitigation Measure F.1d: Implement the formal comprehensive dust control program identified in Mitigation Measure F.4. The implementation of a formal comprehensive dust control program for implementation during project operation would ensure all localized PM₁₀ emissions would remain less than significant.</p>	<p>threshold through the life of the project and the annual threshold between 2007 and 2027. For this reason, the impact would remain Significant and Unavoidable.</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact F.2: The proposed project would generate localized CO emissions on roadways and at intersections in the project vicinity. The project concentrations of CO would be a less than significant impact.</p>	<p>Less than Significant</p>	<p>None Required</p>	
<p>Impact F.3: The proposed project would generate DPM emissions from off-site project haul trucks, and from on-site mobile and stationary sources during the lifetime of the quarry. This would be a less than significant impact.</p>	<p>Less than Significant</p>	<p>None Required. However, implementation of Mitigation Measure F.1a through F.1c would collectively further reduce total annual off- and on-site project DPM emissions [by approximately 0.26 tons in 2007 (a 45 percent reduction), and by 0.08 tons in 2027 (a 20 percent reduction)]. Accordingly, implementation of this mitigation would further decrease DPM exposure and associated health risk at nearby receptors and along haul routes over the project lifetime.</p>	
<p>Impact F.4: During the initial construction phase, and episodically during operation, on-site sources of fugitive dust generated by the proposed project would have the potential to contribute to local increases in PM₁₀ at nearby receptors. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure F.4: A comprehensive dust control program shall be implemented by project applicant that would include the quarry's proposed dust control measures to maintain minimal fugitive dust impacts from the project.</p> <p>Elements of the dust control program (especially during the dry season) for project components include, but are not necessarily limited to, the following:</p> <ul style="list-style-type: none"> • Water all active unpaved vehicle circulation areas daily, using reclaimed water whenever possible. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency whenever wind speeds exceed 15 miles per hour during dry conditions. • Suspend excavation activity when winds (instantaneous gusts) exceed 25 miles per hour during dry conditions. • Cover all quarry-operated trucks hauling soil, sand, and other loose materials, or require all quarry-operated trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer) or CHP standards. • Sweep paved roadways (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads. • Hydroseed or apply soil stabilizers to inactive exposed soil areas (as presented in the quarry's reclamation and water quality control plan). 	<p>Less than Significant</p>

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Exposed soil stockpiles shall be enclosed, covered, watered daily or treated with a (non-toxic) soil stabilizer. • Limit traffic speeds on unpaved roads and circulation areas to 15 miles per hour. • Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. The operator shall have at least one employee who is a certified visual emissions evaluator. • Install wheel washers or other washing method (e.g., water sprayers or use of a water depression crossing) so that that tires or tracks of all exiting trucks leaving the site are cleaned of dirt and gravel to minimize tracking these materials onto public roads. • Conduct blasting activities by using water injection when drilling to control drilling dust, using sequential delay timing schemes to generate effective rock fragmentation and vibration control to minimize blasting dust, remove loose overburden to prevent dilution of mined rock, which lessens the amount of fine material that can become airborne by blasting, and as needed, during dry summer periods, water onto blast areas to further mitigate dust. • Ensure covers over the quarry's crushers (e.g., baghouses or sheds) are in place to minimize fugitive dust during crushing operations. With certain equipment, the use of water or foam spray may be the most effective method to be used, as determined in consultation with the Air District. 	
Impact F.5: Project operations would involve the crushing of aggregate on-site, which could result in the airborne release of crystalline silica. This would be a less than significant impact.	Less than Significant	None Required	
Impact F.6: The proposed project would make an incremental contribution to cumulative GHG emissions (CO ₂ , CH ₄ , and N ₂ O) as a result of onsite generator, onroad motor vehicles, and onsite offroad equipment.	No accepted methodology or standards exist for determining the significance of these emissions.	None Required	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact F.7: The proposed project, together with anticipated cumulative development in the area, would contribute to regional criteria pollutants and TACs. This would be a significant and unavoidable impact.</p>	<p>Significant and Unavoidable.</p>	<p>None Feasible</p>	<p>Significant and Unavoidable.</p>
<p>G. Noise and Vibration</p>			
<p>Impact G.1: Noise generated by mining equipment and excavation activities, and initial construction, would result in an increase in the ambient noise levels at the nearest residence(s). This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure G.1a: At the initiation of each of the three project phases and at regular intervals within each phase, noise monitoring shall be conducted by a qualified acoustical consultant at fence-line locations to the west and the northeast that are on the direct line between the path from the center of quarry operations and the nearest off-site sensitive receptor in that direction. Noise source levels of the specific equipment to be used shall be measured and specific sound levels at the residences predicted.</p> <p>If no exceedances of the Table NE-2 daytime standards are predicted, operations may proceed. Should noise levels exceed the daytime limits in Table NE-2, the quarry operator shall take measures so that quarry operations are within the limits in Table NE-2. Measures could include any combination of the following: (1) additional soundproofing to equipment (2) soundberms or other noise barriers to attenuate equipment noise, (3) sound proofing to affected occupied residences, (4) restriction on duty cycles for noisy equipment, or other recommended measures. If the operator presents evidence to the County that demonstrates that the identified measures will prevent noise levels in excess of the Table NE-2 standards, then the measures shall be implemented and mining operations may proceed within the area included in the monitoring study. Once work begins, the noise level shall be monitored for a period long enough to validate the predicted levels. Upon request by the County, the applicant shall provide additional monitoring at later times to demonstrate compliance.</p> <p>Mitigation Measure G.1b: To comply with the nighttime requirement in Table NE-2, loud operations capable of exceeding the nighttime requirement in Table NE-2 shall not occur in the 6:00 to 7:00 a.m. timeframe. This requirement shall also be reviewed during the start-up noise testing described in Mitigation Measure G.1a.</p>	<p>Less than Significant</p>
<p>Impact G.2: Traffic associated with operation of the project would result in an increase in ambient noise levels on nearby roadways used to access the quarry. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure G.2: As feasible, and if approved by the property owners, the applicant shall fund residential noise insulation upgrades on the two residences on Roblar Road between the project entrance and Valley Ford Road, sufficient to maintain existing interior noise levels with the increased truck traffic.</p>	<p>Significant and Unavoidable. Mitigation Measure G.2 would require approval of the property owners to make the residential noise insulation upgrades. Without the approval of the property owners to implement this mitigation measures, this impact would remain significant.</p>

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact G.3: Blasting that would occur under the project would generate temporary airborne and groundborne noise and vibration. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure G.3a: The blasting plan shall ensure that ground motions do not exceed 0.5 in/s at the nearest residence. The nearest residence would be located about 600 feet northeast of the proposed mining area where rock-blasting operations might occur. To ensure that that the intensity of ground motion in this location would not exceed the 0.5 in/s limit, all blasting in the eastern edge of the proposed quarry shall be designed to assure that charges are sized to maintain a scaled distance (Ds) of 65 or greater (see Appendix F-1 in the EIR). With this limitation, maximum cumulative weight of any charges firing within any 8-milliseconds time period shall not exceed 85.2 pounds $[(600/65)^2]$. This limitation would be achieved if the applicant used delay-decked charges in 5 inch holes or reduced hole-size or the height of benches. For practical blasting purposes, the single charge in a 34-foot hole could be separated into two or three individually delayed charges, separated by stemming, to ensure the maximum charge weight-per-delay in 5-inch holes is appropriate for vibration control.</p> <p>Mitigation Measure G.3b: The applicant shall conduct monitoring of ground vibration and air-overpressure at a minimum of two locations to ensure these effects remain under threshold levels. One location should be close to the nearest residential property. The second monitoring point should be the adjacent landfill property. All monitoring equipment and practices shall conform with the standards developed by the Vibration Section of the International Society of Explosive Engineers (see Attachment 1 in Appendix F of this EIR).</p> <p>Mitigation Measure G.3c: Blasting shall be limited to daytime hours between 10:00 am. and 4:00 p.m.</p> <p>Mitigation Measure G.3d: A blasting permit shall be obtained from the Sonoma County Sheriff's Department prior to any blasting.</p> <p>Mitigation Measure G.3e: Discuss the blast monitoring program with the residents in the project area. Educate property owners as to what is being done and why. Obtain information on time periods that are sensitive to blast activity.</p> <p>Mitigation Measure G.3f: Conduct a pre-blast survey to determine the condition of existing structures, and to alert homeowners that some rattling may be expected but damage is not expected. Contacts should be provided so that damage claims and complaints can be monitored and responded to quickly.</p>	<p>Less than Significant</p>

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		Mitigation Measure G.3g: Schedule blasts to occur at approximately the same time on each blast day. Include this information in public announcements.	
Impact G.4: Traffic associated with operation of the project would result in an increase in cumulative noise levels on roadways used to access the quarry. This would be a potentially significant impact	Potentially Significant	Mitigation Measure G.4: Implement Mitigation Measure G.2 for the two residences on Roblar Road between project entrance and Valley Ford Road.	As discussed in Mitigation Measure G.2, this measure would require approval of the property owners to make the residential noise insulation upgrades. It should also be noted that the because of the topography and setting traditional means of traffic noise abatement on project haul routes such as road side barriers is not viable. As a result the impact would remain Significant and Unavoidable as concluded in the adoption of the ARM Plan.
H. Hazardous Materials			
Impact H.1: Hazardous materials transported or used onsite during proposed mining and reclamation activities (i.e., petroleum products, blasting materials) could be spilled or otherwise released through improper handling or storage. This would be a potentially significant impact.	Potentially Significant	Mitigation Measure H.1a: Prior to initiation of the project, the applicant shall prepare a Spill Prevention, Control and Counter Measure Plan (SPCCMP) in conformance with the requirements of the Code of Federal Regulations 40CFR112. A copy of the SPCCMP shall be submitted to the Sonoma County Department of Emergency Services to demonstrate completion of the mitigation. Mitigation Measure H.1b: If hazardous waste is generated or stored, then the operator shall comply with hazardous waste generator laws and AB2185 requirements and obtain a permit or approval from the C.U.P.A. or the participating agency. The applicant shall submit a copy of a current permit to the Permit and Resource Management Department Health Specialist to verify compliance. Mitigation Measure H.1c: All hazardous waste materials shall be stored, handled and managed in accordance with the approved site plan and hazardous materials plan so as to reduce the potential for any spillage. Mitigation Measure H.1d: No soil or other material containing hazardous or toxic waste shall be imported to the quarry.	Less than Significant

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
I. Aesthetics			
Impact I.1: The proposed quarry would substantially alter the visual character of the project site and adversely affect views of the site from both public and private vantage points. This would be a significant impact.	Significant	None available beyond those proposed by the project sponsor, and those identified in the ARM Plan and SMARO.	Significant and Unavoidable. Even with measures proposed by the project sponsor, and implementation of conditions contained in the ARM Plan and SMARO, visual impacts would not be reduced to a level of insignificance. It should be noted the ARM Plan also identified potential visibility of mining and processing operations for mining facilities within the County as significant and unavoidable.
Impact I.2: The project could result in the production of new sources of light and/or glare. This would be a less-than-significant impact.	Less than Significant	None Required	
Impact I.3: The proposed quarry, in conjunction with other cumulative development in the project vicinity, would alter the visual character of the project vicinity. This would be less-than-significant cumulative impact.	Less than Significant	None Required	
J. Public Services and Utilities			
Impact J.1: The proposed project would increase demand for fire protection and emergency medical services. This would be a potentially significant impact.	Potentially Significant	Mitigation Measure J.1: As part of the County's Environmental and Design Review process, prior to project approval, the GRFPD shall review the project site plans to ensure proper emergency access and fire prevention features are incorporated into the project.	Less than Significant
Impact J.2: The proposed project would require police protection and traffic enforcement services of the Sonoma County Sheriff's Department. This would be a less than significant impact.	Less than Significant	None Required	
Impact J.3. The proposed project would generate amounts of solid waste, and may involve use of recycled materials at the quarry. This would be a less than significant impact.	Less than Significant	None Required	

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>Impact J.4: The proposed project, and implementation of certain mitigation, would increase demand for PG&E electricity. This would be a less than significant project and cumulative impact.</p>	<p>Less than Significant</p>	<p>None Required</p>	
<p>K. Cultural Resources</p>			
<p>Impact K.1: Land alteration proposed under the project could affect previously undiscovered cultural resources. This would be a potentially significant impact.</p>		<p>Mitigation Measure K.1a: All employees on site shall undergo a cultural resources orientation and awareness training prior to commencing work activities on site. Such training shall include familiarization with the stop work restrictions if buried archaeological remains or artifacts are uncovered. The operator shall provide Permit and Resource Management Department with a verification list of the employees completing the orientation. The training and list shall be updated by the operator as new employees are added.</p> <p>Mitigation Measure K.1b: During quarry operations, particularly initial grading and on-going clearing operations, should any undiscovered evidence of archaeological materials be encountered, work at the place of discovery shall be halted, and a qualified archaeologist shall be consulted to assess the significance of the finds. Prompt evaluations could then be made regarding the finds, and management plan consistent with CEQA and Sonoma County cultural resources management requirements could be adopted.</p> <p>Mitigation Measure K.1c: If prehistoric Native American burials are encountered, a qualified archaeologist, the Sonoma County Coroner, the California Native American Heritage Commission and local Native American Heritage Commission shall be consulted in accordance with established requirements.</p>	<p>Less than Significant</p>
<p>Impact K.2: Land alteration proposed under the project would affect paleontological resources. This would be a potentially significant impact.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure K.2a: Prior to the start of construction, construction personnel involved with earth-moving activities will be informed on the appearance of fossils and the proper notification procedures. This worker training will be prepared and presented by a qualified paleontologist.</p> <p>Mitigation Measure K.2b: Prior to the initiation of quarry activities, a qualified paleontologist shall be retained to conduct a preliminary survey and surface salvage in an effort to recover, as is feasible, surface deposits (if present) in their original context. The preliminary survey shall identify and map areas of high-potential rock units, as well as low and undetermined-potential rock-units within the quarry site area—if such distinctions can be established on a micro-topographic scale versus existing geologic surveys of the area. The paleontologist shall focus the field survey in exposures of sensitive stratigraphic units within the quarry site that would be disturbed.</p>	<p>Less than Significant</p>

**TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Mitigation Measure K.2c: Prior to the initiation of quarry activities, the consulting paleontologist shall both prepare a monitoring and mitigation program and implement the program during the excavation phase at the quarry site and for all other project-related ground disturbance. The paleontologic resource monitoring and mitigation program shall include, but not limited to, as outlined by the Society of Vertebrate Paleontology (1995):</p> <ul style="list-style-type: none"> • preconstruction coordination; • guidelines for excavation monitoring; • emergency discovery procedures; • procedures to permit the stabilization of large remains to allow for identification and permanent preservation. This includes stabilization of large remains and screen washing of fossiliferous sediments to recover significant microfossil remains; • discusses how recovered fossils would be analyzed, including (but not limited to): identification to genus/species, element, etc.; interpretation of species abundance and diversity; determination of sex ratios and the relative abundance of ontogenetic age groups; dating of remains as appropriate; evaluation of potential taphonomic factors; and comparison with other vertebrate faunas from the Sonoma County region. • Discusses how recovered significant fossils would be preserved and curated, including all associated contextual data, at a Federally recognized, accredited repository with long-term retrievable storage. • Defines a framework for regularly scheduled reporting on the project. <p>Mitigation Measure K.2d: Earth-moving quarry activities shall be monitored where this activity will disturb previously undisturbed sediment. Monitoring will not be conducted in areas where exposed sediment will be buried, but not otherwise disturbed. If high-potential and undetermined-potential areas within the quarry can be distinguished, full-time monitoring shall take place in rock units that have high paleontologic sensitivity, e.g. Wilson Grove Formation, while units of undetermined sensitivity shall be spot-checked monitored. In lieu of any rock-unit distinction on the site, the frequency and duration of the monitoring conducted shall be under the discretion of the project paleontologist.</p>	

TABLE II-1 (Continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Mitigation Measure K.2e: Significant fossils discovered shall be salvaged. Salvage would include recovery of exposed significant paleontologic resources, removal and/or molding of exposed trackways and sampling where necessary to recover microfossil remains.</p> <p>Mitigation Measure K.2f: Upon completion of a 50% threshold of quarry excavation, as determined by Roblar Quarry managers, the project paleontologist shall prepare a progress report including a summary of the field and laboratory methods, site geology and stratigraphy, faunal list, and a brief statement of significance and relationship of the site to similar fossil localities. A similar final report shall be prepared at the 100% threshold of quarry excavation. These reports shall be distributed to the appropriate lead and cooperating agencies and any relevant scholarly publications.</p>	