

Response to Comments Document

ROBLAR ROAD QUARRY

Environmental Impact Report
SCH # 2004092099

Prepared for
County of Sonoma Permit and
Resource Management Department

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CHAPTER I

Introduction

A. CEQA Process

On May 20, 2008, the County of Sonoma (the Lead Agency) released for public review a Draft Environmental Impact Report (Draft EIR or DEIR) on the proposed Roblar Road Quarry. A 45-day public review and comment period on the Draft EIR began on May 20, 2008, and closed on July 22, 2008. The County also held a public hearing to receive oral public comment on the Draft EIR at the Sonoma County Permit and Resource Management Department (PRMD), at 2550 Ventura Avenue in Santa Rosa on June 19, 2008.

The Draft EIR for the proposed Roblar Road Quarry, together with this Response to Comments Document, constitute the Final EIR for the proposed project. The Final EIR is an informational document prepared by the Lead Agency that must be considered by decision-makers before approving the proposed project (CEQA *Guidelines*, Section 15090). California Environmental Quality Act (CEQA) *Guidelines* (Section 15132) specify the following:

“The Final EIR shall consist of:

- (a) The Draft EIR or a revision of that draft.
- (b) Comments and recommendations received on the Draft EIR either verbatim or in a summary.
- (c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
- (d) The responses of the Lead Agency to significant environmental points raised in review and consultation process.
- (e) Any other information added by the Lead Agency.”

This document has been prepared pursuant to CEQA and in conformance with the CEQA *Guidelines*. This Response to Comments Document incorporates comments from public agencies and the general public, and contains appropriate responses by the Lead Agency to those comments.

B. Method of Organization

This EIR Response to Comments Document for the proposed Roblar Road Quarry contains information in response to comments raised during the public comment period.

Chapter I describes the CEQA process and the organization of this Response to Comments Document.

Chapter II contains master responses. Numerous comments pertained to a number of similar issues. The master responses provide detailed information related to each of these key issue areas in one place rather than dispersing this information throughout the document.

Chapter III contains a list of all persons and organizations that submitted written comments and/or made spoken comments on the Draft EIR during the public review period.

Chapter IV contains copies of the comment letters and public hearing minutes, and the responses to those comments. Within each letter and public hearing minutes, individual comments are labeled with a number in the margin. Immediately following the comment letter are responses to each of the numbered comments.

Chapter V contains an errata identifying text changes to the Draft EIR. Some changes were made by the County; others were made in response to comments received on the Draft EIR.

CHAPTER II

Master Responses

A. Index of Master Responses

Master Response GEN-1: Project Approval Process. This master response addresses questions and concerns raised regarding the project approval process and the role of environmental review; merits of the project, responsibility for project costs; potential liability from quarry operations; and enforcement of mitigation measures and project conditions.

Master Response HYD-1: Applicant's Proposed Quarry Water Management Plan. This master response summarizes the potential impacts to hydrology and water quality that were analyzed in the Draft EIR, and the mitigation measures identified in the Draft EIR to ensure those impacts would be less than significant. This master response then summarizes the applicant's proposed Water Management Plan (WMP), and documents any new and/or revised components for the proposed water use and re-use, drainage, monitoring and treatment for the project. This master response also identifies any changes to potential environmental impacts and mitigation measures as a result of information in the WMP.

Master Response HYD-2: Additional Information on Groundwater Quality Monitoring. This master response describes the on-going groundwater monitoring program being conducted in support of the project; expands the detail about the analytical results of the monitoring program; presents additional groundwater data that has been gathered since publication of the Draft EIR; and compares the contaminant levels to pertinent regulatory thresholds established for groundwater quality and discusses the relevance of these comparisons.

Master Response HYD-3: Groundwater Supply. This master response provides supplemental information regarding the available groundwater supplies at the project site, and the contribution that groundwater would make to the overall water supply required by the project. In addition, this response summarizes the results of a pump test that was conducted at production well DW-2 in December 2008 in support of the applicant's WMP. This response also describes the WMP's strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project.

Master Response AQ-1: Wind Data / Dust Abatement. This Master Response describes general wind patterns and provides available data on wind conditions in the area, including a summary of five years of quality recent meteorological measurements from BAAQMD from its Valley Ford meteorological station; uses this wind data to estimate when wind conditions at the

project site would trigger specific thresholds, and provides expanded mitigation measures to further minimize project generated dust, including implementation of a wind screening and a wind monitoring program.

Master Response AQ-2: Naturally Occurring Asbestos. This master responses provides background information as to the occurrence of asbestos minerals in Sonoma County, presents the results of asbestos testing that was conducted on the project site, and assesses the potential for asbestos to be encountered on the project site during initial construction and quarrying.

Master Response T-1: School Buses / School Children on Haul Routes. This master response presents the results of consultation with the Petaluma City School District and field reconnaissance regarding existing school bus travel characteristics on project study haul routes; and summarizes consultation that occurred with school representatives from the Dunham Elementary School and Liberty Elementary School regarding existing student arrival/departure characteristics at their schools and potential safety concerns.

B. Master Responses

Master Response GEN-1: Project Approval Process

[Responds to Comments J-20, U-2, U-4, V-3, V-5, V-6, Y-21, Y-24, BB-5, DD-4, DD-7, II-3, JJ-19, JJ-21, JJ-37, PC-6, PC-39, PC-53 and PC-56]

A number of comments raised questions about the project approval process and the role of environmental review. Many comments also expressed opinions regarding the merits of the project. Some comments also raised concerns regarding responsibility for project costs, potential liability from quarry operations, and enforcement of mitigation measures and project conditions. This Master Response addresses those questions and concerns.

The process leading to an ultimate decision on the proposed project is as follows. The EIR is first considered by the Planning Commission, which must make recommendations to the Board of Supervisors as to whether the EIR is adequate and should be certified, and whether the project should be approved as proposed. The Planning Commission held a hearing during the public comment period on the Draft EIR in June 2008, at which the Commission heard and received public comments on the document. At the close of the hearing, the Commission discussed the Draft EIR and Commissioners submitted their comments on it. These comments on the adequacy of the Draft EIR are responded to in this Response to Comments document, along with responses to comments made by other agencies and concerned members of the public. Comments on the merits of the project that do not otherwise address the adequacy of the environmental document do not require a response in the Final EIR. However, all comments received by the County on the environmental document and the project are provided to the Planning Commission and the Board of Supervisors for their consideration. The Planning Commission will hold another hearing to consider the Final EIR, consisting of the Draft EIR and this Response to Comments document, and will then make its recommendation to the Board of Supervisors regarding whether the EIR should be certified and the project approved. The Final EIR is then brought before the Board of Supervisors, which will consider the Planning Commission's recommendations before making its own, independent decision on the adequacy of the environmental document and whether the project as proposed or an alternative to the project should be approved.

The purpose of the EIR process is to provide County Commissioners and Supervisors, as well as trustee and regulatory agencies and the public, with an objective, scientifically-based evaluation of the potential physical environmental effects of a proposed action and identify feasible mitigation measures to minimize or avoid the project's significant effects. CEQA also requires that an EIR consider what would happen if the proposed project is not approved (i.e., the No Project Alternative), as well as a reasonable range of other project alternatives that would meet at least some of the project applicant's objectives but that would also reduce or eliminate significant effects identified for the project as proposed. The EIR must also identify for decision-makers which alternative would be the environmentally superior alternative.

In making a decision on the project, decision-makers must balance a project's potential environmental impacts against its benefits. This balance considers the CEQA record, as well as economic, legal, social and other aspects of a project which are not evaluated in an EIR. The Board of Supervisors could ultimately approve the project, deny the project, or decide to approve some version of the project within the range of alternatives evaluated in the EIR. CEQA does allow decision-makers to approve a project that would result in significant unavoidable environmental impacts if the Board finds that specific economic, legal, social or other considerations make mitigation measures or alternatives that would reduce or avoid the project's significant impacts infeasible. Further, if the project as approved would result in significant unavoidable impacts, the Board must clearly explain its rationale for this decision in a Statement of Overriding Considerations.

A number of comments question who is responsible for project costs and mitigation, who bears the potential risks and liability of quarry operations, and who will enforce the mitigation measures and conditions of approval required by the Board of Supervisors. Approval of the project is subject to a Conditional Use Permit (CUP), which fully defines the scope of the approved project and sets forth all conditions and requirements that must be fulfilled during project construction and subsequent operational phases of the project. All mitigation measures and conditions must be completed at the expense of the project proponent. A standard condition of approval is that the project applicant indemnify the County against a challenge to the project approval and environmental document.

In addition, in the case of mining operations, approval of the project is also subject to both the County's Surface Mining and Reclamation Ordinance and the California Surface Mining and Reclamation Act. Consistent with those provisions, a Reclamation Plan for the post-mining restoration of the site must be prepared by the applicant, approved by the County in conjunction with the Use Permit, and submitted to the California Department of Conservation, Division of Mines and Geology for its review. The Reclamation Plan must address maintaining water and air quality and minimizing flooding, erosion, and damage to wildlife and aquatic habitats once mining operations cease. The State and the County also require the mining applicant to provide financial assurances (such as posting a bond) sufficient to guarantee completion of all required post-mining reclamation measures.

A Mitigation Monitoring Program will be adopted by the Board of Supervisors, consistent with the requirements of CEQA, to identify responsibility for implementing and monitoring the mitigation measures identified in the EIR. The County is ultimately responsible for ensuring that mitigation measures and conditions of approval are performed by the project proponent. Mining operations are subject to regular inspection by County personnel to ensure compliance with the Use Permit, Reclamation Plan, and County and State regulations. If a project proponent substantially fails to satisfactorily implement required permit conditions or if the operation becomes a nuisance, the County may institute enforcement proceedings, including revocation of the Use Permit.

The potential for liability to accrue to the County as a result of quarry operations in proximity to the closed County landfill will be considered by the Board of Supervisors in determining whether to approve the project. It should be noted that the EIR concludes that all potential geology and water quality impacts associated with operation of a quarry in the vicinity of the closed County landfill will be reduced to less than significant with implementation of the identified mitigation measures and Best Management Practices. Nevertheless, the Board may conclude that additional assurances should be put in place, such as an indemnification agreement. This policy decision would be made by the Board at the time it determines whether or not to approve the project.

Master Response HYD-1: Applicant's Proposed Quarry Water Management Plan

[Responds to Comments D-2, D-3, D-5, D-6, E-3, I-2, J-2, J-9, J-10, J-14, J-18, J-19, J-22, J-33, L-6, L-11, L-17, L-25, L-26, L-27, L-29, L-33, L-34, M-17, O-5, O-17, P-2, Q-2, R-2, T-5, U-19, V-8, W-5, W-7, W-8, X-3, Y-17, CC-4, DD-2, DD-4, DD-5, JJ-31, PC-22, PC-56, PC-93 and PC-104]

Background

The Draft EIR addressed a number of potential hydrologic and water quality impacts of the proposed project, including but not limited to: potential for alteration of the project site to increase peak stormflows and groundwater seepage from the site and resultant effects on flooding, erosion and sedimentation to nearby creeks (Impacts C.1 through C.3); potential for groundwater seepage (i.e., through the proposed quarry walls) and/or production well water used on site to contain contaminants, and resultant effects to water quality in nearby creeks (Impact C.4), potential for alteration of project site to decrease baseflows in nearby creeks (Impact C.5) and reduce groundwater recharge to regional groundwater sources (Impact C.6), and potential for alteration of the project site and proposed groundwater pumping to affect groundwater flow and quantity in nearby wells (Impacts C.7 and C.8). Of these impacts, Impacts C.1 through C.5 were identified to be potentially significant, requiring mitigation.

The Draft EIR described a number of features proposed as part of the project, along with identification of comprehensive mitigation measures, to ensure that each of these impacts would be mitigated to a less than significant level. Specifically, as discussed in detail in Chapter III, Project Description in the Draft EIR, the applicant proposed a system of onsite drainage collection facilities and sedimentation basins to collect, control and treat stormwater and other water collected within the project site during the project duration and post-reclamation. Mitigation Measures C.1/C.3 in the Draft EIR provide for a baseline flow and creek stage monitoring program that would be implemented for Americano Creek and Ranch Tributary to ensure that peak stormwater and seasonal non-stormwater flows from the project site do not exceed pre-project flows in these waterways.

Mitigation Measure C.2 in the Draft EIR provided for development and implementation of a formal Water Quality Protection Program (WQPP) to control sediment and pollutant runoff from the quarry site during its operational life and post reclamation. The WQPP consisted of several elements, including a Stormwater Pollution Prevention Plan, aggressive source control and sediment retention measures, and implementation of containment control best management practices, consistent with and as required by the Regional Water Quality Control Board (RWQCB). The WQPP also included implementation of a Stormwater Monitoring Program that would regularly collect samples from all stormwater discharge outfalls to ensure compliance with the requirements of General Permit for Discharges of Storm Water Associated with Industrial Activities, and if needed, implementation of corrective actions (e.g., additional source control BMPs, expansion of detention ponds, chemical flocculation, mechanical filtration and/or

construction of additional treatment wet ponds/wetlands). In addition, the WQPP provided for routine inspection and maintenance of the drainage and water control systems.

Mitigation Measure C.4 in the Draft EIR included additional onsite monitoring and management to ensure any water that may enter the quarry walls as seepage and/or supply water from the onsite production wells would be identified, contained and treated appropriately. An on-going quarterly groundwater monitoring and sampling program of the quarry site monitoring and production wells would be implemented to provide water flow and water quality data and provide an early warning of potential groundwater contamination. In addition, the mitigation requires that all water collected within the quarry footprint¹ (including seepage) be regularly sampled and analyzed for potential contaminants. In the event production well or water collected within the quarry footprint contained contaminants, it would be contained and treated onsite until concentrations of the chemicals are not detected or the concentrations are within the storm water discharge criteria set forth through the National Pollutant Discharge Elimination System (NPDES) industrial discharge permit.

Mitigation Measure C.5 in the Draft EIR provided additional measures to ensure non-storm flows (baseflows) in Ranch Tributary, and flows in Americano Creek, would also not change from pre-project conditions. This would be accomplished through on-going monitoring of baseflows in Ranch Tributary, and if needed, the implementation of a passive surface water diversion system to replicate pre-project baseflows in Ranch Tributary.

The Draft EIR concluded that collectively, the measures proposed as part of the project, along with mitigation measures identified in the Draft EIR, would ensure that all potential impacts to hydrology and water quality would remain less than significant.

Development of the Proposed Water Management Plan

While, as discussed above, all potential hydrologic and water quality impacts were adequately mitigated to a less than significant level in the Draft EIR, a number of public comments were raised during public review period requesting additional detail on a range of project water supply, water use and water management issues. Some public comments requested greater detail on the amount of water that would be required for operation of the proposed project, including that which would be required for dust control. Some public comments indicated that Draft EIR needed to show greater detail regarding the ability for the applicant's production wells to provide groundwater for operations without adversely affecting nearby domestic wells. Other public comments expressed concern about the potential for contaminated groundwater that may enter the quarry as seepage through the quarry walls or be drawn by proposed production wells, or potentially contaminated surface water runoff, to reach adjacent creeks, despite the water containment, monitoring and treatment facilities proposed by the applicant and addressed in the Draft EIR.

¹ For purposes of discussion, the "quarry footprint" is defined as the approximate 65-acre area within the project site that would contain the quarry pit.

In response to comments received on the Draft EIR during the public review period, and subsequent preliminary consultation that occurred between the applicant and the RWQCB, the applicant expanded and refined the proposed management of water resources for the quarry project. In support of this effort, the applicant prepared a comprehensive Water Management Plan (WMP) that describes the proposed methods and facilities for managing the various sources of water for the project (including groundwater seepage, precipitation/runoff, and groundwater from wells) and reduces hydrology and water quality impacts. The applicant's WMP is included in Appendix A in this Response to Comments Document.

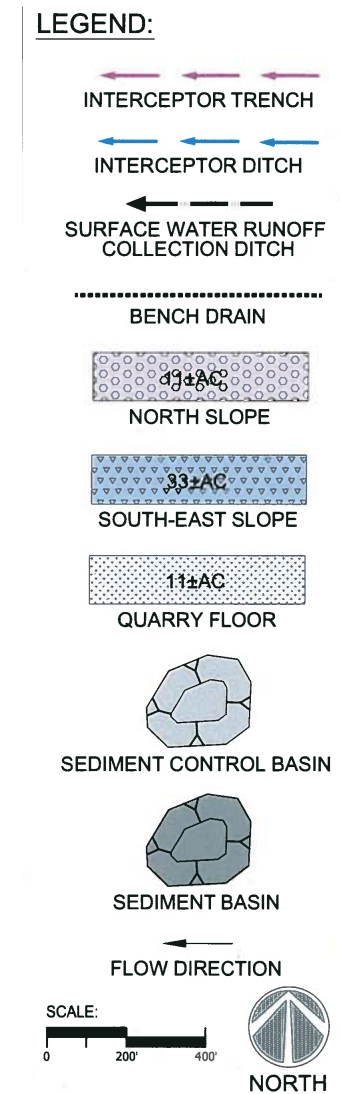
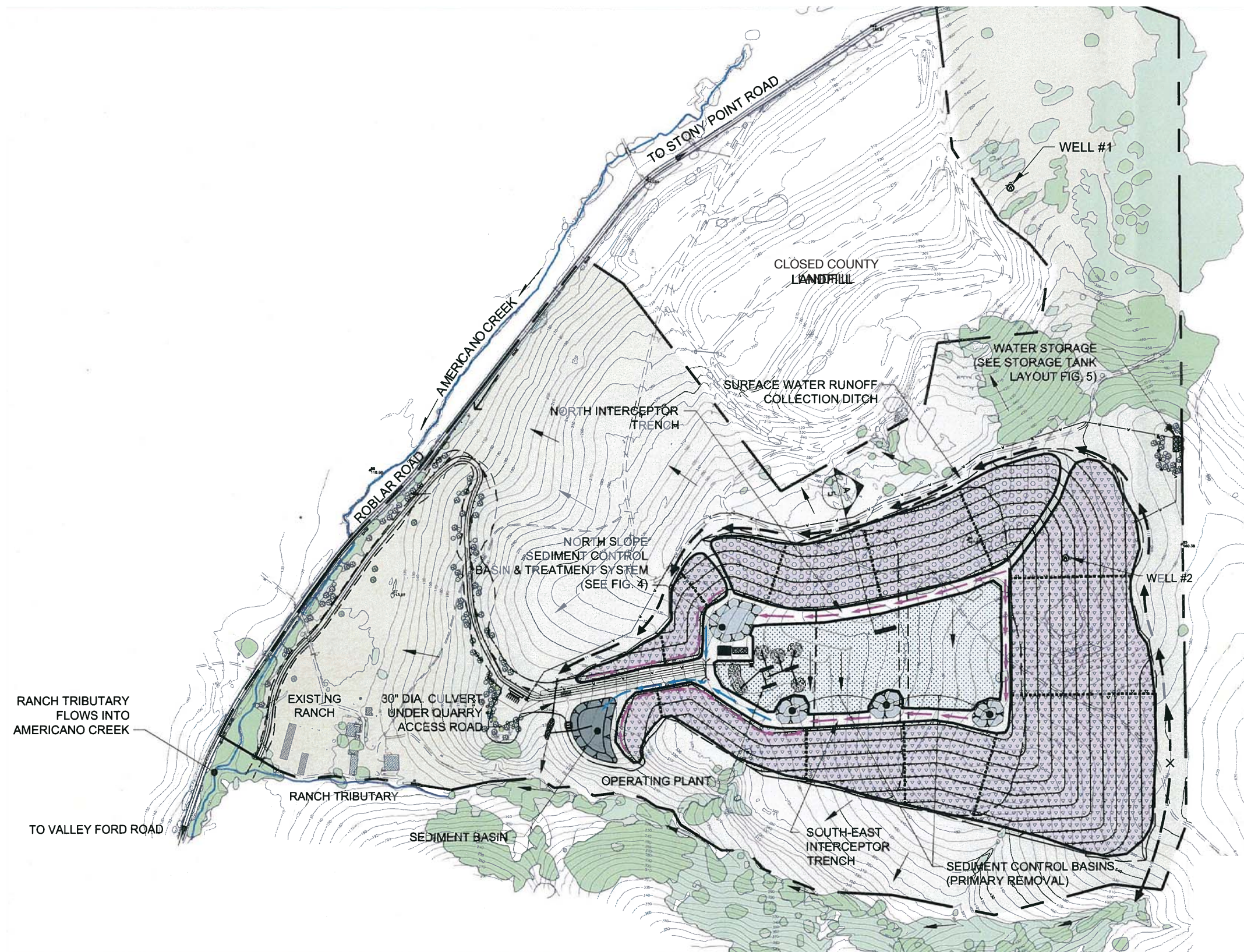
Where applicable, the WMP incorporates or expands upon, and is designed to be consistent with, the mitigation measures identified in the Draft EIR for addressing potential hydrologic and water quality impacts. This Master Response summarizes relevant information from the applicant's WMP, and documents any new and/or revised components for the proposed water use and re-use, drainage, monitoring and treatment for the project. In particular, and as described in greater detail below, the WMP proposes a system for ensuring any water generated on-site that has been treated for VOCs would not be re-used on-site, rather than be discharged to surface waters. The Master Response also identifies any changes to potential environmental impacts and mitigation measures as a result of information in the WMP, and provides greater detail on how mitigation of hydrologic and water quality impacts to less than significant would be achieved. Finally, this Master Response responds to a number of comments received on the Draft EIR regarding potential hydrology and water quality impacts in consideration of new information in the WMP.

Water Management Plan Description

The WMP would implement a comprehensive onsite water use/reuse, storage and treatment program designed to support quarry operations while minimizing potential hydrology and water quality impacts, including maintaining "baseline" surface water conditions in the adjacent Ranch Tributary and Americano Creek, conserving water resources by minimizing the reliance on groundwater, and meeting applicable strict water quality goals. Where specific components of the WMP were previously proposed as part of the project or identified as mitigation in the Draft EIR, the WMP serves to amplify and expand on those features as appropriate. The WMP was developed utilizing detailed information on precipitation, groundwater, surface water and groundwater seepage. The WMP is intended to accommodate the seasonal variation of these components (e.g., excessively "wet" or successive drought years) and allow for flexibility in the management of water use/reuse. In support of the WMP, a water balance was completed to inventory the various sources of water supply and the projected water demand.

Figures HYD-1.1 through HYD-1.3 illustrate the primary components of the WMP for the project site, including proposed drainage and sediment control, water storage, and water quality monitoring and treatment facilities. Some important distinctions between the WMP and the plan originally proposed by the applicant are as follows:

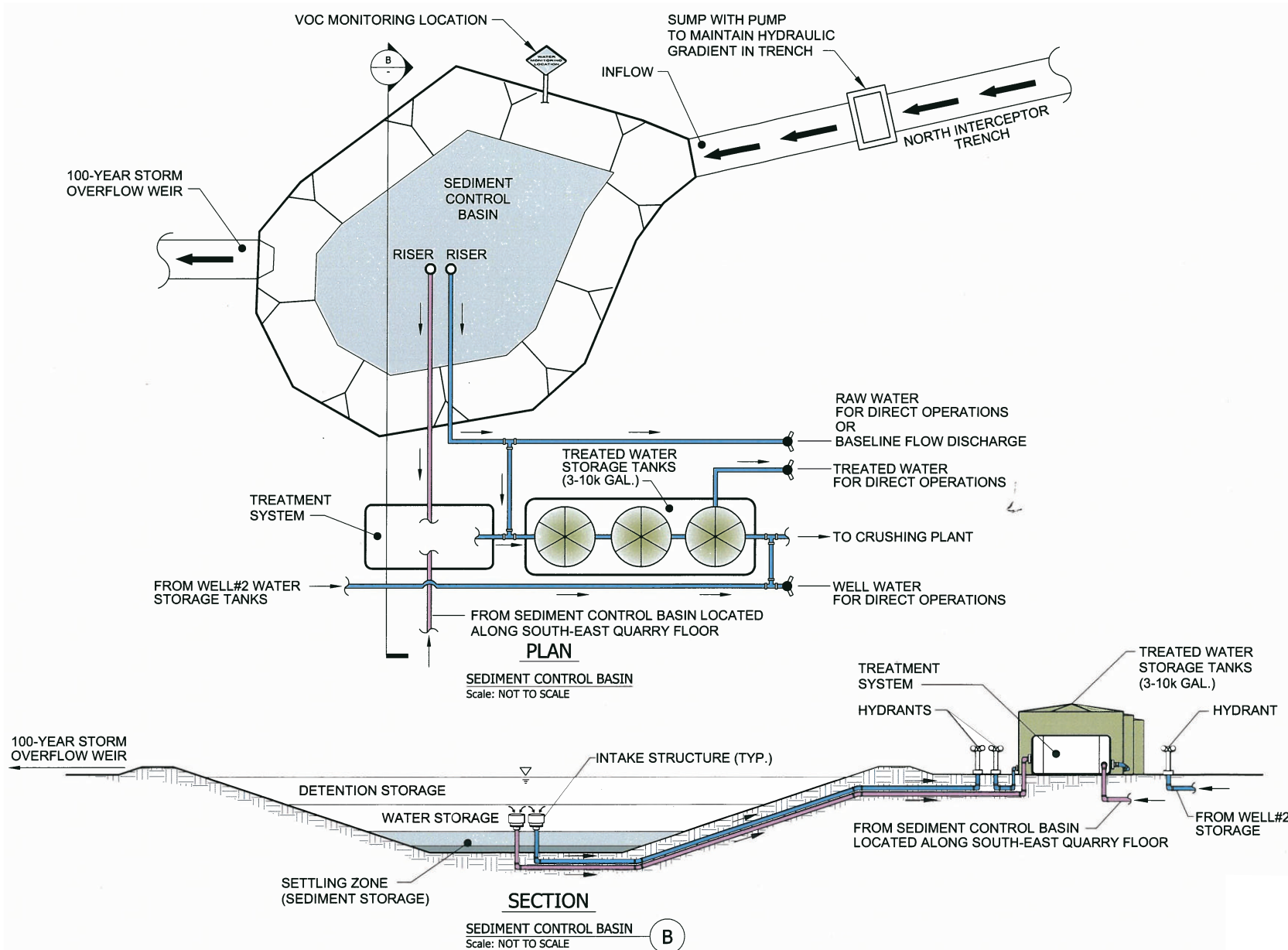
- Only surface water runoff occurring on the project site outside the quarry footprint, and water collected within the quarry footprint that is determined through monitoring to not contain VOCs, would be discharged to Ranch Tributary and/or Americano Creek; any



SOURCE: CSW/Stuber-Stroeh Engineering Group, Inc.

Roblar Road Quarry . 204334
Figure HYD-1.1
 Site Plan

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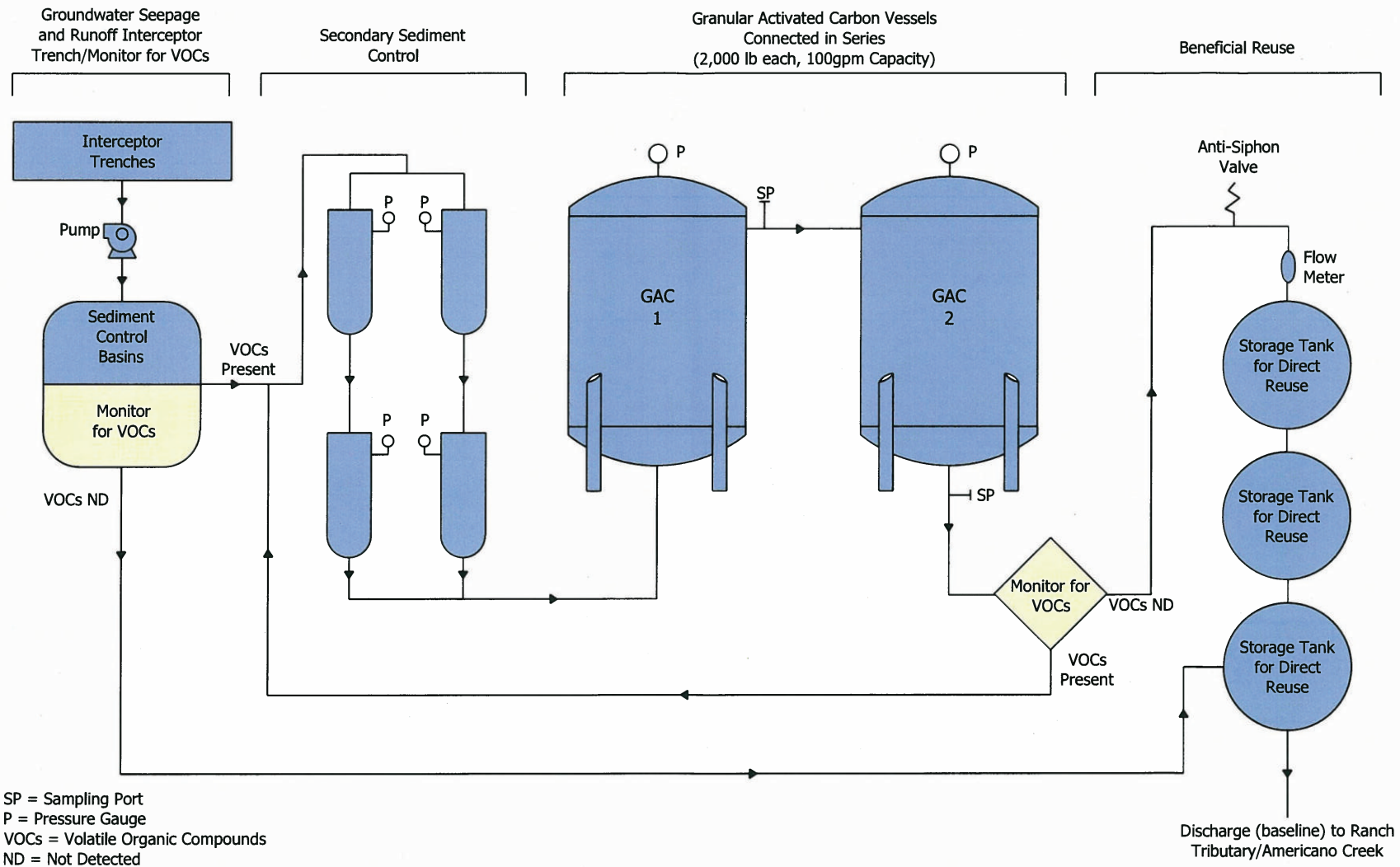
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SOURCE: CSW/Stuber-Stroeh Engineering Group, Inc.

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Figure HYD-1.2
Sediment Control Basin and Treatment System

INTERCEPTOR TRENCH AND TREATMENT SYSTEM



11-112

water occurring within the quarry footprint that must be treated for VOC removal would be limited to re-use onsite for quarry operations (e.g., dust control, processing, irrigation, etc.) (i.e., no discharge of any treated water to creeks).

- Production Well DW-1 would not be used as a water source for any quarry-related operations (groundwater supply would be limited to Well DW-2).
- Additional onsite water storage would be created with three 10,000-gallon tanks for the storage of water from production well DW-2 (30,000 gallons total) and three 10,000-gallon tanks for the temporary storage of treated water (30,000 gallons total).
- Project water demand estimates are revised to account for higher allowance for water allocated for dust control.

The following describes the various components of the proposed WMP in more detail:

Drainage, Stormwater Detention and Sediment Control

As was originally proposed, separate drainage facilities are proposed for water collected within and outside the quarry footprint. A perimeter drainage swale (shown as “surface water runoff collection ditch” in Figure HYD-1.1) would intercept and collect all storm flows generated outside the quarry footprint limits, and route the flows to the Ranch Tributary and Americano Creek. This ditch would be constructed on the perimeter of the quarry for each phase and would be sized to carry the 100-year design storm. The runoff that falls outside of the quarry footprint would not require sediment treatment. The drainage swale would be lined with grass and/or rip rap and set back a minimum five-foot horizontal distance from the outer edge of the mine. Rip rap would also be added to the banks of the natural drainage which would accept the storm water discharge in order to spread and dissipate energy from this discharge.

Runoff that occurs inside the quarry footprint on the quarry slopes, and any potential groundwater seepage that may enter through the quarry slopes, would commingle and be collected in 10-foot wide benches constructed at 30-foot intervals. Runoff would flow along the benches toward “bench drains” (see Figure HYD-1.1), consisting of 12- to 18-inch storm drain pipes located at 500-foot intervals. The bench drains would carry stormflows down to “interceptor trenches” (see Figure HYD-1.1) along the perimeter of the quarry floor, and then route flows to “sediment control basins” (see Figures HYD-1.1 and HYD-1.2) located within the quarry floor.

The interceptor trenches would be the first drainage component to be constructed during the initial excavation of the subsurface materials and development of the quarry. The base of the interceptor trenches would be maintained to a depth of at least five feet below the elevation of all phases of quarry operations and continue to be deepened and maintained as each phase of quarry operations expands outward and downward. The interceptor trenches would be approximately two feet in width and sloped west to gravity feed the sediment control basins. Pumps would be operated between the interceptor trenches and the sediment control basins to maintain a hydraulic gradient within the trench system.

The proposed interceptor trenches and sediment control basins would provide stormwater/seepage water detention. The originally proposed “sediment basin” (located adjacent to the quarry access road west of the quarry floor; see Figure HYD-1.1) would serve to provide backup detention capacity. The sediment control basins would include an “overflow weir” (see Figure HYD-1.2) that acts as an emergency spillway. In the event that a storm in excess of the 100-year storm event occurs, runoff would overflow into the interceptor ditch and hence into the sediment basin.

The proposed sediment control basins and sediment basin would by design provide sediment removal. In addition, water collected within the sediment control basins would be monitored for the presence of potential VOCs. Any water collected within the quarry footprint that is determined through monitoring to not contain VOCs would be, as needed, discharged to Ranch Tributary to maintain baseline flow conditions in Ranch Tributary and Americano Creek, and/or routed to either direct onsite re-use to support quarry operations (e.g., dust control, crushing plant, stockpile rock watering, wash rack, irrigation, etc.) or water storage tanks for temporary storage prior to onsite re-use. Any water determined through monitoring to contain VOCs would be treated at an onsite treatment facility located on the quarry floor prior to re-use onsite.

Maintenance of the sediment control basins would be performed routinely. At the beginning and after each storm event the basins, including all inlet, outlet and overflow structures, would be checked to ensure that they are functioning adequately, and any debris within the basins would be removed immediately. (Please see detailed discussion of VOC treatment and sediment control basin maintenance under Water Quality Monitoring and Treatment, below.)

Production Well and Well Water Storage

Two existing production wells are located on the property (DW-1 and DW-2). Due to proximity of Well DW-1 to the adjacent landfill property, Well DW-1 would not be used as a water source for any proposed quarry-related operations. Consequently, under the WMP, Well DW-2 is the only production well proposed to be used to provide supplemental water for quarry operations, as needed. In the event Well DW-2 was affected by placement of stockpile material or quarry mining as quarry operations proceed, DW-2 would be adjusted up or down accordingly. If necessary, this well would be relocated within, or proximate to, the quarry footprint and would draw water from the same aquifer. If DW-2 must be relocated, the new location would not be closer to the Roblar Landfill property than the existing DW-2 well.

Production well water would first be pumped to three 10,000 gallon “water storage tanks” (see Figure HYD-1.1) located above and just east of the northeast corner of the quarry footprint. (Previously, one 10,000 gallon water storage tank was proposed to be located at the quarry’s equipment staging area.) If necessary, the amount of water storage would be increased to facilitate the best management of water resources. (Please see detail on production well capacity, including the results of a well pump test, under Production Well Capacity, below, and in Master Response HYD-3 in this Response to Comments Document.)

Each of these water storage tanks would measure approximately 7½ feet in height and 15½ feet in diameter. The storage tanks would be installed on concrete pads in accordance with

manufacturer's recommendations and secured as necessary to prevent toppling. The storage tanks would be surrounded by a gravel pad to allow for ease of access and maintenance. Trees are proposed to be planted around the storage tank area to screen them from surrounding areas; accordingly, no significant visual impacts would occur. Water from the storage tanks would flow by gravity to the quarry site operations area to provide supplemental water for quarry operations (e.g., crushing plant, dust control and irrigation).

As with runoff/seepage water discussed above, production well water would be regularly tested, and if needed, treated for VOCs prior to either direct onsite re-use to support quarry operations or temporary storage prior to onsite re-use (see additional discussion under Water Quality Monitoring and Treatment, below).

Water Quality Monitoring and Treatment, and Treated Water Storage

Prior to construction and operation of the quarry, the applicant would apply for a permit of Waste Discharge Requirements from the RWQCB. The final design and operation of the proposed water treatment system would be required to meet criteria of the RWQCB's Waste Discharge Requirements and the Water Quality Objectives presented in RWQCB's Water Quality Control Plan for the North Coast Region (2007).

Water within the sediment control basins and production Well DW-2 would be regularly sampled and analyzed for VOCs by a California state certified analytical laboratory. Prior to the release of water from any sediment control basin, the quarry would obtain representative samples of the water held in the basin and submit the samples for analysis of VOCs by a California state certified analytical laboratory. Once samples and final analytical results are received, the quarry would determine the appropriate routing of the water based on the presence or absence of detectable VOCs. Basin water quality sampling schedules, guidelines, protocols, and procedures required to collect and analyze representative samples from each basin will be provided in a detailed Sediment Control Basin Sampling and Analysis Plan, subject to review and approval by the County of Sonoma PRMD, and as applicable, the North Coast RWQCB, prior to commencement of operation of the treatment system.

Groundwater extracted from Well DW-2 would be sampled and analyzed once every 24-hours during periods of sustained or cyclic pumping, and at the end of each pumping episode during times of intermittent use of the well (intermittent use means pumping episodes separated by more than 24 hours).

Water that tests non-detectable for VOCs would be used, as needed, to maintain baseline flow conditions in Ranch Tributary and Americano Creek, and/or routed to either direct onsite re-use to support quarry operations or water storage tanks for temporary storage prior to onsite re-use (see Figure HYD-1.2). In the event that monitoring data indicate VOCs are present in seepage water at the sediment control basins, or in Well DW-2, the affected water source would be piped to the onsite water treatment system for the removal of VOCs. Following treatment for the removal of VOCs, the treated water would be available for either direct onsite reuse or temporary storage prior to onsite reuse.

Figure HYD-1.3 presents the preliminary design for the water treatment system. Water from the sediment control basins would first be piped to secondary sediment control to remove additional sediment and fine-grained material prior to treatment. Following secondary sediment control, the water would then be piped to a granular activated carbon (GAC) treatment system to facilitate the removal of VOCs. GAC has been demonstrated to be an effective and reliable technology for the removal of VOCs from water to levels within the most stringent groundwater quality regulations. The GAC system would be comprised of two, 2,000 pound GAC vessels (or other appropriately sized GAC vessels should conditions warrant) connected in series. The GAC treatment system would be designed to accommodate the average monthly runoff and seepage as presented in the WMP. To allow for flexibility, the treatment system would have a rated treatment capacity of 100 gallons per minute (gpm), which is substantially higher than the seepage rate estimated in the Draft EIR.

The GAC vessels would be operated and monitored in series as a precautionary measure to assure the effectiveness for the removal of VOCs from groundwater prior to reuse onsite. As such, the secondary GAC vessel would provide an additional measure of precaution to assure the removal of any VOCs prior to any reuse of the treated water.

Following treatment for the removal of VOCs, the water would be piped to the “treated water storage tanks” (see Figure HYD-1.2) located on the quarry floor where it would be retained and sampled (post-treatment) for the analysis of VOCs by a California state certified analytical laboratory. Following the receipt of laboratory analytical data that confirms VOCs have been effectively removed from the treated water, the water would be available for either direct onsite reuse or temporary storage prior to onsite reuse (as described above). The treated water storage tanks would have a minimum storage capacity of 30,000 gallons (for temporary storage). If necessary, the amount of storage could be increased to facilitate the best management of water resources.

It is anticipated that sediment within the basins (estimated at less than 8,000 cubic yards per year) would be removed on an annual basis or more frequently based on monitoring. In the event that VOCs are detected in water of the sediment control basins, the sediment within the respective basin would also be sampled and analyzed for VOCs (by a California state certified laboratory) prior to the removal. In the event that VOCs are present in the material, it would be managed in accordance with all applicable state and federal regulations related to handling, storage and transport of hazardous materials.

Project Water Demand

The WMP provides more refined and detailed estimates for all components of water demand for the proposed quarry operations, including dust control, the crushing plant, stockpile watering, tire wash rack, scale house use, and irrigation for landscape and reclamation planting; and to maintain baseline flow conditions to Ranch Tributary/American Creek. Average daily project water demand was calculated for both “wet” months (November through April) and “dry” months (May through October). The WMP also estimates project water demand by month, and annually.

The WMP conservatively estimates that during wet months, the proposed quarry would generate a daily water demand of approximately 20,100 gallons per day (gpd) for quarry operations, and require approximately 48,800 gpd to maintain baseline flow conditions to Ranch Tributary/Americano Creek. During dry months, the quarry would generate a water demand of approximately 34,800 gpd for quarry operations, and would require approximately 6,300 gpd to maintain baseline flows to Ranch Tributary/Americano Creek.

The WMP conservatively estimates the total annual project water demand (excluding the component to maintain baseline flow to Ranch Tributary/Americano Creek) at approximately 8.88 million gallons per year. The project water demand estimate substantially exceeds that originally estimated by the applicant and correspondingly presented in the Draft EIR (3 million gallons per year). In consideration of concerns raised about wind blown dust, a considerably higher allowance for water allocated for dust control was added by the applicant for the WMP. Specifically, the WMP assumes during the dry months a maximum application of 2,500 gallons per hour would be used for dust control during operating hours (and half that amount of water required daily during the wet months). It should be recognized that this worst-case water demand scenario overstates project water use, as it assumes water for dust control at the project site would be applied at the same rate over the course of the operating day. However, as discussed in Master Response AQ-1, the actual wind conditions for the project site, and the corresponding amount of water required for dust control, would be variable throughout the day. Furthermore, this water demand estimate does not account for other proposed measures and practices that would reduce the amount of water needed for dust control and irrigation, including but not limited to, use of water absorbent (conservation) materials that would minimize total water demand, and vegetative wind screening (see Master Response AQ-1 for additional information on wind and dust control).

Production Well Capacity and Adaptive Management Program

In support of the WMP, a step-drawdown test of Well DW-2 was performed on December 15, 2008 to provide additional information regarding the capacity for the onsite production well to supplement water required to meet the project water demand. The step-drawdown test involved pumping well DW-2 to test the capacity of the well at a range of discharge rates over time intervals, and measuring groundwater levels in well DW-2 and nearby quarry site wells MW-1, MW-2b, MW-3, MW-4 and DW-1, and adjacent Roblar landfill property well R-1, prior to, during and after the pump test to assess groundwater conditions. The step-drawdown test revealed DW-2 achieved a maximum pumping rate of 50 gpm. In addition, the analysis of data collected during the step-drawdown test suggests that Well DW-2 should be capable of sustained pumping rates that range from approximately 15- to 45 gpm, for periods that range from at least 10 to 100 days or longer (PES, 2009a, 2009b). This sustained rate should accommodate the groundwater pumping scenario proposed in the WMP, which calls for pumping groundwater at a constant rate of approximately 18 gpm per day, or pumped on a sustainable cyclic basis [e.g., pumping at 35 gpm for a four hour period followed by a recharge (non-pumping) period of four hours] in conjunction with temporary storage in water tanks. Please see Master Response HYD-3, below, for additional information on the step-drawdown test.

In order to ensure that Well DW-2 will continue to supply long-term supplementary water for the project when necessary to augment supplies provided by reuse of water generated onsite, the WMP includes implementing a groundwater level monitoring and adaptive management program when the project begins to pump groundwater for quarry operations from Well DW-2. The program would be operated with oversight and reporting requirements to the Sonoma County PRMD. The applicant would retain a California certified hydrogeologist to develop the monitoring program, subject to approval by the County. The groundwater monitoring program would require that Well DW-2 and the onsite monitoring wells (MW-1, MW-2b, MW-3, MW-4 and DW-1) be monitored on a weekly basis by quarry staff during the period of active pumping from Well DW-2. Consistent and frequent monitoring would identify trends of long term water level decline. If pumping at Well DW-2 results in a measurable declining trend of static water levels, the applicant shall employ appropriate adaptive management strategies. These strategies include short-term (e.g. alteration of pumping schedule, reduced pumping, decreased water use, changes in overall water management strategies or temporary cessation of pumping) or long-term corrective measures (e.g. permanent cessation of pumping at Well DW-2, installation of a higher producing well in an alternate onsite location) until the groundwater levels in onsite wells are shown to recover to pre-project pumping conditions.²

Water Balance

An annual water balance was prepared in support of the WMP which considers the various sources of water supply available to serve the project (including precipitation and groundwater seepage, with supplemental water that can be supplied by the applicant's groundwater production well DW-2, as needed) along with the estimated project water demand (including for quarry operations, such as processing, dust control and irrigation, and maintaining baseline flows in Ranch Tributary/American Creek, as described above). The purpose of the water balance was to quantify the relative water supply/demand ratio throughout the year to inform the management of the water resources for the proposed project.

The WMP determined monthly runoff volumes for the project by using rainfall data from California Irrigation Management Information System (CIMIS) together with Sonoma County Water Agency (SCWA) Mean Seasonal Precipitation data. SCWA data show that annual precipitation is 30 inches for the project site. The CIMIS data was used to prorate the SCWA data to derive monthly volumes. The average amount of daily precipitation/runoff generated within the proposed quarry footprint ranged from approximately 48,800 gpd during the wet months to 6,300 gpd during the dry months. Annually, approximately ten million gallons of precipitation/runoff are estimated to occur within the proposed quarry footprint.

As quarry excavation proceeds, groundwater seepage would discharge into the quarry footprint. Using the constant seepage rate estimated in the Draft EIR, and accounting for seasonal fluctuations, the WMP estimates project groundwater seepage at approximately 43,200 gpd during wet months and 14,400 gpd during the dry months. Annually, the WMP estimates

² The preferred location of such a well could be in the southwest portion of the project site, closer to Roblar Road and further away from the Roblar Landfill.

approximately 10.5 million gallons of precipitation/runoff would occur within the proposed quarry footprint.

The WMP water balance shows that when considering all water supply sources available to the project, and the project's total estimated water demand, there would be a net water supply surplus of 7.3 million gallons annually. The WMP estimates that during the wet months, the project would not require production well water, but rather, other water supply sources (i.e., precipitation and groundwater seepage) would provide adequate water supply to meet the project water demand. During the dry months, the WMP indicates groundwater from Well DW-2, and water stored in onsite water tanks, would be required to supplement the water supply to meet the project water demand. As discussed under Production Well Capacity, above, Well DW-2 has been demonstrated to be capable of providing this sustained pumping rate (see also Master Response HYD-3). As discussed under the topic Project Water Demand, above, the WMP-estimated project water demand represents a conservative approach and worst-case scenario, including inclusion of highly conservative project water use estimates. Consequently, the actual amount of groundwater from pumping required to serve the project is expected to be less than that estimated.

Water Management Plan Relationship to EIR Impacts and Mitigation Measures

Additional information contained in the applicant's WMP is provided in this Response to Comments Document that supplements information contained in the Draft EIR; changes to the Draft EIR text have been made to reflect this additional information (see below). However, the additional information in the WMP does not change any conclusions regarding the significance of project impacts. Rather, as described below, the proposed WMP expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR, and is designed to be consistent with the mitigation measures identified in the Draft EIR for addressing potential hydrologic and water quality impacts.

Stormwater/Seepage Water Control. The proposed WMP would not affect the boundaries of the quarry footprint or substantially alter the area of impervious surfaces created by the proposed mining plan. Therefore, the proposed WMP would not substantially change the amount of stormwater or seepage that would occur on the project site beyond that originally analyzed in the Draft EIR. However, the series of trenches and additional detention basins proposed by the WMP would supplement the originally-proposed stormwater/seepage water conveyance and storage facilities, and accordingly, would increase onsite water detention and storage capacity for the project. The WMP would be consistent with Mitigation Measure C.1 in the Draft EIR, which allows for the quarry's use of alternate detention basins, expanded use of the quarry floor for detention, and/or expanded use of infiltration areas for percolation and storage to manage stormwater flows. In addition, all other applicable mitigation measures identified in Mitigation Measures C.1/C.3 of the Draft EIR for reducing peak runoff flows from the site would continue to be required, including implementing an on-going baseline flow and creek stage monitoring program for Americano Creek and Ranch Tributary to ensure that peak stormwater and seasonal non-stormwater flows discharges from the project site do not exceed pre-project flows in these waterways.

Sediment Control and Removal. The sediment control basins proposed by the WMP along with the originally-proposed sediment basin would increase sediment removal capacity for the quarry. Furthermore, as discussed above in the WMP description, the proposed VOC water treatment system would provide secondary sediment treatment to remove additional sediments and fine-grained materials. The WMP would be consistent with Mitigation Measure C.2 in the Draft EIR which allows for utilization of a range of sediment retention and control designs to effectively prevent sediment discharge to receiving waters. The WMP would also operate in conjunction with all the other existing elements of the WQPP identified in Mitigation Measure C.2, including but not limited to, other source and sediment control measures, BMP practices and implementation of a SWPPP. Furthermore, the Stormwater Monitoring Program required by the WQPP in Mitigation Measure C.2 would ensure compliance of stormwater discharge with the requirements of the NPDES General Permit for Discharges of Storm Water Associated with Industrial Activities. Given these factors, the incorporation of the proposed WMP into the project would increase the sediment control and removal achieved by the mitigation measures and ensure that the impact would be less than significant.

Contaminant Containment, Monitoring, and Removal. The drainage system and sediment control basins proposed by the WMP would effectively collect and contain groundwater that could enter the quarry as seepage. Furthermore, the onsite water treatment system proposed by the WMP would provide a feasible and effective system for treating potential VOCs that may be encountered in the seepage water and/or in production well DW-2. The WMP would be consistent with Mitigation Measures C.4 in the Draft EIR with respect to ongoing monitoring of water collected within the quarry and the production well, and as needed, onsite treatment (e.g., GAC) to remove VOCs to within the storm water discharge criteria set forth through the NPDES industrial discharge permit. However, the WMP differs from the originally proposed project in that with the WMP, any water occurring within the quarry footprint that must be treated for VOC removal would be limited to re-use onsite for quarry operations, and would not be discharged to creeks. The following revisions to Draft EIR Mitigation Measures C.4d-e would further ensure consistency between the EIR and the WMP and reduce potential impacts related to contaminants (no changes are required for Mitigation Measures C.4a-c); all changes to the Draft EIR are compiled in Chapter V, Errata:

“Mitigation Measure C.4d: Production well DW-1 shall not be used for any quarry-related operations. -In the event operational constraints prevent production well DW-2 from being used throughout the project duration, this well shall be relocated onsite within, or in proximity to, the quarry footprint (and no closer to the landfill property than existing Well DW-2). 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.

Mitigation Measure C.4e: ~~Prior to discharge to Ranch Tributary,~~ The applicant shall fully incorporate and implement all measures specified in their Water Management Plan, including that reflected in this mitigation measure as follows:-

The applicant shall regularly sample and analyze all water collected within the quarry footprint and in production well DW-2 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.

The sediment control basin sampling and analysis schedule shall be developed in conjunction with the basin management operations. Prior to the release of water from any sediment control basin, the quarry shall obtain representative samples of the water held in the basin and submit the samples for analysis of VOCs by a California state certified analytical laboratory. Once samples and final analytical results are received, the quarry shall determine the appropriate routing of the water based on the presence or absence of detectable VOCs. Basin water quality sampling schedules, guidelines, protocols, and procedures required to collect and analyze representative samples from each basin will be provided in a detailed Sediment Control Basin Sampling and Analysis Plan, subject to review and approval by the County of Sonoma PRMD, and as applicable, the North Coast RWQCB, prior to commencement of operation of the treatment system.

Groundwater extracted from Well DW-2 shall be sampled and analyzed once every 24-hours during periods of sustained or cyclic pumping, and at the end of each pumping episode during times of intermittent use of the well (intermittent use means pumping episodes separated by more than 24 hours).

Water that tests non-detectable for VOCs would be used, as needed, to maintain baseline flow conditions in Ranch Tributary and Americano Creek (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary and Americano Creek), and/or routed to either direct onsite re-use to support quarry operations or water storage tanks for temporary storage prior to onsite re-use. In the event that the ~~discharge the water collected within the quarry footprint or production well DW-2 does contain contaminants, surface water discharge to Ranch Tributary shall cease and all discharges shall be contained. Once contained, discharged such~~ water shall be treated onsite (e.g., use of granular activated carbon vessels/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, and subsequently be available only for either direct onsite reuse or temporary storage prior to onsite re-use.

In addition, in the event that VOCs are detected in the water in the sediment control basins, the sediment within the respective sediment control basin would also be sampled and analyzed for VOCs prior to removal. In the event that VOCs are detected in this sediment, it shall be removed, transported and disposed of off-site at an appropriate licensed facility in accordance with all applicable state and federal regulations.”

In summary, the incorporation of the proposed WMP into the project would not change the conclusions reached in the Draft EIR regarding potential project effects on water quality in off-

site water courses, but rather, would enhance the previously-identified mitigation measures to ensure the project impact to off-site water quality would remain less than significant.

Baseflows in Ranch Tributary. The proposed WMP would not affect the boundaries of the quarry's mining footprint or the amount of materials excavated. Therefore, the proposed WMP would not change the amount of groundwater storage that would be eliminated by the proposed mining plan, and the associated reduction in underflow available in Ranch Tributary (and hence, flows in Americano Creek), beyond that originally analyzed in the Draft EIR. However, the increased on-site water storage proposed by the WMP would ensure that adequate water supply would be available to replace any potential reductions in baseflows in Ranch Tributary that would occur under the project. The additional onsite basins proposed by the WMP would also provide an opportunity for some limited groundwater recharge from infiltration with these facilities beyond that which would occur under the original project. The WMP also demonstrates that adequate water supply would be available to sufficiently accommodate the water demand for onsite dust control, irrigation and reclamation planting; water for these uses would also be expected to provide some groundwater recharge. Furthermore, other aspects of Mitigation Measure C.5, including the baseflow monitoring program, and if needed, implementation of a passive surface water diversion system to replicate flows in Ranch Tributary, would continue to be required.

The following revisions to Draft EIR Mitigation Measures C.5a-b would further ensure consistency between the EIR and the WMP and reduce potential impacts related to contaminants:

“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, e~~Consistent with Mitigation Measure C.4, only stored surface water that tests non-detectable for VOCs would be used, as needed, to maintain base flows in Ranch Tributary (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary). 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.

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 *North Coast Water Quality Control Plan* 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. Consistent with Mitigation Measure C.4, only well water that tests non-detectable for VOCs would be used, as needed, to maintain base flows in Ranch Tributary (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary).”

In summary, the incorporation of the proposed WMP into the project would not change the conclusions reached in the Draft EIR regarding potential project effects on baseflows in Ranch Tributary and flows in Americano Creek, and would serve to ensure the project impact to off-site water quality would remain less than significant.

Groundwater Recharge. The proposed WMP would not exacerbate the potential reduction in groundwater recharge associated with the mining plan beyond that originally analyzed and determined to be less than significant in the Draft EIR. In fact, as discussed above, the additional onsite basins proposed by the WMP, and the availability of sufficient water supply for onsite dust control, irrigation and reclamation planting would also provide an opportunity for some additional groundwater recharge. Consequently, the incorporation of the proposed WMP into the project would not substantially affect the conclusions reached in the Draft EIR that deep recharge to regional groundwater sources would not be adversely affected.

Groundwater Flow and Quality in Nearby Wells. The proposed WMP would not change the boundaries of the quarry’s mining footprint, and therefore, would not alter groundwater flow or quality in nearby domestic wells beyond that originally analyzed and determined to be less than significant in the Draft EIR. Consequently, the incorporation of the proposed WMP into the project would not substantially affect previously-identified conclusions reached in the Draft EIR that potential project effects on groundwater flow and quality in neighboring domestic wells would be less than significant.

Groundwater Pumping Effect on Nearby Wells. The Draft EIR analyzed the effect of groundwater pumping on periodic drawdown and lowering local groundwater levels, and determined this impact to be less than significant. As discussed above, only Well DW-2 would be used to supply supplemental groundwater for quarry operations (i.e., no use of Well DW-1). Furthermore, as discussed in Master Response HYD-3, below, the WMP would include a strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project with no adverse impacts from well pumping. These project refinements would not change any of the conclusions previously reached in the Draft EIR with respect to the effect of project groundwater pumping to neighboring wells.

Noise. The WMP proposes to operate pumps (submersible and/or centrifugal) within the quarry interceptor trenches, and for the onsite water treatment system, which would intermittently generate noise when operating. These pumps would be relatively small (5 to 30 horsepower) and generate substantially lower noise levels compared to the other noise generating equipment already proposed at the quarry (e.g., processing plant, large mobile equipment, etc.).

Furthermore, given the proposed location of this additional equipment on the quarry floor, the associated noise would be largely shielded by the surrounding quarry walls as excavation proceeded. Feasible mitigation measures identified in the Draft EIR for noise generated from quarry operations would also apply to the pumps proposed for the interceptor trenches and water quality treatment system to ensure noise in the vicinity of the quarry site would not exceed the applicable General Plan noise standards. If needed, standard noise-attenuating features that could be used for this equipment to ensure noise generated by this equipment would be minimized could include noise barriers, enclosures, and/or baffling. Based on the above, the incorporation of the proposed WMP into the project would not substantially affect previously-identified conclusions reached in the Draft EIR regarding noise impacts; or require revisions to previously identified mitigation measures for these impacts.

Other Environmental Effects. The incorporation of the proposed WMP into the project would not substantially change the conclusions reached in the Draft EIR regarding potential impacts to land use compatibility; conversion or loss of farmland, or conflict with the Williamson Act; geology, soils, or seismicity; biological resources; hazardous materials; public services and utilities; and aesthetics. Nor would the proposed WMP require revisions to previously identified mitigation measures for these impacts.

Potential Secondary Environmental Effects Associated with Potential Off-Site Hauling of Sediment from Proposed Sediment Control Basins

Transportation and Circulation. The potential off-site hauling of sediment from the sediment control basins, if needed, could result in up to 400 new annual off-site truck loads, or less than 1.5 truck loads per work day. This would correspond to an increase in daily or annual trips generated at the quarry of less than one percent above that previously analyzed. This potential addition in daily project truck trips would not substantially change any previously-identified conclusions reached in the Draft EIR regarding effects of project traffic on peak-hour intersection levels of service, traffic safety, and/or roadwear; or require revisions to previously identified mitigation measures for these impacts. It should be noted that trucks hauling of materials from the sediment control basins would be under control of the applicant and would be required to access the quarry to and from the west, thereby avoiding the community of Roblar.

Air Quality. The potential new annual off-site truck loads associated with off-site hauling of sediment from the sediment control basins, if needed, and operation of the proposed pumps for the interceptor trenches and onsite water treatment system, would incrementally increase emissions of criteria air pollutants by approximately one-half percent or less above that originally estimated for the project. Similarly, diesel particulate matter (DPM) concentrations at the study receptors would increase by one-half percent or less above that originally estimated, and would result in no change in the DPM health risk values previously reported in the Draft EIR. In addition, project annual greenhouse gas (GHG) emissions would increase by no more than one percent over that originally estimated. The nominal increase in emissions associated with these project elements would not substantially change any previously-identified conclusions reached in the Draft EIR regarding project-generated criteria pollutants and DPM emissions, GHG emissions, and contribution to cumulative air quality effects; or require revisions to previously

identified mitigation measures for these impacts. The proposed expanded dust control program discussed in Master Response AQ-1, and additional data presented in the WMP and summarized in this master response regarding the adequacy of water supply to accommodate the quarry water demand for dust control, would ensure onsite fugitive dust effects at the quarry would be mitigated to a less than significant level.

Noise. In the event that the additional vehicle trips associated with the potential off-site hauling of sediment as identified in the WMP would occur during the peak traffic hours, this would account for an increase in peak roadside noise levels of 0.1 decibels or less on Roblar Road west of the quarry above that previously analyzed, and even smaller increases on other study roadways. This would not substantially affect previously-identified conclusions reached in the Draft EIR regarding noise impacts; or require revisions to previously identified mitigation measures for these impacts.

References

CSW/Stuber Stroeh Engineering Group, Inc., PES Environmental, Inc., *Water Management Plan, Roblar Road Quarry, Sonoma County, California*, July 1, 2009.

PES Environmental, Inc., *Results of Well DW-2 Step-Drawdown Test and Groundwater-Level Monitoring Program, Roblar Road Quarry, Petaluma, California*, January 20, 2009a.

PES Environmental, Inc., *Supplemental Analysis, Well DW-2 Step-Drawdown Test and Groundwater-Level Monitoring Program, Roblar Road Quarry, Petaluma, California*, January 20, 2009b.

Master Response HYD-2: Additional Information on Groundwater Quality Monitoring

[Responds to Comments D-2, D-3, J-15, J-21, L-3, L-17, L-17a, L-19, L-21, L-24, L-25, L-29, M-17, O-15, O-17, P-2, Q-3, R-2, V-6, CC-4, DD-4, GG-2, PC-32, PC-56, PC-79, PC-93 and PC-119]

The Draft EIR, Section IV.C, Hydrology and Water Quality, presented available groundwater monitoring data for the project site and adjacent Roblar Landfill property. Several comments on the Draft EIR expressed concern that the closed Roblar Landfill could be the source of contaminants detected in monitoring data presented in the Draft EIR, and requested information regarding the specific landfill contents and/or additional information on groundwater quality. Other comments requested additional information regarding the applicability of regulatory thresholds for contaminants detected in groundwater monitoring.

This master response 1) describes the on-going groundwater monitoring program being conducted in support of the project; 2) expands the detail about the analytical results of the monitoring program; 3) presents additional groundwater data that has been gathered since publication of the Draft EIR; and, 4) compares the contaminant levels to pertinent regulatory thresholds established for groundwater quality and discusses the relevance of these comparisons. Finally, this master response relates the mitigation measures identified in the EIR, as supplemented in this Response to Comments Document, that reflect incorporating the applicant's Water Management Plan into the project, to ensure all potential impacts associated with the project's effect on groundwater quality would be less than significant.

Roblar Road Quarry Groundwater Monitoring Program

Background

In January 2007, at the request of Sonoma County PRMD, the applicant initiated a groundwater monitoring program to establish the existing baseline groundwater quality on the project site. Such a baseline is needed to identify and assess potential changes in groundwater quality that could result from the project. As part of this ongoing groundwater monitoring program, groundwater on the project site and adjacent Roblar Landfill property has been periodically sampled and analyzed for chemical constituents, metals and other parameters.³ Under the groundwater monitoring program, a total of seven rounds of groundwater sampling have occurred between February 2007 and May 2009. The Draft EIR (page IV.C-18 to 19) summarized the results of the first five rounds of sampling, and the applicant has conducted two additional groundwater sampling rounds (November 2008 and May 2009) since the release of the Draft EIR.

³ The groundwater monitoring program included sampling and analysis of groundwater for water chemistry (e.g. pH, alkalinity, hardness, and TDS), salts, organochlorine pesticides, poly chlorinated biphenyls (PCBs), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), including diethylstilbestrol, and trace metals. Water levels were also collected during each monitoring event to calculate the groundwater gradient.

To date, five monitoring wells have been installed by the applicant on the project site at locations between the proposed quarry and the Roblar Road landfill property (Wells MW-1, MW-2, MW-2b, MW-3, and MW-4 – see **Figure HYD-2.1**). Monitoring Wells MW-1, MW-2 and MW-3 were installed on the project site in January 2007. The groundwater monitoring program also includes the two existing on-site production wells (DW-1 and DW-2⁴- see Figure HYD-2.1). The groundwater monitoring program was expanded to include the three existing monitoring wells on the adjacent closed landfill property (R-1, R-2 and R-3⁵– see Figure HYD-2.1) for selected monitoring rounds.⁶ The groundwater monitoring wells on the Roblar Landfill property are owned and operated by the Sonoma County Department of Transportation and Public Works – Integrated Waste Division (DPTW-IWD). The DPTW-IWD has also conducted regular groundwater monitoring and sample analysis from the landfill property wells since November 2004 as part of an independent landfill groundwater monitoring program conducted separately from the applicant’s groundwater monitoring program. Data obtained from the DPTW-IWD landfill groundwater monitoring program was reviewed as part of the groundwater analysis conducted for the EIR. Groundwater data from the DPTW-IWD groundwater monitoring program for the landfill property wells is consistent with the results of the applicant’s groundwater monitoring program for the landfill property wells.

Pursuant to Mitigation Measure C.4a-c in the Draft EIR, the applicant installed monitoring well (MW-2b) in November 2008 to replace Well MW-2 because it appeared that the water quality within this well may have been compromised during well installation. Specifically, analytical results of groundwater from monitoring well MW-2 revealed anomalous groundwater chemistry, such as uncharacteristically high values for pH, specific conductance, total dissolved solids, hardness, calcium, and sodium, and consistent concentrations of acetone. The groundwater results from Well MW-2 were not consistent with the results found in other onsite wells. Review of the well construction logs and notes revealed that a portion of the borehole drilled for the well was backfilled with cement grout prior to well casing and screen installation. Although not confirmed, the anomalous water quality results suggest that excess cement grout material may have mixed with the sand filter pack surrounding the perforated well screen; thus contaminants may have been introduced into the well water.






Replacement well MW-2b was first sampled in November 2008 and then sampled again in May 2009. Monitoring well MW-2 was last sampled in March 2008 and will not be included in the applicant’s groundwater monitoring program going forward. It is important to note that because of the anomalous data from Well MW-2, the analysis and discussion of groundwater quality presented below does not incorporate the analytical results obtained from previous sampling and analysis of Well MW-2.

⁴ Wells DW-1 and DW-2 were installed on the project site by the applicant in 2004.

⁵ Landfill property wells R-1, R-2 and R-3 were installed by the County in 1991.

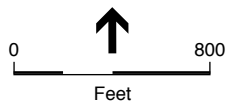
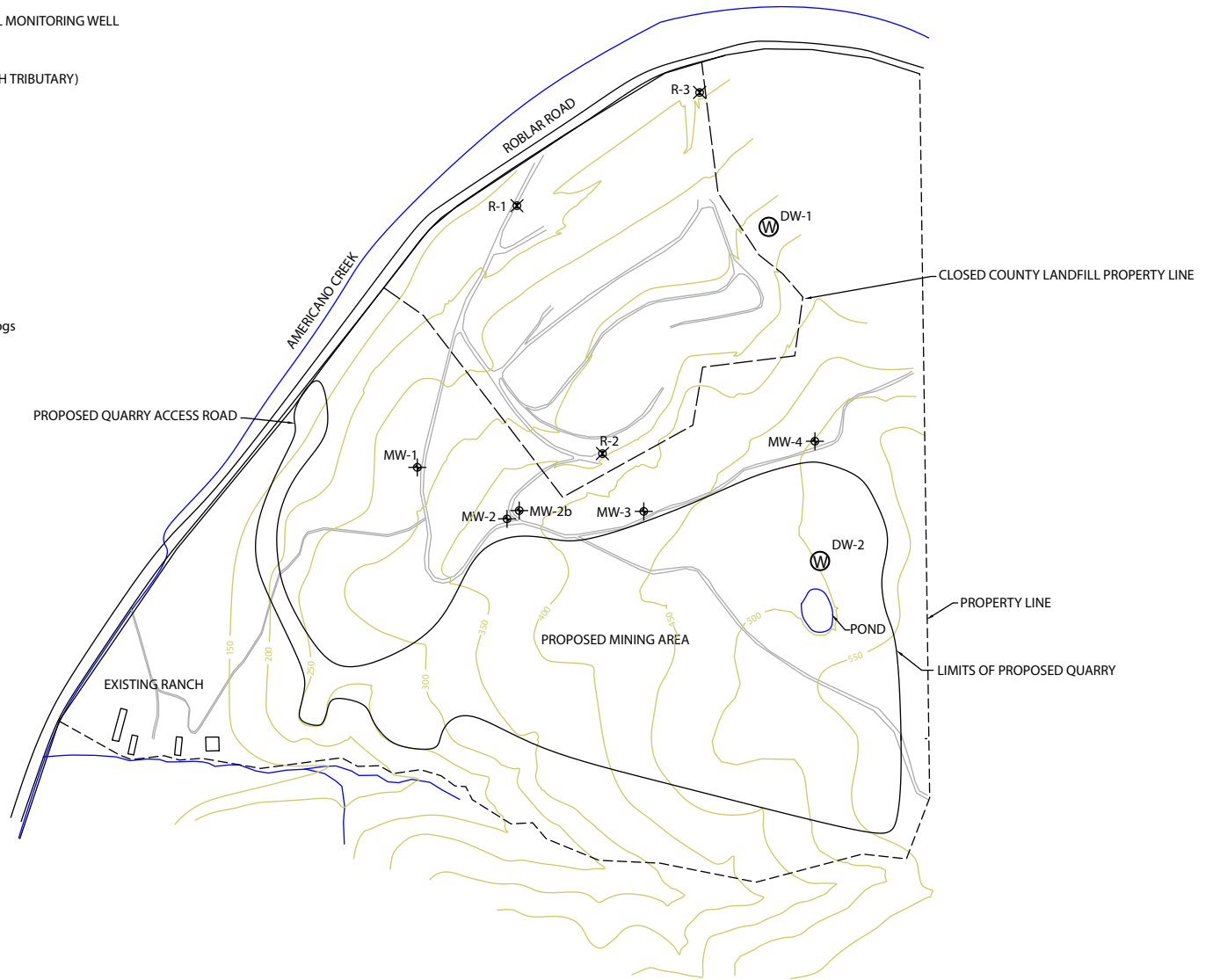
⁶ The groundwater monitoring program included sampling and analysis of the landfill property wells in April, September, and December 2007 and March 2008.

LEGEND

- MW-1  MONITORING WELL LOCATION (ROBLAR ROAD QUARRY: NORTH BAY CONST.)
- DW-1  DOMESTIC WELL LOCATION (ROBLAR ROAD QUARRY: NORTH BAY CONST.)
- R-3  APPROXIMATE LOCATION OF COUNTY LANDFILL MONITORING WELL
-  500 TOPOGRAPHIC CONTOUR LINE
-  SURFACE WATER (AMERICANO CREEK and RANCH TRIBUTARY)

WELL SPECIFICATIONS

- MW-1 SCREEN INTERVAL 40 - 60 feet bgs
- MW-2 SCREEN INTERVAL 85 - 105 feet bgs
- MW-2b SCREEN INTERVAL 48.7 - 68.7 feet bgs
- MW-3 SCREEN INTERVAL 94.5 - 114.5 feet bgs
- MW-4 SCREEN INTERVAL 64-84 feet bgs
- DW-1 SCREEN INTERVAL 50 - 340 feet bgs
- DW-2 SCREEN INTERVAL 140-160; 240-280; 360-540 feet bgs
- R-1 SCREEN INTERVAL 13 - 28 feet bgs
- R-2 SCREEN INTERVAL 16 - 46 feet bgs
- R-3 SCREEN INTERVAL 15 - 45 feet bgs



Also pursuant to Mitigation Measure C.4a-c, the applicant installed another new monitoring well (MW-4) in November 2008 at a location north of the proposed Phase 3 footprint and redeveloped⁷ monitoring wells MW-1, MW-3, and DW-2. Well MW-4 is intended to increase groundwater monitoring coverage by providing an additional monitoring point between the Roblar Landfill property and the project site. Well MW-4 was first sampled in November 2008 and then again in May 2009. In addition, redevelopment of Wells MW-1, MW-3, and DW-1 was necessary to ensure that the wells were free of potential contaminants that may have been introduced through cross-contamination during the original installation, sampling, or analysis.

On August 27, 2007, the County of Sonoma Department of Health Services (DHS) sent a letter to residences within one-half mile of the project site informing them that arsenic, aluminum, chromium, and manganese were detected in the groundwater at the project site at levels in excess of standards applicable to public water supplies. The information in the letter was based on the first round of groundwater monitoring data (February 2007) conducted as part of the applicant's groundwater monitoring program for the quarry site. For reasons discussed above, some of these initial monitoring results are likely not representative of existing groundwater quality, and measures have since been taken to respond to this issue (i.e., redevelopment and/or replacement of certain monitoring wells, and additional water quality monitoring). The relationship between these initially reported values and the groundwater quality at the project site are discussed below.

Summary of Results of Applicant's Groundwater Monitoring Program

Groundwater samples collected from the project site and the Roblar Landfill property during the monitoring program were tested for various metals and chemical constituents, including volatile organic compounds (VOCs). **Table HYD-2.1** provides a summary of 19 selected metals and **Table HYD-2.2** lists the 8 VOC constituents that were found to be present in one or more of the monitoring wells.

Although the groundwater quality analyses tested for a variety of metals, Table HYD-2.1 presents the metals that are considered by the State of California as those with the highest potential for human health risk and the metals most likely to indicate groundwater contamination from unnatural sources or anthropogenic pollution. These 17 metals are referred to as the California Administrative Manual (CAM) metals or CAM-17. The November 2008 sampling round was the first round in which groundwater was analyzed for the entire CAM-17 suite of metals. Please note also that lower detection limits were used for the November 2008 than in previous sampling rounds of analyses.⁸

⁷ Redevelopment of the MW-1 and MW-3 wells was performed by surging and bailing followed by pumping a minimum of 10 well volumes of water from each monitoring well. Due to the greater depth of production well DW-2 and the presence of the pump installed in that well, Well DW-2 was adequately redeveloped by purging alone.

⁸ See Table HYD-2.1 for additional detail on the analysis methods used for all sampling rounds.

**TABLE HYD-2.1
SUMMARY OF GROUNDWATER MONITORING PROGRAM ANALYTICAL RESULTS FOR PROPOSED QUARRY SITE AND ADJACENT ROBLAR LANDFILL PROPERTY – METALS^a**

Well ^b	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
PROPOSED QUARRY PROPERTY																				
Concentrations in milligrams per liter (mg/L) ¹																				
MW-1	02/02/07	2.2	--	0.035	0.030	--		ND	ND	--		0.19	--	--	ND	ND	--	--	--	ND
	04/20/07	7.4	--	0.035	0.093	--		ND	ND	--		1.6	--	--	ND	ND	--	--	--	ND
	09/07/07	2.1	--	0.033	0.062	--ND		ND	ND	--ND		4.4	--	--	ND	ND	--	--	--	ND
	12/27/07	2.4	--	0.027	0.070	--ND		ND	ND	--ND		3.1	--	--	ND	ND	--	--	--	ND
	03/25/08	2.6	--	0.034	0.040	--ND		ND	ND	--ND		0.53	--	--	ND	ND	--	--	--	ND
	11/12/08	0.014	ND	0.039	0.024	ND	ND	ND	ND	0.002	0.004	ND	0.037	ND	0.006	ND	0.013	ND	ND	0.004
MW-2	02/02/07	2.1	--	0.003	0.29	--ND		0.28	ND	--ND		0.071	--	--	ND	ND	--	--	--	ND
	04/20/07	2.1	--	0.009	0.12	--		0.15	ND	--		ND	--	--	ND	ND	--	--	--	ND
	09/07/07	2.7	--	0.010	0.20	--ND		0.087	ND	--ND		ND	--	--	ND	ND	--	--	--	ND
	12/27/07	1.6	--	0.016	0.073	--ND		ND	ND	--ND		ND	--	--	ND	ND	--	--	--	0.10
	03/25/08	1.4	--	0.020	0.091	--ND		ND	ND	--ND		ND	--	--	ND	0.013	--	--	--	0.10
MW-2b	11/12/08	6.54	ND	0.006	0.043	ND	ND	0.062	ND	0.014	0.002	0.063	0.00022	0.014	ND	0.001	ND	ND	0.026	0.020
MW-3	02/02/07	0.075	--	0.006	ND	--ND		ND	ND	--ND		0.098	--	--	ND	ND	--	--	--	ND
	04/20/07	0.19	--	0.006	ND	--		ND	ND	--		0.12	--	--	ND	ND	--	--	--	ND
	09/07/07	ND	--	0.006	ND	--ND		ND	ND	--ND		0.094	--	--	ND	ND	--	--	--	ND
	12/27/07	ND	--	0.006	ND	--ND		ND	ND	--ND		0.11	--	--	ND	ND	--	--	--	ND
	03/25/08	ND	--	0.007	ND	--ND		ND	ND	--ND		0.12	--	--	ND	ND	--	--	--	ND
	11/12/08	0.018	ND	0.008	0.007	ND	ND	0.002	ND	0.004	ND	0.116	ND	0.003	ND	0.001	ND	ND	0.003	0.008
MW-4	11/12/08	0.385	ND	0.003	0.004	ND	--	0.019	ND	0.004	ND	0.018	0.00033	0.004	ND	ND	ND	ND	0.007	0.013
DW-1	02/01/07	0.35	--	0.003	0.03	--		ND	ND	--		0.14	--	--	ND	ND	--	--	--	0.16
	04/20/07	0.24	--	0.007	0.018	--		0.058	ND	--		ND	--	--	ND	ND	--	--	--	0.10
	09/07/07	0.91	--	0.003	0.023	--ND		ND	ND	--ND		ND	--	--	ND	ND	--	--	--	0.15
	03/25/08	0.51	--	0.004	0.012	--ND		ND	ND	--ND		0.12	--	--	ND	ND	--	--	--	ND
	11/12/08	0.026	ND	0.004	0.019	ND	ND	0.001	ND	0.004	ND	0.051	0.00022	0.002	ND	0.001	ND	ND	0.007	0.014
DW-2	02/01/07	ND	--		0.012	--ND		ND	ND	--ND		ND	--	--	ND	ND	--	--	--	1.3
	04/20/07	0.16	--	0.005	0.015	--		ND	ND	--		0.31	--	--	ND	ND	--	--	--	1.4
	09/07/07	0.50	--ND	0.005	0.026	--ND		ND	ND	--ND		1.2	--	--	ND	ND	--	--	--	1.8
	03/25/08	0.77	--	0.008	0.050	--ND		ND	ND	--ND		3.4	--	--	ND	ND	--	--	--	4.8
	11/12/08	0.015	ND	0.004	0.018	ND	ND	0.001	ND	0.004	ND	0.032	0.00022	0.003	ND	ND	ND	ND	0.003	0.146

ND

ND

TABLE HYD-2.1 (Continued)
GROUNDWATER MONITORING PROGRAM ANALYTICAL RESULTS FOR QUARRY SITE AND ADJACENT ROBLAR LANDFILL PROPERTY – METALS^a

Well ^b	Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
ROBLAR LANDFILL PROPERTY																				
Concentrations in milligrams per liter (mg/L) ¹																				
R-1	04/20/07	19	--	0.006	0.77	ND	ND	0.059	--		0.007	0.92	--		ND	ND	--			ND
	09/07/07	10	--	0.004	0.55	ND	ND	ND	--		ND	0.57	--		ND	ND	--			ND
	12/27/07		--	NS	NS	ND	NS	NS	--		NS	NS	--		NS	ND	--			NS
	03/25/08	8.3	--	0.005	0.65	ND	ND	ND	--		ND	0.44	--		ND	ND	--			ND
R-2	04/20/07	21	--	0.009	0.24	ND	ND	ND	--		0.063	1.1	--		ND	ND	--			ND
	09/07/07	26	--	0.011	0.29	ND	ND	0.053	--		0.0081	1.7	--		0.12	ND	--			0.68
	12/27/07	15	--	0.008	0.19	ND	ND	ND	--		ND	1.1	--		ND	ND	--			ND
	03/25/08	6.1	--	0.007	0.076	ND	ND	ND	--		ND	0.32	--		ND	ND	--			ND
R-3	04/20/07	40	--	0.015	0.55	ND	ND	0.15	--		0.013	0.32	--		0.12	ND	--			ND
	09/07/07	25	--	0.011	0.31	ND	ND	0.10	--		0.0092	0.19	--		ND	ND	--			ND
	12/27/07	12	--	0.005	0.16	ND	ND	0.053	--		ND	0.066	--		ND	ND	--			ND
	03/25/08	23	--	0.009	0.26	ND	ND	0.074	--		0.0079	0.16	--		ND	ND	--			ND

NOTES:

mg/l: milligrams per liter
 ND: Not detected at or above the laboratory reporting limits
 -- : Not Analyzed

¹ With the exception of mercury, all concentrations have been rounded up to three significant figures.

^a Analysis of metals for the February 2007 through March 2008 sampling rounds were conducted using the EPA Method 6000/7000 series. Analysis of metals for the November 2008 sampling round was conducted using EPA Method 200.8. The EPA 200.8 method is a comparatively more sensitive method affording lower detection limits, and thus, lower reported concentrations. However, for groundwater samples that are turbid, like those collected from the project site, Method EPA 200.8 requires filtration and acidification to remove many of the non-dissolved clay and silt particles prior to analysis. The EPA Method 200.8 analysis, therefore, only detects and reports the dissolved fraction while the EPA 6000/7000 series reports the total concentration (dissolved + non-dissolved). As can be seen in the table, the filtration and acidification of the November 2008 water samples using Method 200.8 analysis generally resulted in markedly lower aluminum and manganese concentrations when compared to those concentrations in the prior sampling rounds using EPA Method 6000/7000 series.

^b See location of wells in Figure HYD-2.1

SOURCE: PES Environmental, Inc., Advanced GeoEnvironmental, Inc.

TABLE HYD-2.2
SUMMARY OF GROUNDWATER MONITORING PROGRAM ANALYTICAL RESULTS FOR PROPOSED
QUARRY SITE AND ADJACENT ROBLAR LANDFILL PROPERTY –
VOLATILE ORGANIC COMPOUNDS

Well ^a	Date	Acetone	Cis-1,2-DCE ^b	Chloromethane	Chloroform	Methyl Ethyl Ketone	Toluene	Vinyl Chloride	1,1,2-TCA ^c
Proposed Quarry Property									
Concentrations in micrograms per liter (µg/l)									
MW-1	02/02/07	ND	ND	0.74	ND	ND	ND	ND	ND
	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/07/07	ND	ND	ND	ND	ND	ND	ND	ND
	12/27/07	ND	ND	ND	ND	ND	ND	ND	ND
	03/25/08	ND	ND	ND	ND	ND	ND	ND	ND
	11/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	<i>duplicate</i>	11/12/08	ND	ND	ND	ND	ND	ND	ND
	05/08/09	ND	ND	ND	ND	ND	ND	ND	ND
MW-2	02/02/07	9.0	ND	ND	ND	ND	ND	ND	ND
	04/20/07	10	ND	ND	ND	1.8	0.5	ND	ND
	09/07/07	21	ND	ND	ND	2.3	ND	ND	ND
	12/27/07	ND	ND	ND	ND	ND	ND	ND	ND
	03/25/08	5.6	ND	ND	ND	ND	ND	ND	ND
	05/08/09	7.81	ND	ND	ND	ND	ND	ND	ND
	<i>duplicate</i>	05/08/09	6.64	ND	ND	ND	ND	ND	ND
MW-2b	11/28/08	ND	ND	ND	ND	ND	ND	ND	ND
	05/08/09	ND	ND	ND	ND	ND	ND	ND	ND
MW-3	02/02/07	8.7	ND	ND	ND	ND	ND	ND	ND
	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/07/07	ND	ND	ND	ND	ND	ND	ND	ND
	12/27/07	ND	ND	ND	ND	1.5	ND	ND	2.8
	03/25/08	ND	ND	ND	ND	ND	ND	ND	ND
	11/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	05/08/09	ND	ND	ND	ND	ND	ND	ND	ND
MW-4	11/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	05/08/09	ND	ND	ND	ND	ND	ND	ND	ND
DW-1	02/01/07	ND	ND	1.2	ND	ND	ND	ND	ND
	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/07/07	ND	ND	ND	0.80	ND	ND	ND	ND
	03/25/08	ND	ND	ND	2.2	ND	ND	ND	ND
	11/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	05/08/09	ND	ND	ND	ND	ND	ND	ND	ND
DW-2	02/01/07	5.6	ND	ND	ND	ND	0.35	ND	ND
	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/07/07	ND	ND	ND	ND	ND	ND	ND	ND
	03/25/08	ND	ND	ND	ND	ND	ND	ND	ND
	11/12/08	ND	ND	ND	ND	ND	ND	ND	ND
	05/08/09	ND	ND	ND	ND	ND	0.51	ND	ND

NOTES:

µg/l: micrograms per liter

ND: Non-detected at or above the laboratory reporting limits

^a See location of wells in Figure HYD-2.1^b cis-1,2-Dichloroethene^c 1,1,2-Trichloroethane

SOURCE: PES Environmental, Inc., Advanced GeoEnvironmental, Inc.

TABLE HYD-2.2 (Continued)
SUMMARY OF GROUNDWATER MONITORING PROGRAM ANALYTICAL RESULTS FOR PROPOSED QUARRY SITE AND ADJACENT ROBLAR LANDFILL PROPERTY – VOLATILE ORGANIC COMPOUNDS

Well ^a	Date	Acetone	Cis-1,2-DCE ^b	Chloromethane	Chloroform	Methyl Ethyl Ketone	Toluene	Vinyl Chloride	1,1,2-TCA ^c
Roblar Landfill Property									
Concentrations in micrograms per liter (µg/l)									
R-1	04/20/07	ND	4.0	ND	ND	ND	ND	ND	ND
	09/07/07	ND	5.4	ND	ND	ND	ND	1.2	ND
	03/25/08	ND	4.5	ND	ND	ND	ND	0.54	ND
R-2	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/07/07	ND	ND	ND	ND	ND	ND	ND	ND
	12/27/07	ND	ND	ND	ND	ND	ND	ND	ND
	03/25/08	5.0	ND	ND	ND	ND	ND	ND	ND
R-3	04/20/07	ND	ND	ND	ND	ND	ND	ND	ND
	09/07/07	ND	ND	ND	ND	ND	ND	ND	ND
	12/27/07	ND	ND	ND	ND	ND	ND	ND	ND
	03/25/08	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

µg/l: micrograms per liter

ND: Non-detected at or above the laboratory reporting limits

^a See location of wells in Figure HYD-2.1^b cis-1,2-Dichloroethene^c 1,1,2-Trichloroethane

SOURCE: PES Environmental, Inc., Advanced GeoEnvironmental, Inc.

Table HYD-2.1 also includes aluminum and manganese because of the interest that may have been generated regarding these metals by the August 2007 County DHS letter to local property owners. In that letter, County DHS alerted local property owners with private wells that arsenic, aluminum, chromium, and manganese had been detected in a monitoring well on the project site at levels in excess of standards applicable to public water supplies, not private wells. This issue is discussed in further detail below.

Metals

Table HYD-2.1 lists the CAM-17 metals (plus aluminum and manganese) analyzed in the applicant's groundwater monitoring program, and resultant groundwater concentrations of metals on the project site and the Roblar Landfill property to date. Metals found at or above detection limits in one or more wells in one or more sampling rounds include aluminum, arsenic, barium, chromium, cobalt, iron, lead, manganese, mercury, molybdenum, selenium, vanadium, and zinc.

Proposed Quarry Site

The Draft EIR (page IV.C-18) discussed the metals detected in the groundwater beneath the project site, and indicated that the detected metals appear indicative of naturally-occurring, background concentrations, which for the most part, is due to the surrounding geologic conditions. Background concentrations of metals depend on the geology of the source rock and the weathering processes and depositional environments of a given area. In the Coast Ranges

geomorphic province, naturally occurring metals are common due to the ultramafic and mafic parent rock present in the mélange of the northern Coast Ranges. Often times, the naturally-occurring concentration found in bedrock and sediments throughout the Bay Area are higher than the regulatory standard (SFRWQCB, 2008; NAVFAC, 2002).

The data in Table HYD-2.1 support the conclusion that the metals detected in the groundwater beneath the project site are naturally-occurring background levels and not a result of groundwater degradation from an onsite or offsite source of contamination. The distributions of detected metal concentrations are generally consistent across the data set. The exception to this is the comparatively higher aluminum concentration in Well MW-1 in April 2007 and in Well MW-2b in November 2008; these concentrations appear anomalous when compared to the entire body of data. However, based on the distribution of the detected concentrations throughout the metals data set, the overall variability of detected metals can be considered stable and indicative of background levels.

Roblar Landfill Property

Table HYD-2.1 reveals that the concentrations of aluminum, chromium, lead, and nickel are generally higher in the samples collected from the closed landfill property than those detected in the groundwater samples from the project site, possibly due to the presence of existing landfill waste materials. It is reasonable to expect that metal concentrations above natural background levels can be present in the former, closed landfill due to the presence of metal-containing substances in discarded waste. The most notable is the concentration of aluminum which, on average, was over 20 times the average concentration of aluminum in the groundwater samples collected on the project site. Less profound is the difference in concentrations of lead on the landfill property and project site, although there was only one detection of lead on the project site. Nickel was detected in two samples from the landfill property wells (and there were no detections on the project site).

Volatile Organic Compounds (VOCs)

Sampling and analysis under the applicant's groundwater monitoring program detected low concentrations of certain VOC constituents in the groundwater at the project site and the Roblar Landfill property, as shown in Table HYD-2.2. As evident from the data table, out of 376 individual groundwater analyses, 25 (or roughly 7 percent) had detectable concentrations of VOCs. The VOCs detected in the wells were acetone (in Wells MW-2, MW-3, DW-2 and R-2), chloromethane (in Wells MW-1 and DW-1), chloroform (in Well DW-1), methyl ethyl ketone (MEK) (in Wells MW-2 and MW-3), toluene (in Wells MW-2 and DW-2), 1,1,2 trichloroethane (TCA) (in Well MW-3) and cis-1,2 dichloroethene (DCE) and vinyl chloride (in landfill property Well R-1).⁹

⁹ *Acetone* is a widely used, highly volatile solvent. *Chloromethane*, also called methyl chloride, is a chemical compound once widely used as a refrigerant. *Chloroform* was once commonly used as a general anesthetic and as a flavoring agent in toothpastes, mouthwashes and cough syrups. *MEK* is a flammable solvent that has many industrial uses, primarily in the plastic industry. *MEK* is also used in the synthetic rubber industry, in the production of paraffin wax, and in household products such as lacquer and varnishes, paint remover, and glues. *Toluene* and *TCA* are toxic volatile organic compounds often used as an industrial solvent. *1,2 Dichloromethane* (1,2 DCE) is a common volatile organic compound found in a variety of chemical cleaning products such as paint thinner. *Vinyl Chloride* is often associated with DCE because vinyl chloride is a breakdown product of 1,2 DCE (DTSC, 2007).

Proposed Quarry Site

With the exception of relatively consistent trace detections of acetone in Well MW-2, the distribution of the remaining VOCs is scattered and inconsistent, and consequently, not suggestive of a discrete contaminant source or an emanating groundwater plume. As discussed in the Draft EIR (page IV.C-18 and 41), the source of VOCs in project site wells is not established, but potential sources could include cross-contamination during well construction, contamination during sampling laboratory analysis, and/or existing water quality conditions. The sporadic distribution and low concentrations of VOC detections suggest that the source of the VOCs is localized within the wells and not characteristic of the groundwater formation. Two pieces of evidence further substantiate this conclusion. First, the two most recent sampling rounds (in November 2008 and May 2009) did not detect VOC concentrations in Wells MW-1, MW-3, and DW-1 after they were redeveloped prior to sampling in November 2008. This suggests that redevelopment of the wells may have removed the source of the trace VOCs detected previously in these wells. Second, the acetone, MEK, and toluene detected in Well MW-2 was not detected in groundwater analyzed from the replacement well MW-2b (located next to and down-gradient of the original monitoring well MW-2) during the November 2008 and May 2009 sampling rounds (see Table HYD-2.2). If VOCs were present in the groundwater formation, it would be reasonable to expect that VOCs detected in MW-2 would also be found in Well MW-2b. As noted earlier, the water quality in the original well MW-2 is considered compromised and data from that well is not considered reliable and consequently will not be included in the monitoring program; rather, replacement well MW-2b will be sampled henceforth.

In the latest groundwater monitoring round (May 2009) the only VOCs detected other than the trace acetone in Well MW-2 was toluene in Well DW-1. It should be noted that the detected concentration (0.51 microgram per liter) of toluene was essentially at the laboratory detection limit.

Roblar Road Landfill Property

As shown in Table HYD-2.2, the applicant's groundwater monitoring program has consistently detected low concentrations of VOCs in Well R-1 on the landfill property (for DCE and vinyl chloride). The repeated detection of DCE and vinyl chloride in landfill property well R-1 is consistent with the results of the independent groundwater monitoring conducted by the County DPTW-IWD of its landfill property wells, which also has repeatedly detected low concentrations of DCE and vinyl chloride. DCE and vinyl chloride have not been detected in the project site groundwater wells. With the exception of acetone, which appears mostly on the project site at trace levels in Well MW-2, and only once in the Roblar Landfill property well R-2 (see Table HYD-2.2), the VOCs detected on the project site are not found on the Roblar Landfill property and vice versa. It is also worth noting that acetone is a highly volatile organic compound; and consequently, would not be typically be associated with the long-closed landfill materials.

Based on the detected concentrations and apparent distribution of groundwater-borne metals and VOCs, there is no direct correlation between the existing water quality conditions at the Roblar Landfill and those at the project site.

Comparison of Detected Groundwater Contaminant Concentrations to Regulatory Thresholds

In order to place in perspective the potential environmental impact of the metals and VOCs detected in the groundwater wells on the project site and adjacent landfill property, the detected concentrations were compared to three standard thresholds: 1) the Environmental Screening Levels (ESLs) developed by the Regional Water Quality Control Board (RWQCB), San Francisco Bay Region¹⁰, 2) the Public Health Goals (PHGs) developed by the California Office of Environmental Health Hazard Assessment (OEHHA) and 3) the Maximum Contaminant Levels (MCLs), developed by the California Department of Public Health (CDPH) and as contained in Title 22 CCR Section 64431.

ESLs address chemicals commonly found in soil and groundwater at sites where releases of hazardous chemicals have occurred; they are intended to be site screening levels and are considered to be conservative. Chemicals in groundwater at concentrations below the corresponding ESL can generally be assumed to not pose a significant, long-term (chronic) threat to human health and the environment (SFRWQCB, 2008). ESLs are specifically *not* intended to serve as a stand-alone decision making tool, as guidance for the preparation of baseline environmental assessments, as a rule to determine if a waste is hazardous under the state or federal regulations, or as a rule to determine when the release of hazardous chemicals must be reported to the overseeing regulatory agency.

PHGs are the levels of chemical contaminants in drinking water that do not pose a significant risk to health. PHGs are not regulatory standards; however, state law requires the CDPH to set drinking water standards for chemical contaminants as close to the corresponding PHG as is economically and technically feasible (OEHHA, 2003).

MCLs are adopted as regulations by CDPH and are health protective drinking water standards to be met by public water systems. MCLs take into account not only chemicals' health risks but also factors such as their detectability and treatability, as well as costs of treatment. Health & Safety Code §116365(a) requires CDPH to establish a contaminant's MCL at a level as close to its PHG as is technically and economically feasible, placing primary emphasis on the protection of public health (CDPH, 2009).

Table HYD-2.3 summarizes the concentration of metals and VOCs detected in the project site and Roblar Landfill property wells (including minimum, maximum and average values), and identifies the established ESL, PHG, and MCL for the particular constituent. Please note that in some instances, an ESL, PHG, and/or MCL has not been established for a particular constituent. Since MCLs are adopted enforceable standards (unlike ESLs and PHGs), Table HYD-3 and the

¹⁰ The ESL screening criteria may especially be beneficial for use at sites with limited contamination, where the preparation of a more formal environmental assessment may not be warranted or feasible due to time and cost constraints. The presence of chemicals at concentrations above the ESLs does not necessarily indicate that a significant risk exists at the site. It does generally indicate that additional investigation and evaluation of potential environmental concerns is warranted (SFRWQCB, 2008).

**TABLE HYD-2.3
COMPARISON OF METALS AND VOC CONCENTRATIONS DETECTED IN GROUNDWATER MONITORING PROGRAM ON THE PROPOSED QUARRY SITE AND ADJACENT LANDFILL PROPERTY TO REGULATORY SCREENING LEVELS, PUBLIC HEALTH GOALS AND MAXIMUM CONTAMINANT LEVELS**

Constituent	Environmental Screening Level Groundwater (ESL)	Public Health Goal (PHG)	Maximum Contaminant Level (MCL)	PROJECT SITE ^a				LANDFILL PROPERTY ^b				Notes
				Minimum Value	Maximum Value	Average ^c Value	% Samples at or above MCL	Minimum Value	Maximum Value	Average ^c Value	% Samples at or above MCL	
METALS Concentrations in Milligrams per Liter (mg/L)												
Aluminum ^d	Not Established	0.6	1	ND	2.6	0.8	24%	6.1	40	18.7	100%	
Arsenic	0.036	0.000004	0.010	ND	0.039	0.012	25%	0.004	0.015	0.008	27%	
Barium	1	2	1	ND	0.093	0.027	0%	0.16	0.77	0.37	0%	
Chromium (Total)	0.05	Withdrawn in November 2001	0.05	ND	0.062	0.043	4%	ND	0.15	0.07	55%	
Copper	0.0031	0.3	1.3*	0.003	0.018	0.008	0%	Not Analyzed	Not Analyzed	--		* Lead and Copper do not have an MCL. Rather they are referred to as "Action Levels" under the Lead and Copper Rule, Title 22, Section 64672.2. Exceedance of the "Action Levels" may require the installation and operation of a treatment system for public water supplies (OEHHA, 2009).
Lead	25	0.0002	0.015*	ND	0.002	0.004	0%	ND	0.063	0.012	9%	
Manganese ^d	Not Established	Not Established	Not Established	ND	4.4	0.9	--	0.16	1.7	0.6	--	
Mercury	0.002**	0.0012	0.002	ND	0.00033	0.0001	0%	Not Analyzed	Not Analyzed	--		** ESL is based on drinking water toxicity
Nickel	0.0082	0.012	0.1	ND	ND	--	0%	ND	0.12	0.10	18%	
Selenium	0.005	Not Established	0.05	ND	0.013	0.005	0%	ND	ND	--	0%	

BOLDED values indicate concentrations that exceed the Maximum Contaminant Level (MCL)

ND: Non-detected at or above the laboratory reporting limits

^a Results from project site Wells MW-1, MW-2b, MW-3, MW-4, DW-1 and DW-2; see location of wells in Figure HYD-2.1

^b Results from landfill property wells R-1, R-2, and R-3; see location of wells in Figure HYD-2.1.

^c Average of all samples; averages are conservatively calculated by assuming the values for all non-detected samples were at the laboratory reporting detection limits used.

^d For consistency purposes, groundwater data for aluminum and manganese from the November 2008 sampling round for the project site are excluded from the results in this table, since they represent only the dissolved (and lower) concentrations of those metals, compared to total (and higher) concentrations reported from the prior sampling rounds (see Table HYD-2.1 for additional detail). Two detections of aluminum deemed anomalous are also excluded from the results.

SOURCE: ESA, 2009.

TABLE HYD-2.3 (Continued)
COMPARISON OF METALS AND VOC CONCENTRATIONS DETECTED IN GROUNDWATER MONITORING PROGRAM ON THE PROPOSED QUARRY SITE AND ADJACENT LANDFILL PROPERTY TO REGULATORY SCREENING LEVELS, PUBLIC HEALTH GOALS AND MAXIMUM CONTAMINANT LEVELS

Constituent	Environmental Screening Level Groundwater (ESL)	Public Health Goal (PHG)	Maximum Contaminant Level (MCL)	PROJECT SITE ^a				LANDFILL PROPERTY ^b				Notes
				Minimum Value	Maximum Value	Average ^c Value	% Samples at or above MCL	Minimum Value	Maximum Value	Average ^c Value	% Samples at or above MCL	
VOLATILE ORGANIC COMPOUNDS Concentrations micrograms per liter (µg/l)												
Acetone	1,500	Not Established	Not Established	ND	8.7	6.3	--		5.0	5.0	--	Two detections on project site in MW-2 and DW-2 (2/07), and one detection on landfill property in Well R-2
cis 1,2 Dichloroethene	6	100	6	ND	ND	--	0% ND	ND	5.4	1.6	0%	Landfill property detections in Well R-1 only
Chloromethane	1,800	Not Established	Not Established	ND	1.2	0.5	--	ND	ND	--	--	ESL is based on drinking water toxicity Two detections on project site: Well MW-1 (2/07) and Well DW-1 (2/07)
Chloroform	70	Not Established	Not Established	ND	2.2	0.6	--	ND	ND	--	--	Two detections on project site in Well DW-1 (9/07, 3/08)
Methyl ethyl ketone	4,200	Not Established	Not Established	ND	1.5	3.0	--	ND	ND	--	--	One detection on project site in Well MW-3 (12/07)
Toluene	40	150	150	ND	0.51	0.4	0%	ND	ND	--	0%	Two detections on project site in Well DW-2 (2/07, 5/09)
Vinyl Chloride	0.5	0.05	0.5	ND	ND	--	0%	ND	1.2	0.6	18%	Two detections on landfill property in Well R-1 (9/07,3/08)
1,1,2 Trichloroethane	5	0.3	5	ND	2.8	0.5	0%	ND	ND	--	0%	One detection on project site in Well MW-3 (12/07)

BOLDED values indicate concentrations that exceed the Maximum Contaminant Level (MCL)

ND: Non-detected at or above the laboratory reporting limits

^a Results from project site Wells MW-1, MW-2b, MW-3 and MW-4; see location of wells in Figure HYD-2.1

^b Results from landfill property Wells R-1, R-2, and R-3; See location of wells in Figure HYD-2.1.

^c Average of all samples; averages are conservatively calculated by assuming the values for all non-detected samples were at the laboratory reporting detection limits used.

SOURCE: ESA, 2009.

following discussion focuses its comparison of metals and VOCs to the respective MCLs. The metals and VOCs included in this comparison table are those that were detected at or above laboratory reporting limits and those with established MCLs. The exception is the inclusion of manganese which was included because of interest that may have been generated regarding this metal in the August 24, 2007 County DHS letter. Groundwater data from project site Well MW-2 is excluded from Table HYD-2.3 because, as discussed above, this well has since been replaced. See Table HYD-2.3 for a discussion of conservative assumptions used in the presentation of data in the table.

Table HYD-2.3 reveals that average concentrations of aluminum in the landfill property wells exceeded the MCL. The average chromium and nickel concentrations detected in wells at the landfill property are at or slightly exceed the MCL. A single detection of lead in a landfill property well slightly exceeded the established “action level”¹¹ established for this metal, although the average concentrations on the landfill property are below the action level. In addition, the average arsenic concentration detected in the Roblar Landfill property wells remains below the MCL.

In contrast to the landfill property, the metals concentrations in the groundwater beneath the project site appear to be naturally-occurring and characteristic of the background levels. As discussed previously, it is not uncommon for the naturally-occurring concentrations of some metals to exceed the established MCL, especially considering the geologic materials of this region. The average arsenic concentration in wells on the project site slightly exceeds the MCL.¹² The average aluminum, chromium and nickel concentrations detected in wells on the project site were all below the MCL, and average lead concentration in wells on the project were also below the applicable “action level.”

The use of the MCL for comparison of water quality provides a conservative basis for considering the existing contaminant levels in the groundwater beneath the project site and the closed Roblar Landfill. MCLs are typically used to assess drinking water quality of public water supplies and are an enforceable regulatory standard intended to protect public drinking water sources. MCLs are not applicable to private wells. The groundwater on the project site or the adjacent landfill property is not currently used for drinking water, is not intended to supply groundwater for public use, nor is it part of a public drinking water system.

With respect to VOCs, as shown in Table HYD-2.3, with the exception of vinyl chloride detected in one well on the landfill property, all other VOCs were found to have concentrations below the MCL. Vinyl chloride has not been detected in any other landfill property wells, or in any of the project site wells. The detected values most likely represent a localized, trace detection of vinyl chloride and do not suggest wide-spread groundwater degradation by this compound.

¹¹ Lead and copper do not have an MCL. Rather they are referred to as “action levels” under the Lead and Copper Rule, Title 22, Section 64672.2. Exceedance of the “action levels” may require the installation and operation of a treatment system for public water supplies (OEHHA, 2009).

¹² It is worth noting, however that the median value (i.e., the value which 50% of the samples fall below) of arsenic concentrations on the project site, at 0.006 µg/, were well below the MCL.

Other Chemicals of Concern

Groundwater sampling on the project site has, in the past, tested for poly chlorinated biphenyls (PCBs), pesticides, and SVOCs, including diethylsilbestrol (DES). Sampling and analysis for these constituents occurred in February, 2007. Laboratory analysis of groundwater samples did not detect concentrations of these compounds and thus, analysis was not conducted thereafter. In addition, groundwater at the Roblar Landfill property was analyzed by the County in 2004 for pesticides, PCBs, and SVOCs and these compounds were also not detected in the groundwater samples. See response to Comment L-20 for additional information on DES.

Summary

Groundwater at the project site contains naturally-occurring background levels of metals, typical for shallow groundwater in this region. Based on the distribution, concentrations, and sporadic detection of VOCs in the groundwater underlying the project site, the evidence does not support a conclusion that the groundwater is widely contaminated by VOCs. Analysis of groundwater from the replacement well MW-2b, installed to replace well MW-2, provides conclusive evidence that VOC contamination formerly found in Well MW-2 is not present in the formation. Redevelopment of Wells MW-1, MW-3, and DW-2 appeared to effectively reduce the VOCs previously detected in these wells. Concentrations of VOCs found in the project site monitoring wells are below regulatory drinking water standards.

Groundwater contamination at the Roblar Landfill property is limited to aluminum, chromium, lead, nickel and trace VOCs. Aluminum concentrations appear high and exceed the MCL for drinking water while chromium, lead, and nickel only slightly exceed the assigned MCL. The presence of higher metals in the groundwater would be reasonably expected on a property containing a closed landfill. The average concentration of the VOC 1,2 DCE is below the MCL and vinyl chloride is present at a concentration slightly higher than the MCL. The evidence does not support a conclusion that these contaminants are migrating offsite and beneath the project site. The detections of trace VOCs do not represent significant contamination in the groundwater beneath the Roblar Landfill property.

The existing groundwater quality at the Roblar Landfill property has been delineated and it does not appear, based on the groundwater sampling data, that the trace concentrations of metals and VOCs are 1) a result of excessive contamination beneath the landfill, 2) are increasing with time, or 3) are part of a widespread groundwater contaminant plume. Nevertheless, Impact C.4 in the Draft EIR analyzed the potential for groundwater seepage (i.e., through the proposed quarry walls) and/or production well water used on site to contain contaminants; this was identified as a potentially significant impact. As discussed in detail in the Draft EIR, mitigation measures were identified, including onsite monitoring and management, to ensure any water that may enter the quarry walls as seepage and/or supply water from the onsite production wells would be identified, contained and treated appropriately. This and other mitigation measure identified in the Draft EIR, along with those measures proposed as part of the project would ensure that all potential impacts to hydrology and water quality would remain less than significant.

Furthermore, as discussed in detail in Master Response HYD-1 in this Response to Comments Document, the applicant has expanded and refined the proposed management of water resources and water treatment for the quarry project. In support of this effort, the applicant prepared a comprehensive Water Management Plan (WMP) that describes the proposed methods and facilities for further reducing hydrology and water quality impacts. Please refer to Master Response HYD-1 for a full description of the WMP.

References

- San Francisco, Regional Water Quality Control Board, 2008. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final* – November 2007 (Revised May 2008).
- California Office of Environmental Health Hazard Assessment (OEHHA), 2003. *California Environmental Protection Agency, Guide to Public Health Goals (PHGs) for Chemical in Drinking Water*, October 2003.
- California Office of Environmental Health Hazard Assessment (OEHHA), 2009. *California Environmental Protection Agency, Comparison of MCLs and PHGs for Regulated Contaminants in Drinking Water*. <http://www.cdph.ca.gov/certlic/drinkingwater/Pages/MCLsandPHGs.aspx>, and, <http://www.cdph.ca.gov/certlic/drinkingwater/Documents/MCLreview/MCLs-DLRs-PHGs.xls>, Last updated July 28, 2009, accessed July 29, 2009.
- Naval Facilities Engineering Command (NAVFAC), 2002, *Guidance for Environmental Background Analysis; Volume III: Groundwater*, Guidance Document, prepared by Battelle Memorial Institute, Earth Tech Inc., and NewFields Inc., UG-2049-ENV.

Master Response HYD-3: Groundwater Supply

[Responds to Comments D-2, D-3, I-2, J-14, L-5, O-5, Q-2, T-5, V-8, W-8, Y-17 and DD-5]

Several comments on the Draft EIR questioned the viability of using the onsite groundwater production wells for supply and expressed concerns about the long-term effects of groundwater pumping under the project to nearby private supply wells. Some comments asserted that additional tests – specifically, a pump test - should be performed to determine whether the onsite wells proposed for supply were capable of providing the adequate supply without causing excessive aquifer drawdown.

This master response supplements the information in the Draft EIR regarding the available groundwater supplies at the project site, and the contribution that groundwater would make to the overall water supply required by the project. In addition, this response summarizes the results of a pump test that was conducted at production well DW-2 in December 2008 in support of the applicant's Water Management Plan (WMP). This response also describes the WMP's strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project with no adverse impacts from well pumping. Finally, this master response discusses whether any conclusions previously reached in the Draft EIR have changed as a result of this new information.

Groundwater Wells and Groundwater Use on the Project Site

As described in Draft EIR (page IV.C-12), the applicant installed two groundwater production wells on the project site in 2004, Well DW-1, located in the northeast corner of the project site in proximity to the Roblar Landfill property, and Well DW-2, located in the east-central portion of the project site (see Figure HYD-2.1 in Master Response HYD-2 for location of these wells). Well DW-1 is 345 feet deep and draws water from a 124-foot thickness of Wilson Grove Formation sandstone and 116 vertical feet of fractured volcanic rock. Well DW-2 is 545 feet deep and draws water from about 60 vertical feet of volcanic rock, and 95 vertical feet of deep shale.

As originally proposed, groundwater production wells DW-1 and DW-2 were the primary water source for quarry operations, including processing, dust control, irrigation and landscaping, which would be supplemented by water collected in the quarry's sediment pond. However, since release of the Draft EIR and the refinements made to proposed management of water resources detailed in the applicant's WMP (see Master Response HYD-1, above), the proposed quarry now aims to minimize its reliance on groundwater such that groundwater would be used only to provide supplemental water for quarry operations, as needed. Another distinction of the WMP from the original project is that Well DW-2 would be the only production well used to supply supplemental groundwater (i.e., no use of Well DW-1).

As discussed in the WMP, groundwater well DW-2 would be operated in conjunction with three, 10,000-gallon water storage tanks. Well DW-2 would be operated on a cyclical basis to fill the storage tanks when needed; however, there could be times that the well is run continuously over short-term periods, depending on demand. The WMP estimates that during the wet months, the

project would not require groundwater because other sources (i.e., precipitation and groundwater seepage) would provide adequate water supply to meet the project water demand. However, during the dry months, the WMP indicates groundwater from Well DW-2 and temporary use of onsite water tanks would be required to supplement the water supply with an average of approximately 25,400 gallons of groundwater per day.

Pump Test Results of Well DW-2

In support of the WMP, the applicant conducted a step-drawdown well test on Well DW-2 in December 2008 to estimate its sustainable pumping rate (PES, 2009a and 2009b). The pump test was run for 4.3 hours with four pumping rate steps of 15, 25, 45 gallons per minute (gpm) at 60-minute intervals and 50 gpm at an interval of 80 minutes. During the test, groundwater level data was obtained from onsite wells (MW-1, MW-2b, MW-3, MW-4, DW-1) and Roblar Landfill property well R-2 (see Figure HYD-2.1 in Master Response HYD-2 for location of these wells) to determine whether pumping at Well DW-2 affected groundwater levels in these wells.

The results of the pump test indicated that:

- Total drawdown at the end of each pumping interval (15, 25, 45, and 50 gpm) was 42, 128, 284, and 335 feet, respectively.
- The specific capacity for each pumping step (15, 25, 45, and 50 gpm) was 0.36, 0.20, 0.16, and 0.15 gallons per minute per foot of drawdown, respectively.
- Well loss calculated for the individual steps (15, 25, 45, and 50 gpm) was 54, 49, 71, and 75 percent, respectively.
- After pumping ceased, DW-2 recovered 85 percent of pretest groundwater elevation in 20 minutes and 90 percent in 120 minutes.
- Observation wells (MW-1, MW-2b, MW-3, MW-4, DW-1) monitored during the test remained stable during the test and did not appear to be influenced by the pumping test at Well DW-2.

Based on findings from the well test, the applicant's groundwater consultant reported that Well DW-2 is capable of sustained pumping rates ranging from 15 gpm to 45 gpm for periods ranging from 10 days to 100 days or longer. This sustained rate should accommodate the groundwater pumping scenario proposed in the WMP, which calls for pumping groundwater at a constant rate of approximately 18 gpm per day, or pumped on a sustainable cyclic basis [e.g., pumping at 35 gpm for a four hour period followed by a recharge (non-pumping) period of four hours] in conjunction with temporary storage in water tanks (PES, 2009b).

Groundwater Monitoring and Adaptive Management Program

As explained in the Draft EIR (at p. IV.C-48) and further clarified in the WMP, the proposed project would not require continuous groundwater pumping; rather, the proposed strategy is cyclical pumping and storage. Because the groundwater pumps would not be functioning continuously, and would only pump long enough to refill the storage tanks, the drawdown due to

pumping would be only temporary and groundwater would recharge in the well when pumping has ceased. As discussed above, the pump test conducted for the WMP confirms that under the proposed groundwater pumping scenario, Well DW-2 can sustain the predicted pumping discharge rate in conjunction with the use of water storage tanks. However, as described in the Draft EIR on page IV.C-14, flow within a fractured bedrock groundwater regime, such as is found in the Tolay Volcanics underlying the quarry site, is inherently unpredictable because the groundwater is contained in randomly oriented, continuous and discontinuous fractures in the rock. In order for a well that taps into a bedrock aquifer to recover, these fractures must refill after pumping ceases. The ease and length of time it takes for the bedrock fractures to be dewatered and refilled cannot be reliably modeled or calculated (as it could, for example, in sands and gravels of a homogenous alluvial aquifer). It is that unpredictability of the groundwater behavior in a fractured bedrock regime that makes it difficult to reasonably predict long term well performance. Conventional pump testing of a groundwater supply well in fractured bedrock, even up to a week in duration, may not provide adequate information to determine the long term sustainability of that well. Therefore, the most reliable approach to determine the long-term effects of pumping at Well DW-2 is a groundwater level monitoring program that is regularly conducted while the well is operating under project conditions, in conjunction with an adaptive management program to adjust pumping practices if necessary.

As discussed in Master Response HYD-1, in order to ensure that Well DW-2 will continue to supply long-term supplementary water for the project when necessary to augment supplies provide by reuse of water generated onsite, the WMP includes implementing a groundwater level monitoring and adaptive management program when the project begins to pump groundwater for quarry operations from Well DW-2. The groundwater monitoring program would require that Well DW-2 and the onsite monitoring wells be monitored during the period of active pumping from Well DW-2 to identify trends of potential long term water level decline. If pumping at Well DW-2 results in a measurable declining trend of static water levels, the applicant shall employ appropriate adaptive management strategies including short-term (e.g. alteration of pumping schedule, reduced pumping, decreased water use, changes in overall water management strategies or temporary cessation of pumping) or long-term corrective measures (e.g. permanent cessation of pumping at Well DW-2, installation of a higher producing well in an alternate onsite location) until the groundwater levels in onsite wells are shown to recover to pre-project pumping conditions. The WMP's monitoring and adaptive management program would ensure that any potential gradual decline in groundwater due to pumping at Well DW-2 is identified in a timely manner, and furthermore that, if needed, short and long term corrective actions would be implemented to restore any declining groundwater levels beneath the site.

Relationship of WMP to EIR Impacts of Project Groundwater Pumping to Neighboring Wells

The Draft EIR (Impact C.8, pages IV.C-47 to -49) addressed the potential effects from groundwater pumping from Wells DW-1 and DW-2 to neighboring groundwater wells. Based on the project as originally proposed, the Draft EIR analysis assumed that groundwater would be the primary water source for quarry operations and that both Wells DW-1 and DW-2 would be used to supply water to serve the project. The impact analysis in the Draft EIR concluded that the area

influenced by pumping Wells DW-1 and DW-2 would not intersect the area of influence of neighboring domestic wells because the onsite wells are far enough away and on the opposite side of the groundwater divide from other wells drawing from the Wilson Grove Formation (as in the case of well DW-1 or DW-2). Domestic wells within an approximate one-mile radius of the site are concentrated along Canfield Road and along Roblar Road east of Canfield Road and are all on the opposite side of the groundwater divide formed by Americano Creek and to the north (upgradient) of the project site. Similarly, any domestic wells located over a ridge east of the project site are outside the subwatershed the project site is located within. Furthermore, Well DW-2 would draw water held in deeper bedrock fractures of the Tolay Volcanics and Franciscan Complex bedrock, exclusively, and only drawing water from the many discontinuous water-bearing fractures that the well intercepts; this condition develops an area of influence that does not extend laterally as much as it extends vertically. Given the proposed cyclic pumping schedules, the hydrogeologic conditions underlying the site, and the placement of the onsite supply wells, the Draft EIR determined that the impact to neighboring wells would be less than significant.

Since publication of the Draft EIR, and the subsequent development of the applicant's WMP, the proposed management of water resources, including the role of the production wells, has been refined. The WMP proposes to minimize its reliance on groundwater such that groundwater would be used only to provide supplemental water for quarry operations, as needed. In addition, as discussed previously, only Well DW-2 would be used to supply supplemental groundwater for quarry operations (i.e., no use of Well DW-1). These project refinements would not change any of the conclusions previously reached in the Draft EIR with respect to the effect of project groundwater pumping to neighboring wells. As discussed above, the pump test conducted in support of the WMP demonstrates that Well DW-2 is capable of sustained pumping for a range of pumping rates and durations, in conjunction with the proposed temporary water storage. Furthermore, the WMP's groundwater monitoring and adaptive management program would identify long term trends in water level changes in the quarry site wells and adjust pumping practices. With the monitoring and adaptive management program, further pre-project testing of Well DW-2 is not warranted.

References

- PES Environmental, Inc., *Results of Well DW-2 Step-Drawdown Test and Groundwater-Level Monitoring Program, Roblar Road Quarry, Petaluma, California*, January 20, 2009a.
- PES Environmental, Inc., *Supplemental Analysis, Well DW-2 Step-Drawdown Test and Groundwater-Level Monitoring Program, Roblar Road Quarry, Petaluma, California*, January 20, 2009b.

Master Response AQ-1: Wind Data / Dust Abatement

[Responds to Comments H-7, O-4, O-8, J-10, J-32, L-7a, O-4, O-13, P-1, R-1, S-3, T-4, U-17/18, BB-5, CC-5, DD-1, DD-4, JJ-3, PC-22, PC-54, PC-97 and PC-104]

Introduction

A number of comments received on the Draft EIR requested additional information and data on wind conditions in the project site vicinity. Other commenters indicated the dust control plan identified in the Draft EIR should be enhanced, including incorporation of wind monitoring. This Master Response addresses these comments by describing general wind patterns and providing available data on wind conditions in the area, using this wind data to estimate when wind conditions at the project site would trigger specific thresholds, and provides expanded mitigation measures to further minimize project generated dust, including implementation of a wind screening and a wind monitoring program.

General Wind Patterns

The project site and vicinity are located within a larger geographical region known as the Petaluma Gap, a wide corridor of low-terrain area that reaches from the Estero Lowlands to the San Pablo Bay, and provides a gap for winds from the ocean to reach the Cotati and Petaluma Valleys. The following excerpts from the Bay Area Air Quality Management District (BAAQMD), *Climate, Physiography, and Air Pollution Potential - Bay Area and Its Subregions*, describe the relationships among winds in the Petaluma Gap and winds in the Cotati and Petaluma Valleys (BAAQMD, 2009):

“The valley that stretches from Santa Rosa to the San Pablo Bay is known as the Cotati Valley at the north end and the Petaluma Valley at the south end. Some maps show the whole area as the Petaluma Valley. The largest city in the Cotati Valley is Santa Rosa and in the Petaluma Valley is Petaluma. To the east, the valley is bordered by the Sonoma Mountains, with the San Pablo Bay at the southeast end of the valley. To the immediate west are a series of low hills and further west are the Estero Lowlands, which opens to the Pacific Ocean. The region from the Estero Lowlands to the San Pablo Bay is known as the Petaluma Gap. This low-terrain area is a major transport corridor allowing marine air to pass into the Bay Area.

Wind patterns in the Petaluma and Cotati Valleys are strongly influenced by the Petaluma Gap. The predominant wind pattern in this region is for marine air to move eastward through the Petaluma Gap, then to split into northward and southward paths as it moves into the Cotati and Petaluma valleys. The southward path crosses the San Pablo Bay and moves eastward through the Carquinez Straits.

Winds are usually stronger in the Petaluma Valley than the Cotati Valley because it is part of the Petaluma Gap. The low terrain in the Petaluma Gap does not offer much resistance to the marine air as it flows to the San Pablo Bay. Consequently, even though Petaluma is 28 miles from the ocean, its climate is similar to areas closer to the coast. Average annual wind speeds at the Petaluma Airport are 7 mph. This is almost identical to the average annual wind speed measured in Valley Ford, 5 miles from the coast.”

Available Local Wind Data

The Draft EIR considered available long-term wind data sources for the project area, including from BAAQMD and the National Weather Service. There is currently no meteorological data or wind record available for the project site. Consequently, it is necessary to consider the best available meteorological data and apply it to this analysis.

The most comprehensive wind data available for the project area is the wind record collected by the BAAQMD at its Valley Ford meteorological station, located approximately six miles west-southwest of the project site within the Petaluma Gap at 50 feet above sea level (asl). The Valley Ford meteorological station was established in 1989 and BAAQMD has available at least 12 full years of quality recent and detailed wind speed and directional data (an adequate wind record typically contains at least five years of quality meteorological measurements). Consideration of a five-year wind record from the Valley Ford meteorological station offers useful insight into the frequency with which the various combinations of wind speed and direction might be expected to occur in the Petaluma Gap and, by extension, at the project site.

It should be noted that available wind monitoring data from the Central Landfill (located approximately five miles east of the project site; elevation 315 feet asl) was also reviewed. A wind monitor was installed at the landfill property in 2008 to inform the landfill operator of local ground-level wind conditions, although it is not an official meteorological station.¹³ Available wind data collected from the Central Landfill (between July 2008 and March 2009) showed average wind speeds considerably less than those recorded at the Valley Ford meteorological station.

Meteorologists use a wind rose to illustrate the frequency distributions for wind speed and wind direction at a given location, based on long-term measurement data taken at that location.

Figure AQ-1.1, Annual Wind Rose summarizes five years of hourly wind speed and direction measurements at the Valley Ford meteorological station and shows the resulting frequency of occurrence for six wind-speed ranges within each of the 16 cardinal wind directions. Wind speeds are presented in knots (one knot is a speed equal to 1.151 mph).¹⁴

¹³ Namely, the Central Landfill station's wind sensor is located between 1½ to 2 meters above ground level, whereas the standard height for wind sensors for meteorological stations is 10 meters above ground level.

¹⁴ The wind rose shows, in a circular format, the frequency with which winds blow from each of the 16 compass directions and also the frequencies with which winds blow within the six specific speed ranges (shown in the legend of Figure AQ-1.1). The basic data are from a series of wind speed and direction measurements taken once an hour, over the course of the five years of record. Each year of operation results in up to 8,760 individual hourly wind measurements, each of which is then sorted by wind speed and direction into one of 96 "bins," where each bin is defined by one of the 16 compass directions and one of the six wind speed ranges (excluding "calms"). The count of all of the hourly measurements that sort into each bin is then divided by the total count of all the measurements that were taken; this result is then expressed as a percentage. When plotted, this result fully defines each of the 96 bins, the six speed range bands on each of the 16 spokes of the wind rose.

A wind rose is a polar plot. Wind direction is shown in exactly the same way as the cardinal directions on the face of a compass. Frequency or percentage occurrence is measured along a radius from the center. Each concentric circle in the background represents a different percentage of time, beginning at zero at the center and increasing by 4% from each concentric circle to the next.

The overall radial length of each of the 16 spokes is proportional to the percentage of time that the wind blows from that particular compass direction. Each spoke is further comprised of six color-coded bands that show the percentage of time that the speed of wind from that direction falls within a particular wind speed range. As is the case for the whole spoke, the radial length of each individual color-coded band is proportional to the frequency or

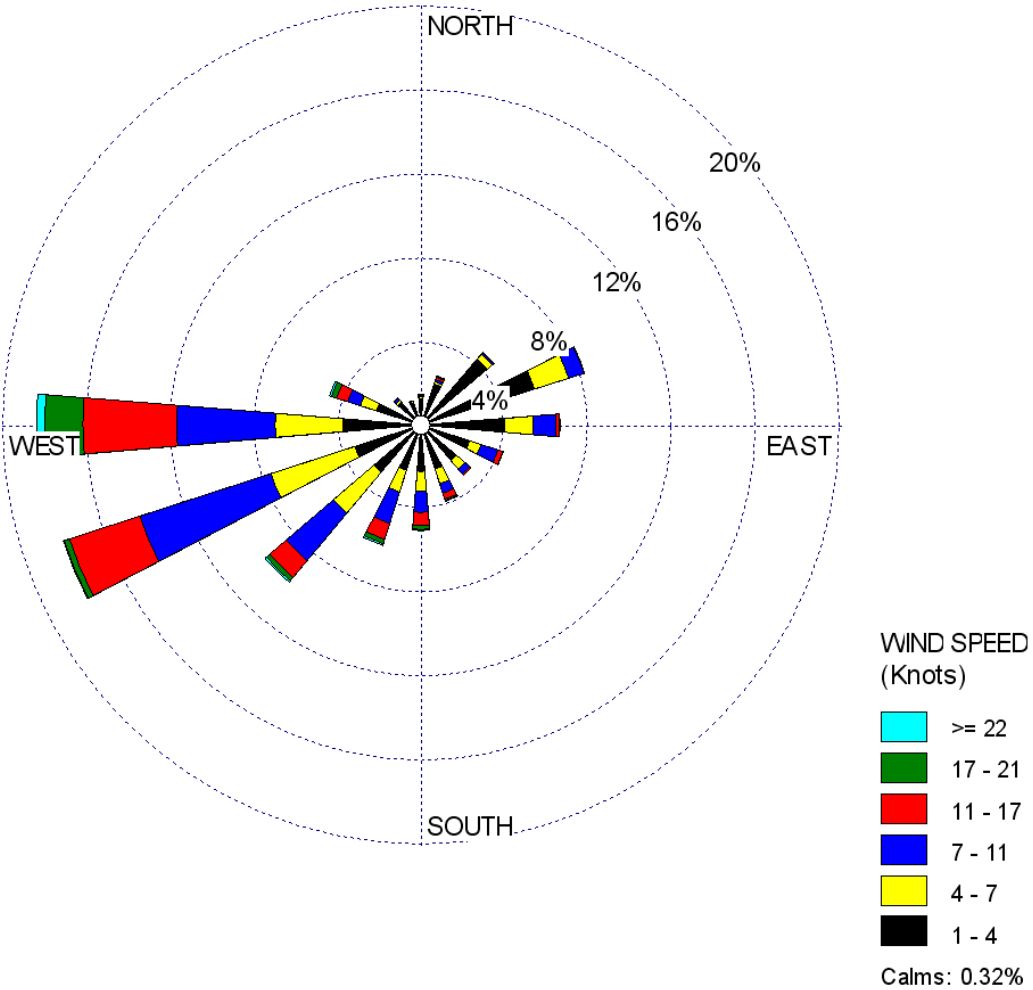


Figure AQ-1.1
Annual Wind Rose – Based on Five Years of Hourly Data
BAAQMD Valley Ford Meteorological Station

Figure AQ-1.1 shows that winds blow most frequently from the west and from the west-southwest, with a smaller contribution from the southwest winds, and still smaller contributions from the south-southwest, west-northwest, and south winds. Collectively, these winds comprise the majority of the moderate and higher-speed non-storm events, namely, most of those winds with speeds between 7 and 11 knots, and almost all winds with speeds in excess of 11 knots. The same pattern holds for most of the year, while winter includes a tendency for lower-speed winds from the east-northeast, east and northeast; most with speeds less than 7 knots, but some with

percentage of time that the wind blows, at that particular speed and from that particular compass direction. For example, the frequencies of occurrence of wind speeds between 11 knots and 17 knots are shown in the red bands on the spokes of the wind rose in Figure AQ-1.1. From the plot, the radial span of the red band on the “west” spoke of the wind rose indicates that the percentage of west winds with speeds between 11 knots and 17 knots is approximately 5%, while the percentage of west winds of all speeds is close to 18%.

speeds of 7 to 11 knots, and only a small fraction of those winds, the east wind in particular, exceed 11 knots. Thus, the dominant wind directions generally align with the axis of the Roblar valley, indicating that most of the non-storm winds that exceed 11 knots sweep up the length of the valley from the coast toward the project site.

Table AQ-1.1 presents the average wind speeds by hour of the day and by month, using 5-years of data recorded at the Valley Ford meteorological station, the same wind data plotted in the wind rose in Figure AQ-1.1. The wind speeds in the table are also color-coded to correspond with the wind speed categories in the wind rose in Figure AQ-1.1. As shown in the table, average wind speeds are typically greatest between noon and 5:00 p.m., with the highest averages of the day typically occurring between 2:00 p.m. and 4:00 p.m. Under this wind regime, predictably, the daytime typically experiences greater wind speeds (approximately 8.1 knots) than nighttime (4.7 knots).

As shown in Table AQ-1.1, June is the month when the average wind speed is the highest at the Valley Ford meteorological station. With respect to the extreme winds, the single-highest maximum recorded wind speed in the data reviewed was 35.4 knots (40.7 mph). The higher monthly maximum wind speeds were recorded in November, December and in March, and are likely associated with storm events. (It should be noted that the proposed quarry would not conduct any mining or processing operations during storm events.)

In summary, the wind data at the Valley Ford meteorological station indicates, as expected, that average wind speeds are strongest in the afternoon throughout the year, but the average speeds of the afternoon winds increase beginning in March, reach their highest value in June, then decrease through October and remain low until March. Nevertheless, depending on meteorological conditions, short-term increases and decreases in the strength of the wind (gusts and lulls) can occur in any given hour of the day and any month of the year.

Wind Screening Analysis

As described above, both the Valley Ford meteorological station and the project site are located within the Petaluma Gap and therefore share the Gap's general wind regime. It is not expected that there would be an exact correlation of the winds between the Valley Ford meteorological station and the project site. Wind speeds and directions can be affected by elevation (the project site is on a valley hillside and ranges between 110 and 600 feet asl depending on location), and can be influenced by the effects of the valley shape on the flow of the air mass (e.g., the local wind direction at the project site may align more closely with the axis of the valley in which it is located). Furthermore, winds across the project site would vary based on the existing site topography, as well as on the extensive topographic alteration that would result over time from the proposed quarrying operations.

Nevertheless, although there are location, elevation and topographic differences between the Valley Ford meteorological station and the project site, meteorological data from Valley Ford meteorological station can be considered to be a reasonable general indicator for wind speed and temporal variation of wind speed at the project site. More importantly, this general relationship

**TABLE AQ-1.1
AVERAGE WIND SPEEDS (Knots) BY HOUR OF DAY AND MONTH
BAAQMD VALLEY FORD METEOROLOGICAL STATION^{a,b,c}**

TIME OF DAY	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Midnight – 1 AM	3.9	4.8	4.2	3.9	4.1	4.0	3.9	3.7	3.4	3.3	3.6	5.8	4.0
1 - 2 AM	4.0	4.9	4.1	3.9	3.9	3.7	3.6	3.5	3.2	3.2	3.6	6.1	4.0
2 – 3 AM	4.0	4.7	4.0	3.6	3.6	3.5	3.4	3.1	3.1	3.2	3.8	5.9	3.8
3 – 4 AM	4.1	4.7	3.9	3.5	3.3	3.2	3.2	3.0	3.1	3.1	3.8	5.6	3.7
4 – 5 AM	4.3	4.6	3.7	3.4	3.1	3.0	3.1	2.9	3.0	2.9	3.7	5.7	3.6
5 – 6 AM	4.5	4.5	3.6	3.2	3.2	2.8	3.1	2.8	2.8	2.8	3.7	5.8	3.6
6 – 7 AM	4.5	4.2	3.5	3.2	3.2	2.9	3.2	2.8	3.0	2.7	3.9	5.7	3.6
7 – 8 AM	4.7	4.1	3.7	3.6	4.0	3.5	3.5	2.9	3.1	2.9	4.0	5.6	3.8
8 – 9 AM	4.7	4.7	4.4	4.6	5.1	4.7	4.0	3.4	3.3	3.4	4.1	5.8	4.3
9 – 10 AM	5.4	5.6	5.3	6.1	7.0	6.8	5.5	5.1	4.3	4.6	5.0	6.6	5.6
10 – 11 AM	6.2	6.5	6.7	8.6	9.1	9.4	8.0	7.5	6.7	5.9	5.8	7.7	7.3
11 AM - Noon	6.8	7.1	8.5	10.7	10.9	11.1	9.7	9.7	9.3	7.7	6.5	8.1	8.9
Noon – 1 PM	7.5	7.9	10.5	12.2	12.3	12.5	11.0	11.3	11.0	9.8	7.6	8.4	10.2
1 – 2 PM	8.3	8.7	11.7	13.1	13.1	13.6	12.1	12.4	12.2	11.2	8.5	8.7	11.1
2 -3 PM	8.6	9.2	12.5	13.8	13.5	14.4	12.6	12.8	12.4	11.6	8.9	8.8	11.6
3 – 4 PM	8.4	9.3	12.5	14.0	13.5	14.4	12.7	12.8	12.1	11.2	8.6	8.2	11.5
4 – 5 PM	7.2	8.6	11.8	13.2	13.0	13.9	12.4	12.3	11.3	9.9	7.0	7.1	10.7
5 – 6 PM	5.7	7.1	10.2	11.9	11.6	12.6	11.5	11.1	9.6	7.4	5.3	6.1	9.2
6 – 7 PM	4.7	6.0	8.0	9.5	10.0	10.7	9.8	9.3	7.4	5.6	4.6	5.8	7.6
7 – 8 PM	4.3	5.4	5.9	7.4	7.9	8.5	7.9	7.2	6.1	4.4	4.3	5.8	6.3
8 – 9 PM	4.2	4.9	4.7	5.9	6.0	6.7	6.3	5.8	5.1	3.9	4.2	5.7	5.3
9 – 10 PM	4.0	4.8	4.1	4.8	5.2	5.5	5.3	4.8	4.3	3.6	4.2	5.8	4.7
10 – 11 PM	3.9	4.7	4.1	4.3	4.7	4.8	4.7	4.2	3.9	3.5	3.9	5.9	4.4
11 PM - Midnight	3.8	4.7	4.0	3.9	4.3	4.6	4.2	4.1	3.5	3.5	3.9	5.8	4.2
Monthly Average	5.3	5.9	6.5	7.2	7.3	7.5	6.9	6.6	6.1	5.5	5.1	6.5	6.4

^a Five recent full years of wind data are averaged.
^b One knot is a speed equal to 1.151 mph.
^c Values in table are color-coded to correspond with the applicable wind speed categories in the wind rose presented in Figure AQ-1.1, as follows:



SOURCE: Compiled from data from BAAQMD's Valley Ford meteorological station

provides information useful for the EIR in understanding when the higher wind speeds that could trigger dust mitigation measures would be anticipated to occur at the project site. The following screening analysis applies this concept.

A screening analysis of the wind data from the Valley Ford meteorological station was conducted to establish a general indication of when winds at the project site would be most likely to exceed the lower wind threshold (i.e., 15 mph) established in Mitigation Measure F.4 in the Draft EIR for

requiring greater dust control actions for the proposed project.¹⁵ A wind speed of 15 mph (roughly equal to 13 knots) falls into the lower half of the 11 to 17 knot wind speed range (shown in red in Figure AQ-1.1 and Table AQ-1.1). However, for purposes of this study, it is simply assumed all winds generated at the Valley Ford meteorological station within that speed bin (or greater) would have the potential to correspond with winds exceeding 15 mph at the project site. This assumption is conservative because it assumes wind speeds as low as 11 knots (or 12.7 mph) at the Valley Ford meteorological station would correlate with a wind speed of 15 mph at the project site. In other words, this conservatively assumes a roughly 18 percent increase in wind speeds from the Valley Ford meteorological station to the project site.¹⁶ Further, assuming the ratio applies at higher wind speeds, winds of 25 mph at the project site would correspond to a wind speed of more than 18 knots at the Valley Ford meteorological station, a speed recorded approximately 4% of the time per year there¹⁷, and a speed that exceeds all of the average speeds in Table AQ-1.1.

This now provides a useful basis upon which to identify the typical times of day and months of the year when it is anticipated that an elevated level of active dust control would be warranted at the project site. From review of Table AQ-1.1, those months and times¹⁸ are:

- March, September – 1:00 p.m. to 5:00 p.m.
- April, May, July, August – noon to 6:00 p.m.
- June – 11:00 a.m. to 6:00 p.m.
- October – 1:00 p.m. to 4:00 p.m.

These times are color coded in red in Table AQ-1.1. The Draft EIR discusses that during the initial construction phase, and episodically during operation, onsite sources of fugitive dust (PM₁₀) generated by the proposed project would have the potential to contribute to local increases in PM₁₀ at nearby receptors. The Draft EIR describes a number of design features and on-going practices proposed by the applicant and/or required by the County Surface Mining and Reclamation Ordinance (SMARO) mining and reclamation standards to minimize erosion of exposed surfaces and generation of dust during construction and operational phases of the quarry. The active mining area at any one time would be limited to 30 acres, and protective vegetative cover would be reestablished on quarry slopes as mining proceeds. The applicant would also be required to control wind erosion on proposed stockpiles through the use of water and hydroseeding. The proposed access road to the quarry would be paved to minimize dust generation from haul trucks within the site, and planting of redwood trees along the proposed access road and equipment area would serve to screen wind at those locations. Dust control measures to reduce dust emissions include the use of spray misters on all processing equipment

¹⁵ The 15 mph criterion is used by a number of air pollution control districts and local jurisdictions in California as the wind speed requiring a need for increased dust control measures.

¹⁶ In other words, this correlation implicitly also assumes that winds increase in speed by roughly 18 percent from the Valley Ford station to the project site. While there is no evidence that this indeed occurs, it adds a margin of safety.

¹⁷ Winds in excess of 18 knots fall into the 17 knots to 21 knots bin (dark green) or the ≥ 22 knots (turquoise) bin of the wind rose for the Valley Ford station. See Figure AQ-1.1.

¹⁸ The values in Table AQ-1.1 are simply monthly averages of wind speed at the Valley Ford meteorological station; the actual wind speed at any given time will differ from the average (higher or lower). For this reason, when the quarry is operating, continual wind monitoring is needed to determine definitively if the actual wind speed in active areas of the quarry exceeds the dust mitigation criteria values.

and use of baghouses on the crushers, use of a water truck to routinely water down internal access roads, and use of tire wash area (using recycled water) and tire scrapers to loosen dirt from the trucks and their tires. Further, the applicant indicates magnesium chloride would be used as a dust palliative on the entrance road of the quarry, as needed.

Further, the Draft EIR establishes a formal comprehensive dust control program for implementation during initial construction and subsequent quarry operations to ensure all potential dust emissions would remain less than significant. In addition to those measures identified above that are either proposed by the applicant or required by the County SMARO, the Draft EIR required additional measures including, but not limited to, increasing watering frequency whenever wind speeds exceed 15 miles per hour during dry conditions, and suspending excavation activity when winds (instantaneous gusts) exceed 25 miles per hour during dry conditions; covering or maintaining appropriate freeboard on quarry-operated trucks hauling soil, sand, and other loose materials; limiting traffic speeds on unpaved roads and circulation areas; sweeping paved roadways daily; minimizing blasting dust through use of water, removing loose overburden and sequential delay timing schemes; and designation of staff person(s) to monitor the dust control program and increase dust control measures as necessary to prevent dust offsite.

Mitigation F.4 in the Draft EIR is hereby expanded to provide additional measures to ensure winds are minimized within the quarry area, and to incorporate the development of an on-going wind monitoring program within the dust control program to ensure proper actions are implemented during periods of high winds, as follows (all changes to the Draft EIR are compiled in Chapter V, Errata):

- “• The applicant shall retain a qualified meteorological consultant to design and implement a wind monitoring program at the quarry site during project construction and operations. The monitoring program shall be limited to providing wind speed and direction information sufficient to implement these specific dust mitigation measures. The meteorological consultant shall conduct an initial field meteorological study to select the equipment and establish onsite locations for wind speed monitoring; the meteorological consultant shall use that information to develop an operating plan for the on-going meteorological monitoring program. The meteorological consultant shall prepare a design and operating plan for the meteorological monitoring (subject to the approval of the County). The meteorological consultant shall supervise the long-term operation of the meteorological monitoring program, regularly preparing and submitting to the County a report summarizing the results of the wind monitoring program. (For the first year, quarterly reports shall be required; yearly meteorological monitoring reports may be more appropriate after the first year’s experience.) The long-term meteorological monitoring program shall be reviewed periodically by the meteorological consultant and, subject to the approval of the County, adjustments made to reflect the experience and understanding of wind conditions and the related experience with dust generation and control at the quarry.

The meteorological monitoring plan shall include the basic elements in Attachment AQ-1, *General Meteorological Monitoring Guidelines for Roblar Road Quarry*, which generally discusses aspects of a well-designed and -operated meteorological monitoring system. These elements include use of suitable

equipment, proper instrument siting and maintenance practices, electronic data recording and preservation, periodic quality control audits of the station equipment and operating practices, and frequent review of the resulting data. The meteorological consultant shall consider each element in developing a plan that addresses plan objectives.

On-going wind monitoring shall be conducted at the project site during the quarry construction and long-term operation, especially during any dry periods of the year when winds are anticipated to exceed 15 mph at the quarry. As part of the wind monitoring program, suitable anemometry shall be employed to regularly monitor winds at locations within the project site subject to fugitive dust, including quarry slopes being actively mined, stockpiles, unpaved travel paths being used for mobile equipment, and where processing operations are occurring. The wind monitoring shall measure and report, at a minimum, average wind speeds and wind gust speeds during the operating hours of the quarry. The measurement intervals for average wind speed (initially anticipated to be one- or two-minute measurements that are made up of 60 consecutive 1- or 2-second samples, taken once every 15-minutes) and wind gust duration (initially anticipated to be a five- to ten-second gust, extracted as the highest 5 consecutive samples among the 60 samples that make up an average wind speed reading) shall be reviewed and modified, as appropriate, by the meteorological consultant as a part of the development of an operating plan for the on-going meteorological monitoring.

All applicable electronic and manually measured wind data shall be time-stamped and recorded, so that it can be cross-referenced or linked to time-stamped entries in a (manual or electronic) log book that describe the specific dust control measures or changes in operations made in response to attaining the identified wind speed criteria.

- If, based on the wind monitoring, wind speeds at an active quarry area are found to exceed 15 miles per hour, watering frequency shall be increased and/or other appropriate dust control methods of equal or better effectiveness shall be implemented within the area of effect. Quarry personnel shall put into action and shall document the specific dust control measures or changes in operations that were implemented when the identified 15 miles per hour wind speed was exceeded. These measures shall continue until wind speeds decrease to less than 15 miles per hour, as recorded on two successive regular measurements.
- If wind gusts during quarry operations are determined to exceed 25 miles per hour at any active quarry area of the quarry and those quarry operations generate any visible dust, that dust-generating activity in the area of effect shall be suspended until such time wind gust speeds in that area clearly subside. Quarry personnel shall put into action and document the change in operations that were implemented when the identified 25 miles per hour wind speed was exceeded. These measures shall continue until wind gust speeds decrease to less than 25 miles per hour, as recorded on two successive regular measurements.
- Automated dust control systems shall be used (e.g. automated sprinkler systems) to maintain proper surface moisture in the stockpiles before sufficient vegetative cover in the stockpiles has been established.

- If determined to be needed by the meteorological consultant, the applicant shall plant native evergreen trees along the perimeter of the quarry footprint to further minimize wind from entering the active quarry area. (This would be in addition to the trees already proposed to be planted in the vicinity of the proposed office, equipment storage area and parking lot, and along the proposed access road.) The specific tree type, location, and number of rows and spacing of trees shall be determined by the meteorological consultant.
- The quarry's dust control monitor shall provide nearby landowners (within a radius of potential effect as determined by the meteorological consultant) with a contact phone number for the quarry's dust control monitor for off-site dust complaints that may arise associated with the quarry. The dust control monitor shall determine the cause of the complaint and ensure that measures are implemented to correct the problem."

References

BAAQMD, *Meteorological Monitoring Guidance for Manual of Procedures, Volume VI: Air Monitoring Procedures*, May 8, 1996

ATTACHMENT AQ-1

General Meteorological Wind Monitoring Guidelines for Roblar Road Quarry

Introduction

In a system to collect meteorological data, instruments should be sited so as to characterize the movement of air from the sources of dust emission and the receptor areas. In complex terrain such as the quarry site, meteorological data from two sites appears necessary to accurately characterize the wind.

Since the primary objective of this monitoring activity is to indicate wind speeds near ground level in specific and varying working areas of the quarry while it is in operation, a full-scale meteorological station that meets all EPA requirements is not required. However, in designing the system, one permanently fixed wind monitoring site location seems warranted; another fixed wind monitoring site may be established temporarily (and later moved) as required to obtain data to characterize the wind speeds at the open working areas of the quarry. Data gathered at fixed station(s) should be captured with electronic data loggers. One or more hand-held meters also may be used to investigate wind speeds in specific work areas, as required. Any critical data from hand-held meters shall be time-stamped, recorded and preserved in a site logbook or electronic files.

The quarry's meteorological consultant shall select and site the meteorological monitoring equipment and set specific operating procedures based on these guidelines, and oversee meteorological monitoring at the quarry. The meteorological consultant shall review these guidelines and procedures and using his/her independent professional judgment, either adopt, modify or replace them, in part or in total, to achieve an equivalent or better monitoring result.

Aspects of a well-run meteorological monitoring system include use of suitable measurement and recording equipment, proper instrument siting and maintenance practices, together with periodic audits and frequent data review. These are discussed, following.

Sensors and Sensor Accuracy

Wind speed and direction should be measured and electronically logged at all fixed stations. Although meteorological data to be used in most formal regulatory applications must meet the accuracies and resolutions of EPA's "Onsite Meteorological Program Guidance for Regulatory Modeling Applications, EPA, 1987," there is no need to be this stringent for onsite instrumentation at the quarry. For example, continuous 24-hour per day operation of the station, although quite feasible given the automated systems, is not required to satisfy the goals of the meteorological monitoring. Another example is that a low wind-speed starting threshold is not required for the anemometer, since the concern is for accurate measurement of wind speeds well above 1 meter per second (m/s), which is 2.2 mph. Regardless of these exceptions, note that simple hand-held wind speed meters, as well as simple wind speed and direction measurement and logging systems, will generally meet the essential EPA accuracy requirements for wind sensors, which are as follows:

Wind speed starting threshold:	0.5 m/s.
Wind speed accuracy:	±0.2 m/s at speeds ≤ 5 m/s. ± 5% of observed speed for speeds ≥ 5 m/s (maximum error = 2.5 m/s).
Wind direction errors:	5 degrees.

Meteorological Station and Wind Sensor Siting

The meteorological consultant shall use his/her professional skill and care to site the fixed measurement stations and site each sensor so as to capture data relevant to the objective of the monitoring program.

Although the standard height for measuring surface winds is 10 meters above ground over level, open terrain, due to the nature of the quarry site, sensor height adjustments may be made as appropriate for each of fixed measurement station. “Clear zones”, within which vehicles or quarry equipment or materials shall not be parked or stored, shall be marked around the perimeter of the monitoring station to protect the integrity of the measurements.

Sampling Rates and Sampling Frequency

Sampling rates for sensor measurements recorded to data loggers should be frequent enough so that mean values [such as one-minute averages] are based on at least 60 samples. Instrumentation sampling rates of once per second are common and will result in 60 samples per one-minute period. Sampling rates of once every two-seconds are acceptable.

For both wind speed and direction, reported measurement values shall be based on one-minute (or longer, as noted above) average readings, rather than instantaneous sample readings. The measurement intervals for average wind speed are initially anticipated to be one- or 2-minute measurements that are made up of 60 consecutive 1- or 2-second samples. These one-minute (or longer) average readings shall be taken and recorded at intervals of 15 minutes throughout the day.

Measurements of the speed of a wind gust – initially anticipated to be a five- to ten-second gust – are to be extracted as the average of the highest 5 consecutive samples among the 60 samples that make up an average wind speed reading.

The meteorological consultant shall evaluate the measurement sampling and averaging times and recording intervals, as well as the duration and method of determining the wind gust duration for the purposes of control of blowing dust, and modify these factors as appropriate.

Data Recording Devices

A data logger shall be used to record and preserve data from each fixed station sensor. (A data logger is inexpensive, precise, requires very little maintenance, and allows data to be transmitted by radio to a central computer. This feature permits remote monitoring of station and sensor operation, as well as remote review of data.)

Data Review

Meteorological data should be reviewed frequently, preferably on a daily basis, by a person or by a computer scan. However, data should also be reviewed visually at regular intervals to look for any unusual situations. At a minimum, the review should cover checking for values out of range, periods of constant values, large changes over fifteen minutes (over an hour, if fifteen minute data are not available), incorrect times, and wind direction errors.

Station and Sensor Maintenance

The wind exposure and the relationship of each station location to the quarry working areas shall be reviewed quarterly, or whenever the operations move to a new area of the quarry. That review

shall consider the overall ability of that station location to monitor wind conditions relevant to quarry operations and to characterize the movement of air from the sources of dust to receptor areas.

Vandalism, high winds, or damage from birds can produce misalignment of the wind sensors. Although many system defects will be identified through data review procedures, misalignment problems may not be obvious in the data. Visual inspections shall be made at each site at least once a month (inspections may be done by the facility's trained staff). During inspections, compare the instantaneous data with hand-held instruments to see that the sensors are accurately recording current wind speed and direction. If equipment accuracy has degraded, a calibration shall be performed.

Calibration of the meteorological equipment shall be performed at least once every six months by a trained technician (may be quarry's trained staff). In dusty areas, more frequent calibrations may be needed. A logbook of calibrations and repairs shall be kept.

Independent Audits / Quality Control

Meteorological systems shall be audited once per year. Audits should be performed by the meteorological consultant or by another qualified person not affiliated with the staff that normally maintains and calibrates the systems. The auditor may be assisted by a site operator familiar with the equipment. An audit report shall be written and submitted to the County and any problems noted shall be corrected as soon as possible.

References

General Meteorological Wind Monitoring Guidelines for Roblar Road Quarry adapted from:
BAAQMD, *Meteorological Monitoring Guidance for Manual of Procedures, Volume VI: Air Monitoring Procedures*, May 8, 1996.

Master Response AQ-2: Naturally Occurring Asbestos

[Responds to Comments K-16, L-7, L-13, L-36, O-9, O-10, O-11, P-1, R-1, S-3, T-4, U-12, U-13 to U-15, U-16, V-14, AA-4, DD-3, DD-4, JJ-3, JJ-4 to JJ-5, JJ-6, JJ-8 to JJ-10, PC-22, PC-55, PC-59 and PC-97]

Several comments expressed concern regarding the presumed presence of naturally occurring asbestos within the subsurface bedrock materials at the site. The Draft EIR (page IV.F-12) described the applicable regulations associated with surface mining operations where naturally-occurring asbestos is likely to be found, and discussed that geologic mapping does not indicate the existence of asbestos/serpentine rock within the project site. This Master Response further addresses these comments by providing background information as to the occurrence of asbestos minerals in Sonoma County, presenting the results of asbestos testing that was conducted on the project site, and assessing the potential for asbestos to be encountered on the project site during initial construction and quarrying.

The term asbestos is used to identify a group of six commercially important silicate minerals of fibrous or asbestiform habit having properties of high tensile strength, flexibility, chemical resistance, and heat resistance. These properties have made these minerals useful in many manufactured products and industrial processes during the twentieth century. A few examples of the many uses of asbestos include brake and clutch linings, insulation, textiles, and filtration products (CGS, 2002). Chrysotile and amphibole asbestos (such as tremolite) occur naturally in certain geologic settings in California, most commonly in association with ultramafic rocks¹⁹ and along associated faults.

Geologic mapping and reporting completed for the project applicant by John H. Dailey (2005) and general descriptions of geologic units on the site identify the northwestern portion of the site adjacent to Roblar Road as underlain by rocks of the Franciscan Complex. The Franciscan Complex is a suite of geological formations whose origins relate to the accretion of oceanic sediments onto the North American Plate off of the subducting Pacific Plate. Over millions of years, this suite of rocks have undergone a complex history of faulting and folding that has in some places produced a “mélange” of many different rock types, including sandstone, chert, and meta-volcanic (volcanic rocks altered by heat and pressure) rocks within a matrix of sheared material. The matrix can sometimes include serpentinite, which is recognized as potentially asbestos-bearing, and is considered by the State as a rock that is more likely to contain asbestos.

Available published geologic mapping does not indicate that asbestos-containing serpentinite is located in the project area. Geologic mapping of Sonoma County by the U.S. Geological Survey (USGS) identifies the Franciscan Complex in the project site area as Cretaceous- and Jurassic-age greywacke²⁰ and mélange, however, in this region, serpentinite is not identified (USGS, 2002). This geologic interpretation is consistent with geologic mapping by the California Geological

¹⁹ Ultramafic rocks are derived from deep within the earth’s mantle and composed almost entirely of dark minerals rich in iron and magnesium.

²⁰ Graywacke is a variety of sandstone generally characterized by its hardness, dark color, and poorly-sorted, angular sand grains in a compact, clay matrix.

Survey (CGS) of the Two Rock area of Sonoma County, which identifies the Franciscan Complex as *mélange* (Late Jurassic to Cretaceous) containing a mixture of masses of resistant rock including sandstone, altered mafic volcanics (greenstone), chert, gabbro, and exotic metamorphic rocks imbedded in a sheared shaley matrix (CGS, 2003). Serpentinite is not identified in this region by the CGS geologic interpretation and mapping. Serpentinite is identified on USGS maps in northwest trending, elongated “belts” in the north-central portion of Sonoma County. These belts are identified by the CGS as areas of ultramafic rocks in California that are more likely to contain naturally-occurring asbestos (CGS, 2000). However, the area identified as containing asbestos-bearing rocks (serpentinite) are located at least 14 miles northwest of the project site.

The Franciscan Complex is a suite of geological units that, aside from certain areas, such as in the north-central portion of the County, are mostly absent of serpentinite, particularly in the southern portion of Sonoma County near the project site. Serpentinite occurs in large bodies and belts adjacent to the Franciscan Complex rocks. In his description of geologic units at the site, Dailey (2005) described the general characteristics of the Franciscan Complex *mélange*, but specifically noted that where exposed in an outcrop along Roblar Road, the Franciscan Complex consists of fractured sandstone and minor shale. This is consistent with mapping completed by the USGS and the CGS indicating that the Franciscan Complex beneath the project area does not contain serpentinite. It should also be noted that the proposed quarry operation would not extend below the Tolay Volcanics and into the underlying Franciscan Complex rocks (see Figures IV.B-1 and IV.B-2 in the Draft EIR) so there is a low potential of encountering Franciscan Complex rocks during quarry operations. Based on review of exploratory boring logs, resource exploration drilling by Miller Pacific Engineering (2004) did not encounter Franciscan Complex bedrock to a depth of 250 feet below ground surface (or equivalently, 10 feet below the proposed depth of the quarry). Franciscan Complex bedrock may be encountered in access road grading operations adjacent to Roblar Road. However, because the probability of encountering serpentinite or naturally-occurring asbestos is considered very low, grading operations in the Franciscan Complex rocks would not be considered a health and safety issue for the public, construction workers, or quarry employees.

In addition, neither the Wilson Grove nor the Tolay Volcanics are asbestos-bearing, serpentinite bedrock. These overlying strata are not rocks that typically contain asbestiform minerals, and are not identified as ultramafic rocks by the Department of Conservation (CGS, 2000). The project applicant also conducted asbestos testing of a number of rock core samples within the Tolay Volcanic materials within the proposed quarry limits on the project site in 2004. The testing program revealed that all samples tested were well below applicable California Air Resources Board regulatory threshold levels for defining asbestos-containing materials (PES, 2004).

As discussed in Section IV.F, Air Quality, in recognition of the potential health hazard caused by windblown dust containing asbestos, the California Air Resources Board adopted the Asbestos Airborne Toxic Control Measure (ATCM) for construction, grading, quarrying and surface mining operations. This measure applies to activities that disturb geological units where naturally-occurring asbestos is likely to be found. The ATCM applies to quarries and surface mines when the activity occurs in an area where naturally-occurring asbestos is likely to be found.

Areas are subject to the regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units or if the APCO or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or naturally-occurring asbestos on the site. Neither of these cases applies to the proposed quarry and therefore, the ATCM does not apply to the proposed project.

In summary, published geologic mapping by the USGS and the CGS does not identify serpentinite, the rock most likely to contain asbestos, in the Franciscan Complex bedrock underlying the quarry site. Furthermore, the quarry operations would not extend beneath the basal extent of Tolay Volcanics and would not expose Franciscan Complex bedrock with the exception of a localized area that may be exposed during grading operations to construct the access road. Serpentinite is present in the north-central portion of Sonoma County. The information provided in this Master Response is sufficient evidence to conclude that naturally-occurring asbestos would not be encountered during quarry operations. The information above clarifies, but does not change the information presented in the Draft EIR, and therefore includes no modifications to the EIR.

References

- California Geological Survey, 2000. A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos. Compiled By Ronald K. Churchill and Robert L. Hill, August.
- California Geological Survey, 2002. Guidelines for Geologic Investigations of Naturally-Occurring Asbestos in California, Special Publication 124, Edited by John P. Clinkenbeard, Ronald K. Churchill, and Kiyoung Lee.
- California Geological Survey, 2003. Geologic Map of the Two Rock 7.5' Quadrangle, Sonoma County, California: A Digital Database, Version 1.0 By Stephen P. Bezorel, Richard D. Koehler, and Robert C. Witter.
- Dailey, John H., Consulting Geotechnical Engineer Report, *Geotechnical/Geologic Evaluation for EIR, Proposed Roblar Road Quarry, 7601 Roblar Road, Sonoma County, California*, 2005.
- Miller Pacific Engineering Group, *Exploration Program, Roblar Road Quarry, 7601 Roblar Road, Sonoma County, California*, September 25, 2004.
- PES Environmental, Inc., *Results of Asbestos Testing, Roblar Quarry, Sonoma County, California*, November 23, 2004.
- U.S. Geological Survey, 2002. *Geologic Map and Map Database of Western Sonoma, Northernmost Marin, and Southernmost Mendocino Counties, California* Miscellaneous Field Studies Map MF-2402, By M.C. Blake, Jr., R.W. Graymer, and R.E. Stamski.

Master Response T-1: School Buses / School Children on Haul Routes

[Responds to Comments O-3, Q-5, R-3, S-6, Y-4, Y-14, Z-11, II-4, JJ-18 to JJ-19, JJ-22 to JJ-23, PC-14, PC-15, PC-60, PC-82 and PC-94]

Several commenters expressed concern about potential safety conflicts between project haul trucks and school children, including students walking to or from local schools, as well as school buses and bus stops along project truck haul routes. One commenter requested information on location of school bus stops and school bus schedules for the project truck haul routes. In response to concerns raised, the Petaluma City School District (CSD) was consulted for information regarding existing school bus travel characteristics on project study haul routes. Field reconnaissance was also conducted to observe existing Petaluma CSD school bus operations along these routes. School representatives from the Dunham Elementary School (on Roblar Road) and Liberty Elementary School (south of Pepper Road) were also consulted regarding existing student arrival/departure characteristics at their schools and any specific safety concerns they had.

Please note the Alternatives section of the Draft EIR includes Alternative 2 (Alternative Haul Route / Contracted Sales Only), in which all truck traffic generated by the quarry would use an alternative haul route and no project haul trucks would use Roblar Road east of the quarry, or Pepper Road east of Mecham Road. This alternative would avoid project trucks in the vicinity of Dunham and Liberty Elementary Schools.

Petaluma CSD School Buses/ Bus Stops

The Petaluma CSD currently operates its own school buses to transport junior high school and high school-age children within its jurisdiction. Two Petaluma CSD bus routes follow along primary study haul routes: Route 11, which travels on Roblar Road, Pepper Road, Mecham Road and Stony Point Road; and Route 10, which travels on Valley Ford Road. Route 11 currently transports between 62 and 119 Petaluma CSD students, and Route 10 currently transports between 45 and 52 students daily (not all these students are picked up or dropped off on the study area roadways). The school buses are standard size (40 feet long).

Route 11 makes seven stops along Roblar Road (3645, 3777, 4150, 5675, and 6010 Roblar Road, and at Orchard Station and Canfield Roads); with pick-up times on school days between 6:54 a.m. and 7:01 a.m., and drop-off times between 3:56 p.m. and 4:06 p.m. Route 11 makes six stops on Pepper Road (815, 1535, 1797, 1800, and 2397 Pepper Road, and at Walker Road); with pick-up times between 7:13 a.m. and 7:20 a.m., and drop-off times between 4:18 p.m. and 4:23 p.m. Route 11 makes three stops on Mecham Road (680 and 900 Mecham Road, and at Everett Road); with pick-up times between 6:49 a.m. and 6:53 a.m., and drop-off times between 3:50 p.m. and 3:52 p.m. Route 11 makes two stops on Stony Point Road (592 and 1515 Stony Point Road); with pick-up times between 6:37 a.m. and 6:40 a.m., and drop-off times between 3:44 p.m. and 3:45 p.m.

Route 10 makes two stops on Valley Ford Road (at 7950 Valley Ford Road and at Two Rock Street); with pick-up times on school days between 7:04 a.m. and 7:11 a.m., and drop-off times between 4:13 and 4:15 p.m.

A Petaluma CSD school bus on Route 11 was observed on a typical school day afternoon (December 15, 2008) to note the general travel characteristics of the bus and safety precautions utilized by its driver. The Petaluma CSD school bus was observed to obey all applicable traffic laws (e.g. speeds limits, stop signs, etc.). In cases where the roadway shoulder was wide enough to accommodate the bus at identified school bus stops (e.g., on Valley Ford Road and Stony Point Road), the school bus would pull completely off the roadway travel lane and onto the shoulder. However, in instances where the bus made designated stops on roadways containing narrow shoulders (e.g., Roblar and Pepper Roads), the bus would remain partially or completely within a travel lane. Nonetheless, in all cases, the school bus would come to a complete stop, use its red flashers and display its mechanically-operated bus “Stop” sign. Under these conditions, and as required by law, vehicles in both directions on the roadway stopped completely. Furthermore, at locations where students would need to cross the street, the bus driver would first turn off the bus engine and exit the bus with a manual “Stop” sign and serve as a crossing guard to ensure students safely crossed the roadway. In most instances along Roblar Road, parents/guardians in parked cars were observed waiting to pick up the school children at a designated bus stop.

In summary, Petaluma CSD currently operates school buses (one trip in the morning before school and one in the afternoon after school) along several roadways that would be used as truck haul routes by the proposed project, including Roblar Road, Valley Ford Road, Pepper Road, Mechem Road and Stony Point Road. The school buses use all reasonable safety precautions when traveling on these roadways and when picking up and dropping off students. Moreover, all vehicles on the roadway are required to obey all applicable traffic laws, including stopping in both directions on a roadway when school buses use their red flashers and mechanical/manual stop sign.

Dunham / Liberty Elementary Schools

Dunham Elementary School

Dunham Elementary School is located at 4111 Roblar Road in the community of Roblar, and approximately 2.25 miles east of the project site. Dunham Elementary School currently serves approximately 180 students in grades K-6. School hours are between 8:00 a.m. and 2:30 p.m. As discussed in the Draft EIR, in the vicinity of the Dunham Elementary School there is a 25 mph school speed zone (when school is in session) on Roblar Road. In addition, school route crosswalks for Dunham Elementary School are located on Roblar Road at Petersen Road.

Dunham Elementary School does not provide crossing guards on Roblar Road. However, all students are required to be accompanied by parents or guardians per school policy to and from the school. A school representative estimated up to three families currently walk to school, and all use the designated school crosswalk at Roblar/Peterson Roads; all other students are driven to school. Specific traffic concerns were raised by the school representative were related to

1) existing localized vehicle congestion that occurs at the school entrance during the school pick-up and drop-off periods (e.g., 7:30 a.m. to 8:10 a.m.; and 2:20 p.m. to 3:10 p.m.) when vehicles tend to queue on the westbound travel lane of Roblar Road waiting to make a left turn into the school entrance, 2) vehicles exceeding the 25 mph speed limit during school hours on Roblar Road, and 3) traffic safety conditions at the unsignalized intersection of Stony Point and Roblar Road. The school representative expressed concern of the potential for project haul trucks to exacerbate any of those conditions (Kahl, 2009).

With respect to the first issue raised (vehicles queuing on westbound Roblar Road during school pick-up and drop-off hours), the proposed project would add vehicles to Roblar Road, which would could incrementally increase the westbound queue and associated delays in the westbound direction near the school entrance when a project haul truck(s) was traveling past the school during those time periods. However, given the type of operations proposed, quarry trucks would not arrive at or depart the quarry in groups, and further, would not generate a higher concentration of trucks during the school pick-up/drop-off hours; rather, project trucks would be dispersed throughout the workday. With respect to general concerns about speeding drivers on Roblar Road, the Draft EIR acknowledges that based on speed surveys taken, existing traffic on Roblar Road, which consists primarily of passenger vehicles, is currently traveling at speeds higher than the posted speed limit. The Draft EIR also presented historical collision data which showed that Roblar Road's accident rate, while higher than the other study roadways analyzed in the Draft EIR, was less than the County average accident rate for two-lane rural roads (see also response to Comment for Y-3 for additional detail on this issue). With respect to the traffic safety concerns at the intersection of Stony Point and Roblar Road, as discussed in the Draft EIR, the County is planning for installation of a signal and associated improvements (preliminary design includes widening all approaches to the intersection, including shoulders, and lengthening the northbound left-turn lane) at this intersection by 2009. As such, these intersection improvements would be in place prior to the operation of the proposed project, and would eliminate safety concerns at this intersection.

Liberty Elementary School

Liberty Elementary School is located at 170 Liberty School Road, approximately ¼-mile south of Pepper Road. It serves approximately 204 students in grades K-6. There is a 25 mph school speed zone on Pepper Road in the vicinity of Jewett Road. A pedestrian crosswalk and flashing red stop light are located on Pepper Road at Jewett Road. A Liberty Elementary School official explained virtually all of its current students are dropped off by their parents / guardians, and there were no existing safety concerns with its school as it related to traffic along Pepper Road (Rafanelli, 2008).

Conclusion

As discussed above, the Petaluma CSD school buses use all reasonable safety precautions when traveling on these roadways and when picking up and dropping off students. Further, both Roblar and Pepper Road contain a number of traffic safety features to promote safety for students,

including reduced speed limits during school hours and school route cross walks in the respective school vicinities, which are designed to promote pedestrian safety.

Nonetheless, as discussed in detail in Impact E.3 (bicycle/pedestrian safety) in the Draft EIR, the project would increase truck traffic on a number of local roadways, and most notably on Roblar Road. Most roadways in the project area are currently used by bicyclists. In addition, the community of Roblar and the residential community along east Pepper Road also generate pedestrians in their respective areas. Further, the Draft EIR discusses that Roblar Road and Pepper Road (east of Mecham Road) do not meet current County road design standards for travel lane and/or shoulder width. When considering these factors, a significant project impact was identified for the entire length of Roblar Road, and the section of Pepper Road east of Mecham Road.

In addition, as discussed in Impact E.4 (traffic safety) in the Draft EIR, when considering the existing condition that vehicles currently travel at speeds higher than posted speed limits on Roblar Road, the winding nature of the roadway, and that topography contributes to limited sight distance in some locations, the Draft EIR concludes that the addition of project truck traffic to this roadway would be considered a significant impact. The potential impact could be increased during periods of poor visibility, such as fog; or reduced road traction, such rainy or frosty conditions; and/or during potential infrequent nighttime operations.

Mitigation measures are identified in the Draft EIR (see Mitigation Measures E.3 and E.4) to mitigate these significant impacts which include improving 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, associated striping/signage to meet Class II bike facilities, and posting of warning signs on Roblar Road at key locations where sight distance may continue to be limited after implementation of these roadway improvements.

The Draft EIR discusses whether or not implementation of the above-cited mitigation measures would be feasible (due to right-of-way acquisition considerations), and concludes that if the roadway widening improvements identified in Mitigation Measures E.3a/E.4a were found to be infeasible, the traffic safety impacts would be Significant and Unavoidable. Please see also response to Comment V-11 regarding recommended conditions of approval identified for Roblar Road in the interim period until such mitigation measures are implemented.

References

Kahl, Pam, Office Manager, Dunham Elementary School, phone correspondence, January 8, 2009.

Rafanelli, Christopher, Principal, Liberty Elementary School, phone correspondence, December 16, 2008.

CHAPTER III

Agencies and Persons Commenting on the Draft EIR

A. Agencies and Persons Commenting in Writing

The following agencies, organizations and individuals submitted written comments on the Draft EIR during the public review period.

Letter	Person/Agency and Signatory	Date
A	State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit (Terry Roberts, Director, State Clearinghouse)	July 8, 2008
B	California Department of Transportation (Lisa Carboni, District Branch Chief, Local Development – Intergovernmental Review)	July 3, 2008
C	State of California Native American Heritage Commission (Katy Sanchez, Program Analyst)	May 22, 2008
D	California Regional Water Quality Control Board, North Coast Region (John Short, Senior Water Resources Control Engineer)	July 22, 2008
E	United States Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, Gulf of the Farallones National Marine Sanctuary (Maria Brown, Sanctuary Superintendent)	July 21, 2008
F	State of California Department of Conservation, Office of Mine Reclamation (James S. Pompy, Manager, Reclamation Unit)	June 6, 2008
G	State of California Department of Conservation, Division of Land Resource Protection (Brian Leahy, Assistant Director)	July 2, 2008
H	Bay Area Air Quality Management District (Jean Roggankamp, Deputy Air Pollution Control Officer)	July 3, 2008
I	County of Sonoma Department of Health Services (John Anderson, R.E.H.S, Senior Environmental Health Specialist)	July 3, 2008

Letter	Person/Agency and Signatory	Date
J	Stegeman and Associates (Scot Stegeman)	July 21, 2008
K	Sebastopol Water Information Group (SWIG) (Jane E. Nielson, Ph.D., Geologist, President)	July 21, 2008
L	JTEC Environmental, on behalf of Citizens Against Roblar Road Quarry (Julie Turnross, Principal Environmental Specialist)	July 21, 2008
M	Raymond Waldbaum, R.G., C.E.G., on behalf of Sue Buxton	July 19, 2008
N	Rose M. Zoia, Attorney, on behalf of Citizens Against Roblar Road Quarry	July 22, 2008
O	Sue Buxton	July 21, 2008
P	Anne McAbata	June 26, 2008
Q	Donna Spilman	June 22, 2008
R	Bruce Norwitt / Helene Norwitt	July 17, 2008
S	Bruce Norwitt / Helene Norwitt	June 30, 2008
T	Richard Adam Norwitt	July 21, 2008
U	Mrs. Mary Hines	July 1, 2008
V	Robert W. Piazza	June 18, 2008
W	Donna Norton	June 22, 2008
X	Ronald Norton	July 22, 2008
Y	Ed Ryska	July 12, 2008
Z	Ed Ryska	June 19, 2008
AA	Ken Delpit	July 21, 2008
BB	Karen Slissman	July 14, 2008
CC	Gary Reed	July 22, 2008
DD	Susan Baritell	July 22, 2008
EE	Thomas Honrath	May 25, 2008

Letter	Person/Agency and Signatory	Date
FF	Chris J. McCarthy Sr.	June 7, 2008
GG	Judi Slater	July 22, 2008
HH	Robert B. Taylor	May 21, 2008
II	Eileen Hofer	June 17, 2008
JJ	Jason Merrick	July 19, 2008

B. Persons Commenting at the Public Hearing

A public hearing on the Draft EIR was held by the County on June 19, 2008. The following individuals provided spoken comments on the Draft EIR:

- Robert Piazza
- Ed Ryska
- Sue Buxton
- Thomas Honrath
- Virgil Miller
- Donna Norton
- Bruce Norwitt
- Christine Colbert, Bicycle Coalition
- Corey Merrick
- Susan Baritell
- Terry Edington
- Gary Reed
- Margaret Hanley
- Tom Warren
- Ann Krinard
- Ken Delpit
- Fern Etienne
- Beth Wakelee
- Nathan Lange
- Dan McCannan
- Donna Spilman
- Bruce McKeffron
- Commissioner Bennett
- Commissioner Williams
- Commissioner Furch
- Commissioner Murphy

CHAPTER IV

Written and Spoken Comments on the Draft EIR and Responses to Comments

This chapter contains copies of the comment letters during the public review period on the Draft EIR, and the individual responses to those comments. Each written comment letter is designated with a letter (A through JJ) in the upper right-hand corner of the letter. Spoken comments on the Draft EIR are also included in the Planning Commission Minutes.

Within each written comment letter, individual comments are labeled with a number in the margin. Immediately following each comment letter is an individual response to each numbered comment. Where responses have resulted in changes to the Draft EIR, these changes also appear in Chapter V of this Response to Comments Document.



STATE OF CALIFORNIA

GOVERNOR'S OFFICE of PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT



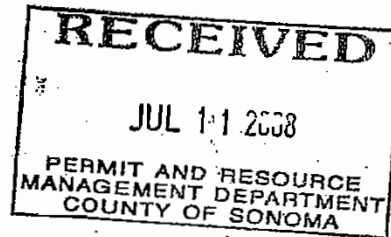
ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

July 9, 2008

Blake Hillegas
Sonoma County Permit and Resources Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

Subject: Roblar Road Quarry Project
SCH#: 2004092099



Dear Blakc Hillegas:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on July 3, 2008, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

A-1

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts
Director, State Clearinghouse

Enclosures

cc: Resources Agency

State Clearinghouse Data Base

SCH# 2004092099
Project Title Roblar Road Quarry Project
Lead Agency Sonoma County

Type EIR Draft EIR

Description Develop a hard rock quarry that will disturb approximately 70 acres over a 20-year mining period. The quarry will provide aggregate and road base, subbase drain rock, quarry fines, fill material, riprap, and possibly concrete aggregate. As these materials are mined and processed, they will be stockpiled for eventual loading and delivery. The quarry is located adjacent to Roblar Road and is adjacent to a closed unlined landfill. Phase one (five years) will begin with construction of an access road and construction and installation of truck scales, an office, equipment storage area, parking lot, and processing equipment. The initial phase would establish the quarry floor at its permanent elevation. Phase two (five years) and phase three (ten years) would consist of mining the quarry in an easterly direction for a total production of 11,400,000 cubic yards of material.

Lead Agency Contact

Name Blake Hillegas
Agency Sonoma County Permit and Resources Management Department
Phone (707) 544-6056 **Fax**
email
Address 2550 Ventura Avenue
City Santa Rosa **State** CA **Zip** 95403

Project Location

County Sonoma
City Cotati, Petaluma
Region
Lat / Long
Cross Streets Valley Ford Road, Canfield Road, Stony Point Road
Parcel No. 027-080-009, 010
Township 6N **Range** 6W **Section** 36 **Base** MDB&M

Proximity to:

Highways
Airports
Railways
Waterways Americano, Blucher, and Gossage Creeks
Schools Dunham Elementary
Land Use Grazing land / Land Extensive Agriculture (LEA) B6 160 Z (Second Unit Exclusion) VOH (Valley Oak Habitat) / Land Extensive Agriculture

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Landuse; Minerals; Noise; Public Services; Septic System; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Regional Water Quality Control Board, Region 1; Department of Parks and Recreation; Native American Heritage Commission; Office of Emergency Services; Department of Fish and Game, Region 3; Department of Water Resources; Department of Conservation; Caltrans, District 4; Cal Fire; Air Resources Board, Major Industrial Projects; Air Resources Board, Transportation Projects; Department of Toxic Substances Control

Date Received 05/20/2008 **Start of Review** 05/20/2008 **End of Review** 07/03/2008

Note: Blanks in data fields result from insufficient information provided by lead agency.

Letter A. State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit (Terry Roberts, Director, State Clearinghouse)

- A-1 The comment regarding compliance with the State Clearinghouse review requirements for draft environmental documents pursuant to the California Environmental Quality Act is acknowledged.

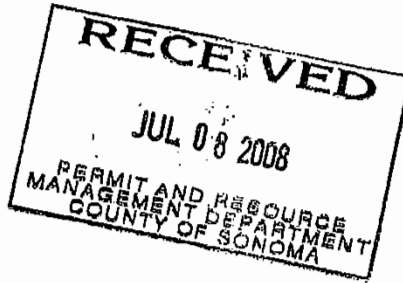
DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
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TTY 711



Flex your power!
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July 3, 2008



SON116530
SON-116-33.61
SCH # 2004092099

Mr. Blake Hillegas
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Mr. Hillegas:

Roblar Road Quarry Project -- Draft Environmental Impact Report (DEIR)

Thank you for including the California Department of Transportation (Department) in the environmental review process for the project referenced above. The following comments are based on the review of the DEIR.

Traffic Analysis

- 1. The DEIR should analyze the potential near-term and long-term degradation of pavement conditions on State highways, especially on the heavily used section of State Route (SR) 116 in the vicinity of the quarry site. B-1
2. Mitigation Measure E.2c (page II-26): Is the intersection adequate to optimize signal timing for truck operations (turning radius, lane width, and storage length)? B-2
3. Mitigation Measure E.2d (page II-26): Please specify the intersection: Is this the US 101 northbound off-ramp/Gravenstein Highway (State Route 116) signal or the Old Redwood Highway/Gravenstein Highway signal? B-3
4. Please submit Synchro files of all study intersections (page IV.E-5) for the following five scenarios (page IV.E-1): B-4
a. Existing (2005)
b. Near-Term Cumulative Base (Year 2007)
c. Near-Term Cumulative Base + Project
d. Long-Term Cumulative Base (Year 2027)
e. Long-Term Cumulative Base + Project

Encroachment Permit

Please be advised that any work or traffic control that encroaches on State ROW requires an encroachment permit that is issued by the Department. To apply, a completed encroachment

B-5

Mr. Blake Hillegas/ Sonoma County PRMD
July 3, 2008
Page 2

permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to the following address:

↑ B-5
| cont.

Julie Hsu, Office of Permits
California DOT, District 4
P.O. Box 23660
Oakland, CA 94623-0660

Should you require further information or have any questions regarding this letter, please call or email Ina Gerhard of my staff at (510) 286-5737 or ina_gerhard@dot.ca.gov.

Sincerely,



LISA CARBONI
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

Letter B. California Department of Transportation (Lisa Carboni, District Branch Chief, Local Development – Intergovernmental Review)

- B-1 The commenter requests analysis of potential near-term and long-term degradation on State highways, especially on heavily used sections of State Route (SR) 116 in the vicinity of the quarry site.

As stated on page IV.E-38 of the Draft EIR, the degree to which project-generated truck trips would cause incremental damage and wear to roadway pavement surfaces depends on the roadway's design (pavement type and thickness) and its current condition. Freeways and state highways, such as U.S. 101 and State Route 116, are designed to handle a mix of vehicle types, including heavy trucks. On that basis, the project's impact on state highways would be less than significant.

- B-2 With respect to Mitigation Measure E.2c, the commenter inquires if the Stony Point Road / State Route 116 intersection is adequate to optimize signal timing for truck operations.

Mitigation Measure E.2c (Stony Point Road / State Route 116 intersection) would optimize the signal timing to improve the capacity of the intersection. As stated on page IV.E-31 of the Draft EIR, that action involves changing the signal timing to better reflect traffic volumes, and can include changing the cycle length or reallocating green time between different signal phases. The geometric characteristics of the intersections, like the ones cited by the commenter, would not affect optimization of the signal timing. However, it is noted that the intersection movements that would be used by project trucks (i.e., northbound right turn and westbound left turn) would be accommodated in separate turns with adequate turning radii, lane width and storage length for truck operations.

- B-3 The commenter questions whether the mitigation identified in Mitigation Measure E.2d is intended for the signal at the intersection of Gravenstein Highway (SR 116) and U.S. 101 northbound off-ramp, or the signal at the intersection of Gravenstein Highway and Old Redwood Highway.

The intersection that Mitigation Measure E.2d is referring to is the intersection of Gravenstein Highway and Old Redwood Highway.

- B-4 The commenter requests submittal of data files for study intersections for Existing, Near-Term Cumulative Base, Near-Term Cumulative Base + Project, Long-Term Cumulative Base, and Long-Term Cumulative Base + Project scenarios.

As stated in the Draft EIR, the analysis of level of service conditions was conducted using the TRAFFIX analysis software, which uses traffic engineering industry standard methodologies set forth in the Transportation Research Board's *2000 Highway Capacity*

Manual, as does the Synchro analysis software. The scenarios cited by the commenter are the five analysis scenarios presented in the Draft EIR, and as stated in the Draft EIR, the level of service calculations for this analysis are on-file at the Sonoma County Permit and Resource Management Department. It is the opinion of County staff and the EIR consultant that the TRAFFIX-based analysis provides an adequate assessment of potential traffic impacts associated with the proposed project.

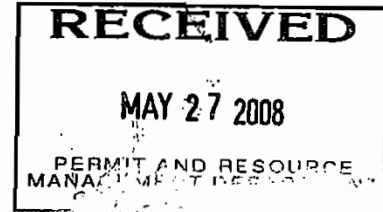
- B-5 The requirement for an encroachment permit from Caltrans to perform any work within State right-of-way is acknowledged.

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax



May 22, 2008



Blake Hillegas
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 95403

RE: SCH# 2004092099 Roblar Road Quarry Project; Sonoma County.

Dear Mr. Hillegas:

The Native American Heritage Commission has reviewed the Notice of Completion (NOC) regarding the above referenced project. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064(b)). To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

- ✓ Contact the appropriate Information Center for a record search to determine:
 - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
 - If any known cultural resources have already been recorded on or adjacent to the APE.
 - If the probability is low, moderate, or high that cultural resources are located in the APE.
 - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
 - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
 - A Sacred Lands File Check. **Sacred Lands File check completed, no sites indicated**
 - A list of appropriate Native American Contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
 - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
 - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
 - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,

Katy Sanchez

Katy Sanchez
Program Analyst
(916) 653-4040

CC: State Clearinghouse

C-1

Native American Contacts

Sonoma County

May 22, 2008

The Federated Indians of Graton Rancheria
Gene Buvelot
6400 Redwood Drive, Ste 300 Coast Miwok
Rohnert Park , CA 94928 Southern Pomo
coastmiwok@aol.com
(415) 883-9215 Home

Dawn S. Getchell
P.O. Box 53 Coast Miwok
Jenner , CA 95450 Pomo
(707) 865-2248

Ya-Ka-Ama
6215 Eastside Road Pomo
Forestville , CA 95436 Coast Miwok
(707) 887-1541 Wappo

The Federated Indians of Graton Rancheria
Frank Ross
813 Lamont Ave Coast Miwok
Novato , CA 94945 Southern Pomo
miwokone@yahoo.com
(415) 269-6075

The Federated Indians of Graton Rancheria
Greg Sarris, Chairperson
6400 Redwood Drive, Ste 300 Coast Miwok
Rohnert Park , CA 94928 Southern Pomo
coastmiwok@aol.com
707-566-2288
707-566-2291 - fax

Kathleen Smith
1778 Sunnyvale Avenue Pomo
Walnut Creek , CA 94596 Coast Miwok
(925) 938-6323

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the propose SCH# 2004092099 Roblar Road Quarry Project; Sonoma County.

Letter C. State of California Native American Heritage Commission (Katy Sanchez, Program Analyst)

- C-1 The commenter recommends a number of actions to ensure potential effects to archaeological resources would be less-than-significant. Potential effects from the project on cultural resources were fully analyzed in the Draft EIR. As discussed in Mitigation Measure K.1a-c in the Draft EIR (pages IV.K-5 to IV.K-6), all potential impacts to cultural resources were mitigated by requiring the operator to adhere to the training, noticing, and handling requirements established in the Draft EIR and consistent with the Sonoma County cultural resources management requirements and those outlined in the commenter's letter, and with the assistance of the Native American community as appropriate. The potential impacts in this area are therefore determined to be mitigated to less than significant.



California Regional Water Quality Control Board
North Coast Region
Bob Anderson, Chairman

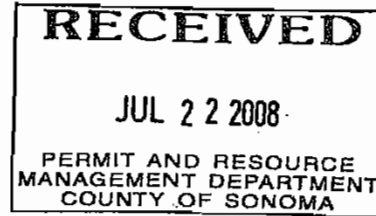


Linda S. Adams
Secretary for
Environmental Protection

www.waterboards.ca.gov/northcoast
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403
Phone: (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135

Arnold
Schwarzenegger
Governor

July 22, 2008



Mr. Scott Briggs
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 95403-2829

Mr. Scott Briggs:

Subject: Comments on the Draft Environmental Impact Report (DEIR) for the proposed Rock Quarry, Roblar Road, Sonoma County
SCH No. 2004092099

File(s): Roblar Road Quarry, 7601 & 7175 Roblar Road, Sonoma County
SCDPW, Roblar Road Solid Waste Disposal Site, Sonoma County

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the proposed Roblar Road Quarry. We appreciate the chance to respond and express concerns early in the environmental review process relating to our own statutory responsibility. The North Coast Regional Water Quality Control Board (Regional Water Board) is a responsible agency for this project, as defined by the California Environmental Quality Act (CEQA) having jurisdiction over the quality of ground and surface waters (including wetlands) and the protection of the beneficial uses of such waters. The DEIR identifies potentially significant environmental impacts of the proposed Quarry and suggests mitigation measures to reduce the significance of these potential impacts.

D-1

GENERAL COMMENTS

Regional Water Board staff remain very concerned over the potential impact of the quarry on the adjacent municipal landfill. We do not believe that ground water investigations at the landfill are adequate to determine pre and post-project ground water flow patterns at the adjacent quarry and whether ground water quality has been impacted by landfill wastes. No pump tests or observation wells have been proposed to determine whether contaminated groundwater at the landfill site will further migrate toward or be under a pumping influence of the quarries production wells. Further, the DEIR discloses that the quarry operation will encounter ground water and proposes that ground water be pumped from excavated areas to be discharged on and offsite.

D-2

California Environmental Protection Agency

Recycled Paper

This operation has the potential for altering aerial ground water flow patterns and may result in degradation of ground and surface water quality. Please be aware that both state and federal water quality objectives include anti-degradation criteria. The DEIR should clearly identify whether this project has the potential for violating this water quality objective. If it is determined that this could occur, the document should clearly specify measures intended to mitigate this potentially significant impact. These mitigation measures may include requirements for storage, and waste characterization prior to disposal /treatment to a legal point of disposal or discharge.

D-3

SPECIFIC COMMENTS

We have reviewed the DEIR for the Roblar Road Quarry and offer the following specific comments and recommendations as our role as a trustee and responsible agency under CEQA:

Impacts to Wetlands; Impacts to natural springs/seeps and Impacts to Americano Creek/ Ranch Tributary

The Regional Water Board is responsible for protecting the quality of state waters including both ground and surface water. Waters of the state include all waters of the U.S. and any waters deemed non-jurisdictional as waters of the U.S. The draft EIR indicates that several surface water features will be altered or eliminated as part of this project. The Regional Water Board applies a policy of "no net loss" for acreage, function and value of surface waters (including wetlands and headwater streams). The project should carefully consider areas subject to disturbance in order to prevent or minimize impacts to surface waters. If such impacts cannot be avoided, we will require full replacement of affected waters. Waters (including seeps and wetlands) should be replaced in kind and as close to the area of impact as possible.

D-4

Discharges of waste water to surface waters

The EIR discusses the potential for accumulated ground water to be discharged into nearby surface waters. Discharges of pollutants into waters of the US are subject to regulation under provisions of the Clean Water Act. It appears that this discharge would require permitting under the federal National Pollutant Discharge Elimination System (NPDES) program. Also, landfilled derived wastes/leachates are prohibited from discharge. In considering the issuance of this permit, the Regional Water Board will need to determine compliance with all applicable water quality objectives, including those intended to protect aquatic life. At this time, we are not aware of ground water data that would ensure full compliance with aquatic criteria for toxic substances. In addition, it is not clear that the ground water data collected thus far is fully representative of the ground water that will be intercepted by this facility. We strongly recommend that additional ground water studies including flow direction, pump test studies and ground water quality be obtained to ensure full protection of state waters.

D-5

California Environmental Protection Agency

Recycled Paper

The discharge of accumulated ground water and storm water runoff to area surface waters may directly affect the stability of downstream channels and the aquatic habitat of these areas. Habitats can be severely altered by modifications to runoff flows. Such hydromodification of stream flow can result in bank erosion and downstream flooding. The EIR should carefully analyze changes to hydrology due to the project. The EIR focuses on matching peak discharge rates but does not discuss other hydrologic changes (time of concentration, discharge duration, etc). We recommend that pre and post project discharge rates and peak discharge rates be matched. If runoff changes are contemplated, a full hydraulic model should be used to determine potential impacts to downstream receiving waters.

D-6

Discharges of storm water to surface waters

This project will involve considerable ground disturbance and will have large areas of exposed, erodible soil. Discharges of storm water runoff from these areas has the potential for causing increased sediment loading to downstream surface waters. We strongly support the use of proven storm water treatment measures that are effective in removing fine sediment. We further suggest that the project proponent implement preventative measures such as source control on the slopes and/or avoiding the grading and movement of highly erosive soils.

D-7

Specifically, the quarry project is planned in areas requiring the removal of highly erosive overburden soils of the Wilson Grove Formation ranging in depth from 15-80 feet. A series of onsite, benched storage stockpiles of up to 250,000 cubic yards each is proposed. Both interim and final slopes can be challenging to stabilize. Wilson Grove Formation materials often lack sufficient cohesive soil components and nutrients required for cover crop growth, and successful erosion control. Soil amendments and erosion control blankets are often needed to achieve slope and soil stability for the prevention of sediment discharges at the source. These measures tend to be costly.

The following summarizes project permits that may be required by our agency depending upon potential impacts to water quality:

Water Quality Certification (401 Certification) – Permit issued for activities resulting in dredge or fill within waters of the United States (including wetlands). All projects must be evaluated for the presence of jurisdictional wetlands and other waters of the state. Destruction of or impacts to these waters should be avoided. Under the Clean Water Act Section 401 and 404, disturbing wetlands requires a Corps Permit and a State 401 Permit. To determine whether wetlands may be present on any proposed construction site, please contact Jane Hicks at the U.S. Army Corps of Engineers in San Francisco at (415) 977-8439. If wetlands are present, please contact Stephen Bargsten from our office at (707) 576-2653 for a 401 Permit.

D-8

National Pollutant Discharge Elimination System (NPDES) permit or Waste Discharge Requirements (WDRs) or a Conditional Waiver of WDRs – Under authority of the California Water Code, the Regional Water Board may issue WDRs for any project, which discharges or threatens to discharge waste to waters of the state. Projects that cause disturbance to Waters of the State (including any grading activities within stream courses) require permitting by the Regional Water Board. The Regional Water Board may also require permits for discharges of post-construction of storm water runoff. The type and location of such discharges will determine the type of discharge permit required under provisions of the Water Code.

↑
D-8
cont.

General Construction Activity Storm Water Permit – Land disturbances on proposed projects of 1 acre or more require a construction storm water permit. If the land disturbance will be in excess of 1 acre, the owner of the property will need to apply for a General Construction Activity Storm Water Permit prior to the commencement of activities on-site. The owner may call our office to receive a permit package or download it off the Internet at www.waterboards.ca.gov/northcoast.

Thank you for the opportunity to comment on the DEIR for the proposed Roblar Road Quarry. If you have any questions or comments regarding this matter please contact me at (707) 576-2065 or by email at jshort@waterboards.ca.gov.

Sincerely,



John Short
Senior Water Resources Control Engineer

072208_JLS_RoblarRoadQuarry_DEIRcomments

Original Sent to: Mr. Blake Hillegas, Sonoma County PRMD, 2500 Ventura Avenue, Santa Rosa, CA 95403-2829

- cc: Mr. Scott Morgan, State Clearing House, P.O. Box 3044, Sacramento, CA 95812
 North Bay Construction Inc., 431 Payran Street, Petaluma, CA 94952
 Sue Buxton, 200 Vlaardingen Lane, Petaluma, CA 94952
 Julie Turnross, P.O. BOX 2218, Sebastopol, CA 94952
 Ms. Trish Pisenti, SCDPW, 500 Mecham Road, Petaluma, CA 94952
 Mr. John Anderson, SCEHD-LEA, 475 Aviation Blvd. Suite 220, Santa Rosa, CA 95403
 Mr. Mike Wochnick, CIWMB, Remediation, Closure & Technical Services, 101 I Street, P.O. BOX 4025, MS 20, Sacramento, CA 95812-4025

California Environmental Protection Agency

Recycled Paper

Letter D. California Regional Water Quality Control Board, North Coast Region (John Short, Senior Water Resources Control Engineer)

- D-1 The California Regional Water Quality Board (RWQCB), North Coast Region identifies the agency as a responsible agency for the project. This comment is noted.
- D-2 The commenter expresses concern of the potential impact of the proposed quarry on the landfill. The commenter questions whether groundwater investigations conducted at the landfill are adequate to determine pre- and post-project groundwater flow patterns at the adjacent quarry and whether groundwater has been affected by landfill wastes. In addition, the commenter indicates no pump tests or observation wells have been proposed to determine whether contaminated groundwater at the landfill site will further migrate towards or be under a pumping influence of the quarry's production wells.

The Draft EIR adequately characterized the existing groundwater flows patterns on the project site and adjacent landfill property. As part of the applicant's baseline groundwater monitoring program conducted in support of the project, a number of monitoring wells were installed on the project site in January 2007 (additional wells were installed in November 2008). Several consecutive rounds of the baseline groundwater monitoring program included concurrent groundwater elevation measurements for these wells, the project site's existing production wells, and the landfill property's existing monitoring wells. This groundwater level data provided a sufficient basis in which to estimate the existing shallow groundwater gradient of the project site and landfill property (see pages IV.C-14 and IV.C-17 in the Draft EIR). The Draft EIR also acknowledged, however, that groundwater flow within the deeper Tolay Volcanics and Franciscan complex is variable due to fracture flow conditions.

The Draft EIR also presented all available sources of information characterizing groundwater quality conditions at the project site and adjacent landfill property. The Draft EIR presented the results of initial groundwater testing at the landfill property as part of the 1991 Solid Waste Water Quality Assessment Test (SWAT) investigation completed for the landfill, as required under California Assembly Bill (AB) 3525 (Calderon Bill) of 1984. The SWAT investigation concluded that "there has been little or no impact to water quality and the environment from past landfill operations, and there is no indication of leachate leaving the site boundaries."

The Draft EIR also reported the findings of the recent and ongoing analytical testing for contaminants on the quarry site and landfill property monitoring wells (see pages IV.C-17 to IV.C-20) conducted as part of the applicant's baseline groundwater monitoring program for the quarry, and additional monitoring conducted by the County as part of their on-going groundwater monitoring program for the landfill property. Collectively, these independent sources of analytical data represent the best available information characterizing existing

groundwater quality beneath the landfill and quarry properties. The commenter is also referred to Master Response HYD-2 in Chapter II in this Response to Comments Document for further detail on existing groundwater quality conditions on the project site and adjacent landfill property, including additional groundwater data that has been made available since publication of the Draft EIR.

The Draft EIR addressed all potential hydrologic and water quality impacts of the proposed project, including but not limited to, the potential for excavation of the quarry to alter shallow groundwater patterns and initiate groundwater seepage through the quarry walls, and potential for groundwater seepage and/or production well water used on site to contain contaminants (see Impacts C.3 and C.4 in the Draft EIR). Mitigation Measure C.4 in the Draft EIR included on-going onsite monitoring and management to ensure any contaminated water that may enter the quarry walls as seepage and/or supply water from the onsite production wells would be identified, contained and treated appropriately.

In addition, as explained in detail in Master Response HYD-1 in this Response to Comments Document, the applicant has prepared a comprehensive Water Management Plan (WMP) that expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater seepage, precipitation/ runoff, and groundwater from wells) and reduces hydrology and water quality impacts. The WMP is designed to be consistent with the mitigation measures identified in the Draft EIR for addressing potential hydrologic and water quality impacts.

In the WMP, production Well DW-1 (located in proximity to the landfill property) would not be used as a water source for any quarry-related operations; groundwater supply would be limited to Well DW-2). See also Master Response HYD-3 for the results of a pump test that was conducted for Well DW-2 in support of the WMP. The applicant has also expanded the proposed drainage and collection system for isolating and controlling all water that enters the quarry footprint. In addition, the proposed VOC monitoring and treatment system would require all water collected within the quarry footprint and in production well DW-2 to be analyzed for VOCs. Any water that tests non-detectable for VOCs would be used, as needed, to maintain baseline flow conditions in Ranch Tributary and Americano Creek (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary and Americano Creek), and/or routed to either direct onsite re-use to support quarry operations or water storage tanks for temporary storage prior to onsite re-use. In the event that the water collected within the quarry footprint or production well DW-2 does contain contaminants, such water shall be treated onsite until concentrations of the chemicals are not detected or the concentrations are within the storm water discharge criteria set forth through the National Pollutant Discharge Elimination System (NPDES) industrial discharge permit, and subsequently be available only for either direct onsite reuse or temporary storage prior to onsite re-use.

- D-3 The commenter indicates the EIR should clearly identify whether the proposed project would violate federal and State anti-degradation criteria.

The federal anti-degradation policy, contained in 40 CFR § 131.1, is designed to protect existing uses and the level of water quality necessary to protect existing uses, and provide protection for higher quality and national water resources. The federal policy directs states to adopt a statewide anti-degradation policy that includes the following primary provisions:

- Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.
- Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.
- Where high quality waters constitute an outstanding National resource, such as waters of National and States parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

California's anti-degradation policy is found in SWRCB Resolution 68-16, "Policy with Respect to Maintaining Higher Quality Waters in California," and Resolution 88-63, "Sources of Drinking Water Policy." They apply to both surface waters and groundwater, and protect both existing and potential uses. Resolution 68-16 states, in part:

- Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.
- Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

The Draft EIR and this Response to Comments Document adequately describe the potential environmental impact to surface water and groundwater, and measures proposed either as part of the project and/or identified as mitigation in the EIR ensure that these potential impacts would remain less than significant. Consequently there would be no

residual degradation to surface and groundwater resources resulting from the project. Please see also response to Comment D-2, above, and Master Responses HYD-1, HYD-2 and HYD-3. It should be noted that determinations related to “economic and social” factors and “maximum public benefit” referenced within the federal and/or State anti-degradation criteria are not within the scope of this EIR.

- D-4 The commenter indicates the RWQCB applies a “no net loss” for acreage, function, and value of surface waters (including wetlands, seeps and streams). The commenter further indicates the project should carefully consider areas subject to disturbance in order to prevent or minimize impacts to surface waters; and if impacts cannot be avoided, require replacement of affected waters; and that waters should be replaced in kind and as close to the area of impact as possible.

The Draft EIR addresses all potential project impacts to surface waters, and mitigates those impacts appropriately. The commenter is referred to Impacts D.1 in the Biological Resources section of the Draft EIR (pages IV.D-24 to IV.D-25) and Impact E.8 in the Transportation and Traffic section of the Draft EIR (pages IV.E-44 to IV.E-47) which address the project disturbance and removal of wetland and riparian habitat, including that potentially subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps), the RWCQB and/or the California Department of Fish and Game (CDFG) for the project site and for off-site transportation improvements related to the implementation of Mitigation Measures E.3a/E.4a and E.5a. The Draft EIR also includes mitigation that requires the applicant to 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 (see Mitigation Measure D.1b on pages IV.D-25 to IV.D-26 in the Draft EIR). See also avoidance of potential off-site jurisdictional wetlands and riparian habitat along the roadway alignments in Mitigation Measure E.8f on pages IV.E-46 in the Draft EIR.

Where direct impacts to potentially jurisdictional wetlands cannot be avoided on the quarry property and off-site, the Draft EIR includes mitigation that would require preparation of a formal wetland delineation; obtaining appropriate wetland permits and implementing all conditions contained in Section 404 Clean Water Act Permit, Section 1603 Streambed Alteration Agreement and Section 401 water quality certification from the RWQCB. The project would be required to 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 (see Mitigation Measure D.1a on page IV.D-25, and Mitigation Measure E.8e on pages IV.E-45 to -46 of the Draft EIR).

It should be noted that pursuant to Mitigation Measure C.1 in the Draft EIR, the applicant’s biologist has completed a wetland delineation for the project site, and for the alternative haul route (Alternative 2 in the Draft EIR). The delineation has identified a

total of 0.818 acres that would be impacted on the project site, and 0.18 acres that would be impacted on the alternative haul route under Alternative 2. The wetland delineation has been submitted to, and is pending verification from, the Corps.

- D-5 The commenter indicates discharges of pollutants into waters of the U.S. are subject to regulation under the provisions of the Clean Water Act, and that the discharge would require permitting under the NPDES program.

The Draft EIR described the Clean Water Act regulations and NPDES program and relationship to the project (see pages IV.C-22 to -23 in the Draft EIR), and identified mitigation measures that specifically require the project to comply with NPDES permitting (see Mitigation Measures C.1a and C.4d-e).

The commenter further indicates landfilled derived wastes/leachates are prohibited from discharge, and questions whether groundwater data would ensure full compliance with aquatic criteria for toxic substances, and whether groundwater data is representative of the groundwater that would be intercepted by the project. The proposed project is limited to proposed quarry on the project site, and would not involve any development on, or alteration of, the adjacent closed landfill property, and would not change the County's ongoing collection and analysis of leachate beneath the landfill property, or the regular transport and disposal of that leachate to the Santa Rosa Treatment Plant. The proposed project would also not involve any change to the County's ongoing voluntary groundwater monitoring program conducted at the landfill property, for which the County regularly submits results to the RWQCB. The proposed project would also not involve any change to the County's ongoing program for surface water quality at the landfill property as part of its SWPPP, again for which the County regularly submits the results to the RWQCB.

Secondly, as explained in response to Comment D-2, above, as part of the WMP incorporated into the project, and as specified in revised Mitigation Measures C.4d-e in Master Response HYD-1, no water collected within the quarry footprint (either as groundwater seepage or precipitation) or from production well DW-2 that requires VOC treatment would be discharged to adjacent surface waters. Furthermore, in the event that the water collected within the quarry footprint or production well DW-2 does contain contaminants, such water shall be treated onsite 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, and subsequently be available only for either direct onsite reuse or temporary storage prior to onsite re-use.

The commenter recommends that additional groundwater studies including flow direction, pump test studies and groundwater quality be obtained to ensure full protection of state waters. As described in response to Comment D-2, above, the Draft EIR and this Response to Comments Document have adequately delineated groundwater flow and groundwater quality conditions beneath the project site and adjacent closed landfill property, and further, have adequately characterized potential impacts to groundwater flow and quality, and

identifies measures proposed either as part of the project or as mitigation to ensure these impacts would be less than significant.

- D-6 The commenter indicates that the discharge of accumulated groundwater and stormwater runoff to surface waters may directly affect the stability of downstream channels and the aquatic habitat of these areas. The commenter adds that hydromodification of stream flow can result in bank erosion and downstream flooding. The commenter also indicates the Draft EIR does not discuss other hydrologic changes such as time of concentration, discharge duration, etc., and recommends that pre and post project discharge rates and peak discharge rates be matched. Finally, the commenter indicates that if runoff changes are contemplated, a full hydraulic model should be used to determine potential impacts to downstream receiving waters.

The issue of increased runoff and resultant downstream alteration of Americano Creek is discussed in the Draft EIR, Impact C.1. The Draft EIR recognized that the reduction of infiltration and proposed stormwater routing would result in higher stormwater flows leaving the site and larger peak runoff periods in Ranch Tributary and Americano Creek. The Draft EIR also states that without stormwater management facilities with adequate capacity, there is the potential that storm water runoff from the quarry site would increase, causing downstream flooding and stream bank instability in Ranch Tributary and Americano Creek during large to very large storm events. The Draft EIR also indicated that the proposed sediment pond was designed primarily as a water quality control structure intended to reduce sediment prior to discharge, and not designed to manage and contain flows from large storms (i.e., 50 and 100-year events). As a result, the Draft EIR acknowledged that excessive runoff from the site during large storm events could exceed storage capacity within the proposed sediment pond and additional storage area within the quarry floor, resulting in overflow to Ranch Tributary and downstream flooding in Americano Creek (along Roblar Road) and potential erosion problems within Americano Creek and Ranch Tributary.

Based on this conclusion, the Draft EIR considered the impact potentially significant and prescribed three mitigation measures (C.1a through C.1c) that would reduce the impact to less than significant. Mitigation measure C.1a required implementation of a baseline flow and creek stage monitoring program for the Ranch Tributary and Americano Creek so that baseline flows can be established and to gauge project discharge flows once the project is underway. Mitigation Measure C.2 required the applicant to prepare 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. Mitigation Measure C.3 required that 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. The mitigation measures as proposed would ensure

that stormwater is detained on the site and adequately discharged to avoid downstream flooding and excessive bank instability during storm events.

As discussed in Master Response HYD-1, the applicant's proposed WMP was prepared in response to comments received on the Draft EIR during the public review period, and subsequent preliminary consultation that occurred between the applicant and the RWQCB. The WMP would implement an onsite water use/reuse, storage and treatment program designed to support quarry operations while minimizing potential hydrology and water quality impacts, including maintaining "baseline" surface water conditions in the adjacent Ranch Tributary and Americano Creek, conserving water resources by minimizing the reliance on groundwater, and meeting applicable strict water quality goals. Where specific components of the WMP were previously proposed as part of the project or identified as mitigation in the Draft EIR, the WMP serves to amplify and expand on those features as appropriate.

With project implementation, runoff entering the Ranch Tributary and Americano Creek will not change significantly over the existing conditions because measures are in place to match and manage discharge flow with the existing (pre-project) natural flow conditions in the two waterways. Stormwater runoff falling outside the quarry footprint would be routed to Ranch Tributary and Americano Creek as is occurring under existing conditions and stormwater generated within the quarry footprint would be retained on the site and discharged accordingly to match the peak stormwater and seasonal non-stormwater baseline, pre-project flows. The control of flows discharged from the disturbed portion of the site would not alter down-gradient flow dynamics and therefore, the potential for bank instability or hydromodification directly linked to quarry site stormwater discharges is greatly reduced. With a low potential for a substantial alteration to down-gradient stream flow, bank instability, and hydromodification, it follows that the impacts to habitats from changes in flows would remain less than significant.

In response to the commenter's concern regarding the lack of discussion of other hydrologic changes, (i.e. time of concentration or discharge duration, etc.) in the Draft EIR, it should be noted that a full hydrologic analysis has been conducted by the applicant's engineer to quantify the changes in pre- and post-project stormwater flow within the quarry footprint. The analysis was conducted to properly size and design the drainage system and ponds. The hydrologic analysis is included as an appendix to the WMP (all appendices to the WMP are available for review at County PRMD). Further analysis of hydrologic changes beyond the quarry site is not warranted because the drainage system at the quarry would detain and manage the stormwater prior to discharge and, as appropriate, those flows would be released to Americano Creek and Ranch Tributary to match the pre- and post-discharge and peak discharge rates. A full hydrologic model to analyze effects on the downgradient changes is not warranted because a change in stream flow due to the project is not anticipated.

- D-7 The commenter indicates discharges of stormwater runoff from the project site has the potential for causing increase sediment loading to downstream surface waters. The

commenter supports the use of proven storm water treatment measures that are effective in removing fine sediment. The commenter suggests that the project implement preventative measures such as source control on the slopes and/or avoiding the grading and movement of highly erosive soils. The commenter states the overburden soils of the Wilson Grove formation can be challenging to stabilize and often lack cohesive soil components and nutrients required for cover crop growth and successful erosion control. The commenter indicates the use of soil amendments and erosion control blankets are often needed to achieve slope and soil stability for the prevention of sediment discharges at the source.

The Draft EIR addressed the issue of potential increases in sediment loading from the project site to downstream water courses in Impact C.2 on pages IV.C-33 through IV.C-38 in the Draft EIR. The Draft EIR discussed the proposed stormwater drainage and collection system for capturing and treating sediment laden water that would be generated on-site. The Draft EIR also discussed provisions of the Sonoma County Surface Mining and Reclamation Ordinance, which require the applicant to control stormwater runoff, manage quality of waters discharged to receiving waters and sediment, slope erosion and offsite sedimentation, and reclamation erosion and sediment control.

Additionally, Mitigation Measure C.2 in the Draft EIR requires development and implementation of a formal Water Quality Protection Program (WQPP) to control sediment and pollutant runoff from the quarry site during its operational life and post reclamation, including a Stormwater Pollution Prevention Plan, aggressive source control and sediment retention measures, and implementation of containment control best management practices, consistent with and as required by the RWQCB.

With respect to source control, Mitigation Measure C.2a requires specific measures shall be adapted from the most current edition of the *Stormwater Best Management Practice Handbook for Construction*, published by the California Stormwater Quality Association (CASQA), although equivalent measures deemed more effective by the RWQCB may be substituted. These measures include:

- 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.

Impact B.2 on pages IV.B-23 to -25 in the Draft EIR specifically addressed the issue of stabilization of overburden stockpiles. The applicant's geotechnical consultant conducted a slope stability analysis for the two proposed stockpiles and identified recommendations for slope stability that have been incorporated into the EIR as mitigation measures to ensure this impact would be less than significant.

In addition, as discussed in response to Master Response HYD-1 in this Response to Comments Document, since publication of the Draft EIR, the applicant has prepared a comprehensive Water Management Plan (WMP) that has been incorporated into the project. The WMP includes the development of a number of sediment control basins within the quarry floor (these would be in addition to the originally proposed sediment basin), and water from the sediment control basins would also receive secondary sediment control to remove additional sediment and fine-grained material. This would serve to further increase sediment control capacity and capabilities for the quarry.

- D-8 The commenter identifies a number of permits that may be required for the project, including a Water Quality Certification (401 Certification) for activities resulting in dredging or filling within waters of the U.S., including wetlands; a NPDES Permit for discharge of waters of the State, and a General Construction Activity Storm Water Permit for land disturbance on projects of 1 acre or more. The Draft EIR discusses in detail all potential permits that may be required, including those identified by the commenter. The Section 401 Certification is identified in Mitigation Measure D.1a on page IV.D-25; NPDES Permit for discharge of waters of the State is identified in Mitigation Measure C.1a on page IV.C-32; and the General Construction Activity Storm Water Permit (Storm Water Pollution Prevention Plan) is identified in Mitigation Measure C.2a on page IV.C-35 in the Draft EIR.

Comment Letter E



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

Gulf of the Farallones National Marine Sanctuary
991 Marine Drive
San Francisco, CA 94129

July 21, 2008

Mr. Scott Briggs
Environmental Review Division Manager, Sonoma County PRMD
sbriggs1@sonoma-county.org

Sent Via Email

RE: Comments on Roblar Road Quarry Draft Environmental Impact Report (DEIR)

Dear Mr. Briggs:

Gulf of the Farallones National Marine Sanctuary (GFNMS) has reviewed the Roblar Road Quarry Draft Environmental Impact Report (DEIR), May 2008. GFNMS manages the waters and submerged lands off the coast of Sonoma County including Estero Americano. The upstream boundary of Estero Americano ends at the bridge at Valley Ford Estero Road (approximately 7 statute miles). It is important that the Sonoma County Permit and Resource Management Department consider downstream impacts to Estero Americano and the GFNMS. As such, all comments provided herein discuss GFNMS' jurisdiction including current and proposed regulations, and the need to protect the water quality of the GFNMS.

E-1

GFNMS currently has regulations to protect water quality within the Sanctuary. Discharging or depositing any material or other matter is prohibited and thus is unlawful for any person to conduct or to cause to be conducted within the Sanctuary [CFR 15 Part 922 § 922.82 (a)(2)]. In order to strengthen the GFNMS' ability to protect water quality and make regulations consistent with those of other California sanctuaries, the following new prohibition was proposed in October 2006 regarding discharges and deposits outside of the GFNMS boundaries:

Discharging or depositing, from beyond the boundary of the Sanctuary, any material or other matter that subsequently enters the Sanctuary and injures a Sanctuary resource or quality.

E-2

The comment period on this proposed regulation ended on January 5, 2007, and the GFNMS is currently in the process of Final Rulemaking. We anticipate that the Final Management Plan, Final Rule and Environmental Impact Statement will be published this fall.

The National Marine Sanctuaries Act defines "injure" as "to change adversely, either in the short or long term, a chemical, biological or physical attribute of, or the viability of. This includes but is not limited to, to cause the loss of or destroy." "Sanctuary quality" is defined as "any of those ambient conditions, physical-chemical characteristics and natural processes, the maintenance of which is essential to the ecological health of the Sanctuary, including, but not limited to, water quality, sediment quality and air quality" (15 CFR § 922.3).

This proposed prohibition would apply to activities beyond the Sanctuary, in which matter could be discharged and ultimately enter the Sanctuary and cause harm, even in the short term. Such activities could include land uses that occur outside Sanctuary boundaries. It is therefore

E-3



critical that any monitoring program established include measures to protect GFNMS water quality. In particular, we suggest that mitigation measures include monitoring both physical and chemical characteristics at a site within the GFNMS boundaries to establish a baseline, and continued throughout the project duration and post-reclamation to ensure that there are no changes to water quality of the GFNMS.

↑
E-3
cont.

GFNMS appreciates this opportunity to comment on the DEIS. Please contact Karen Reyna at 415-561-6622 x208 if you have any questions. Thank you.

Sincerely,



Maria Brown
Sanctuary Superintendent

Letter E. United States Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, Gulf of the Farallones National Marine Sanctuary (Maria Brown, Sanctuary Superintendent)

- E-1 The commenter indicates the Gulf of the Farallones National Marine Sanctuary (GFNMS) manages the waters and submerged lands off the coast of Sonoma County including Estero Americano, and that the upstream boundary of the Estero Americano ends at the bridge at Valley Ford Estero Road. It should be noted the upstream boundary of the Estero Americano referred to by the commenter is located over nine miles downstream of the Roblar Road quarry site.
- E-2 The commenter refers to a new GFNMS regulation [CFR 15 Part 922, Section 922.82(a)(2)]. The regulation the commenter refers to has been adopted and became effective in March 2009 after a phase-in period. As the commenter indicates, the new regulation states that discharging or depositing, from beyond the boundary of the Sanctuary, any material or other matter that subsequently enters the Sanctuary and injures a Sanctuary resource or quality, is prohibited.
- E-3 The commenter indicates that any monitoring program should include measures to protect GFNMS water quality. The commenter recommends monitoring of the physical and chemical characteristics at a site within the GFNMS boundaries to establish a baseline program and continued throughout the project duration and post-reclamation to ensure that there are no changes in water quality of the GFNMS.

As discussed in detail in Chapter IV.C in the Draft EIR, features proposed as part of the project, and comprehensive mitigation measures identified in the Draft EIR, including monitoring, would ensure that impacts to surface water flows and water quality of Americano Creek and Ranch Tributary (tributary to Americano Creek) would remain less than significant. Specifically, the applicant proposes a system of onsite drainage collection facilities and sedimentation basins to control and treat stormwater and other water collected within the project site during the project duration and post-reclamation. The commenter is also referred to Mitigation C.1 and C.3 for a description of the baseline flow and creek stage monitoring program that would be implemented for Americano Creek and Ranch Tributary (tributary to Americano Creek) to ensure that stormwater discharges from the project site do not exceed pre-project flows in these waterways. In addition, Mitigation Measure C.5 provides additional measures to ensure non-storm flows (baseflows) in Americano Creek would also not change from pre-project conditions.

The commenter is also referred to Mitigation Measure C.2 for a description of a formal Water Quality Protection Program (WQPP) that would be developed and implemented to control sediment and pollutant runoff from the quarry site during its operational life and

post reclamation, including a Stormwater Pollution Prevention Plan, aggressive source control and sediment retention measures, and implementation of containment control best management practices, consistent with and as required by the Regional Water Quality Control Board. A Stormwater Monitoring Program would also be implemented that would regularly collect samples from all stormwater discharge outfalls in compliance with the requirements of General Permit for Discharges of Storm Water Associated with Industrial Activities. Furthermore, Mitigation Measure C.4 includes additional onsite monitoring to ensure any water that may enter the quarry walls as seepage would be managed and treated as appropriate prior to discharge to Americano Creek.

In addition, as explained in detail in Master Response HYD-1 in Chapter II in this Response to Comments Document, the applicant has prepared a comprehensive Water Management Plan (WMP) that expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater seepage, precipitation/runoff, and groundwater from wells) and reduces hydrology and water quality impacts. As part of the WMP, the applicant has expanded the proposed drainage and collection system for isolating and controlling all water that enters the quarry footprint. Proposed new sediment control basins would serve to further increase sediment control capacity and capabilities for the quarry. In addition, the proposed VOC monitoring and treatment system would require all water collected within the quarry footprint and in production well DW-2 to be analyzed for VOCs. Any water that tests non-detectable for VOCs would be used, as needed, to maintain baseline flow conditions in Ranch Tributary and Americano Creek (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary and Americano Creek), and/or routed to either direct onsite re-use to support quarry operations or water storage tanks for temporary storage prior to onsite re-use. In the event that the water collected within the quarry footprint or production well DW-2 does contain contaminants, such water shall be treated onsite until concentrations of the chemicals are not detected or the concentrations are within the storm water discharge criteria set forth through the National Pollutant Discharge Elimination System industrial discharge permit, and subsequently be available only for either direct onsite reuse or temporary storage prior to onsite re-use.

Collectively, the measures proposed as part of the project, along with mitigation measures identified in the Draft EIR, would ensure that impacts to surface water flows and water quality of Americano Creek would remain less than significant. Accordingly, any project effects, or contribution to cumulative effects downstream, including within the GFNMS, would also be less than significant.

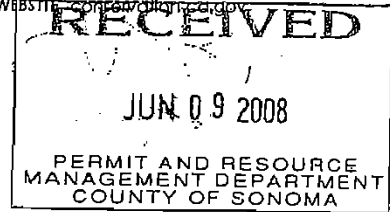


DEPARTMENT OF CONSERVATION

OFFICE OF MINE RECLAMATION

801 K STREET • MS 09-06 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 323-9198 • FAX 916 / 445-6066 • TDD 916 / 324-2555 • WEBSITE: www.dnr.ca.gov



June 6, 2008

Scott Briggs
Manager
Environmental Review Division
Sonoma County Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403-2829

Dear Mr. Briggs:

ROBLAR ROAD QUARRY
FILE PLP03-0094

The Department of Conservation's Office of Mine Reclamation (OMR) has reviewed the Draft Environmental Impact Report (DEIR) for the proposed Roblar Road Quarry. The applicant is proposing to mine aggregate on a 70-acre project site for a period of 20 years. The applicant estimates that approximately 570,000 cubic yards of material will be removed annually. The proposed project site is located approximately 5 miles west of the City of Cotati.

OMR has no comment on the DEIR. However, OMR notes that the cover letter accompanying the DEIR and Appendices refers to the project consisting of a zone change, use permit for the quarry, and a Reclamation Plan. No Reclamation Plan was included in the documents received by OMR. If such a plan has been prepared it should be submitted for OMR's formal 30-day review prior to approval.

When submitting the reclamation plan and financial assurance cost estimate to OMR for review, the lead agency is required to certify that the reclamation plan is complete pursuant to section 2774(c) of the Surface Mining and Reclamation Act. Please include a cover letter with a statement such as: "The Roblar Road Quarry Reclamation Plan is enclosed for OMR's 30-day review. Sonoma County certifies that this submission is in compliance with the applicable requirements of Article 1 of Chapter 8 of Division 2 of Title 14 of the California Code of Regulations."

Recent legislation (Senate Bill 668, Chapter 869, Statutes of 2006) amended PRC section 2774 with respect to lead agency approvals of reclamation plans, plan amendments, and financial assurances.

F-1
F-2
↓

*The Department of Conservation's mission is to protect Californians and their environment by:
Protecting lives and property from earthquakes and landslides; Ensuring safe mining and oil and gas drilling;
Conserving California's farmland; and Saving energy and resources through recycling.*

Comment Letter F

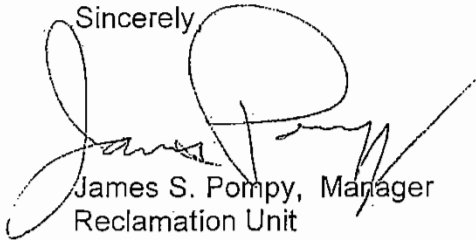
Scott Briggs
June 6, 2008
Page 2

These new requirements are applicable to the reclamation plan. Once OMR has provided comments on the reclamation plan, a proposed response to the comments must be submitted to the Department at least 30 days prior to lead agency approval. The proposed response must describe whether you propose to adopt the comments. If you do not propose to adopt the comments, the reason(s) for not doing so must be specified in detail. At least 30 days prior notice must be provided to the Department of the time, place, and date of the hearing at which the reclamation plan is scheduled to be approved. If no hearing is required, then at least 30 days notice must be given to the Department prior to its approval. Finally, within 30 days following approval of the reclamation plan, a final response to these comments must be sent to the Department. Please ensure that the County allows adequate time in the approval process to meet these new SMARA requirements.

F-2
cont.

If you have any questions on these comments or require any assistance with other mine reclamation issues, please contact me at (916) 323-8567.

Sincerely,



James S. Pompy, Manager
Reclamation Unit

**Letter F. State of California Department of Conservation,
Office of Mine Reclamation (James S. Pompy,
Manager, Reclamation Unit)**

- F-1 The California Department of Conservation, Office of Mine Reclamation (OMR) indicates it has no comments on the Draft EIR.
- F-2 OMR indicates the applicant's reclamation plan will need to be submitted to OMR for review. OMR adds the lead agency will need to certify the reclamation plan is complete pursuant to Section 2774(c) of the Surface Mining and Reclamation Act. In addition, OMR indicates that recent legislation amended PRC Section 2774 with respect to lead agency approval of reclamation plans, plan amendments, and financial assurances. These comments are noted; no response is required.

The proposed reclamation plan will ultimately be considered by the Planning Commission and the Board of Supervisors in conjunction with the Use Permit for the quarry. Upon completion of the Reclamation Plan, PRMD will certify it as complete, and refer it to OMR for comment. At least 30 days prior to final County approval of the Reclamation plan, PRMD will provide OMR with written responses to any OMR comments on the Plan, and provide OMR with a Notice of the County's public hearing on the Roblar Quarry project in accordance with the Surface Mining and Reclamation Act.

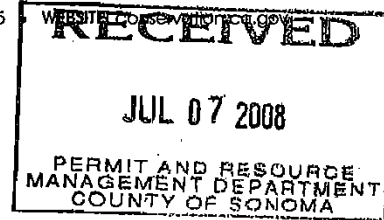


DEPARTMENT OF CONSERVATION

DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0850 • FAX 916 / 327-3430 • TDD 916 / 324-2555



July 2, 2008

Mr. Blake Hillegas
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 95403

RE: Notice of Draft Environmental Impact Report (DEIR) for Roblar Road Quarry Project - North Bay Construction, Inc. SCH #2004092099

Dear Mr. Hillegas:

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the DEIR for the referenced project. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the project's impacts on agricultural land and resources.

G-1

The Department previously commented on the Notice of Preparation for the DEIR in October of 2004. Our prior comments indicated that without changes in the proposed reclamation, the quarry operation did not appear compatible with the restrictive terms of the site's Williamson Act Contract.

Project Description

The project is a use permit request for a mining operation over a 20-year mining period. The Roblar Road mining operation would disturb approximately 70-acres of the approximate 199-acre parcel. The site is currently leased by the applicant for livestock grazing and restricted by Williamson Act Contract #2-387-72.

G-2

Surrounding land uses include the closed Roblar Landfill to the north and livestock grazing, dairies and agricultural residential. The site lies southeast of Roblar Road, five miles west of Cotati in Sonoma County.

As the proposed mining operation is not compatible with the terms of the contract, the applicant proposes to participate in the Williamson Act Easement Exchange Program to terminate the contract on the 70-acre mining portion. The proposed easement exchange parcel is a 244-acre parcel that has been historically farmed for dryland hay.

The Department of Conservation's mission is to protect Californians and their environment by: Protecting lives and property from earthquakes and landslides; Ensuring safe mining and oil and gas drilling; Conserving California's farmland; and Saving energy and resources through recycling.

Mr. Blake Hillegas
July 2, 2008
Page 2 of 2

The exchange parcel is located near Lakeville Road, west of the Petaluma River and north of Highway 37.

G-2
cont.

Williamson Act Easement Exchange Program and Mitigation

The DEIR states that impacts resulting in the conversion of farmland to non-agricultural use will be mitigated by the applicant's participation in the Easement Exchange Program and the proposed permanent 244-acre agricultural conservation easement. The Department does not consider a Williamson Act easement exchange to be mitigation under California Environmental Quality Act (CEQA); rather it is an alternative to payment of a cancellation fee required to terminate that portion of Contract #2-387-72. While the proposed easement parcel appears to exceed the requirements of the Easement Exchange Program, referral to the parcel only as mitigation under CEQA is incorrect. Mitigation Measure A.4 incorrectly cites section 51292 as part of the Williamson Act Easement Exchange Program. The correction citation is 51282.

G-3a

G-3b

The Williamson Act easement exchange process has specific qualifying requirements both for the contracted land and for the potential easement land and is discretionary process subject to final approval by the Department. The Department is a responsible agency under CEQA for exchange program projects.

G-4

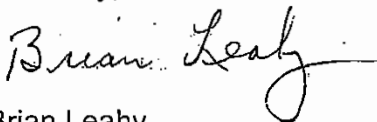
The decisions made by the Department in the process include a determination of whether the contract cancellation findings are supported by substantial evidence; whether the proposed easement meets eligibility and evaluation criteria; whether the proposal will be a beneficial contribution to agricultural land conservation; and the appropriateness of the easement valuation.

The Department typically advises that involved parties consult the Department several months prior to the easement exchange application process to ensure that the proposal can meet statutory requirements. The DEIR indicates that a proposal is in-progress. As the Department has not received correspondence on the proposal, the involved parties should contact the Division's Williamson Act Program for assistance.

G-5

Thank you for the opportunity to comment on the DEIR. If you have questions on our comments, or require technical assistance or information on land conservation, please contact Adele Lagomarsino at 801 K Street, MS 18-01, Sacramento, California 95814; or, phone (916) 445-9411.

Sincerely,



Brian Leahy
Assistant Director

Letter G. State of California Department of Conservation, Division of Land Resource Protection (Brian Leahy, Assistant Director)

- G-1 The California Department of Conservation (Department), Division of Land Resource Protection (Division) indicates they have reviewed the Draft EIR. The Division added that they previously responded to the Notice of Preparation (NOP) for the EIR, indicating that the quarry operation did not appear compatible with the terms of the site's Williamson Act contract.

In advance of preparing the EIR, the County reviewed the Department response to the NOP, as well as supplemental information provided by the Department in October 2004 and September 2005 (this correspondence is included in the Draft EIR Technical Appendix).

The Draft EIR acknowledges that since the project would result in the permanent loss of a portion of the project site from future rangeland use, it appears the project would not fully meet the test of compatibility under Section 51238.2 of the Government Code.

- G-2 The commenter describes the proposed project, including the proposed easement exchange. No response is required.
- G-3a The Department indicates it does not consider a Williamson Act easement exchange to be mitigation under CEQA, but rather an alternative to payment of a cancellation fee required to terminate that portion of Contract #2-387-72. The Department also indicates that referral to the easement exchange only as mitigation under CEQA is incorrect.

The Draft EIR does not refer to the easement exchange only as mitigation. In fact, the Draft EIR clearly presents the regulatory framework for the Williamson Act. The Draft EIR explains that the County would not be able to permit the proposed project until the Williamson Act contract governing the property is terminated either through cancellation, expiration through non-renewal, or easement exchange. The Draft EIR explains that under the Williamson Act Easement Exchange Program (WAEPP), the placement of an agricultural conservation easement on other land is required to rescind the Williamson Act contract on the project site. As the commenter notes, the proposed easement exchange parcel would exceed the requirements of the WAEPP.

The Williamson Act does not specify that a conservation easement established to satisfy the requirements of the rescission process cannot also be required and cited by the County as CEQA mitigation. Under CEQA, compliance with applicable regulatory requirements is recognized by the Courts as a reasonable basis for concluding the impacts of a project will be mitigated. (See, for example, *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308 (“[a] condition requiring compliance with

environmental regulations is a common and reasonable mitigating measure.”); *Leonoff v. Monterey County Board of Supervisors* (1990) 222 Cal.App.3d 1337, 1355 (same).)

Further, the Draft EIR analyzed the conversion of farmland on the project site from different perspectives, including considering the DOC Farmland Mapping and Monitoring Program (FMMP) farmland classifications (see Impact A.2 in the Draft EIR, pages IV.A-28). There is no “Prime farmland,” “Unique farmland” or “Farmland of Statewide Importance” on the project site. The great majority of the portion of the Roblar Road project site proposed to be rescinded is “Grazing land,” and contains only one acre of “Farmland of Local Importance.” It is notable that, in contrast, the entire proposed 244-acre easement exchange site is classified under the FMMP as “Farmland of Local Importance.” Farmland of Local Importance can be characterized as having higher quality than Grazing Land.

The Draft EIR also considered farmland conversion considering the DOC California Land Evaluation and Site Assessment Model (LESA) (see Impact A.3 in the Draft EIR, pages IV.A-28 to IV.A-30). The model was run using two different input assumptions as directed by the DOC, and yielded results ranging from less than significant to potentially significant. In both cases, however, the overall LESA scores were relatively low. The Draft EIR also identified that approximately 3.5 acres of permanently protected farmland would be gained at the Lakeville Road easement exchange property for each acre of lost Williamson Act production at the project site during the 20-year life of the quarry (ratio of approximately 3.5:1). Furthermore, following the proposed reclamation of the project site after its 20 year period of operation, the ratio would increase to 8.7:1 of permanently protected farmland gained at the Lakeville Road easement exchange property for each acre of grazing land lost at the project site. These factors provide supporting evidence that the proposed participation in the WAEEP and the associated proposed permanent protection of farmland at the Lakeville Road easement exchange site would ensure this impact would be mitigated to a less than significant level.

- G-3b The commenter indicates Mitigation Measure A.4 incorrectly cites Section 51292 as part of the Williamson Act Easement Exchange Program; and that the correct citation is 51282. The comment is noted.

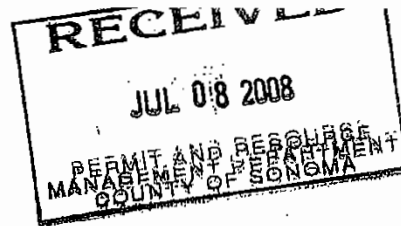
Mitigation Measure A.4, on page IV.A-34 of the Draft EIR, first paragraph; and on page II-3 of the Draft EIR, third column, fourth paragraph is revised as follows (all changes to the Draft EIR are compiled in Chapter V, Errata):

“Mitigation Measure 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 5128~~9~~2, 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.”

- G-4 The Department indicates the Williamson Act easement exchange process has specific qualifying requirements both for the contracted land and for potential easement land and is a discretionary process subject to final approval by the Department, and that the Department is a responsible agency under CEQA for exchange program projects. The comment is noted; the Draft EIR and accompanying Farmland Conversion Study (Appendix B of the Draft EIR) discuss in detail the regulatory framework and approvals required.
- G-5 The Department indicates it typically advises that involved parties consult the Department several months prior to the easement exchange application process to ensure that the proposal can meet statutory requirements. It should be noted, however, that the applicant consulted with Department several months in advance of the project application concerning the proposed easement exchange program.



BAY AREA
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DISTRICT
SINCE 1955



July 3, 2008

Scott Briggs
Environmental Review Division Manager
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 94503-2829

Subject: Roblar Road Quarry Draft Environmental Impact Report

Dear Mr. Briggs:

Bay Area Air Quality Management District (District) staff has reviewed your agency's Draft Environmental Impact Report (DEIR) for the Roblar Road Quarry (Quarry or Project) located on Roblar Road in southern Sonoma County. We understand that this will be a new hard rock quarry and that the Project consists of a zone change, a use permit to develop and operate the Quarry, and a Reclamation Plan to reclaim the site to open space upon completion of mining operations. Project operation will result in the disturbance of approximately 70 acres, including a 65-acre quarry pit, of an approximately 199-acre parcel over a 20-year mining period through 2027. We understand that proposed operation of the Quarry will result in the mining of 570,000 cubic yards of quarry material annually or up to approximately 3,600 cubic yards per day. If the Project is approved, an authority to construct permit and a permit to operate will need to be obtained from the District to allow Quarry operations. Specific operating requirements may be further determined as part of the permitting process.

H-1

District staff has the following specific comments on the DEIR.

The DEIR states that Impact F.1 (Project nitrogen oxide emissions) will remain significant and unavoidable after mitigation. We recommend that the Final EIR consider additional mitigation measures to further reduce nitrogen oxide (NO_x) emissions from this facility. Such measures could include but are not limited to: maintaining properly tuned engines; minimizing the idling time of diesel powered equipment to two minutes; using alternative powered equipment (i.e., natural gas, biodiesel, electric); using add-on control devices for Quarry owned and independent operator owned on-road trucks and off-road equipment such as diesel oxidation catalysts; and limiting the operating hours of heavy duty equipment. The Final EIR should also consider an offsite mitigation program to achieve contemporaneous emission reductions from sources offsite, with an emphasis on emission reductions occurring near the project site. The Final EIR should provide justification for a finding that any of these potential strategies or measures are deemed infeasible.

H-2

H-3

- ALAMEDA COUNTY
Tom Bates
Scott Haggerty
Janet Lockhart
Nate Miley
- CONTRA COSTA COUNTY
John Gioia
Mark Ross
Michael Shimansky
Gayle B. Uilkema
- MARIN COUNTY
Harold C. Brown, Jr.
- NAPA COUNTY
Brad Wagenknecht
(Secretary)
- SAN FRANCISCO COUNTY
Chris Daly
Jake McGoldrick
Gavin Newsom
- SAN MATEO COUNTY
Jerry Hill
(Chair)
Carol Klatt
- SANTA CLARA COUNTY
Erin Gerner
Yoriko Kishimoto
Liz Kniss
Ken Yeager
- SOLANO COUNTY
John F. Silva
- SONOMA COUNTY
Tim Smith
Pamela Torliatt
(Vice-Chair)
- Jack P. Broadbent
EXECUTIVE OFFICER/APCO

Save the Air

Mitigation measure F.1c indicates that the use of model year 2003 or newer haul trucks by contracted off-site truck operators would be required “to the extent feasible,” which offers no guarantee that the proposed mitigation would be implemented as effectively as shown in the DEIR. We recommend that this measure be enhanced by identifying specific criteria that will be used to determine feasibility and what proportion of off-site haul trucks would be required to comply with the requirement to use 2003 or newer model trucks. We recommend that trucks older than 2003 be required to use add-on control devices such as diesel oxidation catalysts or particulate filters. Emission reductions from implementation of this enhanced mitigation measure should be estimated and disclosed.

H-4

Furthermore, over the 20-year life of the Project, we anticipate significant improvements in emissions reducing technology for heavy duty on-road vehicles. We recommend including a requirement that the haul truck fleet serving the Quarry meet or exceed the California Air Resources Board’s most recent certification standard for on-road heavy duty vehicles.

H-5

Mitigation Measure F.4 consists of a dust control program which includes the use of baghouses or sheds to control emissions from the quarry’s crushers to minimize fugitive dust during crushing operations. There is a discrepancy in how this measure is described variously in the DEIR. On page IV.F-18 of the DEIR, it is stated that baghouses will be utilized on processing equipment. On page IV.F-27, it is stated that baghouses will be used, as needed, on all processing equipment. On the following page of the DEIR, page IV.F-28, it is stated that baghouses or sheds will be used to control emissions from the quarry’s crushers only. We recommend that baghouses be used on all processing equipment as originally stated in the DEIR. Please note that projected emissions from the Project are likely to trigger District review of Best Available Control Technology for materials handling which may result in more stringent emissions reduction practices.

H-6

The methodology used for characterizing the toxic air contaminant emissions from the Project is consistent with BAAQMD practice. However, the modeling results could not be verified by District staff because the files were not provided. Health risk screening analysis (HRSA) modeling will be verified or recreated by the District as part of the required permit application evaluation for this project. Please note that the Project site and receptors identified in the HRSA fall outside of the area represented by the Valley Ford meteorological station. Generally, the use of meteorological data for sites that do not fall within the established represented area requires the review and approval of the District’s meteorology staff.

H-7

The DEIR indicates that 5,400 tons/year of carbon dioxide equivalent would be emitted annually by the Project. Please clarify if GHG emissions associated with the use of electricity at the Project site are included in this estimate. The DEIR indicates that despite the lack of approved significance thresholds for GHG, the Project would be considered to have a significant impact if it would “Conflict with the state goal of reducing greenhouse gas emissions in California to 1990 levels by 2020, as set forth by the timetable established in AB 32, California Global Warming Solutions Act of 2006.” However, the DEIR does not make a significance determination, stating that no accepted methodology or standards for determining the significance of GHG emissions exists. We recommend you consult the recent technical advisory issued by the Governor’s Office of Planning and Research, *CEQA And Climate Change: Addressing Climate Change*

H-8

Through California Environmental Quality (CEQA) Act Review for guidance on evaluating and mitigating GHG impacts in CEQA documents. The document can be found online at <http://opr.ca.gov/>. An additional resource to assist you in this area is a document released by the California Air Pollution Control Officers Association (CAPCOA) addressing GHG emissions from projects subject to CEQA. The resource document, *CEQA and Climate Change*, contains various options a lead agency could use to determine significance. The document also includes an overview of available tools and models for evaluating GHG emissions and strategies for mitigating potentially significant GHG emissions from projects. The report may be downloaded at <http://www.capcoa.org>.

H-8
cont.

We urge you to minimize energy use and GHG emissions to the extent feasible. Mitigation could include but is not limited to partnering with PG&E to ensure that aggregate electrical demand of the Project met through renewable energy sources is maximized or installing photovoltaic systems or other renewable sources of energy to meet some portion of the electrical energy requirements of Project facilities. Operational efficiencies to minimize vehicle trips and use of low carbon fuels should also be considered.

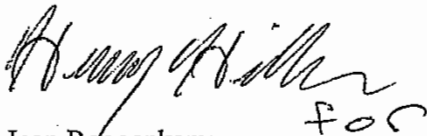
H-9

The discussion of attainment status and criteria pollutants on pages IV.F-9 & 10 should reflect the implementation status of the U.S. Environmental Protection Agency's (EPA) recently adopted, more protective PM_{2.5} and ozone standards. Table IV.F-1 on page IV.F-3 should be updated with the current State and federal ambient air quality standards and existing attainment status for the Bay Area. Current information can be found at the District's website, http://www.baaqmd.gov/ph/air_quality/ambient_air_quality.htm.

H-10

If you have any questions regarding these comments, please contact Nadine Wilmot, Environmental Planner, at (415) 749-5074.

Sincerely,



Jean Roggenkamp
Deputy Air Pollution Control Officer

cc: BAAQMD Director Tim Smith
BAAQMD Director Pamela Torliatt

Letter H. Bay Area Air Quality Management District (BAAQMD) (Jean Roggankamp, Deputy Air Pollution Control Officer)

H-1 The commenter summarizes the proposed project, including area affected, annual and daily production and duration. It is acknowledged that an authority to construct permit and a permit to operate will need to be obtained from BAAQMD.

H-2 The commenter requests additional mitigation measures for project combustion equipment to further reduce project NO_x impacts. With respect to add-on control devices, vehicle idling restrictions, emission certification standards, and other air emission issues related to diesel and criteria pollutants from off-road equipment and on-road vehicles, the proposed project will comply with all California Air Resources Board (CARB) and BAAQMD air quality regulations.

Regulations include CARB's *In-Use Off-Road Diesel Vehicle Regulation*, approved on July 26, 2007. This regulation is designed to reduce diesel particulate matter (PM) and oxides of nitrogen (NO_x) emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. The regulation requires fleets to apply exhaust retrofits that capture pollutants before they are emitted to the air, and to accelerate turnover of fleets to newer, cleaner engines.²¹

In addition, on December 12, 2008, CARB approved a new regulation, the *On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation*, to substantially reduce emissions from existing on-road diesel vehicles operating in California. The regulation requires affected trucks to meet performance requirements between 2011 and 2023. By January 1, 2023 all vehicles must have a 2010 model year engine or equivalent; this includes on-road heavy-duty diesel fueled vehicles with a gross vehicle weight rating greater than 14,000 pounds.²²

²¹ The regulation establishes fleet average emission rates for PM and NO_x that decline over time. Each year, the regulation requires each fleet to meet the fleet average emission rate targets for PM or apply the highest level verified diesel emission control system to 20 percent of its horsepower. In addition, large and medium fleets are required each year to meet the fleet average emission rate targets for NO_x or to turn over a certain percent of their horsepower (8 percent in early years, and 10 percent in later years). "Turn over" means repowering with a cleaner engine, rebuilding the engine to a more stringent emissions configuration, retiring a vehicle, replacing a vehicle with a new or used piece, or designating a dirty vehicle as a low-use vehicle. If retrofits that reduce NO_x emissions become available, they may be used in lieu of turnover as long as they achieve the same emission benefits.

²² In general, the regulation requires owners to reduce emissions in their fleet by upgrading existing vehicles one of three ways. The first option is to install PM retrofits and replace vehicles (or engines) according to a prescribed schedule based on the existing engine model year. The second option is to retrofit a minimum number of engines each year with a high level PM exhaust retrofit and to replace a minimum number of older engines with newer engines meeting the 2010 new engine standards. The third option is to meet a fleet average. With this option, a fleet operator can use PM and NO_x emission factors established by the regulation to calculate the average emissions of the fleet. Then, by the applicable compliance date each year, the owner can demonstrate that the fleet average emissions for PM and NO_x do not exceed the PM and NO_x fleet average emission rate targets set by the regulation.

Page IV.F-21 and II-36 of the Draft EIR, following Mitigation Measure F.1d; the following mitigation measure is added (all changes to the Draft EIR are compiled in Chapter V, Errata):

“Mitigation Measure F.1e: Implement the following combustion equipment emissions measures:

- Use alternative powered equipment (i.e., hybrid, CNG, biodiesel, electric), where feasible. Feasibility shall be determined by market availability and cost considerations. The applicant shall provide an annual report to PRMD explaining what alternative powered equipment has been brought online and what efforts were made in the previous 12 months to modify the composition of applicant’s equipment. Such report shall include information on market availability and cost in sufficient detail for PRMD to determine whether additional equipment can feasibly be brought online;
- Use equipment which uses add-on control devices, such as diesel oxidation catalysts, as required by CARB’s *In-Use Off-Road Diesel Vehicle Regulation* and *On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation*;
- Limit the hours of operation of heavy duty equipment where feasible;
- The project applicant shall keep all equipment well-tuned and regularly serviced to minimize exhaust emissions, and shall establish a regular and frequent check-up and service/maintenance program for all operating equipment at the quarry; and
- Minimize idling time of diesel powered equipment to five minutes, as required by regulation, or less where feasible.”

This additional mitigation measure will provide additional reductions in NO_x emissions from the project. The measure requires the use of add-on control devices, consistent with CARB requirements, as well as minimizing equipment idling time and keeping equipment tuned and serviced to minimize exhaust emissions. The use of alternative powered equipment is required to the extent feasible, in recognition that alternative powered equipment suitable for some aspects of quarry operations may not be available or commercially feasible.

H-3 The commenter requests inclusion of an off-site mitigation program to further reduce project NO_x impacts. The following measure is added to the EIR as follows:

Page IV.F-21 and II-36 of the Draft EIR, following Mitigation Measure F.1d and new Mitigation Measure F.1e, the following mitigation measure is added:

“Mitigation Measure F.1f: The applicant shall use commercially feasible efforts to pursue an offsite mitigation program to achieve contemporaneous emission reductions from sources off-site. Such efforts shall include pursuit of State, Bay Area, and grant funds (e.g., the Carl Moyer Fund, Transportation Fund for Clean Air, etc.) for improved trucks and retrofits such as diesel particulate filters for use in reducing emission sources within the vicinity of the project, such as school bus

conversion. Such efforts shall also include incentives to vendees to induce them to achieve greater air quality efficiencies. Applicant shall submit an annual report to PRMD detailing the efforts made during the previous 12 months to achieve off-site mitigation.”

- H-4 Regarding Mitigation Measure F.1c, the commenter indicates that the use of 2003 or newer haul trucks by contracted truck operators “to the extent feasible” offers no guarantee that the mitigation measure would be implemented as effectively as shown in the Draft EIR. As discussed in the Draft EIR, no less than 60 percent of total material produced at the quarry would be under control of the applicant, of which 90 percent could feasibly be required to use 2003 model or newer trucks; this amount to 54% of total project haul trucks. This was the percentage of trucks used in calculating the reduction in emissions in Mitigation Measure F.1c.

In addition, since publication of the Draft EIR and receipt of the commenter’s letter, new regulations have been approved by CARB to substantially reduce emissions from existing on-road diesel vehicles operating in California. This regulation would be applicable to trucks that would be under control of the applicant, as well as those that aren’t. Please refer to response to Comment H-2, above for additional discussion of this regulation and its requirements.

- H-5 The commenter recommends including a requirement that the haul truck fleet serving the quarry meet or exceed the CARB’s most recent certification standard for on-road heavy duty vehicles. The proposed project is required to comply with all applicable CARB air quality regulations. Please also see response to responses to Comments H-2 and H-4, above.

- H-6 The commenter notes a reference to the use of baghouses be used on all processing equipment at the proposed quarry. The reference on pages IV.F-18 and IV.F-27 in the Draft EIR to baghouses being used on all processing equipment was misworded. In fact, while the quarry would employ numerous control measures on all the processing equipment to reduce emissions during operation, baghouses can only be feasibly used on the crushers.

Page IV.F-18 of the Draft EIR, second full paragraph, third sentence is revised as follows:

“Additional dust control would be provided through use of baghouses on the crushers~~processing equipment~~.”

Page IV.F-27 of the Draft EIR, second paragraph, second sentence is revised as follows:

“The quarry would employ numerous control measures to reduce dust emissions during operation, including use of spray misters ~~and, as needed, baghouses~~, on all processing equipment, use of baghouse on the crushers; use of a water truck to

routinely water down internal access roads, use of tire wash area and tire scrapers to loosen dirt from the trucks and their tires.”

- H-7 The commenter states that the methodology used in the Draft EIR for characterizing the toxic air contaminant emissions is consistent with BAAQMD practices. The commenter also indicates the modeling results could not be verified by the District staff because the files were not provided. The commenter is referred to Draft EIR Technical Appendix E, which provides substantial supporting technical detail on assumptions and approach for the modeling effort. A copy of the modeling files are available for review at Sonoma County PRMD. It is acknowledged that health risk screening will be verified or recreated by the District as part of its permit application evaluation for the project.

The commenter notes that the project site and receptors identified in the Draft EIR fall outside the area represented by the Valley Ford meteorological station. The Valley Ford meteorological station represents the best available meteorological data for the project area. Please see also Master Response AQ-1 in Chapter II in this Response to Comments document with respect to more detail on this meteorological data.

- H-8 The commenter inquires if the estimated 5,400 metric tons/year estimate of CO₂ equivalents for the project included use of electricity at the site. As proposed under the project, PG&E electricity would be limited to the proposed office building, truck scale, security lighting, and the existing ranch house. The GHG emissions associated with these uses would be negligible, accounting for 0.1 percent of all project greenhouse gas emissions.

The commenter recommends consultation with technical advisory issued by the Governor’s Office of Planning and Research (OPR), *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review* for guidance on evaluating and mitigating GHG impacts. This document was published after publication of the Draft EIR, but has been considered in this Response to Comments Document.

The OPR advisory acknowledges that methodologies for addressing climate change in CEQA documents are evolving and notes that the global nature of climate change warrants investigation of a statewide threshold of significance for GHG emissions. The Draft EIR complies with the OPR advisory to the extent possible in that it quantifies the project GHG emissions and identifies measures either proposed as part of the project or identified as part of the EIR to minimize those emissions.

The commenter also refers to the California Air Pollution Control Officers Association (CAPCOA)’s *CEQA and Climate Change*. Page IV.F-8 of the Draft EIR discusses this document, but acknowledges it does not consist of guidelines and has not been adopted by any regulatory agency; rather, the paper is offered as a resource to assist lead agencies in considering climate change in environmental documents. Although advisory documents such as the OPR and CAPCOA papers offer various methodologies and

thresholds for lead agency consideration, no consensus has been reached regarding an appropriate methodology and threshold for assessing the impacts of GHG emissions in a land use project such as the proposed quarry. Indeed, no public agency has yet published a final, applicable threshold of significance for global GHG impacts from an individual land use project.

On April 13, 2009, after the publication of the Draft EIR, OPR submitted to the California Resources Agency its proposed amendments to the CEQA *Guidelines* regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. These proposed amendments do not propose a particular threshold to be applied in determining whether a project's contribution to global climate change would be significant, nor do they provide guidance on the appropriate methodology, instead leaving it to the individual lead agencies to make that determination. These amendments to the CEQA *Guidelines* have not yet been adopted; the Secretary of Natural Resources must conduct a formal rulemaking before certifying and adopting the guidelines by January 1, 2010.

Since submitting its comment letter, the BAAQMD has also published *Draft Air Quality Guidelines (September 2009)* to update the District's guidance in assessing a project's air quality impacts, including GHG emissions. These guidelines are draft only and are still in the process of public comment.

In light of the lack of consistent guidance or an accepted methodology and standards for determining the significance of GHG emissions, the Draft EIR appropriately discusses the setting and science behind global climate change; discloses the relevant state efforts and standards to address the issue; provides an inventory of the project's annual GHG emissions; analyzes the project's consistency with the state's GHG reduction goals; identifies the ways in which project emissions have been mitigated to the extent feasible (achieving an additional 20 percent emissions reduction), and notes that the project will be conditioned to require compliance with all applicable GHG strategies adopted by CARB.

The impact discussion of GHG emissions in the Draft EIR is expanded to add the following text after the last paragraph on page IV.F-31 of the Draft EIR.

“In summary, 1) the GHG emissions would be approximately 75 percent below the lower mandatory reporting limit being developed by CARB; 2) Mitigation Measures F.1a-c would additionally reduce project GHG emissions by approximately 20 percent, and Mitigation Measures F.1e-f would result in even further reductions in GHG emissions; 3) the project is inherently energy efficient because it is a local source of PCC-grade aggregate that will be used for construction projects in Sonoma County; and 4) the project shall be required to comply (as a condition of approval) with any applicable GHG strategies adopted by CARB through promulgated regulations. Thus it appears the project would not conflict with the state goal of reducing greenhouse gas emissions in California to 1990 levels by 2020, as set forth in AB 32, California Global Warming Solutions Act of 2006.”

H-9 The commenter urges energy use and GHG emissions be minimized to the extent feasible. The commenter recommends mitigation to include partnering with PG&E to ensure the project aggregate electrical demand met through renewable energy sources is maximized, installing photovoltaic systems or other renewable sources of energy to meet some portion of the electrical energy requirements of project facilities; implementation of operational efficiencies to minimize vehicle trips, and use of low carbon fuels.

While no significant GHG project impact is identified, the applicant has agreed to install a photovoltaic panel on the proposed office building/truck scale to further reduce project electrical demand, and consequently, project GHG emissions.

H-10 The commenter indicates the Draft EIR should reflect the implementation status of the U.S. EPA recently adopted, more protective PM_{2.5} and ozone standards.

Page IV.F-3 of the Draft EIR, Table IV.F-1, second row is revised to include recent revisions to the federal 8-hour ambient air quality standards for ozone, as follows. No change to Table IV.F-1 is needed for PM_{2.5}.

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 Hour	0.09 ppm	–	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases and nitrogen oxides react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
	8 Hour	0.07 ppm	0.08 ppm <u>0.075 ppm</u>		

Page IV.F-10 of the Draft EIR, Table IV.F-2, second row is revised to include recent revisions to the federal 8-hour ambient air quality standards for ozone, as follows. No change to Table IV.F-2 is needed for PM_{2.5}.

Pollutant	Averaging Time	Attainment Status	
		State Standards ^a	National Standards ^b
Ozone	8 Hour	<u>Nonattainment</u>	Nonattainment
	1 Hour	<u>Unclassified</u> Nonattainment	–

Comment Letter I



COUNTY of SONOMA DEPARTMENT OF HEALTH SERVICES

Rita Scardaci, MPH – Director
Ruth Lincoln, PHN, MA – Assistant Director

Environmental Health Division

Walter L. Kruse - Director

July 3, 2008

Scott Briggs
Sonoma County PRMD
Environmental Review Division
2550 Ventura Ave.
Santa Rosa CA 95403-2829

Re; EIR for Proposed Rock Quarry, 7601 and 7175 Roblar Rd., Petaluma

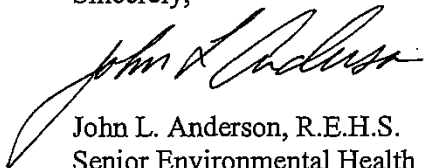
Dear Mr. Briggs:

The Department of Health Services, Environmental Health Division recently reviewed the draft EIR for the above project. In review of this proposal this office has the following comments.

- The proposed quarry cannot have any destabilization of the slope or impact to the Sonoma County Roblar Road landfill which is located to the north and adjacent to the proposed quarry. | 1-1
- The possibility of leachate water from the landfill flowing into the pit area once the pit elevations is below natural groundwater levels is an area of concern. | 1-2

Thank you for the opportunity to review and comment on the above referenced EIR. Please contact John Anderson at (707) 565-6534 or janderso@sonoma-county.org if you have any questions regarding this matter.

Sincerely,



John L. Anderson, R.E.H.S.
Senior Environmental Health Specialist

C: Glenn Morelli, DTPW
Scott Beckner, CIWMB

Letter I. County of Sonoma Department of Health Services (John Anderson, R.E.H.S, Senior Environmental Health Specialist)

- I-1 The Department states the quarry cannot have any destabilization of the slope or impact to the Sonoma County Roblar Landfill. All geotechnical impacts of the proposed project are addressed in detail in the Section IV.B, Geology, Soils and Seismicity section of the Draft EIR. All impacts associated with mining at the quarry, including steepening of slopes onsite in the quarry area, blasting, and other effects are mitigated by the project applicant, and/or as identified with mitigation measures in the EIR, to a less than significant level.
- I-2 The commenter expresses concern of the possibility of leachate water from the landfill flowing into the pit once the pit elevations is below natural groundwater levels.

The Draft EIR addressed all potential hydrologic and water quality impacts of the proposed project, including but not limited to, the potential for excavation of the quarry to alter shallow groundwater patterns and initiate groundwater seepage through the quarry walls, and potential for groundwater seepage and/or production well water used on site to contain contaminants (see Impacts C.3 and C.4 in the Draft EIR). Mitigation Measure C.4 in the Draft EIR included on-going onsite monitoring and management to ensure any water that may enter the quarry walls as seepage and/or supply water from the onsite production wells would be identified, contained and treated appropriately.

In addition, as explained in detail in Master Response HYD-1 in this Response to Comments Document, the applicant has prepared a comprehensive Water Management Plan (WMP) that expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater seepage, precipitation/ runoff, and groundwater from wells) and reduces hydrology and water quality impacts. The WMP is designed to be consistent with the mitigation measures identified in the Draft EIR for addressing potential hydrologic and water quality impacts.

In the WMP, production Well DW-1 (located in proximity to the landfill property) would not be used as a water source for any quarry-related operations; groundwater supply would be limited to Well DW-2). See also Master Response HYD-3 for the results of a pump test that was conducted for Well DW-2 in support of the WMP. The applicant has also expanded the proposed drainage and collection system for isolating and controlling all water that enters the quarry footprint. In addition, the proposed VOC monitoring and treatment system would require all water collected within the quarry footprint and in production well DW-2 to be analyzed for VOCs. Any water that tests non-detectable for VOCs would be used, as needed, to maintain baseline flow conditions in Ranch Tributary and Americano Creek (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary and Americano Creek), and/or routed to either direct onsite re-use to

support quarry operations or water storage tanks for temporary storage prior to onsite re-use. In the event that the water collected within the quarry footprint or production well DW-2 does contain contaminants, such water shall be treated onsite until concentrations of the chemicals are not detected or the concentrations are within the storm water discharge criteria set forth through the National Pollutant Discharge Elimination System industrial discharge permit, and subsequently be available only for either direct onsite reuse or temporary storage prior to onsite re-use.

STEGEMAN & ASSOCIATES

LAND USE PLANNING ■ ENVIRONMENTAL ANALYSIS

July 21, 2008

Blake Hillegas
Sonoma County PRMD
2550 Ventura Ave.
Santa Rosa, CA 95403

Subject: Proposed Roblar Road Quarry Project, SCH # 2004092099

Dear Blake,

The following are comments submitted for the Roblar Quarry DEIR.

1 Comments upon the stated Project Description

The Project Description does not contain a complete or accurate description of the proposed reclamation plan. No statement of final use is provided, nor is there a description of the estimated cost or proposed security for completion of the reclamation plan (DEIR III-8). These are specifically required by the Sonoma County Surface Mining and Reclamation Ordinance (SRMO).

J-1

The Project Description notes that dust control and water use will be addressed principally through reliance upon two existing wells on site. The DEIR then states the applicant has estimated total water use for quarry operations would be approximately 3.3 million gallons of water per year (DEIR III-32). No substantiation or substantial evidence can be found in the DEIR to support this conclusion.

J-2

2 Comments upon specific impact sections of the DEIR.

Land Use and Environmental Resources

a. The discussion of applicable SRMO policies omits key policies relative to land use impacts. The DEIR cites SMRO §26A-090-010 relative to policies (a), (r), and (s) (DEIR IV.A-12). This omits policy (t) that sets specific standards and findings for quarry operations on Williamson Act lands. Since this comprises a significant portion of the Land Use discussion, such a policy is indispensable for the purposes determining project consistency with SMRO as well as representing a significance threshold.

J-3

b. The opening discussion regarding "Consistency with Plans and Policies" (DEIR IV.A-22) is both incomplete and misleading. The DEIR vaguely states that inconsistency with such policies does not necessarily reflect a potentially significant impact under CEQA, and that such policies are "used as sources of criteria" for

J-4

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assessing impacts. This is followed by the statement that the project is "generally consistent" with General Plan Land Use policies.



J-4
cont.

"Generally consistent" is a standard that can only be applied if all potentially applicable policies are discretionary, non-binding, or provide flexibility in application. However, any policy that is specific, mandatory, and applicable to the project must be assessed individually as part of determining consistency. Such a single mandatory policy, if not met by the project, must trigger a determination of General Plan inconsistency. There is no basis or precedent for homogenizing all policies together (whether binding or advisory) to reach a conclusion of "generally consistent".

Each issue area of the DEIR needs to be reexamined to determine whether a consistency assessment has been done that distinguishes discretionary from mandatory, and the respective consistency determination modified accordingly.

c. The same issues arise with the determination of project consistency with SMRO (DEIR IV.A-25), and needs to be similarly reexamined.

J-5

d. The relevance of reassessing the policy consistency determinations is apparent when noting that the consistency issue is cited as the first "Significance Criteria" for land use impacts, yet the following discussion contains no reference to consistency with any plans or policies at all. This undercuts the relevance and value of specifying significance criteria, that are then ignored based upon a previous narrative discussion (DEIR IV.A-25).

J-6

e. By taking General Plan and SMRO policies and allocating them subjectively amongst the DEIR issue sections, certain policies that are not clearly part of a particular discussion fall by the wayside. In particular, the Land Use section does not address the specific requirements for a Reclamation Plan, including a cost estimate for completing the proposed reclamation effort. This is a specific requirement of SMRO (SMRO §26A-11-010©(12)), and yet this information is nowhere to be found in the DEIR or the applicant's proposed reclamation plan. Absent that information, the application should have been found incomplete, and the CEQA review process not even initiated until the application was complete.

J-7

f. The Reclamation Plan as submitted and the EIR are somewhat unclear as to the final use of the site upon reclamation. As discussed in greater detail below, the potential of residual contamination in the site groundwater and/or soil present some significant obstacles for a low intensity low yield use such as grazing or hay production. At various points the DEIR discusses various types of easements that might be placed across the site, but the intent seems to be to restore the previous function.

J-8

But mining regulations do not simply ask that it be restored to the appearance of agricultural use, but that actual viable agricultural activities resume. The County mining regulations require that upon completion of mining on a site previously under Williamson Act contract, that the Williamson Act contract be rescinded and replaced (as proposed), and that several other standards must be met, including that "Quarry sites



must be reclaimed to an agricultural use as soon as mining has ceased and ancillary uses do not continue beyond the mining" (SMRO §23A-09-010(t)(3)).

Similarly, the California SMRO specifies that reclamation of non-prime agricultural lands must ensure "lands will be reclaimed so as to be capable of sustaining economically viable production of crops commonly grown in the surrounding areas (SMRO §3708).

J-8
cont.

Given the complexities of post-mining site management (see below regarding residual soil and water contamination issues), it is not clear that that this standard can be met. Any financial assessment will have to reflect management of contaminated soils and ongoing treatment of contaminated water entering into stock ponds.

Geology, Soils, and Seismicity

The DEIR discussion again places the discussion of policy consistency ahead of the identification and application of Significance Criteria. The discussion includes various policies relative to temporary and permanent slope standards, bench design, top soil management, setbacks, water supply, etc. (DEIR IV.B-16). Yet the subsequent listing of Significance Criteria omits any impact threshold relative to consistency with the General Plan, SMRO, or other regulations/policies (DEIR IV.B-20)

J-9

So having begun by segmenting the impact question of policy consistency into each DEIR issue section, the DEIR now fails to actually make a consistency assessment, or even acknowledge it as a necessary significance criteria. This error invalidates the policy consistency analysis, and to the extent the DEIR takes a wandering and erratic approach to making the necessary consistency analysis, the DEIR should be restructured to either consolidate such discussions in one discrete location, or apply a consistent approach and structure to each DEIR section.

Hydrology and Water

a. The discussion of "climate" contains no discussion of wind as part of the local environment. The frequency and strength of winds will significantly affect dust management, which in turn will affect water usage. Wind is also pertinent relative to evapotranspiration. The DEIR does address temperature relative to evapotranspiration (DEIR IV.C-3), but does so on an annualized basis. This obscures the seasonal aspects that will converge during the summer and fall months. During that period, the evapotranspiration will be higher, the residual dust suppression from rain and soil moisture will be at a minimum, and the potential for drawdown will be at its highest. A discussion of wind speed and direction must be included, and all climate variables need to be distinguished by season. Providing homogenized annual estimates obscures the potential for season-specific impacts that would be subject to mitigation.

J-10

b. The discussion of water flows in Americano Creek and the Branch tributary contain inconsistencies and missing data that compromise the conclusions regarding impacts upon those waterways. The initial discussion of Americano Creek references water flow sampling events in May, June, and September of 2005 (DEIR IV.C-3), and

J-11

uses this as a basis for subsequent conclusions. But there is no attempt to determine whether the 2004/2005 winter was normal, dry or wet. Since the degree of flow drop off from spring to fall is a function of declining influence of the rainy season, the significance of those samples can only be determined by being correlated to the associated rainy season.

J-11
cont.

c. The determination of "baseline" water quality in Americano Creek and Ranch Tributary is based upon what the DEIR describes as a "snap shot" based upon a series of wet season samples taken from January to April of 2007 (DEIR IV.C-9). For no apparent reason, the DEIR then states the "data is consistent with a rural agricultural setting" but provides no data and no discussion of any water quality exceedances. Given the DEIR already acknowledged that Americano Creek is an "impaired" waterway under the Clean Water Act, the water quality data becomes key to understanding the present state (or baseline condition) of Americano Creek and thus assess any project or cumulative impacts. The omission of data and any substantive discussion of results leaves no baseline condition and compromises any conclusions, or the efficacy of any mitigations.

J-12

d. The DEIR relies upon several monitoring wells in assessing groundwater, and notes that 3 monitoring wells were installed in 2007. This is in addition to what are described as 2 existing "production" wells (DEIR IV.C-12). Seasonal monitoring of groundwater levels are cited as a basis for modeling groundwater fluxuations. But there is no data indicating that the stable yield/drawdown test of the production wells included any assessment of drawdown in these other monitoring wells. The DEIR notes that the production wells have been tested to determine the level at which the water stabilizes during pumping (DEIR IV.C-48). But that is no indication of possible drawdown at other wells, particularly since no data is provided as to the initial drawdown before a static level was achieved. Drawdown in the monitoring wells must be identified before any conclusions can be made as to the potential impacts of the production well use needed to support the proposed project.

J-13

e. For no apparent reason, the production well drawdown data is only referenced in the discussion of possible impacts, but the actual data is not reflected in the previous discussion. If the DEIR proposes to rely on such data, it should be included in the preliminary discussion and some source or reference provided for what is otherwise a completely unsupported statement as to the steady yield and static levels in the production wells.

J-14

f. The DEIR includes an incomplete discussion of the regulatory framework in regards to water quality. There is no reference to or discussion of Policy 68-16 as adopted by the State Water Resources Control Board and incorporated into the North Coast Regional Water Quality Control Board Basin Plan. This policy, "Statement of Policy with Respect To Maintaining High Water Quality of Waters in California" provides for maintaining existing water quality levels, even when the current level exceeds other quantified standards. This policy states that water of high quality (including groundwater) shall be maintained at that level unless very specific findings can be made

J-15

relative to public benefit and protection of beneficial uses. This policy parallels the Federal Antidegradation Policy, which is also included in the Basin Plan as Appendix 6-B.

As noted above, the DEIR incorrectly omits any quantified data as to water quality in either wells or surface water samples. As a result, the degree to which current water quality may exceed regulatory standards is unknown, which in turn makes it impossible to determine whether the proposed project would result in degradation of either surface waters or groundwater, regardless of whether such water quality deterioration actually exceeds regulatory standards.

J-15
cont.

The failure to acknowledge the two policies is a serious omission relative to the regulatory standards. The failure to include any quantitative water quality data from any source is a serious omission of baseline data on a key impact issue. Combined, these two omissions hopelessly compromise any conclusions as to water quality impacts of the proposed project.

g. As noted above regarding other DEIR sections, the Hydrology and Water Quality section fails two basis tests of EIR adequacy. The first is that the discussion of the various water quality standards and policies contains no discussion as regards consistency with those plans. Since the DEIR consultant opted to segment General Plan consistency (and consistency with other policy documents) into the various impact areas, such a consistency analysis must be done for each section. The Hydrology and Water Quality section contains no such analysis, contrary to CEQA and the stated intent at the beginning of the DEIR. The second failure is that the DEIR again lists a series of Significance Criteria that would reflect significant hydrologic impacts (DEIR IV.C-30). Yet the "Project Impacts" discussion that follows makes no clear correlation between the potential impacts (of which there are 8) and the previously listed Significance Criteria. Instead, the "impacts" are simply those that the DEIR presents as the only credible physical impacts, with no attempt to methodically apply the stated criteria to the project. Since the 8 stated Impacts all reflect potentially significant impacts and include mitigations, the reader has to conclude that some "first pass" analysis occurred that applied the stated criteria, and screened out any potential impacts for which no mitigation was required. But that winnowing process is key to both the analytical role of the DEIR and its statutory disclosure function. An EIR is not just about discussing what the consultant concludes are serious impacts to resolve, but also what the consultant concludes are NOT potentially significant impacts and the basis for that conclusion. By omitting a significant amount of the required impact discussion, the DEIR fails to provide an adequate impact analysis.

J-16

J-17

h. Further evidence of that failed analytical process is found by noting that the SMRO requirements for quarry mining operations are discussed in the regulatory discussion, including the requirement that "excavations which may penetrate near or into useable water bearing strata shall not subject such groundwater basin or subbasin

J-18

to pollution or contamination" (DEIR IV.C-25). The DEIR also cites an applicable SMRO requirement as to quarry reclamation:

Upon reclamation, no condition shall remain which will or could lead to the degradation of water quality below applicable standards of the regional water quality control board or any other agency with authority over water quality. (DEIR IV.C-26)

Yet the DEIR follows with a substantial discussion of the potential impacts of creating surface seepage and/or groundwater flow from the closed landfill and into the adjacent valley as a result of the quarry excavations (DEIR IV. C-38-43). In particular, the Impact C-4 discussion acknowledges multiple contamination scenarios, including contaminated surface seepage and contamination of the site Supply Wells (which could then result in surface discharges to Americano Creek). The mitigations consist of Mitigations C.4a, 4b, and 4c that all provide only for additional monitoring to detect any contamination from the landfill.

In response to any contamination, Mitigation Measure C.4d provides for treatment of water from the production wells should contamination be detected. The mitigation would not remove the contaminated groundwater, but would instead provide for treatment at the well prior to use to meet the NPDES standards.

In addition, Mitigation Measure C.4e addresses contamination that is detected in water collected within the quarry site prior to discharge to Ranch Tributary. The sampling will be limited to the same compounds presently being sampled at the landfill site itself. If contamination is detected, an on-site treatment system would be installed until there are no detected contaminants or the water meets the storm water discharge standards specified in the NPDES permit.

Based upon those mitigations, the DEIR concludes any water quality impacts to be mitigated because "potential contaminants in the groundwater entering the quarry as seepage could be detected and managed prior to discharge" (DEIR IV.C-43).

Both of these mitigations fail to address either the actual contamination problems over time or ensure compliance with regulatory standards. The most basic failure is that contamination that moves into the quarry value will remain in the groundwater and surface waters. The mitigations simply treat waters that are captured in the course of quarry operations, as opposed to correct the underlying source of new and continuing contamination. This is a clear violation of the Regional Board Basin Plan relative to the anti-degradation policy. It is a clear violation of SMRO §26A-09-010(e)(1) and (2) regarding general standards for mining operations.

The presumption by the DEIR that underlying groundwater contamination can be disregarded is also a violation of the California Surface Mining and Reclamation Act §2772(c)(8)(A) regarding demonstration of control of contaminants as well as a violation of §3706(a) of the State Mining and Geology Board Reclamation Regulations(SMGBRR) (CCR, Title 14, Division 2, Chapter 8, Subchapter 1) requiring

J-18
cont.

J-19

compliance with the Porter Cologne Clean Water Act and Federal Clean Water Act. The allowance of continued site and groundwater contamination also violates the SMGBRR relative to allowing deterioration of water quality relative to drainage (§3706(b)) and allowing pollutants to diminish water quality contrary to the Regional Water Quality Control Board Basin Plan (§3710(a)).

J-19
cont.

Another issue is that the underlying well contamination remains, which will impose a significant financial and legal burden upon any subsequent operator of agricultural practices in the site. Since the County SMRO requires that the site restored to agricultural uses, the site must be suitable for grazing. No long term financing mechanism is proposed for what may essentially be a permanent treatment system for stock watering that is supplied by seepage or by well.

J-20

For that same reason, there is no reason to conclude that some portion of that contaminated groundwater will not reach Americano Creek as subsurface flow that would not be captured by the surface treatment strategy. With the closure of the quarry, any remediation value provided by the operating wells will cease, with that comparable mass of water proceeding through and off site. As noted above, the introduction of contaminants into Americano Creek would present multiple violations of local and state standards regarding protection of water quality.

J-21

An additional source of contamination is the proposed use of accumulated sediments for the runoff sediment ponds for later site reclamation. As discussed above, the DEIR does not propose to prevent contamination of the sediment pond, but rather to treat the water as contamination occurs. Since the sediment pond must be emptied at the end of each summer (if not sooner), the accumulated sediments will either have dried as the pond water was withdrawn or there may be some residual moisture. In any event, there is no discussion of any sampling of the soils for contamination prior to stockpiling, nor is there mention of any soil remediation if contaminants are detected. The alternative to remediation is disposal of the contaminated soil at a landfill certified for the level of remaining contaminants.

J-22

But the issue of residual soil contamination is ignored, as are any potential impacts resulting from distributing such contaminated materials back across the quarry site as part of the reclamation strategy. Aside from the obvious water quality implications of doing so, it is a clear violation of the California Surface Mining and Reclamation Act §2772(c)(8)(A) regarding demonstration of control of contaminants. This is a potentially significant and unmitigated impact.

Biological Resources

a. The DEIR discusses the possible presence of the California Tiger Salamander on the site, but dismisses this as unlikely for several reasons, including the failure to observe any CTS during dip netting of the site and that the site is outside the specified USFWS Draft CTS range boundary of 2003. But the DEIR also notes that CTS breeding sites were identified to the north of the project site (DEIR IV.D-11).

J-23

What is not discussed in the DEIR nor in the Biotic Assessment dated June 16 of 2003 is the potential for the site to provide upland habitat for CTS. No mention of this possibility is made in the Biotic Assessment. The DEIR does note that CTS spend most of their life not in standing water bodies but in burrow, crevices, and other upland areas (DEIR IV.D-10). Given that the DEIR acknowledges that CTS breeding are known within the vicinity of the project site, some discussion is needed to assess any potentially significant impacts on CTS populations relative to disturbance of upland habitat.

J-23
cont.

The DEIR also fails to address and reconcile the affect upon CTS populations that may exist in portions of Americano Creek or Ranch tributary due to introduction of toxic contaminants in groundwater. Amphibians are particularly vulnerable to absorption of toxics dissolved in water.

J-24

b. The DEIR notes that California Steelhead has been designated as a special status fish that has potential habitat downstream of the project site. Impact D.7 then discusses the potential impact of quarry operations upon downstream steelhead populations by simply referencing Hydrology and Water Quality Impacts C.1 through C.4 (DEIR IV.D-36). The sources of potential impact include reduction in peak surface flows in Ranch Tributary and Americano Creek, increase in sediment load, seepage of contaminated groundwater, and reduced flows due to loss of groundwater recharge capacity. This section then refers the reader to the associated mitigations:

As noted under the Water Quality discussion above, the DEIR assessment of water quality impacts is seriously flawed. Those comments are restated here relative to potentially significant biological impacts. In particular, the baseflow monitoring program described in Mitigation Measure C.5a is completely useless for the purpose of ionizing or eliminating impacts upon steelhead. The DEIR calls for ongoing monitoring and then states:

If a reduction in baseflow due to project activities becomes evident during long-term monitoring, the applicant shall design and install a system that passively diverts stored water to the Ranch Tributary to replicate pre-project base flows. (DEIR IV.C-44).

Significant population loss could occur to the downstream steelhead population with only one season of abnormally low flows. A trigger that restores lost flows only after "long term" monitoring provides no mitigation for loss or impacts upon steelhead. So the impact remains potentially significant and unmitigated.

J-25

c. As noted on previous DEIR sections, the discussion of biologic impacts again fails to address the question of consistency with the General Plan and other controlling policies and regulations. The DEIR provides 4 pages of discussion of the "Regulatory Framework" relative to biologic impacts (DEIR IV.D-16-23). But that portion provides no analysis of whether the project is actually consistent with all these provisions.

J-26

This is followed by a list of "Significance Criteria" that notes various triggers for identifying potentially significant impacts, including conflicting with any local policies or ordinances, or conflicting with any local, regional, or state habitat conservation plan. Below the list of significance criteria, the DEIR notes that

"the determination of significance is based on the above-mentioned guidelines and policies set forth by the County's General Plan and other documents as referenced in the impact discussion" (DEIR IV.D-24).

Yet the subsequent discussion contains no discussion of any applicable County policy other than the adopted Tree Ordinance. Having chosen to designate consistency with all local policies as a separate and distinct Significance Threshold, the DEIR must then compare the project to those various policies before dismissing any further discussion. As stated before, the DEIR could have consolidated its discussion of General Plan consistency (as well as other appropriate policy documents) into one single section of the DEIR. But since ESA opted to break up that discussion into each of the respective issues, the discussion must still occur within each section. The necessity for a policy-specific analysis of consistency with local planning documents is reinforced by the decision to call out such potential inconsistencies as inherently a potentially significant impact.

J-26
cont.

The discussion in the DEIR regarding special status fish within Americano Creek is inconsistent with the Biotic Assessment dated June 16 of 2003 as prepared for the project by Golden Bear Biostudies. The Biotic Assessment concludes that the stream habitat (presumably both Ranch Tributary and Americano Creek) are "unsuitable" for steelhead spawning and rearing, and anecdotally notes that the steelhead became extinct in the "estero system" and that a critical habitat designation was rescinded for both steelhead and Chinook salmon (Assessment pg. 10).

In contrast, the DEIR notes that the lower Americano Creek retains a steelhead population, but makes no reference of any historic habitat for or population of Chinook Salmon (DEIR IV.D-10).

J-27

If there is a potential for Chinook Salmon habitat or restoration activities to be adversely affected, this must be addressed by the DEIR. Similarly any confusion over the status of and restoration activities regarding steelhead must be clarified before any conclusions can be reached as to the potential significance of project impacts.

Transportation and Traffic

a. The discussion of project setting begins by noting that significant portions of Roblar Road and Pepper Road have travel lands and/or shoulders that do not meet County standards. In some cases, there is essentially no shoulder at all (DEIR IV.E3 to 4). The proposed project would rely on both those roads as access roads to the site. The DEIR subsequently discusses "Pedestrian and Bicycle Traffic" issues, noting that

J-28

the Sonoma County Bikeways Plan designates both Roblar Road and Pepper Road as Class 3 bikeways and calls for the installation of shoulders on the entire length of Roblar Road, and on the section of Stony Point Road between Pepper Road and the Petaluma City limits (DEIR IV.E-13).

J-28
cont.

In the discussion of applicable local policies the DEIR notes SMRO §26A-09-010(c)(8) that states that all access roads need "sufficient width, shoulders, pavement strength" and other features to mitigate traffic impacts (DEIR IV.E-16). It also states that "public access roads shall meet the design requirement of the General Plan and related standards."

J-29

Yet the DEIR again declines to address consistency with the policy as it exists, but instead modifies it to create a three pronged test of significance: that the project would add substantial truck traffic to a haul road, that the road is a designated as or functions as a bikeway, and that the road does not meet County road standards (DEIR IV.E-17). The SMRO policy makes no reference at all to the additional traffic needing to be "substantial" nor does it link a determination of impact to bicycle usage at the present. Instead the SMRO policy simply states road design standards and criteria for roads that can be used as "access" roads to a quarry. Again there is no linkage at all to the volume of additional traffic nor to singling out bicycle usage. By narrowing the scope of the SMRO standard, the DEIR has compromised the resulting impact analysis.

J-30

b. The DEIR does acknowledge that both Roblar Road and Pepper Road do not meet current County standards relative to both lane and shoulder width, and accordingly determines a significant impact exists for all of Roblar Road and Pepper Road east of Meacham (DEIR IV.E-33). Mitigation Measure E.3a then calls for improvement to Roblar Road and Pepper Road (between Meacham and Stony Point) to current County design standards and lane striping consistent with a Class II bike lane.

J-31

However, the DEIR then qualifies that by noting that the scope of improvements is unfunded, and that the applicant would have to acquire significant amounts of right of way from private parties to provide the minimum ROW of 60 feet. Based upon those factors, the DEIR notes that the Mitigation Measure "may not be feasible", in which case the impacts would remain significant and unavoidable (DEIR IV.E-34). The ambiguity as to significance is confusing. Various obstacles might render other mitigations infeasible, and hence present a unmitigated significant impact. Unless the DEIR consultant is making a determination that the mitigation is infeasible, it should be considered in force and that the project impact is less than significant.

J-31

Air Quality

a. The DEIR addresses the previously mentioned issue of wind, but only in the context of wind direction as it affects more general air quality impacts (DEIR IV.F-1). There is no discussion of seasonality, direction, or speed. There is essentially no discussion of the issue in the context of the project site. Since particulate pollution from

J-32

both the project operation and associated construction activities have the potential to generate significant dust, this is an omission in this section, and the potential for significant dust generation is a potentially significant air quality impact.

J-32
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cont.

b. As discussed above under Water and Hydrology, the DEIR acknowledges the potential for migration of contaminants in groundwater or surface water from the closed landfill site onto the quarry site. The DEIR discusses one contamination aspect as being the water in the sediment basins being contaminated and needing to be treated in some fashion prior to use or discharge (DEIR IV.C-32). The DEIR also notes that the sediment pond will be emptied at least once per season, as per SRMO requirements. The proposed Reclamation includes the statement that "material from the basin will be stockpiled, protected from erosion, and used in ongoing reclamation as areas are quarried"(Roblar Road Quarry Surface Mining and Reclamation Plan, Part II Reclamation Plan and Procedures).

J-33

But if these sediments are stockpiled and later spread in the course of reclamation, then there is the potential for airborne distribution of dust with residual contamination from the landfill leachate or introduction of contaminated water into the sediment pond. As discussed previously, the ability to manage affective dust control is problematic. The presence of residual contamination in the dust also presents an air quality issue and a further potentially significant impact.

Hazardous Materials

a. The discussion of hazardous materials and impacts is limited to impacts associated with the direct quarry activities. The discussion of the "regulatory framework" (DEIR IV.H-3) discusses the regulatory functions of various federal, state, and regional agencies relative to handling/storage of hazardous materials and contamination. The discussion of the SMRO is limited to addressing hazardous materials in operations and the presence of explosives (DEIR.H-5)

J-34

What is omitted is provisions in both the County SMRO and the California Surface Mining and Reclamation Act (SMARA) regarding control of contaminants during quarry development, operation, and reclamation. As cited previously, SMARA §2772(c)(8)(A) regarding demonstration of control of contaminants requires the applicant to document contaminant control and proper waste disposal. Similarly, the SMRO prohibits using contaminated materials as fill (§26A-11-010(5)(v)). These are pertinent regulations and standards that must be reflected in the discussion of the regulatory context of the project.

b. Following up on the citation to the SMRO and SMARA requirements regarding toxic or contaminated materials, the issue of using contaminated soil from the sediment basin for site reclamation needs to be addressed and mitigated. The present proposal to stockpile and use the soil in reclamation activities without remediation is a violation of

J-35
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both SMRO and SMARA, and is a potentially significant unmitigated impact relative to hazardous materials.

↑ J-35
| cont.

Thank you for the opportunity to respond.

Sincerely,

Scot Stegeman

Letter J. Stegeman and Associates (Scot Stegeman)

- J-1 The commenter asserts that the EIR Project Description does not contain a complete or accurate description of the project, citing that it doesn't contain a statement of final use, or a description of the estimated costs or proposed security for completion of the reclamation plan.

The EIR Project Description contains applicable information at a level of detail to allow evaluation and review of environmental impacts, consistent with the CEQA *Guidelines*. This includes, but is not limited to, detail on the location, boundaries and physical setting of the project site and vicinity; proposed physical and operational characteristics of the proposed mining and reclamation plan; a statement of objectives sought by the proposed project, and a discussion of permit requirements.

As discussed on page III-28 of the Draft EIR, when harvesting of aggregate is completed, final reclamation would be conducted. All equipment associated with mining would be removed from the site. Building and concrete structures would be dismantled or demolished and removed from the site. The quarry floor would be ripped and scarified to loosen areas compacted by equipment. The remaining stockpiles of topsoil would be spread over the quarry floor and graded to drain. Finally the quarry floor would be hydroseeded with an erosion control grass mix.

Page III-28 of the Draft EIR, fourth paragraph, the following text is added to the end of the paragraph, as follows (all changes to the Draft EIR are compiled in Chapter V, Errata):

“The end use of the site would be rangeland, consistent with its current use.”

With respect to financial assurances, please see response to Comment J-7, below.

- J-2 The commenter indicates the estimated water use for quarry operations presented in the Draft EIR should be substantiated. The commenter is referred to Master Response HYD-1 in Chapter II in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. The WMP characterizes and quantifies the various water demands for the project, including for quarry operations. Please also note as part of the WMP, only production well DW-2 would be used to provide supplemental water for quarry operations (there would be no use of production well DW-1).
- J-3 The commenter inquires why SMARO Section 26A-090-010(t) was not included in the Draft EIR. For informational purposes, the full language of the SMARO section referenced by the commenter is included below:

“(t) Williamson Act Compliance. Mining extraction and processing operations and related uses may be conducted on contracted Williamson Act parcels

only where consistent with the Williamson Act or where the Williamson Act contract has been rescinded and replaced with an open space easement or other measures as provided below. In addition, such operations and uses either must have established vested rights or legal nonconforming status pursuant to Chapter 26 or 26A of County Code, or all of the following applicable findings can be made:

- 1) The county determines either:
 - (i) Pursuant to Sections 51238.1 and 51238.2 of the Government Code, that the aggregate mining and/or processing operations are compatible with, or otherwise permissible under, the agricultural, recreational, or open space purposes of the Williamson Act contract; or
 - (ii) The Williamson Act contract has been properly rescinded and replaced with an open space easement or other appropriate measures have been taken.
- 2) The proposed reclamation is in compliance with reclamation standards specified in Section 2773 of SMARA and Title 14, Division 2, Chapter 8, Subchapter 1, Article 9 of the California Code of Regulations.
- 3) Quarry sites must be reclaimed to an agricultural use as soon as mining has ceased and ancillary uses do not continue beyond the mining.”

It should be noted that the Draft EIR discusses in detail the Williamson Act compliance issues. In particular, please see regulatory discussion of the Williamson Act on pages IV.A-14 to IV.A-15, and the discussion of the project’s conflict with Williamson Act in Impact A.4 on pages IV.A-30 to IV.A-34 of the Draft EIR. See also accompanying Farmland Conversion Study in Appendix B of the Draft EIR.

J-4 to J-6 Consistent with Appendix G, the Draft EIR discusses applicable plans and identifies inconsistencies of the project with those plans. Conflict with a General Plan policy or other land use control does not, in itself, indicate a significant effect on the environment within the meaning of CEQA. To the extent that physical environmental impacts may result from such conflicts, such impacts are analyzed in this EIR, in the applicable topic sections. In addition to consideration of inconsistencies affecting environmental issues, other potential inconsistencies with the General Plan or other land use controls may be considered by the Planning Commission and other decision-makers, including the Board of Supervisors, independently of the environmental review process, as part of the decision to approve or disapprove a proposed project. Any potential conflict not identified in this environmental document would be considered in that context, and would not alter the physical environmental effects of the proposed project, which are analyzed in this EIR. The Sonoma County Permit and Resource Management Department (PRMD) will make recommendations to the Sonoma County Planning Commission and Board of Supervisors regarding the project’s consistency of the project with the General Plan and the project site’s suitability for the proposed use. The Planning Commission,

and ultimately the Board of Supervisors, are responsible for determining the project's consistency with the County's applicable land use plans.

The commenter does not cite any specific policy with which he feels the project is not consistent; as such, no additional response can be made.

- J-7 The commenter indicates the Land Use section does not address the specific requirements for a Reclamation Plan, including a cost estimate for completing the proposed reclamation effort.

The Land Use section of the Draft EIR includes a number of specific Reclamation Plan requirements from Sec. 26A-11-010 of the SMARO, including requirements for reclamation of mining sites and findings for reclamation plan approval. Please see also a discussion of additional SMARO reclamation plan requirements, including reclamation plan standards and/or quarry reclamation standards contained in Section IV.G, Geology, Soils and Seismicity; Section IV.C, Hydrology and Water Quality, and Section IV.I, Aesthetics.

The SMARO requires that prior to final approval of Reclamation Plan, Sonoma County PRMD shall certify to the State Department of Conservation (Department) that the Reclamation Plan and financial assurances comply with the applicable requirements of State laws, and must submit the plan and financial assurances to the Department for review. Where the reclamation plan and financial assurances are associated with a surface mining use permit, the County may conditionally approve the use permit with the condition that the approval for mining operations shall not be issued until cost estimates for financial assurances have been reviewed by the Department and final action has been taken on the reclamation plan and financial assurances. The specific requirements for financial assurance, including approval process, are outlined in detail in Section 26A-11-050 of SMARO.

- J-8 The commenter claims the Reclamation Plan as submitted and the EIR are somewhat unclear as to the final use upon reclamation. As discussed in response to Comment J-1, the end use of the site upon reclamation would be rangeland.

The commenter cites SMARO regulation Section 23A-09-010(t)(3), which states quarry sites must be reclaimed to an agricultural use as soon as mining has ceased and ancillary uses do not continue beyond the mining; and California Surface Mining and Reclamation Act (SMARA) Section 3708 (incorrectly cited by the commenter as SMRO 3708), that states that lands will be reclaimed so as to be capable of sustaining economically viable production of crops commonly grown in the surrounding area. The commenter asserts that given the complexities of post-mining site management, it is not clear that this standard can be met.

However, as specified in the Draft EIR, all mitigation measures associated with the operation of the site's drainage plan, and implementation of the water quality protection

program, including monitoring, and potential containment and treatment facilities, would be in place prior to the start of mining and would remain in place through post reclamation as needed. Consequently, there are no aspects of the project that would delay reclamation and the proposed end use of the site.

- J-9 The commenter takes issue with the CEQA thresholds used in the Draft EIR. Applicable CEQA thresholds consistent with the CEQA *Guidelines* and generally accepted practice are used for judging significance of impacts to geology, soils and seismicity in the Draft EIR.

The commenter cites issues such as temporary and permanent slope standards, bench design, top soil management, setbacks, and water supply. The Draft EIR describes in detail potential environmental project impacts as they relate to each of these issues, and where appropriate, identifies design standards that the project would need to meet to ensure these impacts would be mitigated to a less than significant level. The commenter is referred to Impact B.1 and B.2 in the Draft EIR for a discussion of proposed slope stability for proposed quarry slopes and soil stockpiles. Top soil management in terms of controlling erosion, sedimentation and dust control are addressed in Impacts B.2, B.3, C.2 and F.4. Proposed quarry setbacks are discussed in the EIR Project Description, and consideration of setbacks as it relates to project effects on adjacent land uses are discussed in Impacts B.2, B.4, G.1 and G.3, and required setbacks specified in mitigation measures to avoid biological impacts are discussed in D.1 through D.8. Potential impacts of project water use is discussed in Impact C.8; see also Master Response HYD-1 in Chapter II in this Response to Comments Document for additional detail on this issue.

The commenter is also referred to responses to Comments J-4 to J-6 for additional context for consistency with plans and plans and policies.

- J-10 The commenter indicates the discussion of climate contains no discussion of wind as part of the local environment. The commenter is referred to Section IV.F, Air Quality, in the Draft EIR, for a discussion of potential effects regarding the generation of fugitive dust during the construction and operational phases of the project, and design features and on-going practices proposed by the applicant and/or required by the SMARO mining and reclamation standards to minimize erosion of exposed surfaces and generation of dust. The Draft EIR establishes a formal comprehensive dust control program for implementation during initial construction and on-going operation to ensure all potential dust emissions would remain less than significant. The commenter is also referred to Master Response AQ-1 in this Response to Comments Document for additional data on wind conditions in the area, and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program. Please also refer to the climate discussion on page IV.F-1 in the Draft EIR.

Please also refer to Master Response HYD-1 in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. The WMP characterizes and quantifies the various

water demands for the project, including use of highly conservative estimates of water demand required for dust control that would compensate for any potential evapotranspiration that could occur.

- J-11 The commenter inquires whether the 2004/2005 winter was normal, dry or wet. Based on data from the Western Regional Climate Center, at the weather station located nearest the project site (Petaluma Fire Station), the historical mean winter precipitation (December through February) was 14.82 inches per year. The winter precipitation recorded at this station for the 2004/2005 winter was 18.27 inches.

The purpose of the seasonal flow measurements taken in 2005 was to present an overview of the relative changes in water flows in Ranch Tributary and Americano Creek throughout the year. Additional surface water observations were made in January through April, and in December 2007 in support of the baseline surface water monitoring effort. The Draft EIR acknowledges that while the 2005 field study showed that Ranch Tributary discharged water to Americano Creek throughout the year, in drier years (e.g., 2007), observations suggested that Ranch Tributary does not carry flow during the summer season.

It should be noted that, as discussed in Mitigation Measure C.1 in the Draft EIR, the baseline flow and creek stage monitoring program for the Ranch Tributary and Americano Creek would be continued through the project duration, and as determined by the County, through post-reclamation. Flow and creek stage monitoring shall be conducted quarterly and following winter storm events.

- J-12 The commenter states that the Draft EIR omits data regarding the baseline water quality of Americano Creek and without these data and substantive discussion, there is no baseline condition, which compromises conclusions and efficacy of mitigation measures.

As discussed in the Draft EIR, the 2007 baseline surface water sampling program was intended to gather data on surface water quality and conditions in Americano Creek and Ranch Tributary and establish a quantitative measure of existing surface water conditions as a baseline against which project effects on surface water quality may be assessed. Six baseline surface water sampling points were selected in Americano Creek and Ranch Tributary and water samples at each of the six sampling points on six different days during the rainy season of 2007 (between January and April) and supplemental surface water sampling at each of the six sampling points on one day in December 2007. The 42 surface water samples were analyzed for conventional chemistry parameters but also included organochlorine pesticides and poly-chlorinated biphenyls (PCBs).

The water quality data obtained from the sampling effort was reviewed for the Draft EIR and was found to be unremarkable, and as the Draft EIR states, describes existing water quality conditions consistent with this particular rural agricultural setting; the surrounding geology, groundwater baseflow contribution, upstream erosion, and runoff from Roblar Road appear to influence surface water quality. The data indicates stable and consistent

concentrations of water quality parameters that, as expected, would tend to increase with increased rainfall. Out of 42 samples, nine samples contained oil and grease at low concentrations and no pesticides or PCBs were detected in samples on Americano Creek (no samples from Ranch Tributary were analyzed for pesticides or PCBs). The full report of the 2007 baseline survey is available for review at Sonoma County PRMD. Data collected in the 2007 survey will be combined with future surface water quality data to establish a comprehensive baseline data set.

J-13 to J-14 The commenter indicates there is no data indicating that test of the production wells included an assessment of drawdown in the quarry site monitoring wells.

As discussed in response to Comment J-2, above, as part of the applicant's WMP, only production well DW-2 would be used to provide supplemental water for quarry operations (there would be no use of production well DW-1). In addition, as discussed in Master Responses HYD-1 and HYD-3 in Chapter II in this Response to Comments Document in support of the applicant's WMP, the applicant conducted a step-drawdown well test on Well DW-2 in December 2008 to estimate its sustainable pumping rate. During the test, groundwater level data was obtained from onsite wells (MW-1, MW-2b, MW-3, MW-4, DW-1) and Roblar Landfill property well R-2 to determine whether pumping at Well DW-2 affected groundwater levels in these wells. The pump test conducted for the WMP confirms that under the applicant's proposed groundwater pumping scenario, Well DW-2 can sustain the predicted pumping discharge rate in conjunction with the use of on-site water storage tanks, without adverse effects on other wells. The WMP also includes a groundwater level monitoring and adaptive management program to be implemented during project operation to ensure that Well DW-2 will continue to supply long-term supplementary water for the project when necessary, without adverse effects on other wells.

J-15 The commenter indicates the Draft EIR contains an incomplete discussion of the regulatory framework in regards to water quality, including Policy 68-16 as adopted by the State Water Resources Control Board and incorporated into the North Coast Regional Water Quality Control Board Basin Plan, and that this policy parallels the federal Anti-degradation Policy. The commenter is referred to response to Comment D-3 for a description of the State and federal anti-degradation policies and applicability of the project to these policies.

The commenter also asserts that the Draft EIR omits any quantified data as to water quality in either wells or surface water samples. However, in fact, the Draft EIR summarizes several sources and types of water quality and chemistry data, including the results of a seep and spring survey and groundwater chemistry evaluation completed by Balance Hydrologics, Inc.; surface and groundwater quality monitoring conducted on the project site and adjacent creeks by Advanced GeoEnvironmental, Inc. (AGE); on-going surface and groundwater quality monitoring, including leachate monitoring, conducted by Pacific GeoScience at the Roblar Landfill property as part of the County's on-going landfill monitoring program; additional groundwater quality testing at the Roblar Landfill

property by AGE and PES Environmental in support of this EIR; and a Solid Waste Water Quality Assessment Test (SWAT) conducted for the Roblar Landfill.

Collectively, these independent sources of analytical data represent the best available information characterizing existing groundwater quality beneath the landfill and quarry properties. The commenter is also referred to Master Response HYD-2 in Chapter II in this Response to Comments Documents for further detail on existing groundwater quality conditions on the project site and adjacent landfill property. Specifically, this master response includes greater detail of the analytical results of applicant's baseline groundwater monitoring program, presents additional groundwater data that has been made available, and compares the detected contaminant levels to pertinent regulatory thresholds established for groundwater quality and the relevance of these comparisons.

All source reports are on file with the Sonoma County PRMD.

- J-16 The commenter claims the Draft EIR does not discuss consistency with water quality standards and policies.

The Hydrology and Water Quality section of the Draft EIR includes a comprehensive regulatory framework discussion, including relevant information for the Clean Water Act and the Porter-Cologne Water Quality Control Act; the North Coast RWQCB Basin Plan, the National Pollutant Discharge Elimination System (NPDES) permit program; SMARO mining and reclamation standards for stormwater runoff, flood control, water quality erosion and sedimentation; General Plan Resource Conservation and Public Safety Elements policies for prevention of soil loss, water resources, and flooding; as well as applicable policies from Aggregate Resource Management Plan, Petaluma Dairy Belt Area Plan; and the Draft Sonoma County General Plan 2020.

Furthermore, the Draft EIR impacts and/or mitigation measures reference where the project would need to comply with applicable regulatory requirements, and where appropriate, identifies design standards that the project would need to meet to ensure these impacts would be mitigated to a less than significant level.

The commenter is referred to responses to Comments J-4 to J-6 for additional context for consistency with plans and plans and policies.

- J-17 The commenter claims there is no correlation between the significance criteria for hydrology and water presented in the Draft EIR and the impacts discussion.

The commenter fails to identify any specific example where impacts do not address the stated significance criteria. Contrary to the commenter's assertion, each of the nine hydrology and water quality significance criteria are addressed appropriately in the Draft EIR. Criteria #1 and #6 (water quality standards / waste discharge requirements) are addressed in Impacts C.2, and C.4; Criteria #2 (depletion in groundwater supplies or interference with groundwater recharge) is addressed in Impacts C.6 and C.8); Criteria #3 (erosion and siltation) is addressed in Impact C.2; Criteria #4, #5 and #8 (flooding / exceedance of capacity of storm water drainage systems) are addressed in Impacts C.1

and C.3. Furthermore, as explained on pages IV.C-30 to IV.C-31 in the Draft EIR, and IV.C.31, certain hydrologic conditions are not associated with the project and therefore, are not considered potential impacts, including Criteria #7 (placement of structures within 100-year flood plain), and Criteria #9 (inundation by seiche, tsunami or mudflow).

J-18 The commenter repeats a reference to SMARO water quality standards that are presented in the Draft EIR, including 26A-09-010(e)(1) and (2) for mining and permit operations and 26A-11-010(d)(v) for reclamation plan requirements that is presented in the Draft EIR. For informational purposes, the full excerpt of these SMARO standards are presented below:

- SMARO § 26A-09-010(e): *“Water Quality. In order to avoid and prevent contamination or degradation of surface or ground waters, all operations shall comply with the following standards:*
 - 1) *Any waters discharged from the site to adjacent lands, streams, or bodies of water or to any groundwater body shall meet all applicable water quality standards of the Regional Water Quality Control Board and any other agency with authority over such discharges. Records of any water quality monitoring conducted in conjunction with the requirements of such agency or agencies shall be made available to the director on request. Discharges of sediment laden water to designated on-site settling ponds, desilting basins in or reclamation areas shall not be deemed to be in violation of this part solely on the basis of sediment content;*
 - 2) *Excavations which may penetrate near or into usable water bearing strata shall not subject such groundwater basin or subbasin to pollution or contamination.”*
- SMARO § 26A-11-010(d)(6)(v): *“Reclamation Plan Standards. Properties used for surface mining shall be reclaimed after the operation or an approved phase of the operation has been completed in accordance with the following standards: . . . Upon reclamation, no condition shall remain which will or could lead to the degradation of water quality below applicable standards of the regional water quality control board or any other agency with authority over water quality.”*

The commenter also references Impact C.4 and Mitigation Measure C.4 from the Draft EIR. The commenter then asserts that Mitigation Measure C.4 fails to address the potential water contamination over time or ensure compliance with regulatory standards; and that the mitigation only treat waters that are captured in the course of quarry operations, as opposed to correcting the underlying source of new and continuing contamination.

The Draft EIR addressed all potential hydrologic and water quality impacts of the proposed project, including but not limited to, potential for alteration of the project site to contribute sedimentation to nearby creeks; the potential for excavation of the quarry to alter shallow groundwater patterns and initiate groundwater seepage through the quarry walls, and potential for groundwater seepage and/or production well water used on site to contain contaminants (see Impacts C.2 through C.4 in the Draft EIR). The Draft EIR

concluded that collectively, the measures proposed as part of the project, along with mitigation measures identified in the Draft EIR, would ensure that all potential impacts to hydrology and water quality would remain less than significant.

As explained in detail in Master Response HYD-1 in this Response to Comments Document, the applicant has prepared a comprehensive Water Management Plan (WMP) that expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (groundwater seepage, precipitation/runoff, and groundwater from wells) and reduces hydrology and water quality impacts. The WMP is designed to be consistent with the mitigation measures identified in the Draft EIR for addressing potential hydrologic and water quality impacts.

The commenter asserts that the proposed project would conflict with SMARO standards 26A-09-010(e)(1) and (2). With respect to 26A-09-010(e)(1), as discussed in Master Response HYD-1, no contaminated water, or any water that has been treated on-site for VOC removal, would be discharged to adjacent lands, streams, or bodies of water or groundwater. Furthermore, any water that may require treatment for VOCs would be treated to below detection levels or within the storm water discharge criteria set forth through the NPDES industrial discharge permit prior to either direct onsite reuse or temporary storage prior to onsite re-use.

With respect to 26A-09-010(e)(2), the proposed project would not introduce any contaminants into the groundwater basin, but rather, would appropriately treat any potentially contaminated groundwater that may be encountered during excavation and/or groundwater pumping. The commenter is also referred to response to Comment D-3 for a description of the State and federal anti-degradation policies and applicability of the project to these policies.

J-19 The commenter asserts that the Draft EIR's disregard for underlying groundwater contamination is a violation of SMARA § 2772(c)(8)(A), State Mining and Geology Board Reclamation Regulations Section 3706(a), Section 3606(b) and 3710(a). For clarity, the full excerpt of these regulations are presented below:

- SMARA § 2772(c)(8)(a) states: *“The reclamation plan shall include . . . a description of the manner in which reclamation, adequate for the proposed use or potential uses will be accomplished, including . . . a description of the manner in which contaminants will be controlled, and mining waste will be disposed;”*
- SMARA § 3706(a) states: *“Surface mining and reclamation activities shall be conducted to protect on-site and downstream beneficial uses of water in accordance with the Porter-Cologne Water Quality Control Act, Water Code section 13000, et seq., and the Federal Clean Water Act, 33 U.S.C. section 1251, et seq;”*
- SMARA § 3706(b) states: *“The quality of water, recharge potential, and storage capacity of ground water aquifers which are the source of water for domestic,*

agricultural, or other uses dependent on the water, shall not be diminished, except as allowed in the approved reclamation plan;” and

- SMARA § 3710(b) states: “*Surface and groundwater shall be protected from siltation and pollutants which may diminish water quality as required by the Federal Clean Water Act, sections 301 et seq. (33 U.S.C. section 1311), 404 et seq. (33 U.S.C. section 1344), the Porter-Cologne Act, section 13000 et seq., County anti-siltation ordinances, the Regional Water Quality Control Board or the State Water Resources Control Board.*”

In each of these SMARA regulations, the project, as amended with incorporation of the applicant’s WMP, has adequately addressed the requirements identified in these regulations, and the EIR has adequately disclosed and mitigated the potential environmental effects to which these regulations refer. With respect to SMARA § 2772(c)(8)(a) the commenter is referred to Master Response HYD-1 in this Response to Comments Document for a full description of the facilities and methods for adequately controlling potential contaminants that may be encountered during the project, and disposing of mining waste as needed.

Similarly with respect to SMARA § 3706(a) and (b), and 3710(b), the proposed drainage and collection, storage, monitoring, and treatment methods and facilities proposed by the project and described in Master Response HYD-1 would serve to ensure all potential environmental effects to surface and groundwater resources would be mitigated to a less than significant level, and consistent with the requirements of SMARA, SMARO and other applicable regulations.

- J-20 The commenter indicates that well contamination would impose a financial and legal burden upon any subsequent operator of agricultural practices on the site, and that no long-term funding mechanism is proposed for a permanent treatment system for stock watering that is supplied by seepage or by well.

However, all mitigation measures associated with the implementation of the water quality protection program, including monitoring, and potential water containment and treatment facilities, would be in place prior to the start of mining and would remain in place through post reclamation as needed. In addition, as discussed in response to Comment J-7, SMARO requires that prior to final approval of the Reclamation Plan, Sonoma County PRMD shall certify to the State Department of Conservation (Department) that the Reclamation Plan and financial assurances comply with the applicable requirements of State laws. Consequently, there are no aspects of the project that would preclude agricultural practices on the project site following reclamation.

Please see also Master Response GEN-1 in Chapter II in this Response to Comments Document regarding issues related to the approval process for this project, and financial assurances for reclamation of the site.

- J-21 The commenter claims that some portion of contaminated water will reach Americano Creek as subsurface flow that would not be captured by the surface treatment strategy.

As discussed in the Draft EIR and in responses to Comments L-16 and -17, the existing groundwater flow direction in the primary water-bearing zone (Wilson Grove formation) beneath both the Roblar Landfill property and project site is in a north-northwesterly direction towards Roblar Road. Based on the current understanding of the hydrogeology and topography of this area, Americano Creek acts as a drainage divide for groundwater in the Wilson Grove formation where groundwater from within the Wilson Grove formation flows from the upland areas down-gradient towards Roblar Road to eventually enter the Americano Creek drainage. Considering the gradient of groundwater in the Wilson Grove formation, shallow groundwater within the landfill property would continue to flow in a west-northwest direction towards Americano Creek with implementation of the project (see Draft EIR, Impact C.3, and Figure IV.C-6). Furthermore, the subsurface flow from groundwater in the fractures in the deeper Tolay Volcanics that would be entering the quarry walls as seepage or in the production wells would be treated, if needed, by the proposed onsite treatment system. In any case, the project would not provide a mechanism to induce groundwater flows from the landfill property towards Americano Creek.

Please also refer to Master Response HYD-2 for greater discussion of the groundwater quality beneath the Roblar Landfill property and the project site.

J-22 The commenter indicates accumulated sediments in the sediment ponds would be an additional source of contamination. As discussed in Master Response HYD-1 in this Response to Comments Document, regular monitoring of the sediment accumulated within the sediment control ponds would occur. In the event that VOCs are detected in water of the sediment control basins, the sediment within the respective basin would also be sampled and analyzed for VOCs prior to the removal. In the event that VOCs are present in the material, it would be managed in accordance with all applicable state and federal regulations related to handling, storage and transport of hazardous materials. Consequently, no contaminated sediment would be used for site reclamation.

J-23 The commenter claims that the Draft EIR should not dismiss the possible presence of California Tiger Salamander (CTS) on the site because CTS breeding sites were identified to the north of the project site. The commenter also inquires why the Draft EIR and the 2003 Biotic Assessment (prepared by the applicant's biologist – Golden Bear Biostudies) do not discuss the potential for the project site to provide upland habitat for CTS.

As discussed in the Draft EIR, aquatic surveys for CTS conducted on the project site by the applicant's biologist in 2002, 2003 and 2004 (as part of the 2003 Biotic Assessment, and supplemental 2005 letter report from Dr. Fawcett) did not identify the presence of CTS. The Draft EIR acknowledged that in March 2007, as part of biological review of another project, a CTS breeding site was identified approximately 1.1 mile (1.8 km) northeast of the quarry property. Given that finding, USFWS protocol-level aquatic surveys were conducted for CTS on the quarry project site (and adjacent alternative haul route alignment). The 2007 protocol survey (using USFWS *Interim Guidance on Site*

Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander, 2003) resulted in negative findings, supporting the prior findings that CTS are in all likelihood absent from potential breeding habitat on the quarry project site. Furthermore, CTS breeding has not been identified in other nearby potential breeding ponds located just east and west of the quarry site.

In its CTS survey protocol, the USFWS identifies 2.0 km as the upper limit of typical CTS movement, barring any barriers to movement such as topography. While the horizontal distance between the site of the nearest CTS occurrence record and the quarry site is just under 2.0 km, due to interceding topography, the actual overland distance between these sites is over 2 km, and therefore, at or beyond the migratory capabilities of this species. In addition, approximately one-quarter mile of woodlands exist between the sites. Woodlands are not considered a preferred habitat for CTS, and therefore, would serve as a minor natural barrier to CTS movement. Several public and private roadways are located between these sites. While the presence of roads would not be considered a barrier to CTS movement, it is notable that no CTS road kills have been recorded on these roads, or in areas further west.

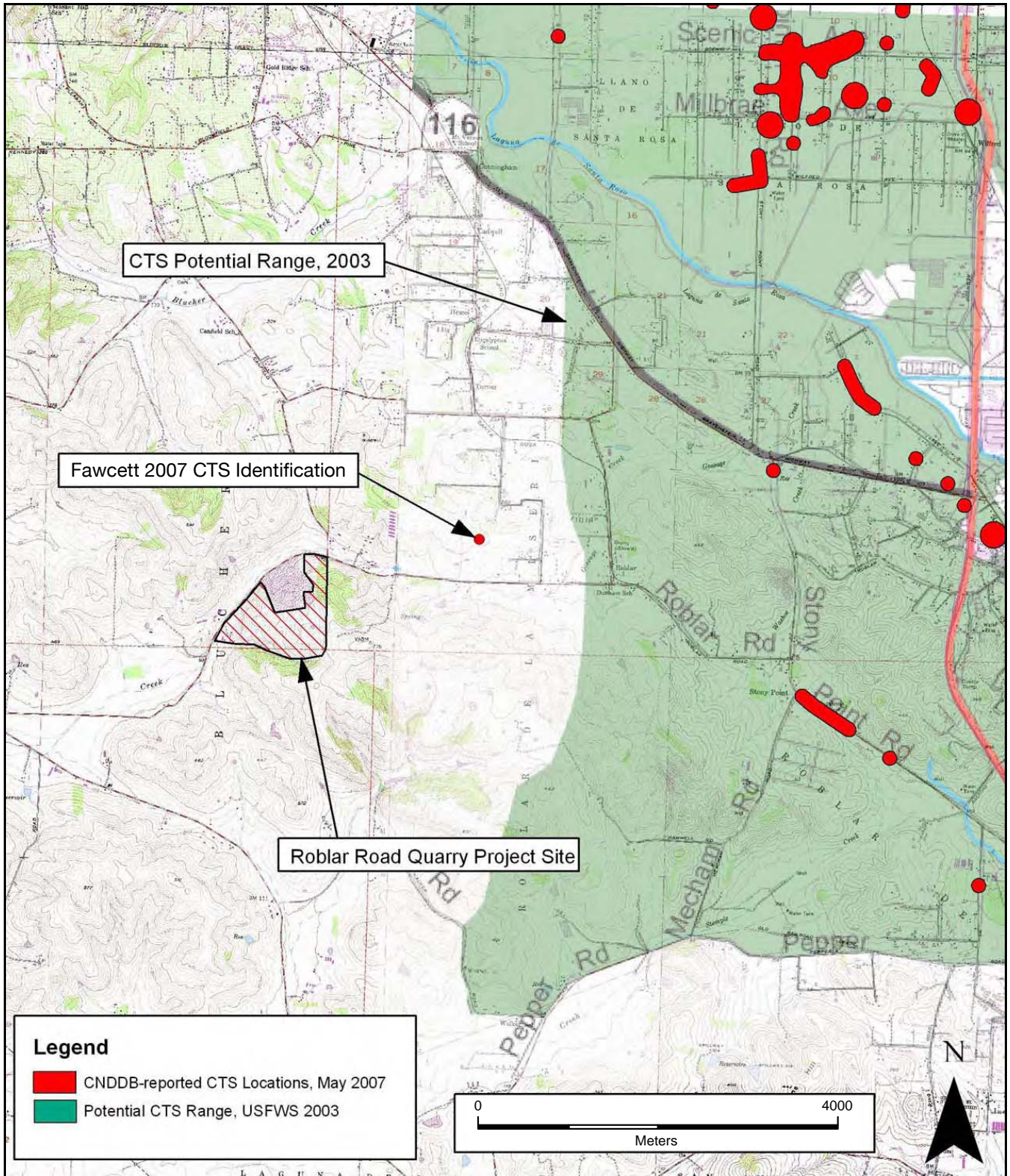
As discussed in the Draft EIR, the project site is also located nearly 2 miles (or 3 km) outside the 2003 USFWS Draft CTS range and the Santa Rosa Plain Conservation Strategy boundary (see **Figure J-1**). The potential CTS range boundary is based on extensive field surveys and historical CTS records that indicate that the local CTS population is by and large restricted to the Santa Rosa Vernal Pool Plain and neighboring mountains.

Given the multiple survey findings and the best available scientific data available from the USFWS, CDFG, and the scientific literature databases, it can be reasonably concluded CTS are not present on the project site, and impacts to any upland habitat for CTS are not anticipated.

- J-24 The commenter asserts that CTS populations may exist in Americano Creek and Ranch Tributary, and that such populations may be affected by toxic contaminants.

As explained in the Draft EIR on pages IV.D-10 and IV.D-11, suitable CTS habitat does not exist in Ranch Tributary and Americano Creek, and as discussed in response to Comment J-23, above, no CTS have been previously identified in multiple surveys conducted in the project vicinity. Please also refer to response to Comment J-25, below, as it relates to mitigation measures identified in the Draft EIR for ensuring surface hydrology and water quality are maintained to protect special status species that may occur downstream of the project site.

- J-25 The commenter summarizes Impact D.7 in the Draft EIR (potential impacts to special-status fish species downstream of the project site), and then appears to claims that the baseflow monitoring program described in Mitigation Measure C.5a would not be



SOURCE: ESA; USFWS, 2003

Roblar Road Quarry . 204334

Figure J-1
Regional Project Location Map and USFWS 2003 Draft CTS Range,
Sonoma County, California

effective for mitigating potential impacts to the California steelhead because it is a long-term monitoring program.

It is important for the commenter to understand, as discussed in the Draft EIR, that the central California coast steelhead are not located in the project vicinity, but rather, approximately seven miles downstream of the project site within the Americano Creek/Estero Americano watershed. Consequently, the effect of any potential reduction in baseflows to Ranch Tributary under the project would be felt most in the project vicinity, and particularly the riparian area within Ranch Tributary, rather than in areas several miles downstream. Nevertheless, the implementation of Mitigation Measure C.5 would ensure any potential residual effect from the project at locations further downstream, including within the Americano Creek/Estero Americano watershed, would be less than significant.

As explained in Impact D.7, implementation of Mitigation Measures C.1 through C.5 would reduce potential hydrology and water quality impacts to less than significant. Therefore, the potential impacts to special-status fish species through 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. The baseflow monitoring program identified in Mitigation Measure C.5 would be implemented throughout the project duration, and as necessary, through post reclamation. Any potential effect on baseflows within Americano Creek (and to central California coast steelhead) would be most critical during the summer months for a given year. Should the baseflow monitoring program indicate the project was having effect on reduction in baseflows in Ranch Tributary, pre-project flows would be replicated by passively diverting stored water in Ranch Tributary. This process would be maintained until such time replication of flows was not needed.

The commenter is also referred to response to Comment E-3 for a discussion of other applicable mitigation measures identified in the Draft EIR to ensure that impacts to surface water flows and water quality of Americano Creek and Ranch Tributary would remain less than significant. Collectively, the measures proposed as part of the project, along with mitigation measures identified in the Draft EIR, would ensure any potential impacts to aquatic species downstream of the project site would be less than significant. The commenter is also referred to response to Comment X-1 with respect to recent surveys CDFG has conducted in the lower Americano Creek watershed.

- J-26 The commenter asserts that the Draft EIR does not address whether the project is consistent with all the regulatory framework provisions presented in the Biological Resources section. In particular, the commenter asserts that Draft EIR contains no discussion of any applicable County policy other than the adopted tree ordinance.

The General Plan goals and policies that related to biological resources and are applicable to the project are described on pages IV.D-21 and IV.D-22 of the Draft EIR; the applicable Petaluma Dairy Belt Area Plan policies related to biological resources are described on page IV.D-23 of the Draft EIR. The commenter fails to identify any

specific County regulation that he feels the project fails to comply with. However, below are a list of the applicable policies of the Open Space Element and the Resource Conservation Element of the Sonoma County General Plan and the Natural Resources section of the Petaluma Dairy Belt Area Plan. Following each policy is a specific discussion (in italics) of project consistency.

Sonoma County General Plan

- **OS-4e:** Require on building permits a minimum setback of 50 feet from the edge of any wetlands that are within a critical habitat area. Exempt existing farm buildings and allow them to be expanded or modified. *Not applicable. The project site is not identified within a “critical habitat area” as identified in the Sonoma County General Plan. See Policy RC-6b, below, for wetlands outside of critical habitat areas.*
- **RC-5b:** On discretionary projects, use native or compatible nonnative species to the extent possible for landscaping. Discourage use of exotics, such as pampas grass and scotch broom. *The project appears to be consistent, although final determination of consistency will be made by the County Board of Supervisors. The project plant list is presented in Chapter III, Project Description, in the Draft EIR. All plantings for slopes and erosion control consist of native species. No exotic or non-native species are proposed.*
- **RC-5c:** Make the preservation of significant native oaks and other native trees a primary consideration in the review of development projects. *The project appears to be consistent, although final determination of consistency will be made by the County Board of Supervisors. As discussed in Impact D.2 in the Draft EIR, nine black oaks meeting the criteria of the Sonoma County’s tree ordinance as protected trees are located within the mining footprint and would be removed under the proposed project. Mitigation Measure D-1 in the Draft EIR mitigates this impact to a less than significant level by requiring onsite replacement of all trees to be removed in accordance with the County tree ordinance, or payment of in-lieu fees into the County of Sonoma tree replacement fund. Additional mitigation is also identified for trees on site proposed to be saved. This includes use of special construction techniques where proposed development or other site work would occur in the vicinity of these trees. Further, a five-year tree monitoring program shall be developed and implemented for all replaced trees to ensure an appropriate survival rate of tree plantings and the ability to be self-sustaining.*
- **RC-6b:** Protection for rare and endangered species, wetlands, and other biotic resources not indicated on Figure OS-3 of the Sonoma County General Plan shall be accomplished through compliance with applicable state and federal law. *The project appears to be consistent, although final determination of consistency will be made by the County Board of Supervisors. With respect to rare and endangered species, the Draft EIR addresses all potential impacts to special status species which have the potential to be affected by the proposed project, and mitigates these impacts to a less than significant level.*

Impact D.3 in the Draft EIR addresses potential project impacts to habitat for California red-legged frog (CRLF) and potential habitat for foothill yellow-legged frog and northwestern pond turtle. Mitigation Measure D.3 requires implementation of measures during construction and operation to minimize effects

to and avoid take of CRLF, and additionally benefit pond turtles and foothill yellow-legged frog, if present. This includes selection of a suitable site for a new mitigation stockpond within the property boundaries, conforming to applicable USFWS guidelines, in addition to a requirement to establish a permanent upland habitat buffer. Also, an adaptive management plan shall be developed for the mitigation pond, and include a program to monitor pond performance over time.

Impact D.7 in the Draft EIR addresses potential impacts to special-status fish species known to occur downstream of the project site. The implementation of Mitigation Measures C.1 through C.5 in the Draft EIR would reduce potential hydrology and water quality impacts to less than significant, and correspondingly, reduce potential impacts to special-status fish species to a less than significant level.

Impact D.5 in the Draft EIR addresses potential project impacts to American badger and the loss of annual grasslands that support this species, and includes mitigation (preconstruction surveys prior to ground clearing and grading in annual grasslands habitat or areas that are known or suspected to support badger) to reduce to impact to a less than significant level. Impacts D.4 and D.6 in the Draft EIR addresses potential project impacts to potential foraging and/or roosting habitat that exists on the project site for special-status species birds and bats, and identifies appropriate mitigation to ensure those impacts would be mitigated to a less than significant level.

With respect to wetlands, Impacts D.1 and E.8 in the Draft EIR address all potential project impacts to wetlands on the project site and off-site, respectively, that would be potentially subject to jurisdiction of the U.S. Army Corps of Engineers, the RWCQB and/or the California Department of Fish and Game (CDFG). The Draft EIR includes mitigation that requires the applicant to 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 (see Mitigation Measure D.1b on pages IV.D-25 to IV.D-26 in the Draft EIR).

Where direct impacts to potentially jurisdictional wetlands cannot be avoided on the quarry property, the Draft EIR includes mitigation that would require preparation of a formal wetland delineation; obtaining appropriate wetland permits and implementing all conditions contained in Section 404 Clean Water Act Permit, Section 1603 Streambed Alteration Agreement and Section 401 water quality certification from the RWQCB. The project would be required to compensate for the loss of jurisdictional wetlands at a 2:1 ratio within the project site boundary, or at a 3:1 ratio 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 (see Mitigation Measure D.1a on page IV.D-25 of the Draft EIR and Mitigation Measure E.8e on page IV.E-45 to -46 of the Draft EIR).

It should be noted that pursuant to Mitigation Measure C.1 in the Draft EIR, the applicant's biologist has completed a wetland delineation for the project site, and for the alternative haul route (Alternative 2 in the Draft EIR). The delineation has identified a total of 0.818 acres that would be impacted on the project site, and 0.18 acres that would be impacted on the alternative haul route under Alternative 2. The wetland delineation has been submitted to, and is pending verification from, the Corps.

- **RC-6c:** Notwithstanding the densities shown on the land use maps, provide for creation of separate parcels of land where necessary to establish sites for the preservation of rare and endangered species and other biotic resources. *The project appears to be consistent, although final determination of consistency will be made by the County Board of Supervisors. The project site consists of two parcels, the 70 acre-parcel that would be directly disturbed by the proposed quarry, and a separate 128.76-acre parcel that surrounds the quarry parcel. In all cases where onsite biological mitigation is identified to mitigate the quarry impacts, such mitigation would occur on the separate 128.76-acre parcel.*
- **RC-8c:** Design public and private projects to minimize damage to the stream environment and to maintain instream flows. *The project appears to be consistent, although final determination of consistency will be made by the County Board of Supervisors. As discussed in detail in Chapter IV.C in the Draft EIR, features proposed as part of the project, and comprehensive mitigation measures identified in the Draft EIR would ensure that impacts to surface water flows and water quality of Americano Creek and Ranch Tributary (tributary to Americano Creek) would remain less than significant. Specifically, Mitigation Measure C.5 provides additional measures to ensure non-storm flows (baseflows) in Americano Creek would also not change from pre-project conditions.*

Mitigation Measure C.2 provides for a formal Water Quality Protection Program (WQPP) that would be developed and implemented to control sediment and pollutant runoff from the quarry site during its operational life and post reclamation, including a Stormwater Pollution Prevention Plan, aggressive source control and sediment retention measures, and implementation of containment control best management practices, consistent with and as required by the Regional Water Quality Control Board. A Stormwater Monitoring Program would also be implemented that would regularly collect samples from all stormwater discharge outfalls in compliance with the requirements of General Permit for Discharges of Storm Water Associated with Industrial Activities. Furthermore, Mitigation Measure C.4 includes additional onsite monitoring to ensure any water that may enter the quarry walls as seepage would be managed and treated as appropriate prior to discharge to Americano Creek.

In addition, the applicant has prepared a comprehensive Water Management Plan (WMP) that expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR and reduces hydrology and water quality impacts. As part of the WMP, the applicant has expanded the proposed drainage and collection system for isolating and controlling all water that enters the quarry footprint. Proposed new sediment control basins would serve to further increase sediment control capacity and capabilities for the quarry. In addition, the proposed VOC monitoring and treatment system would require all water collected within the quarry footprint and in production well DW-2 to be analyzed for VOCs. Any water that tests non-detectable for VOCs would be used, as needed, to maintain baseline flow conditions in Ranch Tributary and Americano Creek (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary and Americano Creek), and/or routed to either direct onsite re-use to support quarry operations or water storage tanks for temporary storage prior to onsite re-use.

Petaluma Dairy Belt Area Plan

- Surveys for rare and endangered species shall be required for all discretionary permits in the Dairy Belt Area Plan area. Waiver of this requirement may be permitted only if it can be demonstrated that there are no rare or endangered species on the affected site. *The project would appear to be consistent, although final determination of consistency will be made by the County Board of Supervisors. See consistency discussion with General Plan Policy RC-6b, above.*
- Riparian vegetation shall not be removed to accommodate any residential or commercial development allowed by this plan. *The project appears to be partially consistent, although final determination of consistency will be made by the County Board of Supervisors. As described in Impact D.1 of the Draft EIR, the project would excavate the upper portions of the West, Center and East swales on the project site and remove associated riparian vegetation. However, as required by Mitigation Measure D.1b in the Draft EIR, the proposed project would avoid all riparian habitat within Ranch Tributary and Americano Creek, by maintaining a 100-foot minimum setback. Please also see consistency discussion with General Plan Policy RC-6b, above.*
- Other means to preserve riparian vegetation should be encouraged, through setback requirements, contract agreements between landowners and non-profit conservancy groups, or other means focused on preserving both agricultural viability and riparian corridor protection. *The project appears to be partially consistent, although final determination of consistency will be made by the County Board of Supervisors. Please see consistency discussion, above.*
- Preserve the permanent wildlife habitat areas that are representative of this Area Plan's floral and faunal communities. Human uses of these areas should be adequately regulated to protect these communities, and land uses should be restricted to those that are compatible with the perpetuation of these communities. These habitats shall include but not be limited to the following: (1) remaining natural stream and river courses; (2) natural fresh water and salt water marshes; and (3) habitats necessary for the preservation of rare or endangered species. *The project would appear to be consistent, although final determination of consistency will be made by the County Board of Supervisors. Please see consistency discussion with General Plan Policy RC-6b and RC-8c, and RC-8d, above.*
- Minimize future damage to fisheries, fish habitats, and spawning grounds, and, as far as possible, repair past damage. *The project would appear to be consistent, although final determination of consistency will be made by the County Board of Supervisors. Please see consistency discussion with General Plan Policy RC-6d, above.*
- Encourage the use of native plants for screening and landscaping. *The project would appear to be consistent, although final determination of consistency will be made by the County Board of Supervisors. Please see consistency discussion with General Plan Policy RC-5b, above.*

It should be noted that a goal of the Petaluma Dairy Belt Area Plan is to provide for the planning and restoration of mineral extraction areas, such as quarries, while minimizing adverse effects on the environment (see Draft EIR, p. IV.A-14). Given the proposed

environmental protections and additional mitigation measures applicable to the project, it appears that the proposed project, as mitigated, would generally be consistent with Plan.

The commenter is also referred to responses to Comments J-4 to J-6 for context regarding project consistency with plans and plans and policies.

- J-27 The commenter claims that Draft EIR is inconsistent with the 2003 Biotic Assessment as it relates to the discussion of suitable habitat for the steelhead and/or Chinook salmon.

The commenter indicates the 2003 Biotic Assessment concludes that the stream steelhead habitat (presumably for both Ranch Tributary and Americano Creek) are “unsuitable” for steelhead spawning and rearing. This statement is consistent with the Draft EIR description of steelhead habitat, reporting on page IV.D-14 that Americano Creek in the vicinity of the project site does not provide suitable aquatic habitat for steelhead. Further, the special status species table in the Draft EIR (Table D-1 in Appendix D) notes that drainages in or adjacent to the project area do not provide spawning or rearing habitat for steelhead.

The commenter further indicates the 2003 Biotic Assessment anecdotally notes that the steelhead became extinct in the “estero system” and that a critical habitat designation was rescinded for both steelhead and Chinook salmon. This statement is only inconsistent with the Draft EIR in that the Draft EIR presents more current information regarding designation of critical habitat. The National Oceanic and Atmospheric Administration (NOAA), formerly the National Marine Fisheries Service (NMFS), rescinded all critical habitat designations throughout the state for steelhead and Chinook in 2002, but issued new critical habitat designations in 2005. Thus, the statement by Golden Bear Biostudies in 2003 were made in the interim period when no critical habitat was formally designated.

While it is true that the critical habitat designation was rescinded for both steelhead and Chinook salmon (throughout the state) in 2002, that statement should not be interpreted by the commenter to mean that Chinook salmon historically occurred either in the project vicinity or in the Estero de Americano. In fact, the 2003 Biotic Assessment special status species table did not list the Chinook salmon. Further, as the special status species table in the Draft EIR notes, Chinook salmon generally do not occur in coastal drainages south of the Russian River.

In summary, there is no known historical habitat for, or population of, Chinook salmon in the project vicinity or the Estero de Americano.

- J-28 to J-30 The commenter summarizes the Draft EIR’s description of physical characteristics of Roblar and Pepper Road, and classification of these roads under the Sonoma County Bikeways Plan. The commenter also references SMARO mining permit and operations standard 26A-09-010(c)(8) regarding public roads maintenance. For informational purposes, the SMARO section referenced by the commenter is:

“(c) Roads and Traffic. All mining operations shall be conducted in such a manner as to minimize the adverse impacts of aggregate truck traffic on roads, traffic circulation, traffic congestion, and traffic safety. Mining operations shall comply with the following standards:

- (8) All roads to be used for site access should have sufficient width, shoulders, pavement strength, and other features necessary to adequately mitigate the traffic impacts of proposed operations. Public access roads shall meet the design requirements of the general plan and related standards. Traffic levels on public access roads shall not exceed the acceptable levels identified in the general plan.”

The commenter then asserts that SMARO 26A-09-010(c)(8) makes no reference to there needing to be a substantial addition of traffic, nor a link to a determination of impact to bicycle usage. However, while the project would be potentially subject to all applicable requirements of SMARO, the significance criteria developed for the EIR that the commenter takes issue with is used specifically for judging potential project impacts to bicycle/pedestrian safety; other specific criteria are also used in the Draft EIR for judging significance of potential impacts to traffic safety and roadwear. In any case, however, the type and extent of roadway improvements collectively identified in Mitigation Measures E.1 through E.6 in the Draft EIR are consistent with the roadway improvements that would be required by the provisions of SMARO 26A-09-010(c)(8).

- J-31 The commenter asserts that it is unclear as to the determination of significance of Impact E.3 following implementation of Mitigation Measure E.3a. Each mitigation measure in the Draft EIR is followed by a discussion of significance of the impact after mitigation. As discussed in the Draft EIR, 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 applicant would 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 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.

It should be noted that the final determination of feasibility of the mitigation measures would be made by the decisionmakers when findings are prepared. In addition, if the County approves the project despite residual significant adverse impacts that cannot be mitigated to less-than-significant levels, it must prepare a Statement of Overriding Considerations that would be included in the record of project approval.

- J-32 The commenter indicates there is no discussion of the issue of wind in the context of the project site. Please see Response to Comment J-10, above and Master Response AQ-1 in Chapter II in this Response to Comments Document.

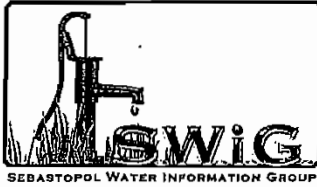
- J-33 The commenter expresses concern that sediment that would be regularly collected from the sediment pond, and hence stockpiled and used for on-going reclamation, may be contaminated and such contaminants would become airborne.

The commenter is referred to Master Response HYD-1 in this Response to Comments Document. As discussed in that response, in the event that VOCs are detected in water of the sediment control basins, the sediment within the respective basin would also be sampled and analyzed for VOCs by a California state certified laboratory prior to the removal. In the event that VOCs are present in the material, it would be managed in accordance with all applicable state and federal regulations related to handling, storage and transport of hazardous materials. Consequently, no potentially contaminated sediment would be stockpiled on-site or used for reclamation under the project.

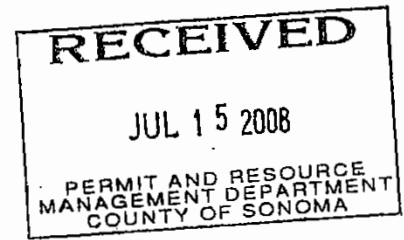
- J-34 The commenter indicates the Hazardous Materials section in the Draft EIR omits listing provisions of County SMARO 26A-11-010(d)(5)(v) [incorrectly cited by the commenter as 26A-11-010(5)(v)] and SMARA 2772(c)(8)(a). For informational purposes, the full excerpts from SMARO and SMARA sections referenced by the commenter are:

- SMARO § 26A-11-010(d): *“Reclamation Plan Standards. Properties used for surface mining operation shall be reclaimed after the operation or an approved phase of the operation has been completed in accordance with the following standards:*
 - 5) *Grading, Backfilling and Cleanup. Reclamation Plan shall make provisions to ensure that the mining is left in final condition after operations are complete, that is:*
 - v) *No toxic substance shall be used as fill material.”*
- SMARA § 2772(c): *“The reclamation plan shall include all of the following information and documents:*
 - 8) *A description of the manner in which reclamation, adequate for the proposed use or potential uses will be accomplished, including both of the following:*
 - a) *A description of the manner in which contaminants will be controlled, and mining waste will be disposed.”*

- J-35 The commenter indicates that the potential for contaminated soil from the sediment basin for site reclamation needs to be addressed. The commenter is referred to response to Comment J-33, above; no potentially contaminated sediment would be stockpiled on-site or used for reclamation under the project.



July 12, 2008



To: Blake Hillegas, PRMD
2550 Ventura Ave.
Santa Rosa, CA 95403

From: Sebastopol Water Information Group by Jane E. Nielson, President

Subject: Comments on the Geology, Soils, and Seismicity Analysis of the Roblar Road Quarry Draft Environmental Impact Report SCH # 2004092099

Dear Mr. Hillegas

Sebastopol Water Information Group is an alliance of west County well owners and Sebastopol residents. SWiG provides Sonoma County citizens with accurate scientific information bearing on water supplies and quality. As a geologist with 25 years experience of teaching and performing geologic investigations for the U.S. Geological Survey, I have found a number of problems with the 2008 Roblar Road Quarry Draft Environmental Impact Report (2008 DEIR) section on Geology, Soils, and Seismicity, as detailed in the following:

K-1

I have to state that I have had more than average difficulty obtaining the technical studies referenced in the 2008 DEIR. For example, when I requested the technical investigations reports of consultant John H. Dailey, dated October, 2002¹; November, 2005²; and March 3, 2006³, and May 14, 2007⁴, and the Norcal Geophysical Consultants report (2002)⁵, I was required to prove that these reports are cited in the DEIR. In addition, two of the reports that I received were incomplete, requiring additional requests. In the second case, I did not even try to make the request for missing parts.

K-2

Since all the reports I requested were listed as references in the DEIR or in the technical reports themselves, I must conclude either that PRMD does not evaluate and insure access to the documents that CEQA requires be available for public review as part of the DEIR before releasing the document, or that the process for preparing the documents for review has somehow broken down in this case.

In addition, a DEIR prepared for the proposed quarry (dated September, 1989)⁶ is cited in the 2008 DEIR's Appendix A (page 1), but the GEOMATRIX (1986) technical report cited in that earlier DEIR (and therefore part of that DEIR) apparently is not available for review. Since some significant conclusions in the 1989 DEIR strongly contrast with those in the 2008 DEIR, these missing technical

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¹ John H. Dailey, Report: Preliminary Geologic Evaluation, Proposed Roblar Road Quarry, 7601 Roblar Road, Sonoma County, California, October 1, 2002

² John H. Dailey, Report: Geotechnical/Geologic Evaluation for EIR, Proposed Roblar Road Quarry, 7601 Roblar Road, AP No. 027-080-008, Sonoma County, California, November 16, 2005.

³ John H. Dailey, Pseudostatic Slope Stability Analyses, Geotechnical/Geologic Evaluation for Roblar Road Quarry EIR, 7175 Roblar Road, Sonoma County, California, March 3, 2006.

⁴ John H. Dailey, Stability Analyses of Quarry Slopes, Proposed Roblar Road Quarry, 7175 Roblar Road, Sonoma County, California, May 14, 2007.

⁵ Norcal Geophysical Consultants, Inc., 2002, Seismic Refraction Survey, Roblar Road Ranch, 7601 Roblar Road, Sonoma County, CA (unpublished consultant's report to C.R. Fedrick, Inc., dated January 28, 2002, 6 p with illustrations.)

⁶ Earth Metrics Incorporated, Draft Environmental Impact Report for the proposed Roblar Road Hard Rock Quarry, Prepared for Sonoma County, September, 1989.

reports may be of great importance for evaluating the competency of the 2008 DEIR's technical information.

↑ K-2
| cont.

Introduction

Although the geologic background information in the 2008 DEIR is generally correct and based on applicable references, it is far from complete. In particular, the data, discussions, and conclusions about slope stabilities differ considerably between the 2008 and earlier 1989 DEIRs. Thus, a reviewer cannot determine whether the theoretical slope-stability models are correctly applied to this project site.

| K-3

The analyses of slope instabilities in the 2008 DEIR are deficient because the authors have presented and discussed each category of geologic information separately — as though earthquakes and ground water are distinct issues that do not influence the generation of landslides on unstable slopes. For example, the 2008 DEIR does not consider the current landsliding potential of areas adjacent to the proposed quarry site as germane to the stability of the quarry's planned cuts. In fact, the abundant evidence for instabilities in those areas seems to be purposely downplayed.

The 2008 DEIR authors also do not consider the water-collecting character of the closed landfill adjacent to the proposed quarry site, or the report of higher water production from a well drilled into or adjacent to the Dunham Fault (Dunham Fault and Relationship to Groundwater section, page IV.C-14), which indicate higher than-ambient water pressures in the fault, as factors to be added to assessing future slope instabilities. In addition, the potential for earthquake and landslide instabilities to combine, causing slope failures from seismic shaking — including catastrophic slope failures of quarry walls after removal of the mass of aggregate-quality basalt — are ignored.

| K-4

In contrast, the 1989 DEIR expressed concerns about the steepness of the proposed quarry cut in "an area identified ... as having high to moderate landslide potential (p. 3.1-5). Although the 2008 DEIRs asserts that the planned quarry design will remain stable for all the foreseeable future, as it must for the protection of species downstream from the site, in Americano Creek and the Esteros, the available technical reports are deficient for evaluating the slope instabilities at the site, and contradict both the evidence in air photos of instabilities near the site (see below), and the earlier DEIR's conclusions, without explanation.

| K-5

I therefore believe that additional studies must be undertaken to more fully explore the questionable slope stabilities of this quarry design. The deficient analyses require substantial revision of the DEIR before it can be accepted by County agencies.

Deficiencies

The following observations should be acknowledged and thoroughly investigated and before revision of the 2008 DEIR is attempted:

1) The 2008 DEIR's failure to consider potential onsite fault movements due to seismic shaking from earthquakes on nearby active faults, and other missing analyses explained in the following, indicate that the future stability of the site has not been investigated thoroughly enough.

| K-6

If the quarry walls are not as stable as asserted, and if the steep and tall cut quarry slopes were to undergo catastrophic failure, the resulting avalanche of material into the quarry void could include contaminated materials from the old landfill. A large collapse mass could overwhelm the small design sediment basins, releasing floods of polluting sediment into Americano Creek, jeopardizing endangered and threatened fish species living downstream.

We have to be very aware that the quarry cutslopes must remain stable forever. For this reason this quarry plan and the 2008 DEIR must not be approved until the public can see better studies for evaluating claims that the excavation will remain stable.

2) The presence of many landslide scars on the hills underlain by Wilson Grove Formation indicates a high degree of instability. Clay layers within the Wilson Grove, due to alteration of interbedded ashfall tuff layers, can retard groundwater flow and produce local artesian conditions. The 2008 DEIR refers only to the lowermost Roblar Tuff in this regard. Tuff layers also may be interbedded with the buried basalt lava flows, to be quarried.

North of the proposed quarry footprint, the contact between Wilson Grove Formation and underlying volcanic rock impedes water from percolating into the ground more than 180 feet (Groundwater Wells and Groundwater Occurrence sections, page IV.C-13). As the 2008 DEIR states, the reduced percolation forces groundwater toward discharge points at springs and seeps, but the potential for a buildup of artesian pressures during intense winter storms also needs to be evaluated. Debris flow and landslide activity can occur under these conditions, with or without earthquake shaking. Unstable hill slopes can slip along the steepest adjacent slope or toward zones of geologic weakness. These possibilities are not evaluated by the DEIR.

K-7

True-scale cross sections of the quarry site as it is today (Fig. 1, attached) show that the old landfill imposed a series of relatively flat benches separated by relatively steep slopes onto the original topography (see Figure 3, attached, for cross-section locations). The benches tend to pond rainwater, and capping soils -- apparently derived from permeable Steinbeck loam series, which occur on many surrounding undisturbed slopes (page IV.C-6) -- allow the collected water to permeate the landfill cells. The highest cell is underlain by less permeable rock, so that water cannot percolate lower and can buildup pressures that add to the potential for hillslope instabilities.

Why does the 2008 DEIR lack an analysis of groundwater behaviors related to hillslope instabilities? In the absence of such routine analysis, why should this reviewer not conclude that very little detailed geologic analysis has been performed with the available and publicly unavailable data sets collected for this report?

3) The 2008 DEIR does not report the overall slope stability rating of C⁷ for the general area that includes the proposed quarry site, indicating "Areas of relatively unstable rock and soil units, on slopes greater than 15%, containing abundant landslides." The 2008 DEIR (IV.B-12) mentions four very small landslides on the proposed quarry site (where springs occur at the contact between Franciscan and Wilson Grove Formations), but ignores landslides in the adjacent areas to the north and east, where evidence of many more slides can be seen on the slopes. Airphoto mapping by Registered Engineering Geologist, Ray Waldbaum (Figure 1, attached), shows evidence of larger landslide-prone areas southwest of the landfill and within the quarry footprint, for example. The landslides may be due to slip at both the Wilson Grove-Franciscan Formation contact and also along clay (altered tuff) layers within the Wilson Grove (and potentially within basalt units).

K-8

4) True-scale cross sections of the quarry site both before (Fig. 2, attached) and after excavation (Fig. 3, attached) show that the northern quarry wall will intersect part of the Dunham Fault, substantially altering several slope stability factors (see Figure 4, attached, for cross-section locations). The 2008 DEIR's paucity of information on the hydraulic character of the Dunham Fault (Dunham Fault and Relationship to Groundwater section, page IV.C-14) suggests that little or nothing is known. But the Onsite Inactive Fault section (page IV.B-11) states "Hydrologic and groundwater analysis (unspecified) completed for this EIR suggest that the Dunham Fault represents a barrier to groundwater flow." This statement refers to Chapter IV.C, Hydrology, Geology and Water Quality, where an observation of increased water production in the borehole of a monitoring well located on or close to the fault is reported in the Dunham Fault and Relationship to Groundwater section (page IV.C-14).

K-9

⁷ Charles F. Armstrong, Map of Landslides and Slope Stability - Southern Sonoma County [in Geology for Planning in Sonoma County, California Department of Mines and Geology (now CA Geological Survey) Special Report 120 1980]

Comparison of the Dunham Fault location (Figure IV.B-1), with estimated groundwater flow directions in Figure IV.C-5 test the 2008 DEIR's speculation the Dunham Fault acts as a barrier to groundwater flow. If the flow directions are correct, the fault cannot be a barrier to groundwater flow in the vicinity of groundwater monitoring well MW-1, since the plotted contours show no deflection along the fault's trajectory. In contrast, comparison of the figures indicate that flow in the center stretch of "Ranch Tributary" may be restricted to the fault zone.

K-9
cont.

Why does the 2008 DEIR lack a comparison of geologic with groundwater data? Why should this reviewer not conclude that very little detailed geologic analysis has been performed with the data sets collected for it (both those I have seen and those that appear to be publicly unavailable)?

5) The 2008 DEIR (p. IV.B-11) states that "The closest faults to the project site are the Rodgers Creek and the San Andreas Faults," noting also that the northern segment of these faults, plus the Hayward Fault "are considered to be the most likely source of potentially damaging ground shaking at the project site." It does not elaborate as to how the ground shaking might be produced, nor does it show how close the site is to these major active faults, as well as to the undoubtedly active San Andreas Fault Zone (Figure 3.1-2, p. 3.1-3). In contrast, the 1989 DEIR does include a map showing the closeness of California's greatest earthquake-generating fault, active for at least 11 million years in northern California⁸, to the site. 1989 None of the technical reports referenced in the 2008 DEIR contain such an overview map.

K-10

With some exceptions, the amount of shaking at a site is generally expected to be greater the closer it is to the epicenter of an earthquake, and therefore to the fault which has the capacity to generate an earthquake. Why does the 2008 DEIR not state that the San Andreas Fault is only 11 miles from the proposed quarry site or that the Rodgers Creek Fault also is less than 20 miles from the site?

6) The 2008 DEIR includes only one mention of the presence of the potentially active and laterally extensive Bloomfield Fault within 1/2 mile of the proposed quarry site (page IV.B-11). In contrast, the 1989 DEIR contained an overview map showing the location of the proposed quarry relative to the Bloomfield Fault. The Bloomfield Fault (actually a zone of generally parallel fault ruptures) is not depicted on any map figure in the 2008 DEIR.

Why does the 2008 DEIR not explain that the Dunham Fault is part of the potentially active Bloomfield Fault Zone, and possibly linked to it?

K-11

The closeness of the major active faults creates a strong potential for heavy shaking at the proposed quarry site due to secondary movement on either the Bloomfield or the Dunham Fault (or both) caused by either a San Andreas or a Rodgers Creek earthquake.⁹ In addition, the Bloomfield Fault Zone extends from the Rodgers Creek Fault to the San Andreas Fault Zone, suggesting close relationships among the three. Neither the 1989 or 2008 DEIRs, nor any of the 2002 to 2006 technical reports examine the possible tectonic connections between the Rodgers Creek Fault, Bloomfield Fault Zone, and the San Andreas Fault.

Why does the DEIR not discuss how the transmission of energies from major earthquake on either of the clearly active faults could cause substantial shaking on active and inactive ruptures along the Bloomfield Fault Zone, including the Dunham fault?

⁸ The San Andreas Fault Zone (SAFZ) actually forms the tectonic margin of the North American continent. Its reliably active status results from sea floor spreading in the mid-Atlantic, and subduction of sea floor under the Cascades and Aleutian islands.

⁹ There is a much lower potential for activity on the Hayward Fault (the South Bay Rodgers Creek equivalent, which has not generated earthquakes for 140 years, and seems due for a major temblor) to cause slippage on the Bloomfield or Dunham Faults.

7) Technical reports by John H. Dailey (2005) and Miller Pacific Engineering Group (MPEG, 2004)¹⁰ reveal the presence of natural fracture zones in the quarry material. The MPEG borehole samples came from sufficient depths for assessing the potential stability of the quarry walls, but were not sited close to the excavation boundaries (MPEG Figure 2). MPEG also failed to measure the degree or direction of tilt of the fractures and fracture zones that they noted in their samples. The 2005 Dailey report contains logs of shallow backhoe pits (no more than 55 feet deep) for assessing the stability of the quarry cutslopes. These data are not sufficient for determining the stability of rocks at 200 and 300 feet below the surface, which will be exposed at the completion of phase 3.

K-12

In the absence of studies indicating more detailed studies on fracture zones in the materials to be quarried I am forced to conclude that none exist. Why were detailed studies to define the stability of materials in the quarry walls not performed?

Discussion and Conclusions

I consider it highly significant that the 1989 DEIR expressed concerns about the steepness of the proposed quarry cut, stating (p. 3.1-5) "... the proposed quarry is located in an area identified ... as having high to moderate landslide potential. If oversteepening in the Wilson Grove Formation were to occur, it could potentially result in increased landsliding. The overall slope of 2:1 with slopes between the benches being 1.5:1 may exceed conditions conducive to reclamation."

K-13

This statement expresses the concern about replacing the present geological buttress to a clearly unstable topography with a oversteepened slopes adjacent to a void (Figure 3). This situation probably equates to a higher potential for catastrophic failure than the 2008 DEIR discloses. A number of possible destabilizing features are left unmentioned and probably unexamined -- including post-quarrying groundwater interactions with geologic units and landfill cells, the location and impact of fracture zones within the basalts, especially quarry cutslope fracture zones, the interaction of the local active and potentially active faults, and the potential for earthquakes to generate landslides, whether or not onsite faults experience secondary slip.

Taking the reported data at face value, and disregarding the report's conclusions, we can foresee how removal of the higher hill south of the landfill area will affect the stability of the remaining topography, when a relatively steep cut slope at least 100 feet tall and open void will begin 200 feet south of the landfill boundary.

After the quarry excavation has breached the Dunham Fault (phases 2 and 3), either:

- a) groundwater flow directions could reverse to flow south from the landfill toward the quarry, carrying the large variety of chemicals and metabolites currently detected in monitoring well samples that contain landfill leachates.
- b) the Dunham fault could no longer block groundwater flow, so that the quarry could promote de-watering of the landfill area, potentially stabilizing it, or
- c) groundwater flow directions may not change, in which case the quarry void could destabilize the already unstable geology under the landfill, especially during sever winter storms when ponded rainfall can build up pressure in the landfill cells. The missing buttress could promote collapse of the steep northern quarry wall into the void.

K-14

The DEIR must be revised to consider these possibilities and discover which is most likely for a worst-case scenario. As a result, the 2008 DEIR will require the addition of two significant environmental impacts, plus mitigations for them:

¹⁰ Miller Pacific Engineering Group, Exploration Program, Roblar Road Quarry, 7601 Roblar Road, Sonoma County, California, September 24, 2004.

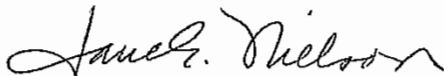
Impact U-1. Major or minor earthquake on the San Andreas fault could cause secondary movements on the inactive Bloomfield and (or) Dunham faults, destabilizing quarry walls, especially after completion of phases 2 and 3. The cut quarry wall, proposed to start 200 feet from the former County landfill, and adjacent slopes containing many older landslides, are particularly at risk for destabilization.

K-15

Impact U-2. High (maximum 340 ft tall) an oversteep quarry cuts will remove the mass of Miocene basalt deposits that now form a buttress against southward landsliding from the water-absorbing landfill benches and naturally unstable adjacent hillslopes formed on Wilson Grove Formation rocks. During or following severe winter storms, the pressure of those unstable slopes against exposed fracture zones in the basalt (or weak zones of the exposed Dunham Fault, or both) could cause catastrophic failure, and release landfill contents, along with mixed country rocks (including serpentinites associated with Franciscan Formation) into the quarry pit.

K-16

Sincerely yours,



Jane E. Nielson, Ph.D., Geologist
President, Sebastopol Water Information Group
3727 Burnside Road, Sebastopol, CA 95472

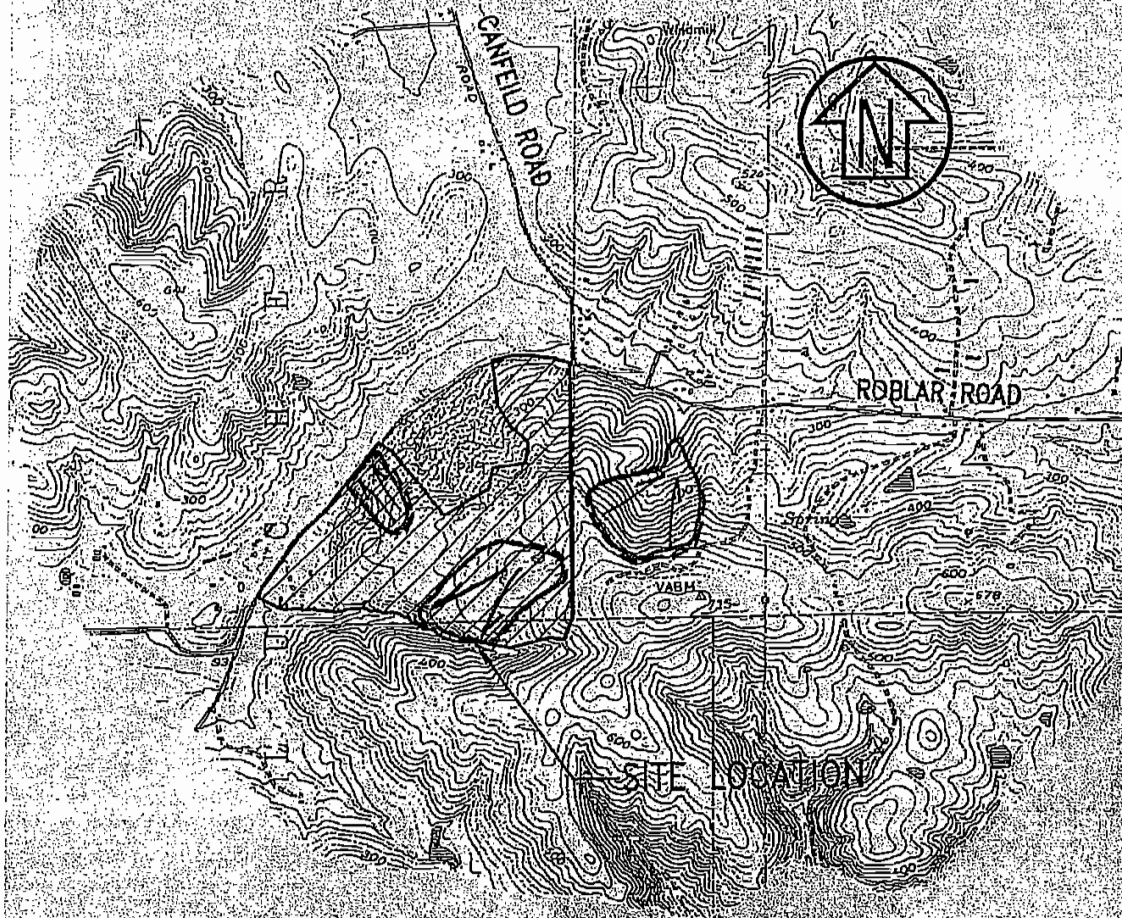
Attachments:

Comments Figure 1. Landslides inferred from aerial photographs by Ray Waldbaum, RPEG

Comments Figure 2. Cross sections showing current topography of proposed Roblar Road quarry and old landfill sites, by Jane E. Nielson, Ph.D.

Comments Figure 3. Cross sections B-B' and C-C' as projected in the 2008 DEIR at completion of phase 3 excavation, by Jane E. Nielson, Ph.D.

Comments Figure 4. Locations of cross sections A-A', B-B', and C-C', in comments Figures 1 and 2.



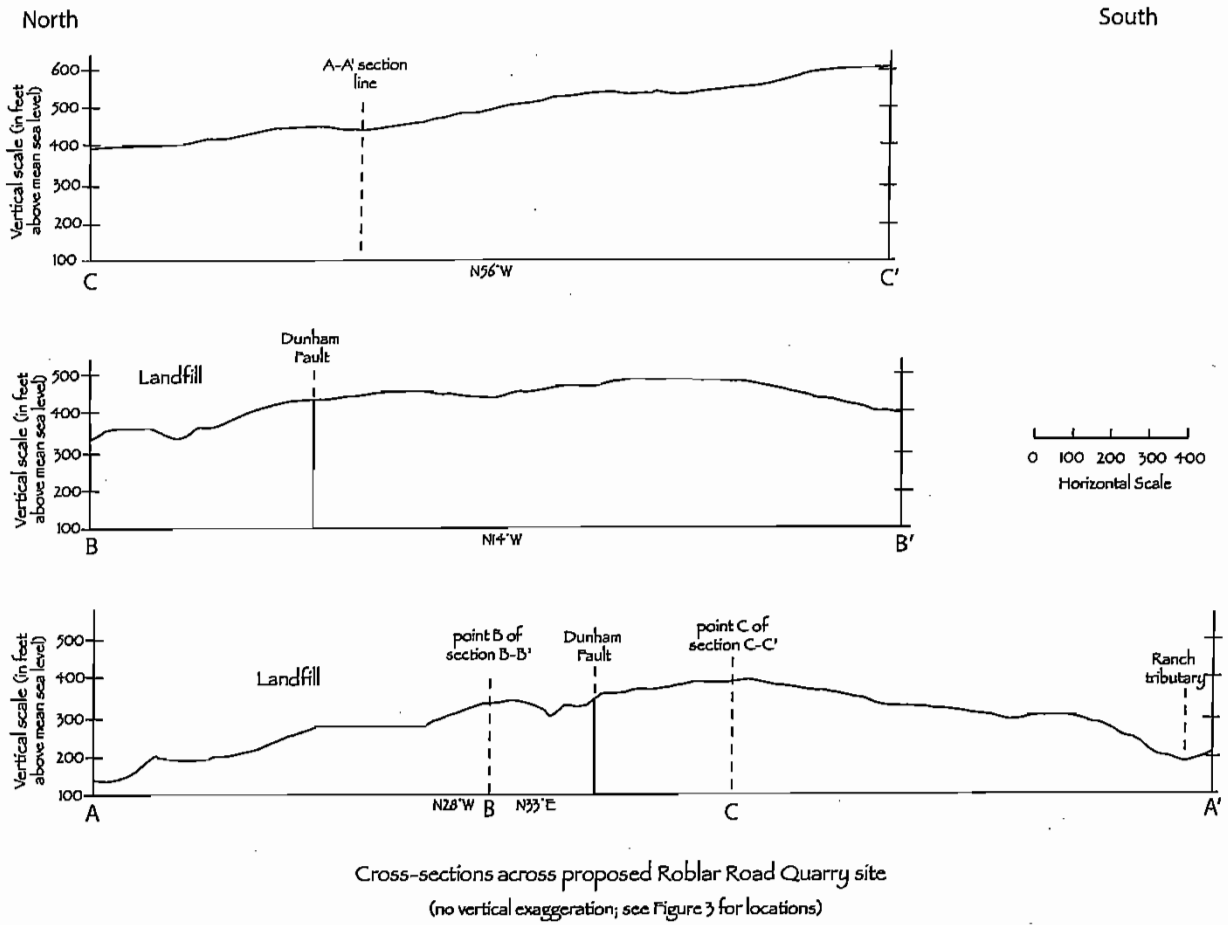
Landslides inferred from aerial photographs (Reference 2), arrows indicate direction of movement.

Site location per Exhibit 1A, CSW/Stuber - Stroeh Engineering, June 2003

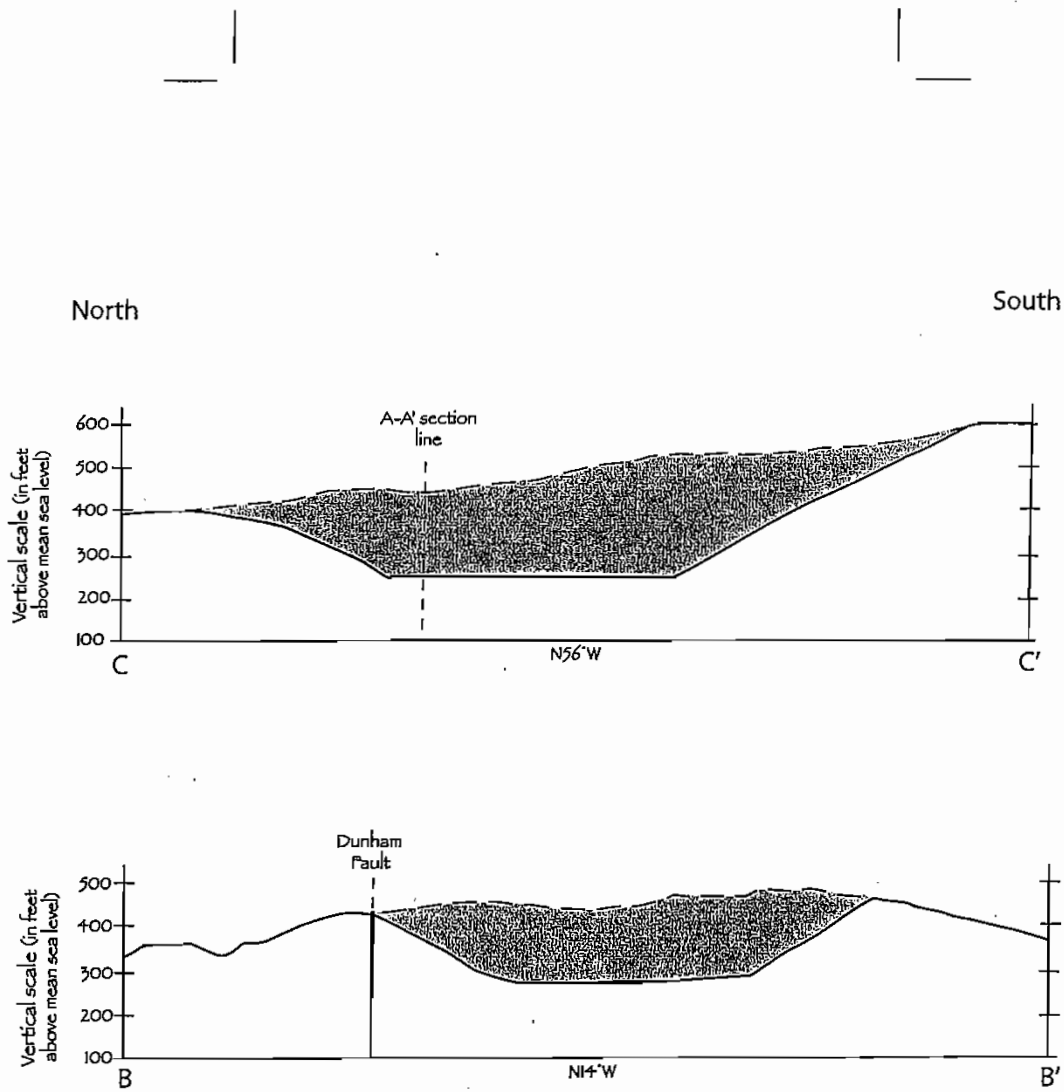
Scale: 1" = 2000'

Figure 1. SITE VICINITY LANDSLIDE MAP

Comments Figure 1. Landslides inferred from aerial photographs by Ray Waldbaum, RPEG



Comments Figure 2. Cross sections showing current topography of proposed Roblar Road quarry and old landfill sites, by Jane E. Nielson, Ph.D.



Cross-sections showing proposed Roblar Road Quarry, at completion of phase 3
(shaded area shows material to be removed)

(no vertical exaggeration; scales same as Figure 1)

Comments Figure 3. Cross sections B-B' and C-C' as projected in the 2008 DEIR at completion of phase 3 excavation, by Jane E. Nielson, Ph.D.



Comments Figure 4. Locations of cross sections A-A', B-B', and C-C', in comments Figures 1 and 2, by Jane E. Nielson, Ph.D.

Letter K. Sebastopol Water Information Group (SWIG) (Jane E. Nielson, Ph.D., Geologist, President)

- K-1 The Sebastopol Water Information Group (SWIG) indicates it identified a number of problems with the Geology, Soils and Seismicity section of the Draft EIR. The commenter's comments, and the responses to specific comments, follow.
- K-2 The commenter indicates she had difficulty obtaining technical studies from the County that are referenced in the Draft EIR. However, all technical studies directly referenced in the Draft EIR, including the Dailey and Norcal reports, have been made available to the public.

The commenter also indicates that a technical report (by GEOMATRIX) that was cited in another EIR for a prior quarry proposal was not available for review. As discussed in the Draft EIR, there have been two previous quarry proposals on the project site which have been the subject of previous EIRs, although those proposals were associated with different applicants, and are not associated with the current quarry proposal. Furthermore, the source GEOMATRIX report was not included in the previous EIRs and could not be reviewed. Accordingly, the Draft EIR for the current project makes no reference to the GEOMATRIX report in question.

- K-3 The commenter indicates the geologic background information presented in the Draft EIR are generally correct. However, the commenter expresses concern that the evaluation of slope stability presented in a 1989 EIR conducted for a prior quarry proposal at the project site (Earth Metrics Incorporated) and the Draft EIR conducted for the proposed project are inconsistent, and raises doubt about the validity of slope stability models applied to the project site. In particular, the commenter believes that conclusions about slope stabilities in the Draft EIR for the proposed project are suspect, since the 1989 EIR describes several possible landslides adjacent to the project site and indicates that Sonoma County has rated the area as having a moderate to high landslide potential.

As stated in response to Comment K-2, above, the 1989 Draft EIR the commenter refers to was for a previous quarry proposal associated a different applicant, and is not associated with the current quarry proposal. Furthermore, it is important to note that the 1989 EIR the commenter refers to was never certified by the Sonoma County Board of Supervisors as adequate and complete.

It is important to note that published information on local landslide susceptibility in Sonoma County is sufficient only in describing the general risk or probability of slope failures at the project site. Because of the apparent risk of slope instability, the applicant for the proposed project completed site-specific geotechnical studies aimed specifically at assessing slope stability at the quarry site, including subsurface materials testing under both static and pseudo-static (seismic) conditions. The Draft EIR does not disregard or contradict the slope stability hazard or information available in the 1989 EIR; rather, it

presents additional and site-specific data that permit specific conclusions about slope stability.

The commenter also believes that seismic and groundwater conditions are not adequately considered in the evaluation of slope stability. While the issues of seismicity and groundwater are presented in the Geology, Soils and Seismicity; and Hydrology and Water Quality sections, respectively, in the Draft EIR, the relevant connections between these issues are not ignored. The Draft EIR explains the factors that influence the propensity of a slope to fail, including from groundwater and faults (structure). Impact B.1 in the Draft EIR discusses the possibility of slope failure during an earthquake, and Impact B-2 discusses the factor of safety analysis conducted by John H. Dailey (2005, 2006, 2007), which includes reasonable assumptions on groundwater, soil moisture conditions, and geologic structures. These assumptions were based on a combination of site-specific geotechnical data and previously published data on the bedrock underlying the site.

- K-4 The commenter states that the Draft EIR does not consider the “water-collecting” character of the closed landfill and “higher than ambient water pressures” in the Dunham fault and that these factors could be additional destabilizing influences to planned quarry slopes. The commenter postulates that these factors, along with seismic ground shaking, could cause a catastrophic failure of quarry walls.

Contrary to the commenter’s claim, the closed Roblar landfill cannot be accurately characterized as “water-collecting.” In fact, the landfill property contains both surface and subsurface drainage facilities to drain water from the landfill property. As discussed on pages IV.C-9 through IV.C-11 in the Draft EIR, surface water on the landfill property is collected in a swale at the base of the landfill and then conveyed during storm events to Americano Creek through a culvert under Roblar Road. In addition, leachate is routinely removed from the landfill cells via an onsite leachate collection system. The diversion of surface flows and the removal of subsurface leachate are designed to prevent surface water and shallow groundwater from remaining on the landfill property and over-saturating the landfill cells.

Furthermore, as discussed in the Draft EIR, shallow groundwater flow within the Wilson Grove Formation on the quarry and landfill properties mimics the topographic gradient of the landscape. As shown in Figure IV.C-5 in the Draft EIR, based on water level measurements, the predominant direction of shallow groundwater flow on the landfill property is towards Roblar Road and away from the quarry site. Based on these factors, there is no evidence that the landfill currently influences the groundwater, or would influence the pressure exerted by the groundwater on the walls of the proposed quarry.

The Dunham Fault and the potential that it may influence groundwater flow (see Draft EIR, pages IV.C-14 and IV.B-11) is not considered germane to the discussion of slope stability because once the quarry is excavated, the fault would be exposed and any water held by or conveyed through the fault would be drained. While Phases 2 and 3 of the

planned quarry excavations would breach the Dunham Fault, the fault feature cannot be expected to cause instability beyond local sloughing or raveling of rock material. Page IV.C-14 of the Draft EIR provides evidence that the fault results in a zone of sheared rock and a localized increase in groundwater production. However, these potentially destabilizing effects would be confined to the rock material within the fault, which is presumably vertically or steeply oriented (based on the inferred trace of the fault, which cuts straight through topography). With this orientation, the fault could not behave as a sliding surface of this type that would be needed for a large catastrophic slope failure. Instead it is more likely to result in local topples raveling, or potentially wedge failures.

The proposed “1.5:1 (H:V) quarry cut-slope with 10-foot wide benches spaced every 30 feet (Draft EIR, page IV.B-23) would be sufficient to reduce potential slope failures in the quarry. As stated in the Draft EIR (page IV.B-23), “[t]hese slope configurations would be in compliance with the SMARO regulations intended to address post-excavation slope stability (Section 26A-09-010(m), 26A-11-010 (2), 26A-09-040 (c), and 26A-11-040).

Contrary to the comment, seismic shaking, landslide instabilities, and catastrophic slope failures are not ignored by the Draft EIR. Slope instability impacts are evaluated in the Draft EIR in Impact B.2 (page IV.B-23). Geotechnical evaluation has determined that the quarry slopes, as proposed, are adequate to preclude large scale failures, pursuant to SMARO. In addition, as stated in the Draft EIR, Page IV.B-23,

“[t]he applicant’s geotechnical evaluation recognizes that, based on the known characteristics of the volcanic resource rock, the quarry slopes could experience localized slope failures due to discontinuities within the rock mass. The actual behavior of the rock slope under mining conditions cannot be determined until the rock face is exposed and mining is underway. Localized slope failures are inherent in active hard rock quarrying and are typically addressed during mining operations through implementation of an on-going monitoring and maintenance program. The large movements associated with instability and failure of rock slopes are nearly always preceded by smaller ones that can be detected by sensitive instruments. Therefore, movement monitoring gives the most useful measurement of potential impending instability, and is the most commonly employed type of monitoring.”

Earthquake ground shaking and the potential for it to trigger landslides is considered in the seismicity discussion in the Draft EIR (Pages IV.B-13 to -14) and in Impact B.1, (Draft EIR, page IV.B-21). Calculated factors of safety for stockpile slopes indicate that the slopes would remain stable under static and dynamic (earthquake) conditions. As stated above, failures in bedrock quarry slopes would be monitored to assess impending instability, as required by Mitigation Measure B.2d.

- K-5 The commenter expresses concern regarding the adequacy of technical reports, which conclude that planned quarry slopes are adequate and reasonably safe, citing evidence of recent failures in the general area. The commenter states that the available reports are

deficient for evaluating slope instability and contradict evidence in previous air photography and the 1989 Draft EIR. As stated above, the 1989 Draft EIR was prepared for a previous quarry proposal associated a different applicant, and is not associated with the current quarry proposal; further that EIR was never certified by the Sonoma County Board of Supervisors as adequate and complete. Refer to response to Comment K-3, above.

Current aerial photography and landslide mapping of the proposed quarry and surrounding area identify slope instabilities and failures in the Wilson Grove formation, not the underlying bedrock of the Tolay Volcanics. As stated in the Draft EIR (page IV.B-2), the Wilson Grove formation is a sedimentary unit containing fine-grained marine sandstone, conglomerate, limestone concretions and tuff. The Wilson Grove formation, which was deposited on top of the volcanic rocks, is considered to be “overburden,” and therefore would be stripped off to gain access to the resource rock. The Tolay Volcanics consist of dense bedrock. Aerial photography and landslide mapping do not show failures of the Tolay Volcanics and therefore, there is no evidence in the aerial photography or landslide mapping indicating that the bedrock quarry slopes would be unstable.

The 1989 Draft EIR the commenter refers to incorrectly postulated that the bedrock quarry slopes would be unstable based on the previously mapped landslides in the Wilson Grove formation. The proposed project would remove the Wilson Grove formation and place it in engineered stockpiles prior to excavating the resource materials, thereby eliminating the potential landslide hazard. Dailey (2005) concludes that the proposed slope of 1.5:1, with 10-foot benches every 30 feet in elevation, would reduce substantial slope failures while localized, minor failures such as topples, sloughing, or raveling would likely occur. Localized failures such as these are inherent to mining operations and can be identified, monitored, and mitigated as standard quarry operations. That is why operating quarries develop monitoring programs to evaluate working and reclamation slopes for potential failures and correct the unstable conditions before failure occurs, as required in the Draft EIR in Mitigation Measures B.2a through B.2d.

In conclusion, the Draft EIR for the proposed project is not deficient with regards to its analysis of slope stability. While the 1989 Draft EIR that was completed for a prior and separate quarry proposal relied on available geologic maps and regionally-based landslide mapping, the Draft EIR for the proposed project relied on site-specific geologic mapping and subsurface exploration data and information to determine that the potential for slope instability could be mitigated to less than significant, given the configuration of the stockpiled slopes and the inherent stability of the Tolay Volcanic rock. Therefore, additional study prior to mining operations is not necessary.

- K-6 The commenter expresses concern that sympathetic slip on the Dunham Fault could cause catastrophic failure of the quarry walls. Although the potential for sympathetic slip to occur on a small, potentially inactive fault feature, such as the Dunham fault, cannot be discounted, the potential for damage from sympathetic movement would be minor, if not

negligible. The length and age of a fault or shear zone is related to the amount of slip, if it were to occur. Because the Dunham fault is an ancient feature and relatively short in length, if measureable slip were to occur on the Dunham Fault during a sufficiently large earthquake on a larger nearby active fault (e.g., San Andreas, Rodgers Creek), any surface expression of the displacement would be extremely small, if observable. Damage to structures or equipment from slight surface displacements would be minor if they occurred at all. Furthermore, any adverse site effects, such as localized damage caused by the minor surface rupture resulting from sympathetic slip, would be overshadowed by the damage caused by seismic ground shaking (see pages IV.B-21 and IV.B-22 in the Draft EIR). As discussed in the Draft EIR, a pseudostatic slope stability analysis was performed on stockpiles of the Wilson Grove Formation which demonstrated that proposed slopes on the Wilson Grove Formation would remain stable (Daily, 2005). In addition, catastrophic failure of the underlying Tolay Volcanics cannot be reasonably expected to occur because geotechnical boring logs show the source rock is generally competent and massive in nature. As acknowledged in Impact B.2 in the Draft EIR, the moderately fractured nature of the basalt rock makes wedge failures or small topples possible, but these modes of failure would not have effects beyond the quarry itself.

K-7 The commenter expresses concern that the arrangement of geologic units and the proximity of the closed landfill to the proposed quarry site could result in groundwater conditions that would exert destabilizing “artesian” pressures on quarry walls. The comment that “clay layers within the Wilson Grove can retard groundwater flow and produce local artesian conditions” may be the case in other areas underlain by the Wilson Grove formation but does not apply to conditions at the proposed quarry site.

Contrary to the observation by the commenter, there is limited evidence of a “high degree of instability” on the portion of the project site underlain by the Wilson Grove formation. No active landslides, slumps, or flows were observed during the various field visits. Evidence in drill cores and well logs do not indicate a continuous subsurface layer of “altered ashfall Tuff layers” that would be capable of retarding groundwater flow leading to artesian conditions. Furthermore, there is evidence of several seeps and springs, which indicate that shallow groundwater is flowing out of the Wilson Grove at the surface under gravity rather than becoming confined. As discussed in the Draft EIR (page IV.C-6) the flow from the seeps and springs fluctuate with seasonal rainfall. There is no evidence that shallow groundwater is impeded and “building up” artesian pressures and there was no observed slope failures proximate to the seeps and springs. Lastly, artesian conditions would require a persistent impermeable rock unit that would lead to a laterally extensive confined groundwater aquifer (Daily, 2005). Such an impermeable unit capable of confining groundwater does not exist at the quarry project site. Moreover, the position of the quarry near the top of a hill restricts the height of the hydraulic head of groundwater. This condition limits the amount of pressure available should stratigraphic or structural conditions locally confine groundwater.

The claim by the commenter that artesian pressures in the Wilson Grove would develop by altered tuff layers is not only unsubstantiated but it becomes a moot point because the

quarry operations would remove the Wilson Grove formation material as overburden and place it in engineered stockpiles. While zones of weakness within the site stratigraphy due to groundwater conditions might trigger a slope failure, this does not change the significance determination of Impact B.2, which acknowledges bedrock slope failure as a potentially significant impact and identifies appropriate mitigation measures. Please refer to response to Comment K-4 for a response to the portion of this comment that refers to the “water-collecting” ability of the landfill and the “buildup of pressures that add to the potential for slope instabilities.”

It should be noted that the analysis of slope stability and groundwater for this Draft EIR was performed by standard and accepted investigative methods typical for an analysis under CEQA. This analysis relied on available data and information generated from various sources including field reconnaissance, review of site-specific exploratory and well logs, review of geotechnical analyses, and review of regional geologic conditions. As required by CEQA, the information gathered was used to develop a reasonable assessment of the effects the proposed project would have on the existing environment. CEQA does not require an exhaustive analysis when the results of such an analysis do not enhance the understanding of the impact or change the level of significance. The Draft EIR provides an adequate description of the existing groundwater and slope conditions, provides information necessary to assess the potential impact, provides a relevant analysis to demonstrate whether or not project implementation would result in a significant impact related to slope instability, and identifies appropriate mitigation measures to reduce significant impacts to less than significant.

- K-8 The comment states that the Draft EIR does not report that the proposed project site lies within an area, as determined by a 1980 landslide study, that contains “areas of unstable rocks and soil units on slopes greater than 15%, containing abundant landslides.” The comment continues by stating that the Draft EIR ignores areas to the north and east where landslides can be seen on the slopes. The commenter also presents a topographic map containing hand-drawn symbols to represent landslide features. These features were presumably transcribed onto the topographic map and are apparently based on observations from an aerial photograph. The map, developed by Mr. Ray Waldbaum, is presented by the commenter as further evidence of the instability of the project area.

The Draft EIR acknowledges that the project areas may be susceptible to slope failure, identifies onsite landslides (see Draft EIR, page IV.B-12 and Impact B-2 on page IV.B-23), and discusses the potential for the site to be subjected to further failures due to project implementation. As noted in the Draft EIR, this analysis is based on actual field reconnaissance of the quarry site rather than aerial photographic interpretations and topographic mapping alone. For the purposes of this EIR, acknowledgement of the presence of onsite landslides and analysis of the effects of the quarry operations on working and reclamation slopes is adequate to analyze the slope stability issues. Offsite landslides would not impact the project and the project would not exacerbate existing offsite slope failures. Although mention of the existing offsite landslide features in the Wilson Grove formation would provide additional information, it is not germane to the analysis because,

on the project site, the Wilson Grove materials would be removed and placed in engineered stockpiles thereby eliminating the risk of onsite slope failure in the Wilson Grove unit. The commenter claims that “the landslides may be due to slip at both the Wilson Grove-Franciscan Formation contact and along clay (altered tuff layers) within the Wilson Grove (and potentially within the basalt units)” is unsubstantiated and not based on actual field reconnaissance data. The Wilson Grove-Franciscan Formation contact is mapped at the extreme west side of the project site (see Draft EIR Figure IV.B-2), along Roblar Road, where the landslides discussed in the Draft EIR were identified (see Impact B.1 and B.2).

Aerial photographic interpretation of landslide features is somewhat subjective and is only a first step in assessing the presence and activity of landslide features. Aerial photographic interpretation must be followed by actual site reconnaissance and ground-truthing to reach the level of certainty required for planning and development. Extensive site reconnaissance, including subsurface exploration and geotechnical evaluation, was conducted for preparation of this Draft EIR, as described on pages IV.B-2 – 4. It appears from his letter commenting on the proposed project that Mr. Waldbaum did not follow up his review of the aerial photograph with a site reconnaissance (see Comment Letter M). Based on review of Mr. Waldbaum’s landslide interpretation map and the observations made on recent aerial photographs of the site, there is insufficient evidence to support the commenter’s claim that there are “larger landslide-prone areas southwest of the landfill and within the quarry footprint.” Again, it is irrelevant to the analysis of environmental impacts whether or not there is evidence of landslide features in the Wilson Grove unit at the project site because the project would remove the Wilson Grove material and place it in engineered stockpiles for later use. Slope stability analysis determined that the stockpiles would remain stable under static and dynamic loads (see Draft EIR Impact B.1 and B.2).

- K-9 The commenter states that there is a lack of data regarding the hydraulic character of the Dunham Fault and its potential effect on slope stability, and disagrees with the Draft EIR’s postulation that the Dunham fault could be a barrier to groundwater flow.

The Draft EIR uses information that is available on the Dunham fault and other similar fault features in the Bay Area, to develop a reasonable explanation of its potential effect on the geology and groundwater conditions under existing conditions and proposed project conditions. Information includes observations of groundwater behavior in boreholes close to the fault. The geology section of the Draft EIR (page IV.B-11) discusses the Dunham fault in regards to the seismic setting and mentions that the feature could be “a barrier to groundwater *or in some way influences groundwater flow.*” The hydrology section (page IV.C-14) discusses the fault as a feature that could affect hydrogeology and postulates that it may be a shear zone exhibiting a higher permeability (hydraulic conductivity) than the surrounding rock. As required under CEQA, the Draft EIR acknowledges the presence of the Dunham Fault as an existing feature present across the site. The Draft EIR then appropriately factors it into the impact analysis of slope stability and analysis of groundwater seepage in the Wilson Grove formation and the Tolay Volcanics. The Dunham Fault and/or local groundwater behavior cannot be ruled

out as potentially destabilizing factors, and hence, Impact B-2 acknowledges bedrock slope failure as a potentially significant impact. Mitigation Measure B.2a through B.2d in this EIR would reduce the potential that offsite damage could occur to a less than significant level. In addition, the application of modern engineering design and standard construction and maintenance, including SMARO-required measures greatly reduces the potential for slope failures.

The commenter also states that the Dunham fault “could not be a barrier to groundwater flow in the vicinity of groundwater monitoring well MW-1” and bases that claim on the lack of deflection of the groundwater contours in Figure IV.C-5 in the Draft EIR. The commenter should note that the groundwater contours shown in Figure IV.C-5 are those of the shallow groundwater flowing through permeable layers of the Wilson Grove formation and do not represent the groundwater contours of groundwater flow in the deeper fractures of the Tolay Volcanics. Given that the Dunham fault is expected to be an ancient shear zone or fault, it could very well represent either a zone of higher permeability or an impediment to flow to the groundwater within the fractures of the Tolay Volcanics.

- K-10 The commenter states that the Draft EIR does not describe the proximity of major and minor faults to the project site. The commenter is referred to Table IV.B-1 in the Draft EIR, which lists the region’s active faults and their proximity to the project site, and to Figure IV.B-3 in the Draft EIR, which shows this information graphically.
- K-11 The commenter believes the Bloomfield Fault, which is considered potentially active, is linked to the onsite Dunham Fault and should be shown on a map. A potentially active fault, such as the Bloomfield Fault, is not considered capable of producing a large earthquake, and thus, would not pose a significant seismic hazard to the project. Identification of the fault on a figure in this EIR is not necessary given its minor importance relative to other nearby active faults, including the San Andreas Fault. The Tolay and Bloomfield faults are considered to be part of an ancient extension of the Hayward fault that has been abandoned in favor of the active Rodgers Creek Fault Zone to the east (Hart, 1998). There have been few, if any trench studies and there is no evidence that young Holocene sediments have been displaced by these faults. Even less is known about the onsite Dunham fault, other than that it exists. It would be imprudent to assert that the Dunham Fault is part of the Bloomfield Fault, because beyond conjecture, this idea has not been demonstrated in scientific studies.

The commenter also believes the Draft EIR should discuss the linkages between the Bloomfield, San Andreas and the Rodgers Creek Faults; and explore the supposed additional shaking that would occur. The reader is referred to pages IV.B-13, IV.B-14, IV.B-22, and IV.B.23 of the Draft EIR, which discusses potential ground shaking in considerable detail. The probabilistic seismic hazard analysis discussed in the Draft EIR assesses the potential for faults to produce earthquakes (including a rupture probability for earthquake faults not identified as “active”) as well as inherent uncertainties in their size and location. The Draft EIR has adequately assessed the seismic shaking hazard

using probabilistic seismic hazard analysis; and therefore, no extended analysis or discussion of fault linkages is warranted.

- K-12 The commenter questions why “detailed studies to define the stability of materials in the quarry walls were not performed” and states that 1) borehole samples were not sited close enough to the project boundaries, and 2) the orientation (strike and dip) of rock discontinuities (referred to as “tilt” in this comment) were not recorded.

Miller Pacific Engineering Group (MPEG) completed a resource investigation under contract to the applicant in 2004. The intent of the 2004 MPEG investigation was to evaluate the extent, condition, and quality of the volcanic bedrock for mining. It was not the intent of the 2004 MPEG investigation to attempt to evaluate or predict the future stability of the quarry walls. The MPEG exploratory logs developed from the resource investigation provided a useful source of information for the Draft EIR because they noted detail on the subsurface geology and condition of the Tolay Volcanics. Subsequently, in 2005, John H. Dailey, Consulting Geotechnical Engineer (Dailey) conducted 1) subsurface exploration, laboratory testing, 2) an engineering analysis on soil and rock samples from the project site, 3) a seismic analysis on the proposed overburden stockpile slopes, 4) a supplemental analysis of rock slope failure mechanics and slope stability at the quarry site, and 5) a preliminary geotechnical evaluation of the site. Daily excavated test pits during his study to inform his geotechnical study and to assess the interface and relationship of the Wilson Grove formation and Tolay Volcanics from a slope stability perspective.

It is not standard engineering practice to attempt to evaluate the future stability of quarry bedrock slopes before a quarry is excavated and the walls are exposed. While it is sometimes prudent to carefully map certain subsurface fracture patterns or joint sets (through manned, down-hole logging) in bedrock underlying a proposed structure, especially, for example, a high-rise building, such effort is not a typical level of study for a quarry that would not support a building or be used for an essential public facility. It is infeasible, even with modern, available subsurface exploration techniques to obtain sufficient data and information on bedrock characteristics to reliably predict the behavior of the exposed bedrock along the entire length of the proposed slope faces at the planned excavation depth. Bedrock fractures and joint patterns are extensively variable and cannot be fully understood with data developed by down-hole methods. In general, bedrock quarries rely on periodic inspections, observations from mining engineers and geologists, and reports from equipment operators for information on the stability and behavior of working faces and reclaimed slopes; only after the face is exposed can potential problem areas be identified and considered in the mining strategy and safety planning. In any case, exhaustive study to attempt to determine bedrock slope stability in the proposed Roblar Road is unwarranted because the proposed slope configuration of 1.5:1 (H:V) quarry cut-slope with 10-foot wide benches spaced every 30 feet are considered by geotechnical engineers as stable for bedrock slopes and these configurations conform to SMARO (Section 26A-09-010 (m), 26A-11-010 (2), 26A-09-040 (c), and 26A-11-040). Further, continued mapping and movement monitoring of the

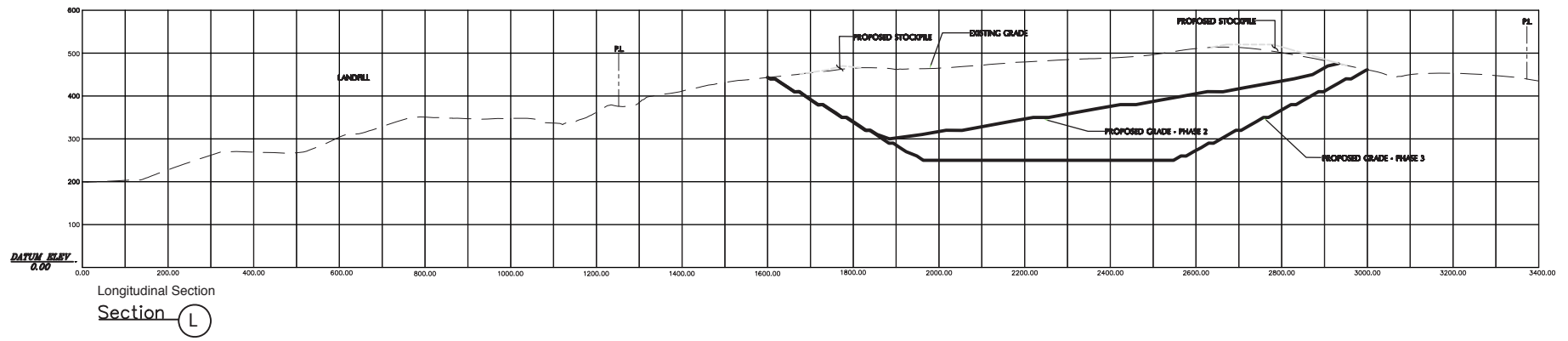
mining slopes would be required during the entire quarrying process so that slope instabilities can be identified and corrected. The mitigation measures provided in the Draft EIR require continued mapping and movement monitoring of the mining slopes to assess slope stability (see Mitigation Measure B.2d). If a slope condition presents risk to mine safety or the potential for erosion/siltation, repair measures would be implemented, as identified in Mitigation Measure B.2d.

- K-13 The commenter reiterates an issue previously raised in her letter as to the conclusions regarding slope stability of the 1989 EIR versus those in the Draft EIR for the proposed project. As stated, the 1989 EIR expressed concern for the steepness of the overall quarry cut and suggested that over-steepening would lead to slope instability and increased landsliding. As discussed in responses to Comments K-4, K-5, K-7, K-8, K-9, and K-12, above, quarry slope stability hazards have been addressed in the Draft EIR and sufficient evidence has been presented to support the finding that, with mitigation, the potential for impacts resulting from slope instability is less than significant. The evidence to assess potential slope instability was developed through geotechnical field analysis, laboratory testing of soils, and slope stability calculations. While the 1989 EIR may conclude that the proposed quarry could “potentially result in increased landsliding,” the Draft EIR for the proposed project provides data and information, including geotechnical reports, to demonstrate that the quarry slopes would remain stable with the exception of potential localized raveling, sloughing and toppling, which is typical in mining operations and not considered a significant impact to the environment or public safety.

Contrary to the commenter’s assertion, the project does not replace the existing “geological buttress to a clearly unstable topography with oversteepened slopes adjacent to a void.” For visual context, the commenter is referred to **Figure K-1** on the following page. This illustration was previously presented as Section “L” in Figure III-8 in the Draft EIR Project Description, and is repeated here. This figure is true-scale longitudinal-section through the quarry property and the landfill property, and shows relative distance between the quarry and landfill, and the final quarry slopes. As shown in this figure, as well as the commenter’s own Figure 3 (cross-section B-B’) presented in her letter, the commenter’s reference to “oversteepened slopes adjacent to a void” is a mischaracterization.

As discussed in the responses above, the quarry slopes will be of a sufficient configuration to remain stable and preclude unanticipated and damaging catastrophic failure. Mitigation provided in the Draft EIR requires periodic inspection of the working and reclaimed slopes to identify potential failures (Draft EIR, page IV.B-21). Furthermore, contrary to the assertion by the commenter that the Draft EIR does not mention or examine possible destabilizing features processes, the Draft EIR addresses mechanisms of failure identified as a relevant concern on the project site. These mechanisms include, but are not limited to, earthquake ground shaking (Draft EIR, page IV.B-21), bedrock or stockpile slope failure (Draft EIR, IV.B-23), erosion (Draft EIR page IV.B-25), and blasting effects (Draft EIR, page IV.B-26).

IV-102



SOURCE: CSW/Stuber-Stroeh Engineering Group, Inc.

Roblar Road Quarry . 204334

Figure K-1
Longitudinal Section of Quarry and Landfill Properties

- K-14 The commenter speculates regarding three scenarios for groundwater behavior that could occur during Phase 2 and Phase 3 of mining when the Dunham Fault is breached. As noted in the Draft EIR and elsewhere in responses to this comment letter, the Dunham fault is ancient inactive fault on the project site that would be exposed by development of the quarry. The Draft EIR Section B, Geology, Soil and Seismicity; and Section C, Hydrology and Water Quality, addresses information related to the Dunham fault, including potential project impacts, in detail.

It should be noted that the effects of breaching the Dunham fault would take place gradually over the course of regular mining and would not represent a sudden change in groundwater conditions. Monitoring of groundwater levels to detect potential localized changes in gradient in the site vicinity (required by Mitigation Measure C.4c) would ensure that any changes are detected and addressed by other mitigation measures identified in the Draft EIR before significant adverse impacts could occur. In addition, as discussed in response to Comment C-4, the landfill is not considered “water collecting.” There are no substantial barriers that would cause water to accumulate or build up pressures beyond natural pore pressure caused by fluctuations in the groundwater table. See also response to Comment K-13, above, why the excavation of the quarry, conducted in compliance with the stringent requirements of SMARA, would not result in “oversteepened slopes.” Therefore, further evaluation of the three scenarios presented by the commenter is not necessary to the understanding of the geology or groundwater conditions or directly relevant to the analysis of environmental impacts that reasonably might occur.

The Hydrology and Water Quality section of the Draft EIR addresses all potential impacts associated with changes in groundwater flow that may result from quarry excavation: 1) Impact C.3 (Draft EIR, Page IV.C-38) analyzes the effects of the quarry excavation on groundwater seepage from the surrounding Wilson Grove Formation and/or the underlying fractured Tolay Volcanics, 2) Impact C.4 (Draft EIR, page IV.C-41) addresses the potential that the excavation of the proposed quarry could cause potentially contaminated groundwater to enter the quarry as seepage through the quarry walls, and 3) Impact C-7 (Draft EIR, page IV.C-46) analyzes the removal of Wilson Grove overburden and excavation into the Tolay Volcanics unit and the possibility that mining could affect groundwater flow and quality in nearby domestic groundwater wells. In addition, the Geology, Soils and Seismicity section of the Draft EIR addresses all potential impacts associated with potential slope instability and slope failure (Impacts B.1, B.2, and B.4). Further analysis of the speculative scenarios postulated in the comment is unwarranted.

- K-15 The commenter asserts that the Draft EIR should identify an additional significant environmental impact and provides the impact statement language. The impact statement provided by the commenter is not necessary for the Draft EIR. The first impact addresses secondary (sympathetic) movement on the Dunham fault from an earthquake on San Andreas and the potential of that movement to destabilize the quarry walls. The probability for this to occur is low because the secondary motion, if it were to occur on an inactive fault similar to the Dunham fault, would be very small and would not be

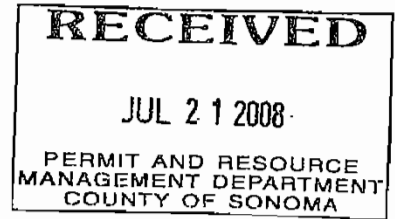
expected to contribute to measurable movement along the fault. See Draft EIR Impact B.1 (page IV.C-21) and Impact B.2 (page IV.C-23) and response to Comment K-6.

- K-16 In this comment, the commenter suggests another additional significant impact. The commenter's recommended language 1) contradicts findings of the geotechnical analyses of slope stability (see responses to Comments K-4, K-5, K-7, K-8, K-9 and K-12); 2) incorrectly characterizes the quarry slopes as over-steepened, thereby disregarding the requirements of SMARO and the cross-sections presented in the Draft EIR (see also Figure K-1, above); 3) misinterprets the groundwater conditions at the landfill (see response to Comment K-4); 4) incorrectly asserts that serpentinite is present in the bedrock on the site (see Master Response AQ-2 in Chapter II in this Response to Comments Document); and 5) predicts catastrophic failure along fracture zones when that would not be expected in the bedrock slopes of the quarry (see responses to Comments K-13 and K-15). Accordingly, the proposed impact language is not warranted.

References

Hart, E.W., compiler, 1998, Fault number 33, Tolay fault, in Quaternary fault and fold database of the United States: U.S. Geological Survey website, <http://earthquakes.usgs.gov/regional/qfaults>.

July 21, 2008



Mr. Scott Briggs
Sonoma County Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403-2829

Subject: Comments on Roblar Road Quarry Draft Environmental Impact Report

Dear Mr. Briggs:

On behalf of Citizens Against Roblar Rock Quarry (CARRQ), JTEC Environmental submits the following comments regarding the Draft Environmental Impact Report (DEIR) for the proposed Roblar Road Quarry, prepared by ESA and dated May 2008.

GENERAL COMMENTS

Roblar Landfill

The adjacent Roblar Landfill is an unlined landfill which stopped accepting waste in 1973. Because of this, the 1992 closure process for the landfill was far below the standards of the existing California Code of Regulations (CCR) Title 27 landfill closure process. The following remaining issues with the landfill make it impossible to effectively evaluate impacts to the landfill and neighboring properties associated with the proposed quarry activities:

- Waste remains essentially in contact with groundwater beneath the landfill. As a result, there is a continuing leaching of contaminants to groundwater. Because the landfill is unlined, any leachate collection system will be ineffective at capturing all leachate, and continuing groundwater contamination can be expected. L-1
- Groundwater investigations performed at the site have not adequately investigated the groundwater flow regime in the landfill. L-2
- Groundwater investigations performed at the site have not adequately investigated contaminants in groundwater at the landfill. Contaminants have been identified in groundwater beneath the landfill, but their nature and extent has not been determined. L-3
- There has been no investigation for methane gas at the landfill. The presence of methane gas could have significant impacts during blasting activities at the site. L-4
- The potential for slope instabilities resulting from quarrying activities to affect the landfill, including contaminant flow and methane gas movement, has not been adequately addressed. L-5

Groundwater Use

Two production wells presently at the site have been proposed as the source for groundwater use during quarrying activities. However, the long-term yield of these wells has not been determined. L-6

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Hence, it is not possible to evaluate impacts to the landfill and nearby residential wells as a result of groundwater use at the quarry. A long-term pumping test, which includes monitoring of nearby wells, must be performed.

↑ L-6
cont.

Additionally, no basis for the groundwater use estimate in the DEIR has been provided, and appears to be underestimated.

↑ L-6a

Dust Control

The DEIR has not addressed the likely presence of asbestos in rock at the site, nor provided a plan for controlling and monitoring asbestos-containing dust. Dust control plans presented in the DEIR do not address the high winds present in the areas, and there does not appear to be a plan for monitoring dust at the site.

↑ L-7
↑ L-7a

SPECIFIC COMMENTS

1. **Pg. III-11, Adjacent Roblar Landfill Property, 4th paragraph:** The DEIR states that “leachate is routinely removed from the landfill via an on-site leachate collection system”. The leachate collection system at the Roblar Landfill is not a true leachate collection system, but is, in fact, more of a groundwater/surface water/leachate collection system and not necessarily representative of leachate quality. A true leachate collection system in a lined landfill consists of leachate pipes from which leachate is pumped. Please revise the DEIR to accurately describe the Roblar Landfill leachate system.

↑ L-8

2. **Pg. III-11, Project Characteristics, 1st paragraph:** Please change “the earliest year Phase I would be expected to commence is 2007” to a realistic year.

↑ L-9

3. **Pg. III-23, Phase I Blasting, 1st paragraph:** The DEIR indicates, in reference to blasting, that “In the area of the closed landfill, drill holes would be monitored by a gas detection device for methane gas.” Available reports concerning Roblar Landfill investigations do not indicate that the presence of methane gas was ever evaluated. As a result, there is no way to evaluate how blasting at the quarry could affect the movement of methane gas potentially present at the landfill. Blasting may cause methane gas to be released to the atmosphere or adjacent properties, but there is no provision for such monitoring in the DEIR. Before methane gas movement can be accurately monitored, both within the landfill and on neighboring properties, the presence of methane gas in the landfill must first be assessed. If an investigation of methane gas at the landfill is not performed, then a detailed methane gas monitoring plan should be developed prior to blasting activities which will include monitoring methane gas around the perimeter of the landfill, as well on the quarry adjacent to the landfill perimeter.

↑ L-10

Additionally, the DEIR notes that a blasting plan would be prepared, but does not indicate what the contingency plan is in case landfill gases were ignited during blasting. Who would review and approve the blasting plan to ensure that the nearby residents are adequately protected and that there are sufficient emergency response resources to respond to an emergency such as a landfill gas fire? Although the Sonoma County Sheriff’s Department would issue a blast permit, they may not be the appropriate agency to review a blasting plan appropriate for a site adjacent to a landfill potentially containing methane gas. Please specify the appropriate agency responsible for approving a blasting plan.

↑ L-11

4. **Pg. III-32, Water Use and Dust Control.** The DEIR states an annual usage of 3 million gallons, but the basis for this estimate is not provided. However, based on the significant

↓ L-11

need for groundwater for dust control due to the high winds in the area and a conversation with a local water supplier, 6 – 9 million gallons is a reasonable assumption for annual water use. The DEIR also states that the onsite production wells will be the source of water used onsite. Please see Comment 8.

↑
L-11
cont.

5. **Pg. IV.A-27, Compatibility with Nearby Land Uses, 2nd paragraph.** The DEIR states the “proposed project would be generally compatible with the adjacent closed landfill property”. Please see General Comments above concerning Roblar Landfill.

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L-12

6. **Pg. IV.B-2, Geologic Rock Units, 2nd paragraph:** The DEIR reports that the “Franciscan Complex forms the basement rock beneath the site” and that outcrops of Franciscan rock are present on the site. The DEIR does not adequately describe the Franciscan Complex¹, which commonly contains serpentinite and blueschist (as glaucophane-riebeckite), both of which are known to contain asbestos². The subsurface investigations performed by John Dailey, Consulting Geotechnical Engineers and Miller Pacific referenced in the DEIR did not include an evaluation of the presence of these minerals. Unless proven otherwise, one must assume the potential presence of asbestos in quarried materials. Please see Comment 28.

↑
L-13

7. **Pg. IV.B-26, Impact B.4:** In evaluating the impacts of blasting, the DEIR references an assessment prepared by Revey Associates, Inc. The assessment includes an evaluation of blasting on both methane gas and the subsurface at the Roblar Landfill. In evaluating the effects of blasting on methane gas, the report cited protocols used at the Sonoma County Management Facility in Petaluma, which included methane monitoring within 1,000 feet of waste filled areas. However, the Petaluma landfill and the Roblar Landfill are not comparable; unlike the Petaluma landfill, the presence of methane gas has not been evaluated at the Roblar Landfill, nor is there a methane gas collection or monitoring system at the Roblar Landfill. The DEIR incorrectly concluded that this impact required no mitigation. A methane gas investigation is necessary to adequately evaluate potential impacts to the proposed quarry, Roblar Landfill and nearby residents, and to develop an effective blast monitoring plan. Because of the unknowns associated with the presence and movement of landfill gas associated with the Roblar Landfill, the most conservative approach of monitoring for methane gas at all blast locations, coupled with methane gas monitoring at the landfill and proposed quarry perimeter, is necessary to protect human health and the environment.

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L-14

8. **Pg. IV.C-12, Groundwater Wells on the Project Site, 2nd paragraph.** In reference to the production wells present on the site, the DEIR states that “aquifer tests were performed to determine the amount of water the wells could produce without causing additional groundwater drawdown” which led to a conclusion that the wells could produce “about between 30 gpm and 50 gpm”. To effectively evaluate sustainable yield from the onsite production wells, a long-term pumping test must be performed which includes monitoring groundwater levels in Roblar Landfill, onsite monitoring wells and nearby residential wells. Please provide data from a long-term aquifer test that evaluates drawdown in nearby wells and determines a sustainable yield from the production wells. Ideally, the test should be performed in the summer months, when both groundwater levels are low and water demands for dust control will be high. Until this has been performed, it is not possible to evaluate whether groundwater use at the site produces a significant

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L-15
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¹ Irwin, W. Porter. Understanding the Franciscan Complex. In *50 Years of Scientific Accomplishments*, U.S. Geologic Survey, 2004.

² NIOSH, 2005. Pocket Guide to Chemical Hazards, Appendix C. Department of Health and Human Services, Center for Disease Control and Prevention. September.

impact. Additionally, this DEIR paragraph contradicts the footnote on page IV.C-46, which states “these pump tests only provide an estimate of well yield and can not be used to determine long term yield”.

↑ L-15
cont.

9. **Pg. IV.C-16, Groundwater Conditions at Roblar Landfill Property.** As stated, “groundwater resides in three different geologic zones”. There are three wells at the Roblar Landfill property, each of which is in a different water-bearing zone. A minimum of three wells in each water-bearing zone is required to determine groundwater flow directions. As a result, it is not possible to evaluate groundwater flow on the Roblar Landfill property with the existing wells. Therefore, impacts on groundwater flow on the Roblar Landfill as a result of activities at the proposed quarry cannot be evaluated until at least three wells are installed in each water-bearing zone and the groundwater flow regime at Roblar Landfill is evaluated.

L-16

10. **Pg. IV.C-17, Groundwater Monitoring, 2nd paragraph.** The DEIR states that three groundwater monitoring wells were installed at the site to “provide representative project site boundary monitoring points, or “sentry wells” to monitor groundwater quality, and detect whether pollutants, if any, may be migrating from the adjacent Roblar Landfill property to the project site. These wells are inadequately situated to act as sentry wells because 1) they are not screened in the same geologic unit(s) in which contaminants have been detected at Roblar Landfill; 2) the contaminants present at Roblar Landfill have not been adequately characterized such that one could evaluate possible contaminant flow pathways; and 3) the sentry wells are not situated between the likely areas of contamination and the two onsite production wells, which is the most likely pathway for contaminant flow. Either the nature and extent of contamination at Roblar Landfill must be characterized, or groundwater monitoring wells must be installed around the perimeter of the landfill on the proposed quarry site and regularly monitored.

L-17

L-17a

11. **Pg. IV.C-18, Groundwater Monitoring at the Project Site, 1st paragraph.** Please include VOCs in the list of analyses performed on groundwater samples, and note that analyses for organochlorine pesticides, PCBs, and SVOCs were performed only once in February 2007.

L-18

12. **Pg. IV.C-18, Groundwater Monitoring at the Project Site, 2nd paragraph.** The DEIR suggests possible sources for the VOCs detected in onsite wells to be cross-contamination during well construction, laboratory contamination or existing water quality conditions. Because the contaminants have been detected in wells constructed in 2004 and 2007, it is highly unlikely that cross contamination during well construction is the source of the contaminants. Additionally, laboratory quality control samples did not detect the presence of these contaminants, decreasing the likelihood that laboratory contamination is the contaminant source. This suggests the most likely source to be an unidentified contaminant source on the proposed quarry site or on the adjacent Roblar Landfill property. The nature and extent of contamination at Roblar Landfill must be characterized in order to evaluate impacts to the proposed quarry site and nearby properties.

L-19

13. **Pg. IV.C-19, Groundwater Monitoring at the Roblar Landfill Site, 2nd paragraph.** It should be noted that there has been no analytical testing for the presence of diethylstilbestrol (DES) in Roblar Landfill groundwater. Previous testing for semivolatile organics was performed using EPA Method 8270 instead of EPA Method 8270C, which includes DES as an analyte. During past public meetings, residents indicated that DES-containing feed had been disposed in the landfill. The nature and extent of contamination at Roblar Landfill must be characterized in order to evaluate impacts to the proposed quarry site and nearby properties.

L-20

14. **Pg. IV.C-19, Groundwater Monitoring at the Roblar Landfill Site, 4th paragraph.** The DEIR notes that low concentrations of cis-1,2-dichloroethene (cis-1,2-DCE) have been consistently detected in well R-1 since November 2004, and that vinyl chloride has been detected “in a number of samples between 2004 and 2008” and states that the concentrations “were well below the applicable state and federal water quality objectives for drinking water”. **This is an erroneous and misleading statement.** In fact, concentrations of cis-1,2-DCE have shown a steady increasing trend, from 1.2 micrograms per liter (µg/L) in November 2004 to 5.4 µg/L in September 2007 and 4.5 µg/L March 2008. The most recent concentrations are only slightly below the California Department of Public Health (CDPH) maximum contaminant level (MCL) for drinking water of 6.0 µg/L. Additionally, vinyl chloride, identified by U.S. EPA as a human carcinogen, has been detected in well R-1 at concentrations ranging from 0.6 to 1.2 µg/L. **These levels of vinyl chloride are above the CDPH MCL for drinking water of 0.5 µg/L.** This indicates the presence of contamination associated with the Roblar Landfill, the nature and extent of which has not been defined. Until this contamination is further investigated, it is not possible to evaluate potential impacts on the proposed quarry, surface water and nearby residents.

L-21

15. **Pg. IV.C-19, Groundwater Monitoring at the Roblar Landfill Site, Footnote 23.** The footnote cites water quality objectives of the California Department of Health Services. Please note that California Department of Health Services no longer exists, and (as of July 2007) is now known as California Department of Health Services (CDPH).

L-22

16. **Pg. IV.C-20, Leachate Testing at Roblar Landfill Property.** Because of the lack of a liner beneath Roblar Landfill and the design of the leachate collection system, the leachate collected at the landfill through gravity drains is a mixture of leachate, groundwater, spring water and rainfall. It is not a true collection of leachate, pumped from leachate pipes in a lined landfill. Therefore, the concentrations of chemicals detected in the leachate are diluted by the contributing sources of water and not representative of leachate quality. The fact that any contaminants have been detected in the leachate is an indication that higher concentrations are likely present in groundwater beneath the landfill. Further investigation is required to adequately evaluate potential impacts on the proposed quarry, surface water and nearby residents.

L-23

17. **Pg. IV.C-20, Leachate Testing at Roblar Landfill Property, 4th paragraph.** The DEIR states that “the leachate does not contain chemical constituents at levels considered hazardous waste under Title 22 of the California Code of Regulations”. While this is true, the hazardous waste criteria cited are relevant for determining offsite transport and disposal protocols, and are not relevant water quality criteria for evaluating the leachate as a predictor of contamination at the Roblar Landfill.

L-24

18. **Pg. IV.C-31, Impact C.1.** This impact addresses the increase in stormwater runoff from the site, and notes that “seepage from the wall of the quarry would also contribute to the amount of surface water flows during the winter months”. The impact from the seepage cannot be effectively evaluated until the nature and extent of contaminants at Roblar Landfill has been characterized, including the potential quality of seepage from the quarry walls. The potential exists that contaminated water could either flow into Ranch Tributary and American Creek and/or infiltrate deeper water-bearing units. This is a potential significant impact which has not been addressed.

L-25

19. **Pg. IV.C-36, Mitigation Measure C.2a., Implement Contaminant-Control BMPs.** This mitigation measure fails to address potential contaminants in stormwater/seepage which are derived from Roblar Landfill.

L-26

20. **Pg. IV.C-36, Mitigation Measure C.2b., Develop and Implement Stormwater Monitoring Program.** If contaminants from Roblar Landfill are present within seepage into the quarry, “mixing” of contaminants with a large volume of stormwater would constitute dilution of the contaminants in violation of RWQCB policies. Additionally, the presence of VOCs, the likely contaminants in seepage from Roblar Landfill, is difficult to monitor once the contaminants have been allowed to volatilize. An effective stormwater monitoring program cannot be developed until the nature and extent of contaminants at the Roblar Landfill, including the including the potential quality of seepage from the quarry walls, has been characterized. L-27

21. **Pg. IV.C-41, Impact C.4.** The discussions regarding the levels of contaminants detected at Roblar Landfill are inaccurate. Please see Comment 14. L-28

22. **Pg. IV.C-42, Impact C.4., Mitigation Measure C.4a.** The replacement of groundwater monitoring well MW-2 and redevelopment of wells MW-1, MW-3 and DW-2 is not a mitigation measure – it is collection of new data. These data should be collected and available for public comment prior to finalization of the DEIR. Additionally, evaluation of potential contaminated seepage or groundwater contamination should include collection and analysis of sediment from proposed sediment ponds. L-29

23. **Pg. IV.C-42, Impact C.4., Mitigation Measure C.4b.** The mitigation measure includes testing of groundwater for “the same suite of analytes used at the adjacent Roblar Landfill”. The analyses performed on Roblar Landfill samples did not include analysis for DES (see Comment 13). Samples collected from the proposed quarry site wells should include analysis for SVOCs using EPA Method 8270C. L-30

24. **Pg. IV.C-42, Impact C.4., Mitigation Measure C.4e.** See Comment 23. L-31

25. **Pg. IV.C-46, Impact C.7.** The DEIR concludes that removal of Wilson Grove overburden and excavation into the Tolay Volcanics would not significantly impact nearby domestic groundwater wells. The evaluation of this impact does not take into account the combined effects of pumping from onsite production wells DW-1 and DW-2. The long term effects of pumping from wells DW-1 and DW-2 must first be evaluated, and then evaluated in conjunction with removal of Wilson Grove overburden and excavation into the Tolay Volcanics. See Comments 8 and 26. L-32

26. **Pg. IV.C-46 – 48, Impact C.8.** The DEIR concludes that pumping of the two onsite production wells would not produce a significant impact to neighboring wells. This impact has not been fully evaluated because 1) the long-term effects of pumping the onsite wells have not been evaluated and 2) the onsite groundwater needs have not been established. As discussed in Comment 8, a long-term pumping test needs to be performed to evaluate the effects of pumping on neighboring wells, Roblar Landfill wells, and the resulting contaminant flow. L-33

Additionally, the onsite groundwater needs do not appear to have been fully evaluated. The DEIR states an annual usage of 3 million gallons, but the basis for this estimate is not provided. However, based on the significant need for groundwater for dust control due to the high winds in the area and a conversation with a local water supplier, 6 – 9 million gallons is a reasonable assumption for annual water use for dust control alone. This could produce a significant impact on groundwater flow in the vicinity of the proposed quarry, affecting not only neighboring domestic wells, but also contaminant flow in the Roblar Landfill. L-34

27. **Pg. IV.F-11, BAAQMD Rules and Regulations.** The DEIR does not list BAAQMD Regulation 6, Particulate Matter and Visible Emissions, which regulates dust emissions from the site and stipulates monitoring and reporting procedures. Compliance with this regulation needs to be addressed in the DEIR.

L-35

28. **Pg. IV.F-12, Asbestos Toxic Air Control Measure.** The DEIR states that “geologic mapping does not indicate the existence of asbestos/serpentine rock within the project site”. In fact, geologic mapping for the site indicates the presence of the Franciscan Complex (Pg. IV.B-2 of the DEIR and Comment 6). The Franciscan Complex is known to contain serpentine and blueschist, both of which are known to contain asbestos. There have been no investigations performed at the site to identify or refute the presence of serpentine. As a result, California Code of Regulations (CCR) Title 17, Section 93105, as enforced by the Bay Area Air Quality Management District, should apply to activities at the site and requires preparation of an asbestos dust monitoring plan which may include asbestos monitoring.

L-36

Additionally, the DEIR states “the quarry operator has indicated serpentine-containing materials have never been encountered on site”. Please indicate the quarry operator’s qualifications for identifying serpentine-containing materials and the results of any subsurface investigations performed which form the basis for this statement, or remove the statement.

29. **Pg. IV.F-14. Existing Air Quality.** The DEIR uses data from 5th Street in Santa Rosa, approximately 12 miles from the site in an urban area, to evaluate existing air quality at the site, which is present in a rural area. These data are not at all applicable to the site. Baseline data should be collected onsite.

L-37

Sincerely,

JTEC Environmental



Julie L. Turnross

Principal Environmental Scientist

Letter L. JTEC Environmental, on behalf of Citizens Against Roblar Road Quarry (Julie Turnross, Principal Environmental Specialist)

- L-1 The commenter indicates waste remains in contact with groundwater beneath the Roblar Landfill, that there is continuous leaching of contaminants to groundwater, and any leachate collection system will be ineffective at capturing all leachate, and continuing groundwater contamination can be expected.

The comment does not specifically address the adequacy of the Draft EIR. However, the Draft EIR adequately characterizes the history of the landfill, the leachate collection system used at the landfill, on-going monitoring of the landfill by Sonoma County, and the potential effects of the proposed quarry project on the adjacent landfill. See responses that follow.

- L-2 The commenter asserts that groundwater investigations performed at the site have not adequately investigated the groundwater flow regime in the landfill. The commenter is referred to response to Comment D-2 which discusses how the Draft EIR adequately characterized the existing groundwater flows patterns beneath the project site and adjacent landfill property.
- L-3 The commenter claims that groundwater investigations performed at the site have not adequately investigated contaminants beneath the landfill. The commenter is referred to response to Comment D-2 which discusses how the Draft EIR adequately described groundwater quality beneath the landfill property and project site. The commenter is also referred to Master Response HYD-2 in Chapter II in this Response to Comments Documents for further detail on existing groundwater quality conditions on the project site and adjacent landfill property including additional groundwater data that has been made available.
- L-4 The commenter indicates there has been no investigation for methane gas at the landfill, and expresses concern about the presence of methane gas during blasting activities. The commenter is referred to response to Comment L-10, below.
- L-5 The commenter indicates the potential for slope instabilities resulting from quarrying activities to affect the landfill, including contaminant flow and methane gas movement, has not been adequately addressed. Slope instability impacts were adequately evaluated in Impact B.2 in the Draft EIR. The commenter is also referred to detailed responses to similar comments made in Letters K and M in this Response to Comments Document. With respect to methane, the commenter is referred to response to Comment L-10, below.
- L-6 The commenter indicates the long-term yield of the quarry site production wells has not been determined, and that it is not possible to evaluate impacts to the landfill and nearby residential wells as a result of groundwater use at the quarry.

- The commenter is referred to Master Response HYD-1 in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. The commenter is also referred to Master Response HYD-3 for the results of a pump test that was conducted for Well DW-2 in support of the applicant's WMP. The WMP includes a strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project with no adverse impacts from well pumping. Please also note as part of the applicant's WMP, which has been incorporated into the project, only production well DW-2 would be used to provide supplemental water for quarry operations (there would be no use of production well DW-1).
- L-6a The commenter indicates there is no basis for the groundwater use estimate provided in the Draft EIR. The commenter is referred to Master Response HYD-1 in this Response to Comments Document which characterizes and quantifies the various water demands for the project, including for quarry operations.
- L-7 The commenter asserts that the Draft EIR did not address the presence of asbestos in rock at the site, nor a plan for controlling and monitoring asbestos-containing dust. The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.
- L-7a The commenter indicates the dust control plans do not address high winds present in the area, and notes the apparent absence of a plan for monitoring dust at the site. The commenter is referred to Section IV.F, Air Quality, in the Draft EIR, for a discussion of potential effects of fugitive dust generated during the construction and operational phases of the project, and design features and on-going practices proposed by the applicant and/or required by the County Surface Mining and Reclamation Ordinance (SMARO) mining and reclamation standards to minimize erosion of exposed surfaces and generation of dust. The Draft EIR establishes a formal comprehensive dust control program for implementation during initial construction and on-going operation to ensure all potential dust emissions would remain less than significant. The commenter is also referred to Master Response AQ-1 in Chapter II in this Response to Comments Document for additional data on wind conditions in the area, and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.
- L-8 The commenter takes issue with the Draft EIR's characterization of the County leachate system at the closed Roblar landfill. The commenter states that the leachate collection system is not a true leachate collection system, but is in fact, more of a groundwater/surface water/leachate collection system, and that a true leachate collection system would be one in a lined landfill consisting of leachate pipes from which leachate is pumped.

The commenter is incorrect. There are several different types of leachate collection systems possible for landfills (depending on physical and operational constraints, and other factors), of which the collection system utilized at the Roblar Landfill is considered one. The Draft EIR accurately describes the landfill's leachate collection system components, how it operates, and how collected leachate is regularly tested and disposed of in Section IV.C, Hydrology and Water Quality.

The commenter also indicates the leachate collected in the landfill's leachate collection system is not representative of leachate quality. The commenter is referred to response to Comment L-23 for a response to this issue.

L-9 The commenter takes issue with a reference in the Draft EIR that the earliest year for Phase 1 of the quarry operations to commence in 2007. Analysis for the Draft EIR began soon after the Notice of Preparation for the EIR was released in 2004. At the time of initial analysis, 2007 was the anticipated first year of operations of the quarry. While, in consideration of the time that has passed, the first year of operations of the quarry would be a point later than 2007, the Draft EIR nonetheless conservatively analyzes impacts under both near-term and long-term cumulative scenarios. There are no identified environmental impacts that would be substantially different if the first year of operations was changed.

L-10 The commenter indicates that there is no way to evaluate how blasting at the quarry could affect the movement of methane gas potentially present at the landfill; requests a methane gas investigation, and inquires about review and approval of the blasting plan.

The commenter is referred to Section IV.G, Noise and Vibration, in the Draft EIR which addresses blasting impacts in detail, including issues associated with methane gas. This section relies as appropriate on an assessment of potential blasting impacts and recommended practices for the proposed quarry that was conducted in support of the EIR by Revey Associates, Inc. (see Appendix F-1 in the Draft EIR). Revey Associates, Inc. have extensive and direct explosive-work experience in hardrock mining, mine planning, blasting research, and blasting explosives management. Gordon Revey, the author of the blasting assessment for the proposed project, is the principal at Revey Associates; his resume is included in Appendix B in this Response to Comments Document.

As discussed in the Draft EIR, drill holes would be monitored with a methane gas detection device in the area of the Roblar Landfill cells. Methane would be monitored prior to any blasting event. Standard testing devices, like those commonly used in underground coal mines or gassy mines, can be used to perform this testing. If blastholes intersect methane gas pockets or formations that produce methane, these test instruments can accurately detect its presence. Since concentrations of combustible methane in air range from 4% to 15%, it would certainly be safe and reasonable to allow blasting when measured levels of methane do not exceed the 0.1 percent minimum trace level allowed to escape to the air by the Bay Area Air Quality Management District. Moreover, since natural concentrations of methane are not expected in the Franciscan sandstone

formations, methane monitoring could be done at the collars of blastholes closest to the existing buried waste areas.

From a case history perspective, similar methane monitoring methods were used during several phases of expansion work at the Sonoma County Central Landfill property where blasting was conducted between 2000 and 2003. For this blasting, overseen by Revey Associates, Inc., thousands of blastholes were drilled and blasted in Franciscan sandstone in areas near active disposal areas. Some holes were located less than 30 feet from leachate and methane gas collection pipes. Levels of methane tested at the collars of drilled holes for all blasts never exceeded the 0.1% threshold level. The same result is expected at the Roblar quarry site. However, for caution it would be reasonable to test methane at hole-collars of six holes drilled closest to the Roblar landfill property for all blasts located within 1,500 feet of the existing waste storage cells.

The California Code of Regulations, Title 8, Chapter 4 (Division of Industrial Safety) Subchapter 17 (Mine Safety Orders) was established to promote safety at mines and are promulgated as standards for the guidance of employers and employees. These include regulations on storage, transportation, handling of explosives, and licensing requirements for blasters. The California Occupational Safety and Health Administration (Cal/OSHA) enforces the state's occupational and public safety laws and regulations, including CCR Title 8.

There is no formal requirement for an operating quarry to submit a blasting plan to any State agency. However, as discussed in the Draft EIR, and as required by SMARO, blasting would be conducted by a qualified and licensed blasting expert pursuant to a blasting plan in compliance with State blasting regulations. The blasting plan would contain a complete description of clearing and guarding procedures; descriptions of how explosives will be safely transported and used at the site; evacuation, security and fire prevention procedures; blasting equipment list, and procedures for notification of nearby receptors. Blasting permits would be obtained in advance of any blasting from the Sonoma County Sheriff's Department.

While the applicant has indicated that it would monitor methane with appropriate detection devices prior to blasting events, the following formalizes such activity in a mitigation measure to be incorporated into the blasting plan. Additional mitigation is also specified in Mitigation Measure G.3 to ensure nearby neighbors would be notified of proposed blasting prior to each blasting event (all changes to the Draft EIR are compiled in Chapter V, Errata).

“Mitigation Measure G.3h: Prior to any blast proposed within 1,500 feet of the Roblar landfill cells, the applicant shall test methane using methane detection devices at hole-collars of six holes drilled closest to the Roblar landfill property. Blasting shall only proceed if any detected methane is below the 0.1 percent minimum trace level established by the Bay Area Air Quality Management District.

Mitigation Measure G.3i: The blasting plan shall include a procedure, acceptable to PRMD, for notifying nearby residents prior to each blasting event. This public notification process shall be fully explained in the blasting education program for area residents (Mitigation Measure G.3e), and shall include the list of residents to be notified, a standard time at which such pre-blast notification shall be made, and a telephone number area residents can call to hear a regularly-updated recording describing the next scheduled blasting activity.”

- L-11 The commenter indicates there is no basis for the groundwater use estimate provided in the Draft EIR. The commenter is referred to Master Response HYD-1 in this Response to Comments Document which characterizes and quantifies the various water demands for the project, including for dust control. Note the applicant’s WMP includes highly conservative estimates of water demand required for dust control.
- L-12 The commenter quotes an excerpt from the Draft EIR about the compatibility of the project with the adjacent closed landfill property and then refers the reader to Comments No. L-8 through L-11. As discussed in responses to Comments L-8 through L-11, above, with mitigation measures proposed as part of the project and those identified in the Draft EIR, all impacts associated with operation of the quarry adjacent to the landfill would be less than significant. Therefore, the Draft EIR statement regarding the compatibility of the project with the adjacent landfill is justified.
- L-13 The commenter asserts that the Draft EIR does not adequately describe the Franciscan complex beneath the site, and the potential presence of serpentinite and bluechist, known to contain asbestos. The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.
- L-14 The commenter requests a methane gas investigation. The commenter is referred to response to Comment L-10, above.
- L-15 The commenter indicates that in order to effectively evaluate sustainable yield from the on-site production wells, a long-term pumping test must be performed which includes monitoring of nearby wells. Please see response to Comment L-6, above.
- L-16 The commenter states that the three wells on the Roblar Landfill property are in a different groundwater bearing zone and that three wells are required in each groundwater zone to adequately characterize groundwater flow. The commenter states that without three groundwater wells in each water bearing zone, and that it is not possible to characterize groundwater flow on the Roblar Landfill with the existing wells nor is it possible to evaluate impacts from groundwater flow on the Roblar Landfill property resulting from activities on the proposed quarry.

The groundwater flow direction and gradient of the groundwater immediately below the Roblar Landfill property has been adequately characterized by utilizing the three groundwater wells (R-1, R-2, and R-3), which were completed in the unconfined water

bearing zones beneath the landfill (Draft EIR, Page IV-C.16). These wells were installed in 1991, as part of the Solid Waste Water Quality Assessment Test (SWAT) for Roblar Landfill. As discussed in the Draft EIR, groundwater resides in three different geologic zones but is found primarily in the Wilson Grove Formation above the Tolay Volcanics and in fractures within the Franciscan Complex bedrock. Although there are three identified “geologic zones,” they are not discrete, isolated groundwater bearing aquifers exhibiting distinct groundwater flow characteristics. If this were the case, groundwater elevations would likely be substantially different in each well, reflecting different confining pressures and/or vertical groundwater gradients. Consistently, the groundwater elevation data recorded at the Roblar landfill property reflected an evenly distributed groundwater flow gradient and direction, which verifies that the three groundwater bearing zones are in hydrologic communication and together comprise a shallow, unconfined aquifer. Groundwater beneath the Roblar Landfill property predominantly flows in a northwest direction across the landfill mimicking general hill slope topography at a gradient of 0.14 feet per foot.

- L-17 The comment states that the three groundwater monitoring wells installed on the site are inadequate because 1) they are not screened in the same geologic units in which contaminants have been detected in the Roblar Landfill 2) the contaminants in the Roblar landfill have not been characterized such that flow pathways can be evaluated, and 3) they are not situated between the two areas of likely contamination and the quarry production wells, the most likely pathway of contaminate flow.

To date, five monitoring wells have been installed by the applicant on the project site at locations between the proposed quarry and the Roblar Road landfill property (MW-1, MW-2, MW-2b, MW-3, and MW-4) (See Master Response HYD-2). Monitoring Wells MW-1, MW-2 and MW-3 were installed on the project site in January 2007. Since the completion of the DEIR, two wells have been added to the site, MW-2b - as a replacement for MW-2, and MW-4. Pursuant to Mitigation Measure C.4a-c, the applicant installed Well MW-4 in November 2008 at a location north of the proposed Phase 3 footprint (See Master Response HYD-2). Well MW-4 is intended to increase groundwater monitoring coverage by providing an additional monitoring point between the Roblar Landfill property and the project site. Well MW-4 was first sampled in November 2008 and then again in May 2009. In addition to the monitoring wells, production wells DW-1 and DW-2 are also used for groundwater level monitoring (Draft EIR, Page IV.C-12, and Master Response HYD-2).

The monitoring wells on the project site are screened through the water-bearing Wilson Grove formation to the interface zone between the Wilson Grove and the Tolay Volcanics. Groundwater flow in the Wilson Grove formation above the Tolay Volcanics is shown to flow in the Wilson Grove-Tolay Volcanic interface zone following the down-sloping surface topography in a west-northwesterly direction towards Americano Creek at an average gradient of 0.14 feet per foot in the 2007/08 measurements. (See Draft EIR, Page IV.C-14). The flow gradient exhibited on the project site is similar to that observed in the wells on the Roblar Landfill. Essentially, the water table beneath the Roblar

Landfill property and the project site reside in similar water bearing material (i.e., the Wilson Grove, the Wilson Grove-Tolay Volcanic Interface zone or the Franciscan Complex bedrock).

The monitoring wells are screened in the same geologic units in which contaminants have been detected at the Roblar Landfill property. The VOC contaminants have only been detected in landfill monitoring Well R-1. Well R-1 is located near Roblar Road, northwest of the landfill's lowest waste cell and is 28 feet deep. The well extends vertically through a shallow sandy deposit, which may be an ancient stream channel cut through the Wilson Grove Formation. Monitoring Well MW-1 is the lowest elevation well on the project site and is screened across the interface zone between the Wilson Grove Formation and the underlying Tolay Volcanics; the well screen intersects clay and weathered rock of the Wilson Grove, and the underlying Tolay Volcanic rock.

With respect to the commenter's second claim, the commenter is referred to response to Comment D-2 which discusses how the Draft EIR adequately characterized the existing groundwater flows patterns and groundwater quality beneath the project site and adjacent landfill property. The commenter is also referred to Master Response HYD-2 in Chapter II in this Response to Comments Documents for further detail on existing groundwater quality conditions on the project site and adjacent landfill property including additional groundwater data that has been made available.

In response to the commenter's third point, as discussed above, the applicant installed new monitoring well MW-4 in November 2008 at a location north of the proposed Phase 3 footprint (See Master Response HYD-1). This well is located between Well DW-2 and the landfill property at a higher elevation than the other monitoring wells and penetrates the Wilson Grove formation through to the interface between the Wilson Grove Formation and the Tolay Volcanics.

Recognizing the difficulty in characterizing the groundwater flow in the underlying Tolay Volcanics and the deeper Franciscan Bedrock, the Draft EIR identifies the potential for a potential hydrogeologic connection between the Roblar Landfill and the proposed quarry site (Draft EIR, Impact C.3) and considers this a potentially significant impact. Considering the mitigation measure (Mitigation Measure C-3) proposed in the Draft EIR and the proposed Water Management Plan (See Draft EIR, Mitigation Measure C.3 and Master Response HYD-1), ongoing monitoring of seepage water and the development of a groundwater quality sampling and treatment program would adequately reduce the impacts of contaminants from the landfill entering the proposed quarry.

- L-17a The commenter states that either the nature and extent of contamination in the Roblar Landfill must be characterized or groundwater monitoring wells must be installed around the perimeter of the landfill on the proposed quarry site and regularly monitored. The commenter is referred to response to Comment L-3. See also response to Comment L-17 and Master Response HYD-2 for additional information regarding the groundwater

monitoring and detected groundwater contaminants detected at the Roblar Landfill property.

- L-18 The commenter indicates that the first paragraph on page IV.C-18 in the Draft EIR should state that VOCs were also included in the list of analytes performed in the groundwater samples. The commenter also requests that this paragraph should also state that analyses for organochlorine pesticides, PCBs, and SVOCs were performed in February 2007. These comments are noted. Page IV.C-18 of the Draft EIR, second paragraph, third sentence is revised as follows:

“The groundwater monitoring program includes sampling and analysis of groundwater for water chemistry (e.g. pH, alkalinity, hardness, and TDS), salts, organochlorine pesticides, PCBs, semi-volatile organic compounds (SVOCs) including diethylstilbestrol (DES) – measured in the initial sampling event; and volatile organic compounds (VOCs) and trace metals – measured in all sampling events. Pesticides, PCBs, and SVOCs including DES were not detected in the sampling event. (It should be noted that the County also analyzed groundwater at the adjacent closed Roblar Landfill property in 2004 for pesticides, PCBs, and SVOCs and these compounds were also not detected in those groundwater samples.)”

- L-19 The commenter states that, contrary to the supposition in the Draft EIR, it is highly unlikely that cross contamination during well construction is the source of contaminants in the project site groundwater wells. The comment states that the most likely source is an unidentified contaminant source on the Roblar Landfill property or the proposed quarry site. The commenter also states that the nature and extent of contamination at the Roblar landfill site must be characterized in order to evaluate impacts on the proposed quarry site and nearby properties.

Please refer to Master Response HYD-2, which provides a detailed listing of the contaminants that were detected in the groundwater at the Roblar Landfill site and proposed quarry property, the results of additional groundwater monitoring that has occurred to date, and greater discussion of results. The commenter is also referred to response to Comment D-2 which discusses how the Draft EIR adequately described groundwater quality beneath the landfill property and project site. The Roblar Landfill property has been appropriately characterized and continues to be adequately monitored. Furthermore, the Draft EIR recognizes that the landfill property could be a potential groundwater contamination source, and the applicant’s WMP provides a mechanism to capture, detain, characterize, and if necessary, treat the water that could potentially migrate towards the quarry property as the project proceeds.

- L-20 The commenter indicates there has been no analytical testing for the presence of DES (diethylstilbestrol) on the Roblar Landfill property, and at public meetings, residents have indicated that DES-containing feed has been disposed in the landfill. The commenter points out that analysis for semi-volatile organic compounds was conducted but not for DES on the landfill property. The commenter states that the nature and extent of the

contamination at the Roblar Landfill must be characterized in order to evaluate impacts to the proposed quarry site and the nearby properties.

While there is only anecdotal evidence based on public comment provided at public hearing/meetings on the EIR that DES-containing chicken hormone tablets or feed was disposed of in the Roblar Landfill when it was operating, no further substantiation exists that these materials were actually deposited in the landfill or when. Recent analysis (2007) for DES in the five monitoring wells on the quarry site did not detect this contaminant.

DES is a synthetic, non-steroidal estrogen. It was first synthesized in 1938 and was widely prescribed in the U.S. beginning in the early 1940's, primarily as a treatment to prevent miscarriages or premature deliveries. However, in 1971, the U.S. Food and Drug Administration (FDA) issued an alert advising against the use of DES for women during pregnancy, when a link between a rare form of cancer and DES was confirmed. DES was also widely used in agriculture beginning in the 1940's to fatten livestock and chickens. The FDA banned the use of DES for growth promotion in chicken and lambs in 1959, and by 1979, the FDA had banned use of DES in all animal feed. In 1987, California, Proposition 65 listed DES as a possible human carcinogen and a reproductive toxin.

It should be noted the Materials Safety Data Sheet for DES indicates it is only very slightly soluble in water, and consequently, such substance would not be easily mobilized in groundwater. Research indicates If DES is released to soil, it strongly adsorbs to soil, and remains in the solid state, rather than dissolve in water that may be contained in the soil. In addition, volatilization from the soil surface would be unlikely, since its evaporation rate is extremely low.

Given the chemical characteristics of DES described above, even if hormone tablets or animal feed were deposited in the landfill 30 or more years ago, there would be very little opportunity for this substance to migrate offsite. In addition, DES has not been detected in recent groundwater sampling conducted on the project site. Based on these factors, no additional testing for DES is warranted.

- L-21 The commenter indicates the Draft EIR stated that low concentrations of 1,2 DCE have been consistently detected in well R-1 since 2004, and that vinyl chloride has been detected in a number of samples between 2004 and 2008. The commenter then indicates that the Draft EIR erroneously reported that the detected concentrations of 1,2 DCE and vinyl chloride were well below the applicable state and federal water quality objectives for drinking water, with the commenter asserting instead that the concentrations of 1,2 DCE are only slightly below the State maximum contaminant level (MCL) and in a steady increasing trend, and that the concentrations of vinyl chloride are above the State MCL.

First, the commenter misquotes the Draft EIR in two minor but noteworthy instances. The Draft EIR did not report that vinyl chloride has been detected in a number of samples

between 2004 and 2008, but rather, that it was detected in a number of samples between 2005 and 2008. Also, the Draft EIR did not report that concentrations of 1,2 DCE and vinyl chloride were *well* below the applicable state and federal water quality objectives for drinking water, but rather, simply that they were below the applicable state and federal water quality objectives for drinking water.

Secondly, with respect to the commenter's assertion that concentrations of 1,2 DCE show a "steady increasing trend" in Roblar Landfill property well R-1, such claim is not substantiated. Concentrations of certain volatile constituents can fluctuate in a monitoring well due to changes in water level, changes in the amount of surface water infiltration and changes in groundwater gradient. The concentrations of 1,2 DCE detected in well R-1 represent the range of variability that would be expected from an annual sampling program over a period of several years. Inspection of the analytical data (including additional groundwater data for the landfill property made available as part of the County's ongoing groundwater monitoring program) reveals that the higher reported concentrations are typical of 1,2 DCE in Well R-1 during the spring and summer (tested in July for five consecutive years). Lower concentrations of 1,2 DCE were found in the well during the winter and spring months. Moreover, "steady increasing trends" of volatile organic compounds typically manifest themselves as remarkable changes in concentrations over time (especially over a span of five years), which would be an indication of an actively leaching contaminant source area. The groundwater monitoring program conducted to date indicates that there is not a substantial source area in the landfill leaching 1,2 DCE to groundwater or a migrating plume (see Master Response HYD-2 for additional information). Overall, the data available for 1,2 DCE concentrations in well R-1 is more indicative of a localized area that is impacted with low and stable residual 1,2 DCE concentrations. As discussed in the Draft EIR and further in Master Response HYD-2, the detected 1,2 DCE concentrations on the landfill property are below the state mandated MCL. It is further noteworthy that the applicant's groundwater monitoring program to date conducted on the quarry property has not detected 1,2 DCE in any of the project site wells.

Finally, the commenter correctly identified an inadvertent error in the Draft EIR with respect to vinyl chloride concentrations in Well R-1 on the landfill property as compared to the applicable MCL. Concentrations of vinyl chloride in well R-1 exceeded the MCL on two occasions in the applicant's groundwater monitoring of that well (1.2 micrograms per liter ($\mu\text{g/L}$) in September 2007 and 0.54 $\mu\text{g/L}$ in March 2008; the MCL is 0.5 $\mu\text{g/L}$ - see Master Response HYD-2 for a complete listing of groundwater analytical data and discussion). These results are also consistent with the groundwater monitoring results conducted by the County for that well.

As discussed in Master Response HYD-2, groundwater beneath the Roblar Landfill property is not used for drinking water and therefore, the regulatory MCL is a conservative threshold. The observation that vinyl chloride slightly exceeds the MCL does not change the conclusions in the Draft EIR. As discussed in Master Response HYD-2, the existing groundwater quality at the Roblar Landfill property has been

delineated and it does not appear, based on the groundwater sampling data, that the trace concentrations of VOCs are 1) a result of excessive contamination beneath the landfill, 2) are increasing with time, or 3) are part of a widespread groundwater contaminant plume. It is further noteworthy that the applicant's groundwater monitoring program to date conducted on the quarry property has not detected vinyl chloride in any of the project site wells.

Page IV.C-20 of the Draft EIR, first paragraph, first full sentence is revised as follows:

~~“While the~~ The levels of each of these constituents were at or slightly over the laboratory method detection limits, The VOC 1,2 DCE was slightly below the applicable state and federal water quality objectives for drinking water (referred to as the Maximum Contaminant Level, or MCL) while the detected concentration of vinyl chloride slightly exceeded the MCL, and in all cases they were below the applicable state and federal water quality objectives for drinking water.”

Page IV.C-41 of the Draft EIR, last paragraph, last sentence is revised as follows:

~~“While the~~ The levels of the VOC constituents at the project site and landfill property were at or slightly over the laboratory method detection limits. The VOC 1,2 DCE was slightly below the MCL while the detected concentration of vinyl chloride slightly exceeded the MCL, in all cases, they were below the applicable state and federal water quality objectives for drinking water.”

- L-22 The commenter indicates the name of the California Department of Health Services, cited on page IV.C-19 of the Draft EIR, has changed. It is noted that the new name of the California Department of Health Services is the California Department of Public Health.
- L-23 The commenter takes issue with the Draft EIR's characterization of the County landfill's leachate system. The commenter is referred to response to Comment L-8, above, for a response to this issue.

The commenter adds that concentrations of chemicals detected in the leachate are diluted by the contributing sources of water and not representative of leachate quality. On the contrary, the County regularly collects and tests the actual leachate in the landfill's leachate collection system, and the Draft EIR reports the findings of the analytical testing of contaminants detected in this leachate (page IV.C-20).

The Draft EIR also presents other available and recent sources of information characterizing surface and groundwater quality conditions at the landfill and quarry properties. Specifically, the Draft EIR reports the findings of the analytical testing for contaminants in the landfill property monitoring wells which the surround the landfill, as well as the adjacent quarry property wells (see pages IV.C-17 to IV.C-20). In addition, the Draft EIR reports the findings of the analytical testing for contaminants in surface water at the landfill property as part of the County's Stormwater Pollution Prevention

Plan for the landfill (see pages IV.C-9 to IV.C-10); these results are regularly submitted to the RWQCB. The Draft EIR also reports the findings of the analytical testing of surface water on the quarry project site (see page IV.C-9).

Collectively, these independent sources of analytical data represent the best available information characterizing existing surface water quality on, and groundwater quality beneath, the landfill and quarry properties. Furthermore, this information, along with other data presented in the Draft EIR, are of sufficient detail such that potential impacts of the proposed project to surface and groundwater quality could be conservatively analyzed and mitigated.

- L-24 The commenter indicates the hazardous waste criteria cited in the Draft EIR for the leachate monitoring results for the Roblar Road Landfill are relevant for determining off-site transport and disposal protocols, and not relevant water quality criteria for evaluating leachate as a predictor of contamination at the landfill.

The ongoing leachate monitoring program is conducted by the County as required by the Santa Rosa Subregional Wastewater Management System (SRSWMS) for the disposal of leachate generated at the Roblar Landfill. Furthermore, the County uses established sampling and analytical methods, deemed acceptable by the SRSWMS, in the regular testing of this leachate for VOCs, SVOCs, organochlorine pesticides, PCBs, metals, and various general chemistry parameters. In addition, the Draft EIR accurately summarized the results of the ongoing leachate monitoring program, including disclosing that certain VOCs were detected in sampling events.

It should be noted however, that the Draft EIR presents the results of County's leachate monitoring program for informational purposes. In contrast, the results of the on-going and independent groundwater monitoring programs conducted by the applicant and County on the project site and/or landfill properties are more relevant and representative for purposes of establishing baseline groundwater quality beneath the sites. It is not the intention of the Draft EIR to present leachate monitoring results in lieu of actual groundwater monitoring or imply that the results of the leachate monitoring adequately characterizes the landfill materials for all purposes. However, the leachate monitoring results provide another source of data as to the contents of the landfill and therefore it is appropriate to discuss leachate monitoring in the Draft EIR. The commenter is referred to Master Response HYD-2 for additional detail on the groundwater monitoring conducted to date.

- L-25 The commenter asserts that the impact from the seepage through the quarry walls cannot be effectively evaluated until the nature and extent of contaminants at the Roblar Landfill have been characterized, including the potential quality of seepage.

The commenter is referred to response to Comment D-2 and -17a, which discuss how the Draft EIR adequately characterized the existing groundwater quality beneath the project site and adjacent landfill property. The commenter is also referred to Master

Response HYD-2 in Chapter II in this Response to Comments Documents for further detail on existing groundwater quality conditions on the project site and adjacent landfill property including additional groundwater data that has been made available.

The commenter also asserts that the potential exists that contaminated water could flow into Ranch Tributary and Americano Creek. The commenter is referred to Master Response HYD-1 in this Response to Comments Document for a description of the WMP, which would require that all water collected within the quarry footprint and in production well DW-2 to be analyzed for VOCs, and furthermore, would require that only water that tests non-detectable for VOCs would be used, as needed, to maintain baseline flow conditions in Ranch Tributary and Americano Creek (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary and Americano Creek).

The commenter also asserts that the potential exists that contaminated water could infiltrate deeper water-bearing strata. The potential for contaminated water to enter deeper strata is greatly reduced by the construction of the proposed quarry. First, it is unlikely that the groundwater in the deeper water-bearing strata is significantly contaminated because groundwater and leachate monitoring at the Roblar Landfill has determined that the contamination in the groundwater beneath the landfill is minor, consisting of some elevated metals and low VOC concentrations (please see Master Response HYD-2). In addition, the presence of the quarry would hinder vertical migration of contaminants to a lower zone beneath the quarry footprint because the quarry would be designed to capture the surface water and the water entering the quarry through seepage in the quarry walls. The water collection, conveyance, and detention elements of the WMP would ensure that water would be routed through the system, characterized, treated, and then either used on site or discharged. Essentially, water would not remain on the quarry floor long enough to initiate appreciable vertical downward migration.

- L-26 The commenter asserts that Mitigation Measure C.2a in the Draft EIR fails to address potential contaminants in stormwater/seepage. Impacts C.2 and C.3 in the Draft EIR addresses sediment laden runoff associated with stormwater runoff and groundwater seepage, respectively. The commenter is referred to Impact C.4 and associated mitigation in the Draft EIR addressing potential contaminants that may be encountered in groundwater seepage. The mitigation measures identified for this impact were developed to respond to groundwater seepage entering the quarry pit that could also be potentially comingled with stormwater runoff. See also Master Response HYD-1 in this Response to Comments Document regarding the applicant's WMP that has been incorporated into the project, including further proposed improvements to sediment control and treatment, and refinements to the proposed monitoring and treatment of water that may enter the quarry footprint.
- L-27 The commenter claims that if contaminants are present within seepage into the quarry, mixing of contaminants with a large volume of stormwater would constitute dilution of the contaminants in violation of RWQCB policies.

During the dry season, virtually all water entering the quarry footprint would be groundwater seepage. However, during periods of precipitation, groundwater seepage would comingle with stormwater within the quarry footprint, and these sources of water would not be able to be feasibly separated. Nevertheless, as discussed in Master Response HYD-1, the WMP that has been incorporated into the project would require all water collected within the quarry footprint to be analyzed for VOCs, and if needed, treated onsite until concentrations of the chemicals are not detected or the concentrations are within the storm water discharge criteria set forth through the National Pollutant Discharge Elimination System (NPDES) industrial discharge permit. The commenter is not correct in implying that dilution would be in violation of RWQCB policies. In this case, all water, mixed or unmixed, would be considered impacted and appropriately detained, sampled, and treated if necessary. The reference to violations under RWQCB policies, in this case, is not relevant.

- L-28 The commenter claims the discussions regarding level of contaminants detected at the Roblar Landfill are inaccurate. Please see response to Comment L-21, above.
- L-29 The commenter claims that the replacement of groundwater monitoring well MW-2 and redevelopment of Wells MW-1, MW-3 and DW-2 is not a mitigation measure, but rather collection of new data, and that such data should be made available for public comment prior to finalization of the Draft EIR. First, in the case of this mitigation measure, the consideration of data is critical in order to establish the existing groundwater quality and how to monitor how the project may be affecting these conditions. Secondly, the commenter is taking an excerpt from the mitigation measure out of context by not considering the entire mitigation measure, including the measurable performance standards that are contained therein. It should also be noted that, as discussed in Master Response HYD-2 in this Response to Comments Document, the replacement of Well MW-2 and redevelopment of Wells MW-1, MW-3 and DW-2 were completed in November 2008, and two new rounds of groundwater quality data has been collected and presented in that master response. The commenter is also referred to Master Response HYD-1 with respect to refinements made to this mitigation measure.

The commenter also indicates the evaluation of potential contaminated seepage or groundwater contamination should include collection and analysis of sediment from proposed sediment ponds. As discussed in Master Response HYD-1 in this Response to Comments Document, regular monitoring of the sediment accumulated within the sediment control ponds would occur. In the event that VOCs are detected in water of the sediment control basins, the sediment within the respective basin would also be sampled and analyzed for VOCs prior to the removal. In the unlikely event that VOCs are present in the material, it would be managed in accordance with all applicable state and federal regulations related to handling, storage and transport of hazardous materials. Consequently, no contaminated sediment would be used for site reclamation.

- L-30 The commenter indicates samples collected from the proposed quarry site wells should include analysis of SVOCs, including DES. The commenter is referred to response to Comment L-18 and L-20, above.
- L-31 See response to Comment L-18.
- L-32 The commenter asserts that the effects of excavation to groundwater flow in nearby wells in Impact C.7 in the Draft EIR does not take into account the combined pumping effects from onsite production wells DW-1 and DW-2.

The potential effect of the proposed quarry excavation on groundwater flow in nearby wells is adequately addressed in Impact C.7 in the Draft EIR and determined to be less than significant. The effects of groundwater pumping on nearby wells are adequately addressed in Impact C.8 in the Draft EIR (see pages IV.C-47 to -49), and are also determined to be less than significant. As discussed in Master Response HYD-1, only production well DW-2 would be used to provide supplemental water for quarry operations (there would be no use of production well DW-1) so there would be no potential for combined pumping effects of Wells DW-1 and DW-2. The effects on groundflow flows from excavation and from groundwater pumping from Well DW-2 would remain less than significant whether considered individually or collectively. The commenter is also referred to response to Comment L-6, above.

- L-33 The commenter asserts that long-term effects of pumping the onsite wells have not been evaluated, onsite groundwater needs have not been established. With respect to long-term pumping effects, please see response to Comment L-6. With respect to onsite groundwater needs, the commenter is referred to Master Response HYD-1 in this Response to Comments Document which characterizes and quantifies the various water demands for the project.
- L-34 The commenter indicates that the Draft EIR does not provide a basis for the project's estimated groundwater use. Please refer to Master Response HYD-1 in this Response to Comments Document, which characterizes and quantifies the various water demands for the project, including use of highly conservative estimates of water demand required for dust control.
- L-35 The commenter requests that the Draft EIR lists BAAQMD Regulation 6 for Particulate Matter. The Draft EIR refers to BAAQMD's Rules and Regulations, of which Regulation 6 is one part. As specified in Regulation 6, its purpose is to limit the quantity of particulate matter in the atmosphere through the establishment of limitations on emission rates, concentration, visible emissions and opacity. This regulation, as with other BAAQMD Rules and Regulations, is enforced by BAAQMD. The project would be required to operate pursuant to all applicable BAAQMD regulations, including Regulation 6, as deemed by BAAQMD.

- L-36 The commenter asserts geologic mapping indicates the presence of Franciscan complex, which is known to contain serpentine and bluechrist, both of which are known to contain asbestos. The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.
- L-37 The commenter indicates the Draft EIR uses data from the Santa Rosa – 5th Street monitoring station, and asserts the data are not at all applicable to the project site. The Draft EIR presents the most comprehensive long-term data available for major pollutants of concern that is closest to the project site. It should be noted that since the 5th Street monitoring station is located in a comparatively more urban area than the project site, presented pollutant values are likely higher than those at the project site, and consequently, would be considered conservative.

Comment Letter M

7/19/08

To Blake Hillegras, PRMD

2550 Ventura Ave

Santa Rosa, CA 95403

I am submitting a report ~~with~~ written by Ray Waldbaum, a licensed geologist. The report contains comments and questions about the proposed Roblar Road rock Quarry. Please address these comments and questions in the final EIR.

Sue Buxton

Sue Buxton

Petaluma, CA 94952

RECEIVED

JUL 21 2008

**PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA**

The Engineering Geologist
Since 1969
RG 3142 CEG 923
7945 St. Helena Road Santa Rosa, CA 95404
Phone 707-539-2577
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June 20, 2008

CARRQ
c/o Ms. Sue Buxton
[REDACTED]
Petaluma, CA 94952

Subject: **Engineering Geologic Overview of Stability Issues, Proposed
Roblar Road Quarry, Sonoma County, California.**

INTRODUCTION

In accordance with your request, I have reviewed the geologic stability issues affecting the proposed Roblar Road Quarry. The purpose of the geologic overview was to determine whether the potential impacts of the proposed project have been evaluated in accordance with State laws and standards of care that govern the practice of geology in the State of California.

The scope of the geologic review included the following tasks:

1. Geologic reconnaissance of the site vicinity with Ms. Sue Buxton.
2. Review of the referenced regional geologic and landslide maps of the site vicinity.
3. Examination of the referenced stereo pairs of aerial photographs in the offices of the Sonoma County Assessor.
4. Review of information concerning geology in the project Draft Environmental Impact Report (DEIR)
5. Preparation of this report that summarizes my findings.

My qualifications to perform this review consist of the following:

1. California licensure as a Professional Geologist and Certified Engineering Geologist since 1973.
2. Employment in the Engineering Geology Section of the Los Angeles County

M-1

Department of Public Works from June 1969 through December 1980, with substantial peer review responsibilities.

- 3. Employment as a Project Engineering Geologist in geotechnical consulting firms from December 1980 through June 2001.
- 4. Private practice as an Engineering Geologist from June 2001 through the present.

M-1
cont.

The proposed project consists of excavation of earth materials for use in a variety of construction applications. A grading plan depicting details of the proposed excavation has not been provided for my review. Ordinarily, grading is performed to create building sites and/or roadways. Such grading is bound by the requirement that all of the manufactured slopes be stable and that the project have no adverse geologic impacts on adjoining property and on the environment.

M-2

Chapter 33 of the California Building Code exempts quarrying from the requirement to obtain a grading permit only if, "...**such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property**" (emphasis added).

BACKGROUND INFORMATION

In approximately the last 40 to 50 years society in general and professional geologists in particular have learned a great deal about the negative impacts of geologic instability. Environmental degradation, property damage, personal injury and loss of life have occurred when geologic instability has impacted works of man. The professions of Engineering Geology and Geotechnical Engineering have learned valuable lessons from past mistakes and still are creating new solutions to a variety of stabilization issues.

M-3

Prior to 1970, the standards of care for the practice of geology were the responsibility of local jurisdictions and were very inconsistent. On June 30, 1970 the Geologist Registration Act became effective. From that time forward, professional geologists and various specialties within the profession of geology have been licensed by the State of California. Furthermore, various state, county and city agencies and various professional societies have developed requirements and guidelines for the practice of geology. The evolution of these requirements and guidelines has been incremental and is an ongoing process.

Peer review is a process that compares a scientific work product to the laws, requirements and guidelines which govern the work in question. The reviewer must not have a bias for or against the particular project in question and its consultants. Opinions concerning the adequacy of the work product being reviewed must be based

solely on a comparison of the work product to the governing laws, requirements and guidelines. Although Sonoma County does not require geotechnical peer review before granting permits to projects on sites in unincorporated areas, counties and cities throughout California have required peer review of geologic reports written to guide proposed grading projects as an essential component of their permitting process since the 1960s.

These laws, requirements and guidelines have been set forth by the Geologist Registration Act of 1970, the Alquist-Priolo Earthquake Fault Zoning Act of 1972, the California Board for Geologists and Geophysicists, the California Mining and Geology Board, the California Geological Survey (CGS), formerly known as the California Division of Mines and Geology (CDMG), and various professional organizations like the Association of Engineering Geologists (AEG). Furthermore, these laws, requirements and guidelines exist whether or not local consultants follow them and whether or not local public agencies choose to enforce them.

In the case of the Roblar Road Quarry, the documents provided for my review are Draft Environmental Impact Reports. Unlike original technical reports, these DEIRs present information and opinions purporting to summarize from experts like Engineering Geologists and Geotechnical Engineers. Unfortunately, these summaries can be oversimplifications of the work actually done by the technical consultants, and a great leap of faith is required to accept them as complete and accurate. The finding of this review may be different if the original geotechnical reports were provided for my review rather than the summaries in the DEIRs.

M-3
cont.

PROJECT DESCRIPTION

The proposed project consists of excavating on an approximately 200 acre site. The site occupies a northerly and westerly facing slope at the intersection of Canfield Road and Roblar Road, approximately 5 miles west of Cotati, in unincorporated Sonoma County, California. According to documents provided for my review, the quarrying operation will include excavation of cut slopes at gradients of 1 1/2:1 (horizontal:vertical) varying in height up to 340 feet. This is a very big cut slope. As stated above, a grading plan depicting details of the proposed excavation has not been provided for my review.

M-4

It is critically important that the locations (including tops and toes) of proposed quarry excavations be shown in the EIR at a clearly legible scale, so that reviewers can assess the potential effects of cut slope failures on adjoining properties and on the environment. Any such potential slope failures render the project infeasible unless the feasibility of adequate mitigation can be demonstrated prior to project approval.

M-5

OVERVIEW OF SLOPE STABILITY

In the State of California, landslides are generally recognized hazards that receive media coverage on a fairly regular basis. Landslides have the potential to cause property damage, personal injury and loss of life. An evaluation of the potential for any given slope or slopes to fail is called "Stability analysis". In simple terms, stability analysis is a scientific process in which the natural forces tending to cause slope failure ("Driving forces") are quantified and compared to the natural forces tending to resist slope failure ("Resisting forces") that are also quantified. The result of this comparison is a number that represents the "Factor of safety" against landsliding. A factor of safety less than one represents a slope in which the driving forces exceed the resisting forces and failure is actually occurring. A factor of safety of one represents a slope which is in an equilibrium condition where failure can be triggered by the slightest increase in driving forces and/or reduction in resisting forces. A factor of safety greater than one represents a slope that is in a stable condition. A higher numerical factor of safety represents a greater degree of slope stability. Additional information concerning stability analysis is presented in CDMG Special Publication 117, *Guidelines For Evaluating And Mitigating Seismic Hazards in California*, Reference 3. This is one of many documents that establishes the standard of care for the practice of geology in California.

M-6

Stability analysis, like all other engineering work, recognizes that a margin of safety is required. For that reason, a factor of safety significantly greater than one has been the standard of care in the State of California for decades in siting various structures and in evaluating proposed changes in land use where slope failure has the potential to adversely affect adjoining properties, the environment and/or the public health and safety. This standard of care exists whether or not local geotechnical practitioners choose to comply with it and whether or not local agency reviewers and building officials choose to enforce it.

If mitigation of geologic instability resulting from the proposed project cannot be accomplished for any reason, for example denial of access into off site areas for geologic subsurface investigation and/or corrective grading, costs exceeding budget constraints, environmental issues, etc, the project is **not feasible** and that fact must be acknowledged.

REGIONAL GEOLOGIC SETTING

According to the Geologic Map in *Geology For Planning In Sonoma County*, Reference 1, the site vicinity is underlain by bedrock of the Merced Formation, now called Wilson Grove Formation. Bedrock was not observed in outcrops during the geologic reconnaissance of the site on May 23, 2008. The residual soil that mantles the site consists of fine sand, indicating that bedrock underlying the site likely consists of the fine grained sandstone member of the Wilson Grove Formation.

M-7

This bedrock is of sedimentary origin. This genesis is important in considering slope stability because sedimentary strata are often separated by planes of weakness that are potential failure surfaces where oriented unfavorably. Very large masses of bedrock can move along these planes of weakness, forming what geologists call "bedding plane" landslides.

Bedrock at greater depth may be different, however its structure is also critically important in slope stability.

According to the Geologic Map, Plate 3B in Reference 1, site is located between two northwest trending faults parallel to the nearby Tolay fault. These are major, regional faults with mapped lengths of many miles. It is likely that tectonic forces related to these regional faults have fractured the bedrock between them, significantly decreasing the strength of the bedrock. In addition to decreasing the strength of the bedrock, these fractures have the potential to be the planes of weakness that become the actual bounding surfaces [basal slip surface(s), sides and graben] of landslides when existing slopes are oversteepened by quarry excavations.

It is essential that the bedrock types and geologic structures that will actually be exposed in the proposed quarry excavations be investigated and analyzed by the developer's geotechnical consultant. The geotechnical consultant must demonstrate that the project, that includes a 340 foot high cut slope, will not adversely affect adjacent properties and the environment. There is no margin of error when one of the adjacent properties is a landfill.

According to the Landslides And Relative Slope Stability Map in *Geology For Planning In Sonoma County*, Reference 1, the site vicinity is within Relative Slope Stability Category "C", defined as "Areas of relatively unstable rock and soil units, on slopes greater than 15%, **containing abundant landslides** (emphasis added).

The aerial photographs (Reference 2) examined for preparation of this report indicate the presence of topographic features indicative of large landslides within the site vicinity. The locations of these suspected landslides are indicated on the enclosed Site Vicinity Landslide Map, Figure 1.

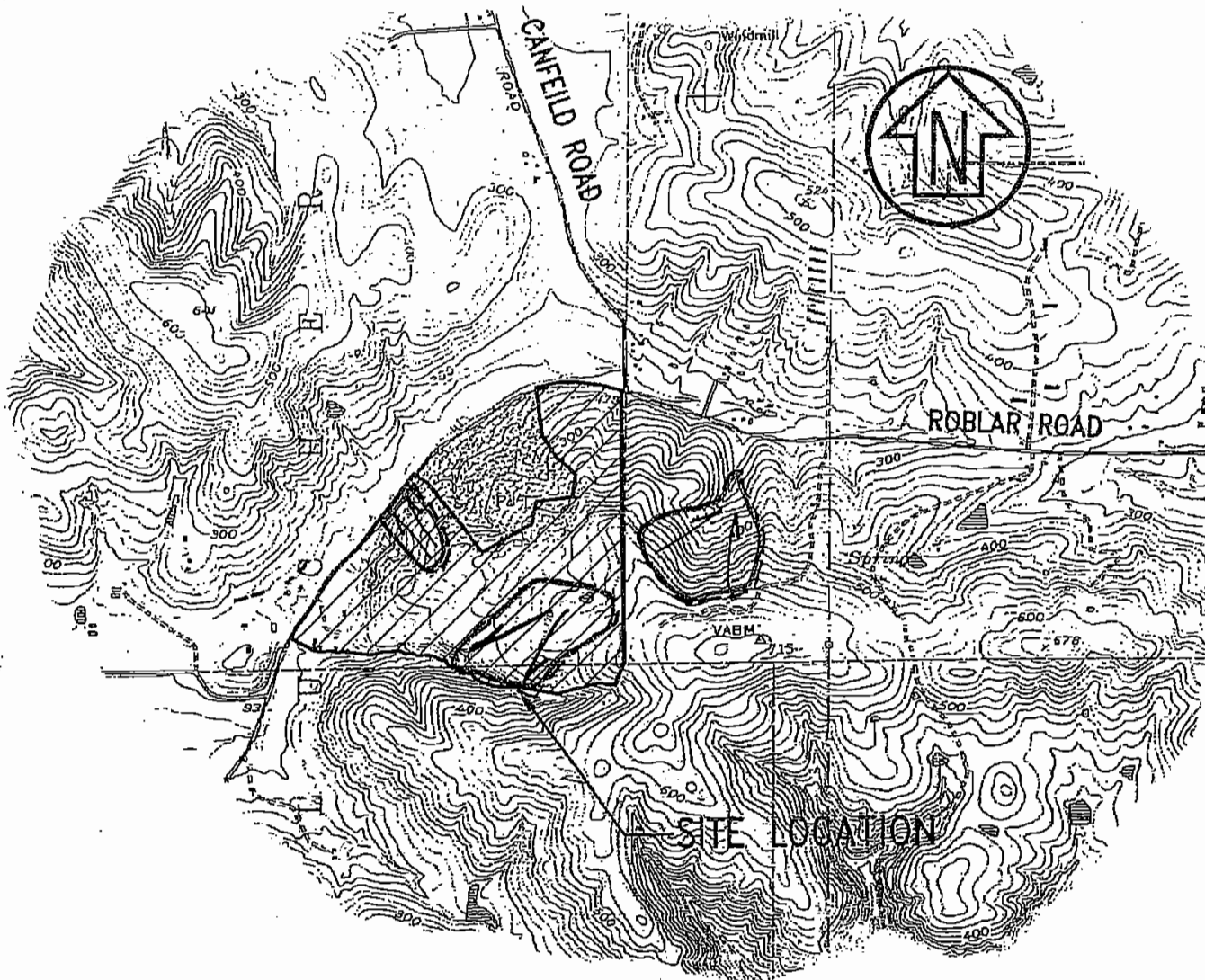
It must be understood that research of published regional geologic maps and aerial photographs are only preliminary steps in a geologic site investigation. On a site like the proposed quarry, where reliable outcrops of bedrock are not available for direct observation, sampling and measurement of geologic structures (eg. bedding planes and joints), subsurface investigation is necessary to obtain geologic data.

The subsurface investigation generally begins with excavation of geologic trenches using a backhoe or excavator. The trenches are made sufficiently deep to penetrate through topsoil, weathered bedrock and creep (that deforms the geologic structure)

M-7
cont.

M-8

M-9



Landslides inferred from aerial photographs (Reference 2), arrows indicate direction of movement.

Site location per Exhibit 1A, CSW/Stuber -Stroeh Engineering , June 2003

Scale: 1" = 2000'

Figure 1. SITE VICINITY LANDSLIDE MAP

affected bedrock are logged by the Engineering Geologist. Where landsliding is suspected, deep subsurface exploration is required using a "bucket auger" drill rig. This drill rig creates a boring with a minimum diameter of 24 inches. The Engineering Geologist then enters the boring and carefully cleans the exposed surfaces for detailed descriptions and measurements of the earth materials and preparation of a "down hole" log. The landslide debris, slip surface(s) and underlying undisturbed bedrock are described, measured and sampled.

There is no reliable substitute for "down hole" logging of a bucket auger boring. Small diameter core borings that yield samples for examination at the ground surface fail to disclose some of the features that characterize landslide debris. For example, large voids separating blocks of landslide disturbed bedrock are diagnostic of landslide debris but cannot be observed in small diameter core borings. These small diameter borings also do not allow the Engineering Geologist to directly examine the actual materials and geologic structures that will be exposed at the actual cut slope faces. I have personally "down hole" logged countless bucket auger borings as essential data gathering in evaluating suspected landslides and both natural slopes and proposed cut slopes. **There is simply no substitute for direct observation in gathering scientific data.**

M-9
cont.

The geologic data are then plotted on a topographic map of the site showing the proposed grading, property boundaries and other critical features. This is called a "Geologic Map". Imaginary vertical slices through slope areas are then prepared to illustrate the geologic features below the ground surface in relation to the proposed grading and boundaries with adjacent sites. These are called "Geologic Cross Sections".

The Geologic Map and Geologic Cross Sections present the basic data upon which Engineering Geologists and Geotechnical Engineers base their interpretations, stability analysis, conclusions and recommendations.

CONSULTANT REPORTS

It appears that there has been a "revolving door" of geotechnical consultants on this project. The geotechnical consultants mentioned in the documents provided for my review include GEOMATRIX (1986), McNamara and Associates (1986), John Dailey (2002, 2005, 2006, 2007), Miller Pacific (2004), unidentified investigators who performed seismic refraction surveys (2001 and 2002) according to page IV.B-1 of reference 5 and ESA's in house professional geologist (2008). This is very unusual in my experience, because it creates a considerable duplication of efforts and, thus, significant increases in costs. More importantly, it strongly suggests "opinion shopping" by the developer. The possibility of "opinion shopping" is supported by comparing the 1989 and 2008 DEIRs. Having so many geotechnical consultants on a project creates the temptation to "cherry pick" the findings and recommendations to

M-10

make the project appear more benign and less expensive. More information concerning this issue is provided in the following paragraphs.

No actual geotechnical consultant reports have been provided for my review. The documents that were provided for my review are DEIRs prepared in 1989 (Reference 4) and 2008 (Reference 5). As stated in a previous section of this report, these DEIRs present information and opinions purporting to summarize from experts like Engineering Geologists and Geotechnical Engineers. Unfortunately, these summaries can be oversimplifications of the work actually done by the technical consultants, and a great leap of faith is required to accept them as complete and accurate. The findings of this review may have been different if the original geotechnical reports were provided for my review rather than the summaries in the DEIRs.

M-10
cont.

1989 DEIR

According to the 1989 DEIR **“The proposed quarry lies on slopes that vary from ten to 30 percent. The hummocky, irregular surfaces of the hills testify to old and recent landsliding and slumping. A slide was noted in stereo photos taken in 1974 (USGS, 1974); it occurred in that section of the proposed site transected by the intended access road. Its toe was at Roblar Road, at about elevation 120 feet above mean sea level (msl). Its crown was at about 340 feet above msl. The slope angle of the slide is about 30 percent. Nothing further was learned about the slide”** (emphasis added).

The forgoing matches the results of my air photo study (Reference 2) that also indicated that topographic features indicative of large scale landsliding are present in the site vicinity.

M-11

The standard of care for the practice of geology in the State of California precludes the developer from simply engaging a different geotechnical consultant to claim that the hazard is absent. In fact, *General Guidelines For Reviewing Geologic Reports* dated May 9, 1996 by the State Mining & Geology Board (Reference 6) states **“Was the investigation conducted according to existing state-of-the-art standards? Answers to these questions lie in the report being reviewed. For example, a reported landslide should be portrayed on a geologic map of the site. The conclusion that a hazard is absent, where previously reported or suspected, should be documented by stating which investigative steps were taken and precisely what was seen”**.

It is critically important to understand that geologic hazards exist independently of our ability to recognize them!

2008 DEIR

The purpose of the geotechnical work on the site is to ensure that geologic conditions on the site are favorable for quarry worker safety, geologic stability of adjoining property and environmental protection. It is my professional opinion that the Geology, Soils, and Seismicity section of the 2008 Draft EIR does not conform to the standard of care required by The Geologist Registration Act, directives from the State of California Mining and Geology Board and directives known as "Notes" from the California Division of Mines and Geology.

It is not possible in this brief review document to fully describe all that should be done in evaluating the geotechnical feasibility of the proposed quarry excavation. Specific deficiencies are listed below in the order that they appear in the report:

The Geologic Map that accompanies the Geology, Soils, and Seismicity section of the 2008 Draft EIR is not based on a legible base map showing the actual excavation to be performed and the locations of property boundaries with neighboring sites (not "project" boundaries) that could be adversely affected by renewed movement of existing landslides and/or slope failures triggered by the blasting and/or excavation within the quarry site. The locations of property boundaries is also important because Section 26A-09-010 of the Sonoma county Surface Mining and reclamation Ordinance requires specific setbacks from property boundaries.

M-12

The geologic map does not have any data concerning geologic structure within the bedrock units that underlie the site, particularly where cut slopes are proposed. This is a fundamental deficiency, because Engineering Geology, like any science, is reliant on data of adequate quality and quantity. Without data, there is no science, just conjecture and unsupported opinions.

The Geologic Cross Section that accompanies the Geology, Soils, and Seismicity section of the 2008 Draft EIR does not depict the geologic structure that will be exposed in the proposed quarry excavation cut slopes. The purpose of geologic cross sections prepared for a grading plan is to present the anticipated geologic structure in the proposed cut slopes to assess cut slope stability. **If the geologic structure is unknown, how can a conclusion be derived that the proposed cut slopes will be stable and will not adversely affect adjoining property and the environment?**

According to page IV.B-1 of the Geology, Soils, and Seismicity section of the 2008 Draft EIR "This section relies in part on the geotechnical analysis conducted by the applicant's geotechnical engineer (John Dailey, Consulting Geotechnical Engineers) and reviewed for technical adequacy and consistency for use in this EIR by Miller Pacific Engineering Group and ESA's in house professional geologist".

M-13

The forgoing quote raises two very important questions. In any project involving consultants with professional expertise, it is essential to identify the "Consultant of record" in order to establish who is actually responsible for the work. Who is the consultant of record? Is it John Dailey, Miller Pacific or ESA's in house professional geologist? There can be only one "Consultant of record" because if something goes wrong in the future, who will the people who have been harmed turn to?

M-13
cont.

If the section relies "...in part" on John Dailey, Miller Pacific and ESA's in house professional geologist, what else does it rely on?

According to pages IV.B-1 and B-2 of the Geology, Soils, and Seismicity section of the 2008 Draft EIR "Several previous site investigations have provided information to characterize the geology beneath the project site". **Where are the data from these "previous site investigations" and why are the data not presented in the DEIR?**

M-14

According to page IV.B-12 of the Geology, Soils, and Seismicity section of the 2008 Draft EIR "Dailey mapped four small to moderate size landslides (combined slump-earth flows up to about 180 feet long or wide) within the project property on the moderately steep slope along the western boundary of the project site near Roblar Road (Dailey, 2005) (Figure IV.B-1). **Where are the geologic data concerning these landslides? How thick are they? What materials failed? What was the mechanism of failure?**

M-15

According to page IV.B-13 of the Geology, Soils, and Seismicity section of the 2008 Draft EIR, under the heading of Seismic Hazards, "The potential effects of ground shaking are **slope failure** (emphasis added) ...". **Despite this, seismically induced landsliding is disregarded in the evaluations of seismic hazards on pages IV.B-13 and IV.B-14. This fails to conform to the requirements of CDMG Special Publication 117, Guidelines For Evaluating And Mitigating Seismic Hazards in California, 2000 (Reference 3).**

M-16

According to page IV.B-22 of the Geology, Soils, and Seismicity section of the 2008 Draft EIR factors of safety against landsliding are "**adequate**" (emphasis added) based upon "...high shear strength and massive nature of the source rock". **What is the actual factor of safety ("adequate" is not a number)? Where are the geologic data to document that the bedrock is "massive"? How does this explain existing landslides mapped on the site? How does this account for landslides throughout Sonoma County in bedrock of the Sonoma Volcanic Group? How does this guarantee that proposed cut slopes will not undercut and destabilize neighboring properties including the adjacent landfill and/or create conditions that allow escape of landfill lechate into the environment?**

M-17

According to page IV.B-23 of the Geology, Soils, and Seismicity section of the 2008 Draft EIR "The large movements associated with instability and failure of rock slopes are nearly always preceded by smaller ones that can be detected by sensitive instruments. Therefore, movement monitoring gives the most useful measurement of potential instability, and is the most commonly employed type of monitoring (Dailey, 2007)". **This is irrelevant in the context of protecting adjoining property and the environment. Once geologic instability is set into motion by making unsafe excavations, there is no "unringing the bell". While there may be time to evacuate people if instrumentation and monitoring are adequate, environmental degradation and damage to offsite property have not been avoided.**

M-18

CONCLUSIONS

My research of published regional geologic data (Reference 1), examination of stereo pairs of aerial photographs in the office of the Sonoma County Assessor (Reference 2), and review of materials provided by Ms. Sue Buxton indicate that landsliding is a significant concern on the quarry project. The potential consequences of this landsliding include damage to offsite property, personal injury, loss of life, and environmental damage.

The "revolving door" of geotechnical consultants has apparently resulted in the previously discovered (Reference 4) landslide hazard being minimized. The standard of care for the practice of geology and the CEQA process do not allow this. In fact the 2006 CEQA Guidelines, Appendix G, consider the potential for on- or offsite landsliding significant.

M-19

Assurances that existing natural slopes and proposed cut slopes are stable fail to explain the presence of landsliding already present in bedrock materials on this site.

Reliance upon instrumentation for notification that a landslide hazard has passed the "point of no return" is an absurd concept if the landslide has the potential to damage offsite property and the environment. It is tantamount to closing the barn door after the horses have escaped.

It cannot be assumed that all geologic problems can be mitigated, no matter how severe. In order to demonstrate the geologic feasibility of the proposed project, the geotechnical consultant, whoever that is as there is no presently identified consultant(s) of record, must demonstrate that the proposed excavations will not adversely affect adjoining properties and the environment. This work must comply with all laws, guidelines and standards of care that govern the practice of geology in California. Statewide standards, not community standards, govern.

It is critically important that the locations (including tops and toes) of proposed quarry

M-20

CARRQ, June 20, 2008

page12

excavations be clearly shown in the EIR at a legible scale, so that reviewers can assess the potential effects of cut slope failures on adjoining properties and on the environment. If adequate factors of safety against landsliding affecting offsite property and the environment cannot be demonstrated, the feasibility of mitigations must then be demonstrated.



M-20
cont.

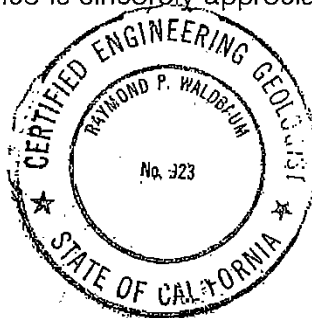
Some geologic hazards simply cannot be mitigated. Examples are sites where the hazard originates off site and the off site property owner will not allow access for geotechnical investigation nor corrective grading, such as debris basin or buttress fill construction. Another example is a mitigation that would entail destruction of habitat or viewshed. The existence of a miraculous mitigation, to be determined at some future date, cannot be assumed. Furthermore, "Deep pockets" cannot solve all geologic problems. **If mitigation of the geologic hazards is not feasible, the project is not feasible.**

I trust that the forgoing information fulfills your requirements at this time. If the project proponents provide geotechnical information in the future, it should be forwarded to this office for review.

The opportunity to be of professional service is sincerely appreciated. If you have any questions, please do not hesitate to call.

Very truly yours,

Raymond Waldbaum
Registered Geologist 3142
Certified Engineering Geologist 923



Enclosure: Site Vicinity Landslide Map, Figure 1

Letter M. Raymond Waldbaum, R.G., C.E.G., on behalf of Sue Buxton

- M-1 The commenter lists the scope of geologic review he conducted, and his professional qualifications. This comment does not specifically address the adequacy of the Draft EIR; consequently, no response is required.
- M-2 The commenter generally describes the proposed project and provides an excerpt from Chapter 33 of the California Building Code. This comment does not specifically address the adequacy of the Draft EIR; consequently, no response is required.
- M-3 The comment contains a general background on the practice of engineering geology, standard of care, peer review and development of laws, regulations and guidelines governing geologic and geotechnical issues and review. These comments do not specifically address the adequacy of the Draft EIR; consequently, no response is required.
- M-4 The commenter summarizes physical aspects of the proposed project. These comments do not specifically address the adequacy of the Draft EIR; consequently, no response is required. However, the commenter should note, and as the EIR Project Description states, although the project site is roughly 200 acres, the proposed project would disturb approximately 70 acres, including a 65-acre quarry pit.
- M-5 The commenter indicates it is important for the locations of proposed quarry excavations to be shown in the EIR at a legible scale. The Draft EIR presents the latest and most detailed project site plans available from the project applicant. These plans illustrate existing topographic contours of the project site, and proposed topographic elevation contours of the quarry for each project mining phase, including stockpiles. Further, five different cross-sections through the quarry are provided for each project mining phase, also showing elevations; as well as typical cross-sections of the proposed quarry access road and quarry benches.

Contrary to the commenter's claim, the project plans do show the proposed tops and toes for quarry slopes for each phase of excavation. The site plans, along with aerial photographs and other drawings, depict all existing site structures and natural features, and proposed structural development, including buildings, processing facilities, and drainage. Full size copies of all the applicant's project plans are available at Sonoma County PRMD for review.

- M-6 The commenter indicates that if mitigation for geologic instability resulting from the proposed project cannot be accomplished for any reason, the project is not feasible. To the extent the comment suggests a project cannot be approved unless all impacts are mitigated to less than significant, this is not a correct statement under CEQA. CEQA requires a public agency to avoid or mitigate a project's significant effects on the environment whenever it is feasible to do so. (Pub. Res. Code, sec. 21002, 21002.1.)

- “Feasible” is defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (Pub. Res. Code, sec. 21061.1.) CEQA acknowledges that economic, legal, social, technological, or other considerations may make it infeasible to mitigate or avoid a significant project impact. (Pub. Res. Code, sec. 21002, 21002.1.) In that case, the public agency may nevertheless approve the project, provided it adopts a statement of overriding considerations, finding that specific overriding economic, legal, social, technological or other benefits outweigh the project's significant effects on the environment. (Pub. Res. Code, sec. 21081.) It should be noted that, consistent with CEQA, the Draft EIR has identified feasible mitigation measures that would reduce all of the proposed project's geologic impacts to less than significant. Therefore, no statement of overriding considerations regarding geologic impacts would be required.
- M-7 The commenter stresses the importance of structure and stratigraphy in the assessment of slope stability, indicating that an area composed of sedimentary rocks and fractured bedrock could potentially fail if over steepened by quarry excavations. This comment does not specifically address the adequacy of this EIR, but is a general statement about the mechanisms and possible triggers for in sedimentary rocks and fractured bedrock.
- M-8 The commenter indicates that bedrock types and structure need to be investigated and demonstrated to be safe under proposed quarry conditions. The impact conclusions in this EIR are based on a review of the geological setting, as well as site specific geological studies, including those performed by John H. Dailey and Miller Pacific Engineering Group (MPEG). The Draft EIR identified slope failure as a potential impact to the proposed project because these studies revealed that the basalt bedrock was moderately fractured and could potentially experience sloughing, raveling, topples or wedge failure. Mitigation measures are identified in the Draft EIR that would prevent these potential hazards from affecting offsite property and the environment. It is not the objective of this EIR to demonstrate that quarry slopes will never fail, but to ensure that these potential failures do not result in significant impacts to offsite properties and the environment.
- M-9 The commenter presents a map of suspected landslides in and around the project site and describes the standard engineering geology procedure for investigating the structure and stratigraphy of subsurface geologic materials for landslide features. This comment does not specifically address the adequacy of this EIR, but rather, generally describes field methods and investigative techniques. In particular, the commenter compares the use of small diameter borings and the large bucket auger sampling techniques to investigate slope stability on the project site. Please refer to response to Comment K-12 regarding the typical, feasible, and necessary level of field study for a proposed quarry. Please also refer to responses to Comments K-5 and K-8 for additional information regarding landslide identification, slope stability analyses, and relevance of Wilson Grove formation landslides at the project site.
- M-10 The commenter expresses concern that the number of consultants who have worked on the proposed project is indicative of “opinion shopping” by the project applicant.

As discussed in the Draft EIR, there have been two previous quarry proposals on the project site which have been the subject of previous EIRs, although those proposals were associated with different applicants, and are not associated with the current quarry proposal. Accordingly, the Draft EIR for the current project makes no reference to the report in question.

It is also important to understand that the project planning, design, environmental review, and permitting of a large project is a multi-level process requiring a breadth of technical experts. For large projects, such as a proposed quarry, it is not uncommon for an applicant to utilize various geotechnical experts, engineers, and geologists involved in resource investigations, geotechnical suitability, and general project engineering. Further, the County and EIR consultant utilize their own professionals for conducting the environmental review of the project under the CEQA process. The EIR preparers conduct an independent and objective evaluation of environmental impacts of a project considering the entire body of relevant technical data available.

Furthermore, CEQA requires that an EIR be written in plain language that can be readily understood by the general public (CEQA Guidelines, § 15140) while at the same time providing adequate information and data for the lead agency approving the project. For this reason, technical analyses are carefully summarized as appropriate but accurately incorporated, and applied to the impact analyses in the EIR. All studies cited in the EIR become part of the administrative record and are available to the public for review at Sonoma County PRMD, as noted in the Draft EIR on page I-4.

- M-11 The commenter presents and briefly discusses observations regarding landslides in the 1989 EIR. The commenter then provides a general discussion of the geology standard of care. Please refer to response to Comment K-8 for additional discussion of landslide mapping and interpretation. The Draft EIR identifies the same landslide feature described in the first paragraph of this comment and the landslide features are shown on the Geologic Map, Figure IV.B-1 in the Draft EIR. On Page IV.B-12, the Draft EIR discusses four small to moderate-sized landslides (combined slump-earth flows up to about 180 feet long or wide) within the project property on the moderately steep slope along the western boundary of the project site near Roblar Road. The Draft EIR identifies the site as susceptible to landslides, identifies existing slope failures, and provides mitigation to reduce future slope instability. The geologic investigations for which the Draft EIR relies were conducted to the standard of care for the practice of geology. Please see also response to Comment K-8.
- M-12 The commenter states his professional opinion that the Geology, Soils, and Seismicity section of the Draft EIR does not conform to the standard of care required by the Geologist Registration Act and the directives set forth by the California Geological Survey (formerly the California Division of Mines and Geology). It is important for the commenter to understand he reviewed a Geology, Soils, and Seismicity chapter for an EIR prepared pursuant to all applicable requirements of CEQA, and that it is not a technical investigation report. While the EIR relies on various technical reports and care

is taken to explain technical issues as clearly and simply as possible, the EIR document itself is not considered a technical report and is not signed or stamped by a registered professional. This EIR section is not required to conform to the Geologic Registration Act or CGS directives.

The commenter states that the geologic map, Figure IV.B-1, which accompanies the Geology, Soils, and Seismicity section of the Draft EIR does not show excavation limits and property boundaries. The geologic map does show the proposed limits of excavation for the three proposed phases as well as geological features, excavation set backs, terrain, test pits, soils borings, and wells. The geologic map also indicates locations of cross sections, which are provided as Figures IV.B-2. The setbacks shown on Figure IV.B-1 comply with setbacks required by SMARO. Please also refer to response to Comment M-5. above.

The commenter states that the geologic map accompanying the Geology, Soils, and Seismicity section of the Draft EIR does not show the structure of the bedrock units that underlie the site. Detailed information on the structure of the bedrock was not available because the bedrock is not exposed at outcrops and exploratory rock borings completed by MPEG in 2004 in support of a resource investigation did not permit reliable measurement of the orientation of the fractures and overall structure. As stated in the response to Comment K-12, exhaustive study to attempt to determine bedrock structure and slope stability is not appropriate for this project because it is infeasible to fully characterize conditions without exposing the slopes as they would be during active mining. The proposed slope configuration (1.5:1) is considered stable for bedrock quarry slopes and the proposed slopes conform to SMARO (Section 26A-09-010 (m), 26A-11-010 (2), 26A-09-040 (c), and 26A-11-040). The EIR analysis relies on the professional opinions and expertise of the professional geotechnical engineers involved in the quarry design, the review of the applicant's geotechnical studies by the third party geotechnical reviewer retained by the County, and slope configuration requirements set forth by regulations under SMARO. For certain projects, such as quarries, the most informative and reliable data on the bedrock structure and slope stability is collected after work is underway and the quarry operator has the opportunity to observe the cuts and assess the orientation, behavior, and stability of the bedrock under the SMARO-prescribed slopes. Bedrock quarries rely on periodic inspections, observations from mining engineers and geologists, and reports from equipment operators for information on the stability and behavior of working faces and reclaimed slopes. As mining progresses, ample information and data would be available regarding the slopes and setbacks to reliably evaluate the potential risks to neighboring properties. The mitigation measures provided in the Draft EIR 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 would be implemented.

- M-13 The commenter notes the number of geological consultants referred to in the EIR, and asks who is "consultant of record." It is unclear what the comment author is referring to by the term "consultant of record." This is not common terminology. The EIR process

involves many professional experts to analyze the impacts of that project on the environment. While there is a project geotechnical engineer retained by the applicant for project design (John H. Dailey), the County as Lead Agency retained an EIR consultant (ESA) who utilized a third party technical reviewer (MPEG) to assist ESA's in-house engineering geologist. There are many technical experts involved in the preparation of an EIR and that breadth of expertise provides reliable analyses and review to ensure that the environmental impacts are adequately assessed. The County of Sonoma as Lead Agency is responsible for ensuring CEQA review is carried out properly. Most municipalities hire consultants to assist with the EIR process. The Lead Agency's consultant is not considered a "consultant of record." However, projects do have an "engineer of record" or a "geologist of record." The proposed project has not been approved and therefore, there is no engineer or geologist of record for the quarry operation. Should this project be approved, the geologist of record would be retained by the applicant to implement, monitor, and be responsible for the all geotechnical aspects of the project. Please also refer to response to Comment M-10.

- M-14 The commenter paraphrases a statement (in italics below) from the introduction of the EIR and asks, "what else does it rely on?"

This section relies in part on the geotechnical analysis conducted by the applicant's geotechnical engineer (John Dailey, Consulting Geotechnical Engineers) and reviewed for technical adequacy and consistency for use in this EIR by Miller Pacific Engineering Group and ESA's in-house professional geologist."

Refer also to response to Comment M-13. The Draft EIR analysis relies on many sources of information. Consistent with the requirements of CEQA (see CEQA Guidelines § 15148), these sources are described in the Draft EIR on page IV.B-1 under the heading "Sources of Geologic Information" and are included in the reference section at the end of the chapter. It should be noted that the statement paraphrased by the commenter was merely an introductory statement informing the reader that the applicant's consultant's work was also used in the EIR analysis.

The commenter continues by quoting from Draft EIR Page IV.B-1) the statement, "[s]everal previous site investigations have provided information to characterize the geology beneath the project site," and inquires as to the location of the data and why this information is not included in the Draft EIR. CEQA *Guidelines* Section 15148 states engineering reports and scientific documents related to environmental features should be cited but not included in the EIR. The section headed "Sources of Geologic Information" on page IV.B-1 of the Draft EIR describes the major information sources used in the preparation of the Draft EIR setting and impact analyses. These sources contributed to developing the body of information about the geology and geologic hazards of the proposed quarry site. Relevant data and information from these sources are provided throughout the section, and where appropriate, much of the information is cited within the Draft EIR section. Furthermore, it should be noted that the sources used in the EIR

become part of the administrative record of the EIR and are available to the public for review at County Permit and Resource Management Department.

M-15 The commenter quotes from the Draft EIR a statement regarding four landslides that John H. Dailey identified on the project site (Draft EIR, page IV.B-12) and inquires as to where the geologic data is concerning the landslides. The location of these landslides is illustrated in Figure IV.B-1 on page IV.B-3 in the Draft EIR. The commenter asks about the size of the landslide, the material that failed and the mechanisms of failure. The information that the commenter is referring to is part of the geologic setting under the heading “Slope Failure Hazards” on page IV.B-12 of the Draft EIR. This section of the setting identifies the existing slope stability hazards on the project site and provides an explanation of the conditions under which the slope failures occurred. The section provides sufficient background to inform the reader as to the existing landslide hazard, the cause and mechanism of the slope failure, and where the slope failure was in relation to the proposed quarry operation. Additional technical details of the slope failure, as those requested by the commenter, would become too technical for a Draft EIR and would not change the overall conclusion of the EIR, which is that slope instability is a potentially significant impact at the project site. The impact analysis section, beginning on page IV.B-21 of the Draft EIR, identifies and analyzes slope stability as a significant impact and prescribes mitigation measure to reduce those hazards to less than significant levels.

M-16 The commenter quotes the Draft EIR (Page IV.B-13) with the statement, “[t]he potential effects of ground shaking are slope failure . . .” and states that the Draft EIR fails to include a discussion of seismically-induced slope failure in the seismic hazards section. The commenter then states that this is in violation of the CGS’s Special Publication 117 *Guidelines for Evaluating and Mitigating Seismic Hazards in California*. The potential for seismically-induced slope failure is discussed in the Draft EIR’s setting as a consequence of ground shaking and is included under the “Ground Shaking” sub-heading (Draft EIR, page IV.B-13). The information presented in the setting regarding the potential for earthquakes to cause landslides contains sufficient detail and is typical for an EIR setting section prepared under CEQA. The impact to the public, the environment, and the project from ground shaking and seismically-induced slope failure is discussed in Impact B.1 (Draft EIR, page IV.B-21) and found to be less than significant. Slope instability and failure resulting from oversteepened slopes and stockpiles is discussed and analyzed in Impact B-2 (Draft EIR, page IV.B-23). Impact B.2 was found to be potentially significant, however, with implementation of Mitigation Measures B.2a through B.2d the impact would be reduced to less than significant.

Contrary to the commenter’s assertion, the Draft EIR does not violate or “fail to conform to” Special Publication 117 *Guidelines for Evaluating and Mitigating Seismic Hazards in California*. Special Publication 117 is California’s official guideline for the assessment and mitigation of slope hazards and the implementation document for the Seismic Hazard Mapping Act of 1990. Special Publication 117 sets forth guidelines for the evaluation and mitigation of earthquake-related hazards for areas mapped as seismic hazard zones. As

discussed in the Draft EIR (Page IV.B-15), the Seismic Hazard Mapping Act is included in the proposed project's regulatory framework although Seismic Hazard Maps have not been prepared for Sonoma County. Special Publication 117 has no requirement regarding the treatment of potential seismic hazard impacts under CEQA compliance documents. According to Special Publication 117, "*Nothing in these guidelines is intended to negate, supersede, or duplicate any requirements of the California Environmental Quality Act (CEQA) or other state laws and regulations. At the discretion of the lead agency, some or all of the investigations required by the Seismic Hazards Mapping Act may occur either before, concurrent with, or after the CEQA process or other processes that require site investigation.*"²³ Mitigation Measure B.2d (Draft EIR, Page IV.B-24) would require the applicant to regularly inspect, monitor, and repair potentially hazardous slopes as mining proceeds. The mitigation measure also required monitoring and inspection to take place after storms, earthquakes and mine blasting events. These mitigation measures will ensure that potential impacts from seismically-induced slope failure would be less than significant. See also responses to Comments K-4 and K-5.

The methods, procedures, and references contained in Special Publication 117 are those that the State Mining and Geology Board, the Seismic Hazards Mapping Act Advisory Committee, and its Working Groups believe are currently representative of quality practice. In order to align Mitigation Measures B.2d closer to California's accepted guidelines for evaluation and mitigation of seismic hazards and ensure consistency with current engineering practice, Mitigation Measure B.2d will be clarified. Mitigation Measure B.2d, on page IV.B-24 of the Draft EIR, third full paragraph; and on page II-5 of the Draft EIR, third column, first paragraph is revised as follows (all changes to the Draft EIR are compiled in Chapter V, Errata).

“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. Evaluation of slope stability under seismic conditions and strategies to reduce slope instability hazards shall conform to the guidelines and recommendations contained in the current edition of the California Geological Survey's Special Publication 117 *Guidelines for Evaluating and Mitigating Seismic Hazards in California.* Engineering recommendations for slope repair or stabilization shall be approved by PRMD and incorporated into the proposed project.”

²³ California Geological Survey (formerly the California Division of Mines and Geology (CDMG), *Guidelines for Evaluating and Mitigating Seismic Hazards in California*, Special Publication 117. Adopted March 13, 1997. Page 12 (of current on-line version) <http://gmw.consrv.ca.gov/shmp/webdocs/sp117.pdf>.

M-17 The commenter begins the comment by misquoting and misinterpreting the text of the Draft EIR. The Draft EIR did not state on Page IV.B-22 that “factors of safety against landsliding are adequate” based upon “high shear strength and massive nature of the source rock.” The Draft EIR states on page IV.B-22 that “Geotechnical analysis determined that a proposed cut slope of 1.5:1 horizontal to vertical (H:V), with 10-foot wide benches spaced every 30 vertical feet would provide adequate stability of bedrock materials.” It should be noted that the slope configurations are consistent with the requirements of SMARO. The Draft EIR continued in the same paragraph by stating that, “[t]he stability of the proposed cut slopes is due to the high shear strength and massive nature of the volcanic source rock.” This was based on exposed bedrock conditions encountered in the MPEG borings and the borings excavated by the applicant’s geotechnical engineer, John H. Dailey during the subsurface exploration program²⁴.

The commenter continues by inquiring the basis for categorizing the bedrock as “massive.” The term “massive” was used appropriately by the DEIR authors as a general term to describe the hard, little weathered, moderately fractured homogeneous basalt of the Tolay Volcanics. The characteristics of Tolay Volcanics were verified through resource explorations that describe the Tolay Volcanics as dark grey to black, fine-grained igneous rock with seismic velocities of 13,000 feet per second.

The commenter inquires why, if the volcanics are “massive,” four small landslides occurred on the site. The four small landslides that were mapped on the site correspond to slope failures at the contact between the semi-permeable sands and sandstone of the Wilson Grove formation and the presumably less permeable Franciscan Complex bedrock below (Draft EIR, page IV.B-12); these landslides did not occur in the Tolay Volcanics. It should also be noted that all the Wilson Grove materials within the quarry footprint would be removed and placed in engineered stockpiles.

The commenter then asks how the “massive” structure of the Tolay Volcanics accounts for the landslides in the Sonoma Volcanic Group throughout Sonoma County. Responding to this comment is not possible without obtaining more specifics on what other landslides the comment is referring to. The Sonoma Volcanic group is a widespread geological unit with a high degree of variability in texture, hardness, and fracturing and a broad statement regarding general slope stability throughout the Sonoma Volcanics would not be prudent.

The final question in this comment is in regards to stability of cut slopes in the proposed quarry and what assurances are there that these cut slopes would not destabilize and undercut neighboring properties or cause leachate from the landfill to escape into the environment. The commenter is referred to responses to Comments K-3, K-4, K-5, K-8, K-12, K-13, and M-8 for comprehensive discussions associated with slope stability associated with proposed quarry slopes and the evaluation of slope stability hazards. In

²⁴ From page 6 of *Report, Geotechnical/Geologic Evaluation for EIR, Proposed Roblar Road Quarry*, June 2005; and page 1 of *Stability Analysis of Quarry Slopes, Proposed Roblar Road Quarry*, May 2007, by John H. Dailey, Consulting Geotechnical Engineer.

- regards to the question of leachate, the commenter is referred to Impact C.4 in the *Hydrology and Water Quality* section of the DEIR. The potential for contaminated seepage was recognized as a significant impact in the DEIR, mitigable through monitoring and treatment of the seepage. Refer to Master Response HYD-2 for a detailed description of the groundwater quality beneath the site and the adjacent landfill property. Refer to HYD-1 for a description of the containment, monitoring, and treatment procedure in the event that contaminated seepage enters the quarry through fractures in the quarry walls.
- M-18 The commenter takes issue with the following statement from the Draft EIR (page IV.B-23) regarding slope instabilities: *“The large movements associated with instability and failure of rock slopes are nearly always preceded by smaller ones that can be detected by sensitive instruments. Therefore, movement monitoring gives the most useful measurement of potential impending instability, and is the most commonly employed type of monitoring (Dailey, 2007).”* The commenter states that the above statement is irrelevant in the context of protecting adjoining properties and that once a stable slope fails, you may be able to evacuate people but you cannot avoid environmental degradation or property damage. Refer to response to Comment K-5, above. Large scale slope failures capable of damaging adjacent properties are not expected because 1) the Wilson Grove formation material would be removed and placed in engineered stockpiles and slope stability analyses have determined that the stockpiles would remain stable under static and earthquake forces, and 2) large scale, deep seated landslides capable of adversely impacting adjoining sites are not expected because of the inherent stability of the Tolay Volcanics. The required slope configurations coupled with the monitoring, which is required as mitigation, would identify and mitigate slope stability hazards. Instrumentation would assist but periodic visual slope monitoring, which is required as mitigation (Mitigation Measure B.2d) is a standard practice at hard rock quarries.
- M-19 This comment is a conclusion to the comment letter. To avoid repetition, this comment refers the reader to responses to Comments K-5, K-8, K-9, M-8, M-10, M-13, M-16, M-17, and M-18.
- M-20 This comment contains concluding statements and final remarks. To avoid repetition, this comment refers the reader to comment response M-5 regarding graphic representation of the “tops and toes” of slopes. The commenter infers that the mitigation measures are not feasible. Mitigation Measures B-2a through B-2d are standard measures to reduce the risk of slope failure and are based on standard engineering practice. These measures are feasible and would reduce the potential of on- and off-site slope failure resulting from activities at the quarry to less than significant. The remainder of comment M-20 is commentary and does not address the adequacy of the DEIR; consequently, no additional response is necessary.

Rose M. Zoia

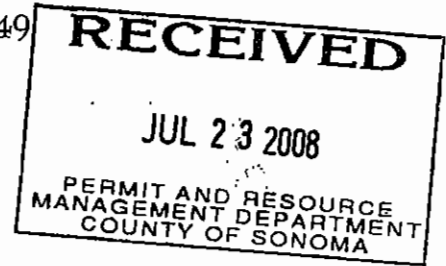
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July 22, 2008

via fax 565-1103

via USPS

Blake Hillegas

Sonoma County PRMD

2550 Ventura Ave.

Santa Rosa, CA 95403

RE: Proposed Roblar Road Quarry Project
Comment Letter DEIR, SCH # 2004092099

Dear Mr. Hillegas:

On behalf of Citizens Against Roblar Road Quarry (CARRQ), please accept this comment letter on the Draft EIR for the Roblar Road Quarry project.

These comments incorporate, supplement, and complement those submitted by expert consultants for CARRQ including the Geology, Soils, and Seismicity Analysis presented by SWiG in it's comment letter dated July 12, 2008; the comment letter dated July 22, 2008, submitted by Julie Turnross of JTEC Environmental, the comments presented by Stegeman and Associates dated July 18th, as well as the comment letter submitted by Sue Buxton of CARRQ dated July 21, 2008.

N-1

An understanding of the purposes of CEQA and EIRs is important to the context of these comments.

CEQA is a comprehensive scheme designed to provide long-term protection to the environment. [Cit.] In enacting CEQA, the Legislature declared its intention that all public agencies responsible for regulating activities affecting the environment give prime consideration to preventing environmental damage when carrying out their duties. [Cits] CEQA is to be interpreted "to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." [Cit.]

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(Mountain Lion Foundation v. Fish and Game Com. (1997) 16 Cal.4th 105, 112.)

The EIR, with all its specificity and complexity, is the mechanism prescribed by CEQA to force informed decision making and to expose the decision making process to public scrutiny. (No Oil, Inc., supra, 13 Cal.3d at 86.)

The Supreme Court has established that

The EIR is the primary means of achieving the Legislature's considered declaration that it is the policy of this state to "take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state." (Cite.) The EIR is therefore "the heart of CEQA." (Cites.) An EIR is an "environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." (Cites.) The EIR is also intended "to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." (Cites.) Because the EIR must be certified or rejected by public officials, it is a document of accountability. If CEQA is scrupulously followed, the public will know the basis on which its responsible officials either approve or reject environmentally significant action, and the public, being duly informed, can respond accordingly to action with which it disagrees. (Cites.) The EIR process protects not only the environment but also informed self-government.

N-2
cont.

(Laurel Heights Improvement Assn. v. Regents of University of California (Laurel Heights I) (1988) 47 Cal.3d 376, 392.)

As detailed in the various expert and citizen comments, the DEIR in this case fails as an adequate informational document.

Environmentally Superior, Feasible Alternatives

In the first instance, the County may not approve the project as proposed because the DEIR identifies an environmentally superior, feasible alternative. The substantive provisions of CEQA "prohibit[] approval of a plan that has mitigating features when a feasible plan with less environmental impact is available as an alternative." (*Citizens of Goleta Valley v. Board of Supervisors of*

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Santa Barbara County (1988) 197 Cal.App.3d 1167, 1182.) Thus, a proposed project may not be approved if there are feasible and environmentally-superior alternatives, even if those alternatives would impede the attainment of project objectives to some degree. An alternative is feasible if it is

capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological [and legal] factors.

(Public Res. Code § 21061.1; Guidelines, §§ 15126, 15364.)

The DEIR in this case discusses Alternative 2: Alternative Haul Route/Contracted Sales Only and determines that it is environmentally superior to the proposed project in nearly every impact area. (DEIR:V-28--V-49.) The DEIR concludes that Alternative 2 is the environmentally superior alternative. It further meets all project objectives. (DEIR:III-1--III-2.) None of the objectives include specific haul routes or contracting arrangements, therefore, this alternative does not implicate the objectives.

Thus, CEQA does not permit the County to approve the project as proposed. However, as explained below, the DEIR is flawed in its analyses of impacts from the project as proposed *as well as* from Alternatives 2 and 3. The DEIR, as written, supports only the no project alternative.

Inadequate Analysis of Impacts

The DEIR is seriously lacking in effective, legally-sustainable impacts analyses for the proposed project as well as for Alternatives 2 and 3, both of which include the on-site mining activities. Most of the deficient analyses are for the impacts of the mining itself.

CEQA requires that agencies evaluate all potential impacts of a proposed project prior to approval. (See Pub. Resources Code §§ 21002.1, subd. (a), 21003.1.) An EIR must identify and focus on the "significant environmental effects" of the proposed project. (Pub. Resources Code § 21100, subd. (b)(1).) A significant effect on the environment is defined as a substantial or potentially substantial adverse change in the environment. (Pub. Resources Code §§ 21068, 21100, subd. (d).) The EIR should analyze "any significant environmental



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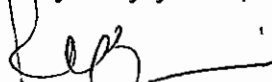
effects the project might cause" (CEQA Guidelines, § 15126.2, subd. (a) [emphasis supplied].)

As explained in compelling detail in SWiG's comment letter dated July 12, 2008, the DEIR's analyses of slope instability of the proposed quarry and related seismic issues and consequences, and the water quality issues related to the closed Roblar Road landfill and other nearby areas are deficient, or missing entirely, and unacceptable for approval of the document. Also, the JTEC Environmental comment letter effectively details inadequacies in the Project Description including the description of the Roblar Road landfill, the project characteristics, Phase 1 blasting, and water use and dust control; the impacts analyses including land use impacts, geologic characteristics and impacts, groundwater quantity and quality issues, and air quality issues including an improper baseline.

The Stegeman and Associates letter addresses issues regarding lack of consistency with and compliance with the Sonoma County General Plan, the Aggregate Resources Management Plan, and the Surface Mining and Reclamation Ordinance as well as CEQA issues arising from the policy conflicts and inconsistencies. The comments also explain internal inconsistencies of the DEIR, the failure to properly assess project consistency, the failure to properly and consistently identify and/or apply significance thresholds, the failure to properly describe a baseline setting relative to various impact categories, the reliance upon unenforceable or unstated mitigations, inadequacies in the assessment of impacts regarding biological issues, hydrology and water quality, traffic and circulation, and reliance on information sources that are not properly referenced, identified, or substantiated.

Thank you for your attention to this matter.

Very truly yours,


Rose M. Zoia

cc: CARRQ

↑
N-5
cont.

Letter N. Rose M. Zoia, Attorney, on behalf of Citizens Against Roblar Road Quarry

- N-1 The commenter indicates her comments incorporate, supplement and complement those comments submitted by the Sebastopol Water Information Group (SWIG), JTEC Environmental, Stegeman and Associates and Sue Buxton. No response to this comment is required.
- N-2 The commenter cites excerpts from different CEQA court case rulings, but does not specifically address the adequacy of the Draft EIR. Consequently, no response is required.
- N-3 The commenter cites CEQA and an excerpt from a CEQA court case regarding project approval, but does not specifically address the adequacy of the Draft EIR. Consequently, no response is required.
- N-4 The commenter notes that Alternative 2 is identified in the Draft EIR as the environmentally superior alternative that also meets all of the project objectives and expresses the opinion that therefore CEQA does not permit the County to approve the project as proposed. Consistent with CEQA, in order to approve the project as proposed, the County would be required to find that specific economic, legal, social, technological, or other considerations make the alternatives infeasible. (See Pub. Res. Code, § 21081(a)(3).)

The commenter also claims that the Draft EIR is flawed in its analyses of impacts from the project as well as from Alternatives 2 and 3; please see response to Comment N-5, below.

The commenter also asserts that that the Draft EIR as written, supports only the No Project Alternative. However, the commenter should note the Draft EIR does find the alternative with the least direct environmental impact to be the No Project – No Subsequent Development Alternative. However, the No Project – No Subsequent Development Alternative would not meet any of the project sponsor’s objectives. Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the no project alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Among the other alternatives, Alternative 2 - Alternative Haul Route / Contracted Sales Only is determined to be the environmentally superior alternative.

- N-5 The commenter makes a general claim that the Draft EIR is lacking in effective, legally sustainable impacts analyses for the project as well as from Alternatives 2 and 3, and cites various Public Resource Code and CEQA *Guidelines* sections. The commenter then repeats a number of topic issues raised in the comment letters from SWIG, JTEC Environmental, and Stegeman and Associates.

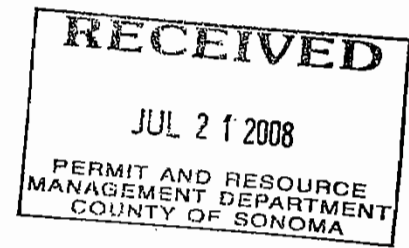
All comments raised in those letters are appropriately responded to in the responses to those letters. In particular, for the issues of slope instability, related seismic issues, and water quality issues raised in the SWIG letter, please see responses to Comments K-1 through K-16. For issues of potential inadequacy of the Project Description; land use impacts; geologic characteristics; groundwater quantity and quality; and air quality raised in the JTEC letter, please see responses to Comments L-1 through L-37. For issues of consistency with General Plan, SMARO; significance thresholds, baseline setting; biological issues; hydrologic and water quality; traffic and circulation; and referenced materials raised in the JTEC letter, please see responses to Comments J-1 through J-35.

Comment Letter O

To: Blake Hillegras, PRMD

2550 Ventura Ave.

Santa Rosa, Ca 95403



Please address the following issues in the final EIR on the Roblar Road Rock Quarry.

There is little mention of Dunham School on Roblar Road. Please address the expected generation of diesel exhaust fumes in the vicinity of the school and how will this affect the children in the school. What is the expected noise levels at the front of the school? How will noise abatement to the classrooms be addressed? The previous EIR did address this issue. How will traffic be addressed at times that children are entering and leaving the school?

O-1

O-2

O-3

There is no information on wind studies. We live in the Petaluma Wind Gap, the wind rushes through the Roblar valley at huge speeds 9 months of the year. What are the wind speeds that go down Roblar Road? Where is the data for a 12 month study? If done, how was the data collected? When and where was it collected? What is the average wind speed for the hours of 2pm and 5pm for each month of the year? How many hourly readings above 25mph were recorded? How is the monitoring of wind speeds going to be done? How will dust be controlled without knowing what the wind speeds are? How will the wind affect water use needed for dust control? How will increased water needs affect local homeowners wells? Do not say this is insignificant because it is very significant to the homeowners in the area. In the draft EIR it states that during the construction phase, if wind speeds exceed 25mph, construction will be stopped. Is this true for all phases of operation? How is the monitoring of wind speeds going to be done? Who is responsible for doing it? What is the protocol and documentation going to involve? What are the detailed plans for implementing all of the dust control mitigation measures? What is the penalty for operating the quarry when winds exceed 25 mph? Without knowing the wind speeds the authors of the draft EIR have no idea how much water it will take to control dust in the quarry, although they state they can do this with the available water.

O-4

O-5

O-6

Impact f4 and mitigation f4 go over dust control methods. Again, exactly how much water will this take and where will the water come from? How will it affect local existing water supply? Who (what agencies or employees) is responsible for implementation of the mitigation measures? Who is responsible for overseeing that the above entities are doing a proper job?

O-7

O-8

Comment Letter O

There is no mention of Serpentine rock which is known to exist in the Franciscan complex rock in the hillside. Serpentine rock often contains asbestos which would become aerosolized in the crushing process. There is little mention of silica which exists in the rock from the Tolay volcanic rock they are planning on quarrying. Both Silica and Asbestos can cause lung cancer, a significant concern for residents in this very windy area, most of which live downwind from the wind coming from the quarry. Where is the data to show that there is not asbestos in the serpentine rock in the hillside? How will the excavation of rock be monitored for serpentine? If serpentine is found during the quarry excavation how will it be evaluated for asbestos? Basalt rock was identified in the 1989 EIR. Serpentine rock was also mentioned. Why was it not mentioned in this one?

O-9

O-10

O-11

Impact f5 states that the airborne release of crystalline silica is less than significant. The CDC lists silica as associated with silicosis, lung cancer, pulmonary tuberculosis, and airway disease. Where is the data to prove that the release in this case is less than significant?

O-12

Since there is no wind speed data available how can you determine where the silica will end up and who will be exposed? I live downwind of this quarry, I would like ^{to} prove that you are not exposing me to airway disease caused by airborne release of silica.

O-13

The draft EIR does not mention that the project as proposed would require the board of supervisors to use its powers of eminent domain to condemn private land to widen roads. This condemnation would be to benefit a private business. This is unprecedented in this county. How would land be obtained to widen roads if homeowners did not want to sell it?

O-14

The draft EIR inadequately discussed the potential water issues brought up by this quarry. They do mention the potential for increasing sediment loads into the Americano Creek, a federally protected waterway. They do mention the potential for introducing toxins into this waterway. There has been no testing of the Roblar Landfill to see what is in it and what could be introduced into local water supplies once blasting is initiated. Volatile organic compounds were found in one of the test wells on the quarry site. It is likely that these VOC's came from the adjacent county landfill, although inadequate water data exists to show where the VOC's are coming from. The mitigation proposed for this problem was to dig another well, not find out where the VOC's are coming from and deal with the problem at its source. Since we know the VOC's are there, there is a likelihood that the significant water use the quarry will require, and the

O-15

O-16

O-17

Comment Letter O

proximity of the Roblar road landfill, could change the water plume and contaminant local residents wells. VOC's are carcinogenic at any level, we are talking about the drinking water of myself and my neighbors. Will the quarry pay for quarterly water testing for a carcinogens that could be introduced into the water supply for the wells of homeowners within ½ mile of the quarry? We would like this as a mitigation measure. Where is the data to show where the actual water flows are below the landfill site and the quarry site and at what level? How will the water use by the quarry affect the local homeowner's wells?

O-17
cont.

O-18

Impacts c6, c7 and c8 discuss the potential for quarry water usage to reduce deep recharge to regional ground water sources, that mining could adversely impact groundwater flow and quality in nearby domestic groundwater wells, and that the project use of onsite wells could cause periodic drawdown or lowering of local groundwater levels. The Local residents wells are already low producing wells, some of my neighbors have to truck in water during parts of the year. The draft EIR lists this water issue as not significant and no mitigation needed. We strongly disagree. What is the specific data showing how much water will be needed to manage dust and other quarry operations and specifically how this will affect local water availability for existing residents wells?

O-19

There is no characterization of the landfill contents in this draft EIR. The project proposed to blast within 200 feet of a landfill that has not been adequately closed and has never had its contents characterized. We know the rock they are blasting tends to be porous. How do we know what contaminants we need to be monitoring the water supply for when the landfill has never been tested? Where is the specific data about what is in the landfill and what could be introduced into the local water supply?

O-20

Section 4 a-4 the description "agricultural residential lots" does not accurately reflect that there are over ____ residents within the zone of influence. Please include in your description.

O-21

Comment Letter O

There is an Easement across the lot for the proposed quarry to allow road access to the lot that was split off and sold to Joe and Kathy Tresch. (lot # 027-200-003-000) Where is the easement and how does it affect the borders of the proposed quarry?

O-22

The draft EIR also lists as mitigation measures multiple areas where North Bay construction will have to self monitor storm runoff and storm damage.

O-23

Shortly after John Barella purchased this property he authorized grading of a ¼ mile long 12" wide swath into the hillside adjacent to the Ranch Tributary creek. The grading was done with no thought to erosion control, in fact rocks, dirt, and silt were pushed into the creek. He did this without a permit despite the fact that he owns a construction company and knows this is illegal. How can we trust a person who would do this to do self monitoring?

O-24

Alternative 2. The Contract sales only alternative. This alternative would limit sale of rock to those contracting with North Bay construction. Does the county really want to give this much power to one construction firm? Has this ever been done before? What will happen to rock prices if one firm has this much control over who can buy it?

O-25

There is a nesting pair of Golden Eagles within ¼ mile of the south border of the quarry. How will quarry operations affect this pair? I have seen Burrowing owls within 500 yards of the proposed quarry south fence line as well. I did not see any mention of the large Native Penstemon plant growing at the base of the rock wall at the entrance to the proposed quarry. Why was this omitted and what else was missed?

O-26

What are the consequences for trucks that do not follow the required haul route or for truckers who use trucks that are not newer than 2003? How will this be enforced?

O-27

Our community already bears the cumulative impacts of the Meechum Rd landfill, the Roblar landfill, the Stony Point Quarry and the Llano Water treatment plant all within a 3.5 mile radius. This is more than enough for our community. The possibilities of air and water contaminants that this project poses are too big a burden to add to this relatively small community. What cost is this county willing to pay both financially and in terms of the health and safety of it's residents, in order to build more roads?

O-28

Sue Buxton

Sue Buxton

Petaluma, Ca 94952

Letter O. Sue Buxton

- O-1 The commenter inquires what the expected generation of diesel exhaust fumes in the vicinity of the Dunham Elementary School would be and how it would affect that receptor. A health risk screening assessment of potential project-associated diesel particulate matter (DPM) effects, including at Dunham Elementary School, was conducted and addressed in detail in Impact F.3 in Air Quality section of the Draft EIR. This assessment evaluated DPM emissions that would be generated by project haul trucks along haul routes, as well as from onsite mobile sources stationary sources at the quarry site, during the 20-year lifetime of the quarry.

As discussed in the Draft EIR, the total carcinogenic risk at the study receptors from the proposed project over the 20-year life of the quarry is estimated to be less than one per million risk at Dunham Elementary School, which is substantially less than the significance threshold of 10 cancers in a million persons. Therefore, the potential carcinogenic health risks from DPM associated with the proposed project at Dunham Elementary School would be less than significant. Similarly, the health risk at all other study receptors analyzed was similarly found to be less than significant. It should be noted that the implementation of Mitigation Measure F.1a through F.1c would collectively further reduce total annual project DPM emissions and exposure and associated health risk at nearby receptors and along haul routes over the project lifetime.

Please note the Alternatives section of the Draft EIR includes Alternative 2 (Alternative Haul Route / Contracted Sales Only), in which all project truck traffic generated by the quarry would use an alternative haul route, and no project haul trucks would use Roblar Road east of the quarry (or Pepper Road east of Mecham Road). This alternative would avoid project trucks in the vicinity of Dunham and Liberty Elementary Schools.

- O-2. The commenter inquires what the expected noise levels at the front of Dunham Elementary School would be. As part of the Draft EIR, a long-term noise measurement was taken on Roblar Road at Dunham Elementary School. In addition, using the FHWA Noise Prediction Model, the Draft EIR estimated noise level increases under near-term and long-term conditions that would be experienced on Roblar Road at the Dunham Elementary School.

Consistent with noise standards contained in the Sonoma County General Plan and the ARM Plan, the significance threshold used in the EIR for judging transportation noise impacts is that if project off-site generated traffic increases noise levels by 3 dBA or more at noise-sensitive receptors, this would be a significant project impact. Further, for purposes of the EIR, if total cumulative traffic increases raised noise levels by 3 dBA or more, this would be a significant cumulative noise impact. A 3 dBA increase is the smallest change in noise level detectable to the average person.

As shown in Table IV.G-3 in the Draft EIR, at points on Roblar Road in the vicinity of the school, the project would result in an incremental increase in peak hour noise levels above base conditions by 1.6 db or less. Furthermore, when considering the project along with future increases in non-project background traffic, the cumulative traffic increases would be less than 3 db on Roblar Road at the school. As a result, project and cumulative noise increases on Roblar Road in the vicinity of Dunham Elementary School are determined to be less than significant.

It should be noted that estimated noise levels are at a distance of 50 feet from the roadway centerline. The Dunham Elementary schoolhouse building and outdoor play areas are located approximately 120 feet from roadway centerline; consequently resultant noise levels at the exterior of the building would be less than that presented in the Draft EIR.

- O-3 The commenter inquires how traffic will be addressed at times when children are entering and leaving Dunham Elementary School. Section IV.E, Transportation and Traffic in the Draft EIR addressed the issue of increases in truck traffic on haul roads used by pedestrians, including Roblar Road. The commenter is also referred to Master Response T-1 in Chapter II in this Response to Comments Document for additional discussion of student arrival/departure characteristics and associated traffic concerns at Dunham Elementary School.
- O-4 The commenter indicates there is no information on wind studies, and inquires how monitoring of wind will be conducted for the project. The commenter is referred to Section IV.F, Air Quality, in the Draft EIR, for a discussion of potential effects related to generation of fugitive dust during the construction and operational phases of the project, and design features and on-going practices proposed by the applicant and/or required by the County Surface Mining and Reclamation Ordinance (SMARO) mining and reclamation standards to minimize erosion of exposed surfaces and generation of dust. The Draft EIR establishes a formal comprehensive dust control program for implementation during initial construction and on-going operation to ensure all potential dust emissions would remain less than significant. The commenter is also referred to Master Response AQ-1 in Chapter II in this Response to Comments Document for additional data on wind conditions in the area, including a five-year summary of available data from the BAAQMD Valley Ford meteorological station; and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.
- O-5 The commenter questions how wind will affect water use needed for dust control. As discussed in Master Response AQ-1, a mitigation measure has been included in the EIR that requires watering frequency at the quarry to be increased and/or other appropriate dust control methods of equal or better effectiveness be implemented if based on the wind monitoring, wind speeds at an active quarry area are found to exceed 15 miles per hour.

The commenter inquires how increased water needs will affect local homeowners wells. The commenter is referred to Master Response HYD-1 in Chapter II in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. The WMP expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater seepage, precipitation/runoff, and groundwater from wells) and reduces hydrology and water quality impacts. The WMP characterizes and quantifies the various water demands for the project, and includes highly conservative estimates of water demand required for dust control.

The Draft EIR analyzed the effect of groundwater pumping on periodic drawdown and lowering local groundwater levels, and determined this impact to be less than significant. Under the WMP, only Well DW-2 would be used to supply supplemental groundwater for quarry operations (i.e., no use of Well DW-1). Furthermore, as discussed in Master Responses HYD-1 and HYD-3, the WMP would include a strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project with no adverse impacts from well pumping. These project refinements would not change any of the conclusions previously reached in the Draft EIR with respect to the effect of project groundwater pumping to neighboring wells.

- O-6 The commenter inquires if the requirement that construction be stopped if wind speeds exceed 25 miles per hour would apply to all phases of operation. The commenter is referring to Impact F.4 and associated mitigation measures in the Draft EIR and which applied to both construction and operational phases.

The commenter inquires how the monitoring of wind speeds would be accomplished, and what the detailed plans are for implementing the dust control mitigation measures. Revised Mitigation F.4 in Master Response AQ-1 describes in detail how the wind monitoring program would be developed and implemented. The commenter is also referred to Master Response AQ-1 in this Response to Comments Document for a discussion of refinements to Mitigation Measures F.4 to ensure winds are minimized within the quarry area, and to incorporate the development of an on-going wind monitoring program within the dust control program to ensure proper actions are implemented during periods of high winds.

The commenter also inquires who would be responsible for wind monitoring. As discussed in Master Response AQ-1, the applicant shall retain a qualified meteorological consultant to design and implement the wind monitoring program, subject to the approval of the County. The meteorological consultant shall also regularly prepare and submit a report summarizing the results of the wind monitoring program to the County.

- O-7 The commenter inquires how much water would the dust mitigation take, and where the water will come from, and how it would affect existing water supply. The commenter is referred to response to Comment O-5, above.

- O-8 The commenter inquires who is responsible for implementation of dust control mitigation measures and for oversight. The commenter is referred to response to Comment O-6, above.
- O-9 The commenter indicates there is no mention of serpentine rock in the hillside of the project site, which may contain asbestos. The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.
- O-10 The commenter indicates there is little mention in the Draft EIR of silica. The commenter is referred to Impact F.5 in the Draft EIR, which addresses the potential for the project to result in release of airborne release of crystalline silica from project operations. As discussed in the Draft EIR, the silica content in basalt rock (similar to Tolay Volcanics formation present onsite, which would be the resource rock for processing) can be up to five percent. In contrast, the silica content in sandstone (similar to Wilson Grove formation present onsite, and which would be the overburden) can be greater than 90 percent. Dispersion modeling of crystalline silica was conducted assuming a conservatively high estimate of 100 percent silica in the materials onsite. The modeling determined that the concentration of silica dust associated with the proposed project at nearby receptors would be within the acceptable chronic reference exposure level (REL) established by the California Office of Environmental Health Hazard Assessment (OEHHA). Therefore, the potential non-carcinogenic risk from silica dust associated with the project would be less than significant.

Please also refer to Master Response AQ-2 in Chapter II in this Response to Comments Document as it relates to asbestos.

- O-11 The commenter indicates asbestos can cause lung cancer, and expresses concern about wind from the quarry containing asbestos. The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.
- O-12 The commenter indicates that silica is associated with silicosis, lung cancer, pulmonary tuberculosis, and airway disease.

As discussed in Impact F.5 on page IV.F-29 in the Draft EIR, in February 2005, OEHHA added a chronic REL for crystalline silica. Silica is a hazardous substance when it is inhaled, and the airborne dust particles that are formed when the material containing silica is broken, crushed, or sawn pose potential risks.

The toxicity of crystalline silica has been studied over several years, and questions have arisen about the health outcomes from exposure to crystalline silica. OEHHA has published a report that summarizes the toxicity of respirable crystalline silica from

chronic exposure to the substance (OEHHA, 2005). The OEHHA report states that inhalation of crystalline silica initially causes respiratory irritation and an inflammatory reaction in the lungs. Chronic exposure can lead to deterioration of lung tissue. High levels of respirable crystalline silica, as have been experienced in certain work environments, have led to silicosis, which is a form of lung disease from occupational exposure to silica dust over a number of years. Silicosis causes slowly progressive fibrosis of the lungs and impairment of lung function.

The possible carcinogenicity of crystalline silica dust became a subject of considerable debate in the scientific community in the 1980s and 1990s, and several epidemiological studies examined the association of lung cancer with exposure to crystalline silica (Gunel, et al, 1989, Costello et al, 1995, and Dong et al, 1995). These studies generally found a link to cancer for workers that experienced severe levels of silicosis. As a result, the National Institute for Occupational Safety and Health (NIOSH) declared crystalline silica to be a human carcinogen (NIOSH, 2002).

Another report (de Klerk and Musk, 1998) studied 2,297 surface and underground gold miners and found that lung cancer mortality was related to total cumulative silica dust exposure after adjustment for smoking and for the presence of bronchitis. However, the effect of cumulative silica dust exposure on lung cancer mortality was not significant after adjustment for smoking, bronchitis, and compensation for silicosis. The results of this study do not support a relationship between lung cancer and silica exposure, in the absence of silicosis.

Since the OEHHA report analyzed health outcomes from environmental exposure to crystalline silica, it assumed that chronic levels of crystalline silica would not be great enough to result in the formation of silicosis. It thus concluded that, based on studies, such as the de Klerk study, there is no statistical evidence for the formation of cancer in the absence of silicosis. OEHHA established only a chronic non-carcinogenic REL, and it did not establish a carcinogenic toxicity factor for the substance.

With respect to pulmonary tuberculosis, the 2005 OEHHA report noted that pulmonary tuberculosis has been observed in studies of South African gold miners who had also contracted silicosis (Churchyard et al, 2003, 2004). The Churchyard studies noted that the miners who had experienced these respiratory health outcomes were exposed to average levels of crystalline silica ranging from 400 to 2,300 micrograms per cubic meter. The allowed chronic REL for crystalline silica established by OEHHA, and that which was used as a significance threshold for the Draft EIR, is three micrograms per cubic meter. Since the estimated project maximum chronic exposure levels reported in the EIR are less than the OEHHA chronic REL, no significant project impacts related to pulmonary tuberculosis are identified.

- O-13 The commenter inquires how silica exposure was determined without wind data available. As explained in Impact F.5 on page IV.F-29 of the Draft EIR, even assuming maximum exposure to silica dust at the receptor closest to the quarry, the potential

adverse impact from the proposed project would be less than significant. This less-than-significant impact from the proposed project would further decrease with increasing distances from the project site. With respect to the conservative nature of the silica analysis conducted as part of the Draft EIR, please refer to response to Comment O-10, above.

- O-14 The commenter inquires how land would be obtained to widen roads if homeowners did not want to sell it.

As stated in the Draft EIR, the applicant would need to acquire land from private landowners 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. The Draft EIR discusses whether or not implementation of the above-cited mitigation measures would be feasible (due to right-of-way acquisition considerations), and concludes that if the roadway widening improvements identified in Mitigation Measures E.3a/E.4a were found to be infeasible, the traffic safety impacts would be Significant and Unavoidable.

Please note the Alternatives section of the Draft EIR includes Alternative 2 (Alternative Haul Route / Contracted Sales Only), which would require considerably less right-of-way acquisition compared to the proposed project.

- O-15 The commenter indicates there has been no testing of Roblar Landfill to see what is in it. However, the Draft EIR presents all available sources of information characterizing existing groundwater quality conditions at the project site and adjacent landfill property. Specifically, the Draft EIR reports the findings of the analytical testing for contaminants on the quarry site and landfill property monitoring wells (see pages IV.C-17 to IV.C-20) conducted as part of the applicant's baseline groundwater monitoring program for the quarry, additional monitoring conducted by the County as part of their on-going groundwater monitoring and leachate monitoring programs for the landfill property, and the results of a Solid Waste Water Quality Assessment Test (SWAT).

Collectively, these independent sources of analytical data represent the best available information characterizing existing groundwater quality beneath the landfill and quarry properties. The commenter is also referred to Master Response HYD-2 in Chapter II in this Response to Comments Documents for further detail on existing groundwater quality conditions on the project site and adjacent landfill property including additional groundwater data that has been made available. This information, along with other data presented in the Draft EIR, are of sufficient detail to allow conservative analysis of potential impacts to surface and groundwater quality.

- O-16 The commenter also indicates that proposed blasting could affect the adjacent landfill contents. The commenter is referred to Section IV.G, Noise and Vibration in the Draft EIR which addresses all potential blasting impacts in detail, including potential impacts

to the Roblar landfill property. This section relies as appropriate on an assessment of potential blasting impacts and recommended practices for the proposed quarry that was conducted in support of the EIR by Revey Associates, Inc. (see Appendix F-1 in the Draft EIR). Revey Associates, Inc. have extensive and direct explosive-work experience in hardrock mining, mine planning, blasting research, and blasting explosives management. Gordon Revey, the author of the blasting assessment for the proposed project, is the principal at Revey Associates; his resume is included in Appendix B in this Response to Comments Document.

Information provided by the applicant and a number of conservative assumptions were used in assessing potential worst-case impacts at the landfill. As discussed in the Draft EIR, the blasting weight-per-delay limits to be used at the quarry would ensure associated ground motion would be within stringent residential vibration requirements (see Mitigation Measure G.3). The resultant blast-induced peak elastic ground displacement (i.e., ground particle travel distance) in the location of the adjacent landfill cells would be around 0.008 inches (for perspective, this is approximately the thickness of a human hair). Similarly, the Revey assessment determined that due to the residential vibration requirements, blasting induced ground motions at infrastructure on the landfill property, including leachate collection system and groundwater monitoring wells, would also be far below any potential level of concern. It is also important to bring perspective to the localized nature of rock fracturing that would occur with proposed blasting, as maximum fracture radius would not exceed 65 inches (or 5.4 feet) from the point of blast.

As a consequence, proposed blasting would not impact the integrity of the landfill cells, landfill infrastructure, or the surrounding ground on the landfill property, and therefore, would not in and of itself create or increase potential for movement of potential contaminants from the landfill cells off-site. (Potential migration of contaminants from the landfill property to the quarry site by way of seepage through quarry walls and/or as a result of production well use are, however, addressed in Impact C.4 in the Draft EIR.)

- O-17 The commenter states that VOCs were found in one of the test wells on the quarry site, and asserts that it is likely that these VOCs came from the adjacent landfill. The commenter also asserts that inadequate water data exists to show where the VOCs are coming from.

The commenter is referred to response to Comment D-2 which discusses how the Draft EIR adequately described groundwater quality beneath the landfill property and project site. The commenter is also referred to Master Response HYD-2 in Chapter II in this Response to Comments Documents for further detail on existing groundwater quality conditions on the project site and adjacent landfill property including additional groundwater data that has been made available.

The commenter asserts that the mitigation proposed is to dig another well, not find out where the VOCs are coming from. The commenter is taking an excerpt from Mitigation Measure C.4 in the Draft EIR out of context by not considering the entire mitigation

measure, including the measurable performance standards that are contained therein. It should also be noted that, as discussed in Master Response HYD-2 in this Response to Comments Document, the replacement of Well MW-2 and redevelopment of Wells MW-1, MW-3 and DW-2 were completed in November 2008, and two new rounds of groundwater quality data has been collected and presented in that master response. The commenter is also referred to Master Response HYD-1 with respect to refinements made to this mitigation measure.

The commenter indicates that there due to the required water use at the quarry, and the proximity to the landfill, that there is a likelihood the “water plume” could change and contaminate local wells. Please refer to Master Response HYD-2, which concludes based on the groundwater sampling conducted to that the trace concentrations of detected VOCs are not part of a widespread groundwater contaminant plume. The Draft EIR addressed all potential hydrologic and water quality impacts of the proposed project, including but not limited to, the potential for excavation of the quarry to alter shallow groundwater patterns and initiate groundwater seepage through the quarry walls, and potential for groundwater seepage and/or production well water used on site to contain contaminants (see Impacts C.3 and C.4 in the Draft EIR). Mitigation Measure C.4 in the Draft EIR included on-going onsite monitoring and management to ensure any water that may enter the quarry walls as seepage and/or supply water from the onsite production wells would be identified, contained and treated appropriately.

In addition, as explained in detail in Master Response HYD-1 in this Response to Comments Document, the applicant has prepared a comprehensive Water Management Plan (WMP) that expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater seepage, precipitation/ runoff, and groundwater from wells) and reduces hydrology and water quality impacts. The WMP is designed to be consistent with the mitigation measures identified in the Draft EIR for addressing potential hydrologic and water quality impacts.

- O-18 The commenter inquires where the data is to show where actual water flows are beneath the landfill site and quarry site, and what water levels are. The commenter is referred to response to Comment D-2 which discusses how the Draft EIR adequately characterized the existing groundwater flows patterns beneath the project site and adjacent landfill property,

The commenter inquires how water use by the by the quarry will affect the local homeowners wells. Please see response to Comment O-5, above.

- O-19 The commenter indicates that the local residents wells are low producing wells, and inquires what specific data there is showing how much water use will be needed to manage dust and other quarry operations and how this will affect local water availability for existing residents wells. Please see responses to Comment O-5, above.

- O-20 The commenter indicates there is no characterization of the landfill contents, and expresses concern over potential effects on the landfill from proposed blasting. The commenter is referred to responses to Comments O-15 and O-16, above.

With respect to potential blasting impacts on the landfill, the commenter is referred to response to Comment U-21 for a response to this issue.

- O-21 The commenter requests inclusion of an estimate of residents within the “zone of influence.” The zone of influence is an area defined by the California Department of Conservation (DOC) when using the California Agricultural Land Evaluation and Site Assessment Model (LESA), and includes all parcels that are located within one-quarter mile of the project site. The LESA methodology does not consider the number of residents within the zone, but rather, the land use characteristics within the zone. The LESA site assessment conducted for the project conforms to the methodological guidance provided in the LESA Instruction Manual. Nonetheless, the Draft EIR addresses all potential environmental impacts to the population that live on properties comprising the zone of influence.
- O-22 The commenter states there is an easement across the lot for the proposed quarry to allow road access to the lot that was split off and sold to Joe and Kathy Tresch (Lot #027-200-003).

There is a 20 foot wide access easement along the entire easterly boundary of the project site, which would allow potential future access from Roblar Road to the adjoining southerly Tresch property (APN 027-200-003). This easement lies outside of the proposed mining and stockpile areas and would not be affected by the project.

- O-23/24 The commenter indicates grading was conducted by the applicant on the project site adjacent to Ranch Tributary, without using any erosion control. This comment does not address the adequacy of the Draft EIR. However, all storm water management and erosion control standards for the proposed quarry would need to be implemented pursuant to the requirements of the SMARO, and would be specified as conditions of approval for the project. Please see also response to Comment O-8 for detail on the MMRP for all mitigation measures identified in the EIR, including those for storm water management and erosion control for the proposed project.
- O-25 The commenter comments on the Draft EIR Alternative 2, and inquires if the County wants to “give this much power to one construction firm,” if the County has ever done this before, and questions what may happen to rock prices. The commenter’s questions are based on opinions about the merits of the project, but do not address the adequacy of the EIR. The opinions of the commenter will be made available to County decisionmakers for their consideration.
- O-26 The commenter indicates there is a nesting pair of golden eagles within ¼-mile of the south border of the quarry. The Draft EIR, Section D, Biological Resources identifies

and describes all special-status plants and animals that have potential to occur on or adjacent to the study area, including the golden eagle (a California Species of Special Concern), and discloses that the project site vicinity provides potential nesting and foraging habitat for the golden eagle and burrowing owl. The Draft EIR also addresses potential impacts to active nests of raptors and other special-status birds. As specified in Mitigation Measure D.4a in the Draft EIR, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat of raptors and other special-status birds 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. The “take” of any individuals will be prohibited.

The Draft EIR states that burrowing owls are not known to occur on the site, nor recorded in the immediate project vicinity. Nevertheless, the Draft EIR includes specific mitigation should such species be encountered onsite. Mitigation Measure D.4b specifies burrowing owl surveys shall conform to the most current protocol described by the California Burrowing Owl Consortium (presently the 1993 protocol). If occupied owl burrows are found during the surveys, and it is determined that the project could adversely affect occupied burrows during the non-breeding season, the owls may be passively relocated. If it is determined that the project would physically affect occupied burrows or disrupt reproductive behavior during the nesting season, then construction activities shall be delayed within 250 feet of occupied burrows until it is determined that the owls are not nesting or that juvenile owls are self-sufficient or are no longer using the natal burrow as their primary source of shelter.

The commenter also indicates that the Draft EIR did not mention a large native penstemon plant growing at the base of the rock at the entrance to the proposed quarry. The plant species identified by the commenter is not a special status plant species and does not receive protection under CEQA. The only rare penstemon species identified in Sonoma County are two populations of Sonoma beardtongue (*Penstemon newberryi* var. *sonomensis*). These populations are located in eastern Sonoma County in the Hood Mountain area, and in Robert Louis Stephenson State Park, in rocky chaparral habitat slopes between 180 and 1,390 meters above sea level. However, there are no native penstemon species in the project site vicinity that receive protection as special status species.

- O-27 The commenter inquires what the consequences are for trucks that do would not follow the required haul route, for project haul trucks that are not newer than 2003, and how it will be enforced.

As described in the Draft EIR Project Description, all hauling conducted directly by the applicant, and all contract sales, would be conditioned such that trucks hauling materials under those contracts would be required to follow the prescribed haul routes. The use of

the specified haul routes would be enforced by the applicant, subject to penalties and/or contract termination.

As specified in Mitigation Measure F.1c, as amended in this Response to Comments Document, the project applicant shall require that all quarry operator owned off-site-haul trucks, and off-site haul trucks that would be under contract with the quarry operator, to use 2003 model or newer trucks. All contract sales would be conditioned to specify that 2003 model or newer trucks would be utilized for hauling materials from the quarry.

It should also be noted that County has the authority to revoke a quarry's surface mining use permit if the County determines that the quarry operator is not implementing all required project conditions of approval pursuant to the standards outlined in those conditions. Furthermore, the County would conduct annual monitoring and compliance review of all quarry mining operations, consistent with the requirements of the Sonoma County Aggregate Resources Management Plan.

- O-28 The commenter indicates the community already bears the cumulative impacts of other projects in the area, such as the Mecham Road landfill, the Roblar landfill, Stony Point Quarry and Llano Water treatment plant. As appropriate, the Draft EIR considers the project along with other past, present and reasonably foreseeable future projects in the vicinity in assessing cumulative effects; these cumulative impacts are addressed throughout Chapter IV, and summarized in Chapter VI, Impact Overview, in the Draft EIR.

The commenter also indicates the possibilities of air and water contaminants that the project poses are too big a burden to the community. The commenter is referred to all responses presented above associated with air quality and water, including diesel particulate matter O-1, dust and dust control (O-4 through O-8), asbestos/silica (O-9 through O-13), water (O-15 through O-20). All potential health effects associated with each of these issues are addressed in the Draft EIR and/or are responded to in this Response to Comments Document.

With respect to potential financial implications, the assessment of economic effects is not within the purview of CEQA, unless an economic effect would itself result in an environmental impact. No economic effects associated with the project would result in substantial adverse physical changes in the environment that are not addressed in the Draft EIR. Nonetheless, when deciding whether to approve the project, the Board of Supervisors would consider the environmental impacts and all other relevant information, including social or economic effects.

References

- California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA), *Chronic Toxicity Summary of Respirable Crystalline Silica*, CAS Registry Number: 7631-86-9, February 2005.
- Churchyard G., L Pembe, B. Magadla, K Dekker, M. Vermeijis, R. Ehrlich, J. teWaterNaude, and J. Meyer., “*Silicosis Prevalence and Exposure Response Relationships in Older Black Miners on a South African Goldmine*”, *Final Report. Safety in Mines Research Advisory Committee. Simhealth 606*, March 2003.
- Churchyard G, R. Ehrlich, J. teWaterNaude, L. Pembe, K. Dekker, M. Vermeijis, N. White, and J. Myers. “*Silicosis Prevalence and Exposure-Response Relations in South African Goldminers.*” *Occup Environ Med.* 61(10):811-6.
- De Klerk, NH and AW Musk, Silica Compensated Silicosis and Lung Cancer in Western Australian Goldminers, *Occup Environ Med* 55:243-248, 1998.
- National Institute for Occupational Safety and Health (NIOSH), *Health Effects of Occupational Exposure to Respirable Crystalline Silica*, Publication No. 2002-129, April 2002.

June 26, 2008

Scott Briggs, Environmental Review Division Manager
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 95403-2829

Re: Proposed Rock Quarry at 7175 Roblar Road, Petaluma, CA

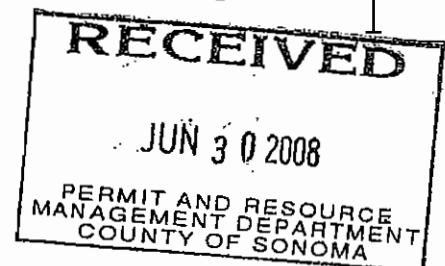
Dear Mr. Briggs,

I am writing with grave concerns regarding the proposed Roblar Road Quarry project. I am, in fact, stunned that this project is being revisited twelve years after it was deemed an unacceptable plan.

As a health care provider my two main concerns are air and water quality; traffic issues, property values, and noise are close behind.

As I write this letter I am acutely conscious of the smoke-filled air we have been experiencing this past week. We are aware that the rock hillside at the quarry site contains Serpentine rock and Franciscan complex rock both of which are known to contain asbestos. Since quarrying this area will result in elevated dust levels there may be aerated asbestos as an outcome. Asbestos is associated with serious lung disorders. It is a threat even to the families of those exposed to it as fibers on clothing can be brought into the home and are dangerous even at this small amount of exposure. The damage is irreversible and prevention of exposure is vital. Asbestos- causes Asbestosis, lung Plura thickening, and Mesothelioma (a cancerous tumor of the plura of the lung) are caused by exposure to asbestos. Additionally, people with asbestos- related disease are more susceptible to lung cancer and other lung ailments. The only way to prevent asbestos-related disease is the not be exposed in the first place which is why the use of it is so severely restricted. Though it may be acceptable to expose the few thousand west county residents to this type of risk, considering the prevailing winds in the area the exposure in fact may be quite higher. The fact that the smoke-filled air is so prevalent even though we are not in close proximity to any of the current fires burning, causes one to wonder how many citizens could actually be at risk should the asbestos become aerated.. Will there be a wide- ranging monitoring system for the entire county? The entire state? Is there enough water to keep the dust from becoming airborne? Is there a monitoring system for unsafe levels of this dust in the air? Who will be responsible for this monitoring? These are *very* serious concerns.

P-1



The landfill that exists on the adjacent property to the proposed quarry was used from the 1950's until 1972. The restrictions and guidelines for use at that time were much more lenient than they are today. To date no testing has been done of this landfill and what it contains. The adjacent wells have been minimally tested but have shown contamination even though they are outside of the landfill itself. The landfill has no liner although, as the Mecham Road landfill has demonstrated, even an acceptable liner does not prevent nearby wells from being contaminated. How much worse is an unlined landfill? Properties in the area are all on wells. We use these wells for household use. Can they be guaranteed safe if this project proceeds? Who will be responsible if they are contaminated and can no longer be utilized? Who will monitor their safety? Who will pay for this monitoring? Who will pay for any health-related illnesses? Who will be responsible should there be contamination of the Estero Americano, a nationally protected area, adjacent to the proposed quarry? Life cannot exist without safe drinking water. Is the amount of rock at this site more important than that?

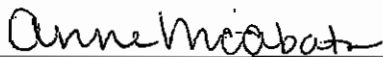
P-2

It is understood that rock is needed for many projects within the county. There are alternatives to this dangerous project that need to be explored. An article in the local Press Democrat on Sunday, June 1, 2008 detailed the use of the Petaluma River as a shipping route. Already sand and rock from as far away as Canada are being transported by barge up the river and used for local projects. An estimated 1.2 million tons of rock, sand and oyster shells were transported up the river in 2007. One barge is equivalent to about 160 big-rig trucks and runs about 80% cheaper and is a huge reduction in the carbon footprint. Jobs are provided, small businesses flourish, needed resources are made available and transported in a safe and environmentally-friendly manner, and all of this is already in place and could be expanded upon. If this alternative exists there must certainly be other, safer, more viable options as well to explore.

P-3

I thank you for your time and hope you are still considering the dangers and possible alternatives to this project. This is a serious, danger-plagued project that should not even be on the table again. Should this project be deemed nonviable again, I hope the matter can be closed now and never again revisited.

Sincerely,



Anne McAbata

Petaluma, CA 94952

Letter P. Anne McAbata

- P-1 The commenter expresses concern about smoke-filled air she has been experiencing. This comment does not address the adequacy of the Draft EIR. However, the Draft EIR discusses all sources of particulate matter in the County, including area sources.

The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.

The commenter inquires if there would be a monitoring system for unsafe levels of dust in the air, and who would be responsible for this monitoring. The commenter is referred to Section IV.F, Air Quality, in the Draft EIR, for a discussion of design features and on-going practices proposed by the applicant and/or required by the County Surface Mining and Reclamation Ordinance (SMARO) mining and reclamation standards to minimize generation of dust. The Draft EIR establishes a formal comprehensive dust control program for implementation during initial construction and on-going operation to ensure all potential dust emissions would remain less than significant. The commenter is also referred to Master Response AQ-1 in Chapter II in this Response to Comments Document for additional data on wind conditions in the area, and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.

The commenter inquires if there is enough water to keep the project-generated dust from being airborne. The commenter is referred to response to Comment O-5.

- P-2 The commenter indicates that to date there has been no testing of the landfill and what it contains, that adjacent wells have been minimally tested, and that testing of wells outside of the landfill have shown contamination. With respect to this comment, the commenter is referred to response to Comment O-15. The commenter is also referred to Master Response HYD-2 for further detail on existing groundwater quality conditions on the project site and adjacent landfill property.

The commenter inquires if neighboring private wells can be guaranteed safe if the project proceeds, and who would 1) be responsible if they are contaminated and cannot be used, 2) monitor the safety of private wells, 3) pay for monitoring, and 4) pay for health-related illnesses. The Draft EIR adequately analyzed all potential environmental effects associated with the proposed project on groundwater quality in nearby private wells; the commenter is referred to Impact C.7 in the Draft EIR which determined it to be less than significant. Please see also Master Responses GEN-1 and HYD-3.

The commenter also inquires who would be responsible for potential contamination of Estero de Americano, adjacent to the proposed quarry. It should first be clarified that while Americano Creek is located adjacent to the quarry site, the upstream boundary of the Estero Americano is located over nine miles downstream of the project site. In any

case, the Draft EIR adequately analyzed all potential impacts to Americano Creek in Impacts C.1 through C.5. The measures proposed as part of the project, along with mitigation measures identified in the Draft EIR, would ensure that impacts to surface water flows and water quality of Americano Creek would remain less than significant. Accordingly, any project effects, or contribution to cumulative effects further downstream, including within the Estero Americano, would also be less than significant.

The commenter is also referred to Master Responses HYD-1 for detail on the applicant's proposed Water Management Plan, which expands on and refines the proposed management of water resources for the quarry project. In support of this effort, the applicant prepared a comprehensive Water Management Plan (WMP) that describes the proposed methods and facilities for managing the various sources of water for the project and further ensuring hydrology and water quality impacts would remain less than significant.

- P-3 The commenter indicates there are alternatives that need to be explored, including the use of transporting rock from Canada, and transportation of materials by barge up the Petaluma River.

The Draft EIR Alternatives chapter addresses the comparative effects of alternative methods of supplying aggregate to Sonoma County, including from importing from out-of-County locations. The Draft EIR acknowledges that Sonoma County has experienced an increase in materials imported from out-of-county (e.g., Canada) via ship and/or barge, and several companies are currently operating barge facilities in Petaluma.

The proposed project would provide a local source of PCC-grade aggregate for construction projects within the County. As discussed in the Project Description, the project is specifically intended to provide a local source of high-quality aggregate in the south central portion of the County to minimize required transport distances. The applicant estimates over 90 percent of the product produced at the proposed quarry would be used in Sonoma County (including the Cities of Cotati, Petaluma, Rohnert Park, Sebastopol, and south Santa Rosa), and the balance used in the Novato area of Marin County. Accordingly, the proposed project would reduce the need for aggregate to serve this area to come from more distant sources, including out-of-county, and therefore, reduce longer haul truck travel distances and associated environmental effects (e.g., reduced air quality emissions and roadway wear).

It is also important to note that proposed location of the quarry is designated as a potential quarry site in the Sonoma County Aggregate Resources Management Plan (ARM Plan). The *Sonoma County General Plan* Resources Conservation Element Policy RC-11a calls for consideration of lands designated in the ARM Plan as priority sites for aggregate production and mineral extraction. Further, objectives of the ARM Plan include encouraging the retention of locally produced aggregate for use within the Sonoma County, and facilitating new or expanded quarry operations at designated sites or at other locations with resources which can meet the needs for aggregate in an environmentally sound manner.

Blake Hillegas

From: Canfieldhill
Sent: Sunday, June 22, 2008 11:28 PM
To: Blake Hillegas
Cc: Jennifer Barrett;
Subject: Roblar Road Quarry: Summary Comments Planning Commission Mtg June 20, 2008

Importance: High

To: Sonoma County Planning Commission
Commissioner Don Bennett
Commissioner Rue Furch
Commissioner Dennis Murphy
Commissioner Bob Williams

Re: Summary of my comments made at the June 20, 2008 Planning Commission Public Hearing, Roblar Road Quarry

Dear Commissioners,

Together with many residents who will be affected by the proposed quarry project on Roblar Road, I spoke to you at the Public Hearing on June 20, 2008. Here is a summary of my comments:

- I live just east of the proposed quarry site, near the intersection of Roblar and Canfield Roads. My residence is within the 'zone of influence' for this project and will be affected by many significant impacts that cannot be fully mitigated. The DEIR did not fully address the concerns of residents to the east of the project site, focusing mainly on the two residences nearest to the site itself even though the DEIR states that overall mining operations will move in an eastward direction by the time the quarry reaches Phase 2 (111-23). As someone whose lifetime investment in my property will be affected if this quarry is approved, I must speak out against this project. I agree with the comments of the many residents who spoke ahead of me at the public hearing; all of whom made very cogent comments about the dangers to our environment, our health and safety, and our decreased property values if this project is approved. Will the applicant or Sonoma County be liable for the drop in my property's market value once the quarry is operational? Q-1
- One of my biggest concerns is the impact to the ground water, both from the potential for contamination of the water and drawing down of residents' wells due to the demands of the mining operations and need to address the issue of (asbestos and) dust. The DEIR states the applicant has estimated wells on the quarry site currently pump about 60 gallons per minute. That is a huge amount of water compared to the less than 10 gpm my well produces. At the public hearing, we heard many residents speak about their concerns that their own well water will be drawn down by the quarry, particularly by the resident who lives closest to the quarry site who already has to purchase water during dry months, and by the resident directly across from the quarry site who was notified by Sonoma County last fall to test her water for contaminants. Like that resident, I too, received a notice from Sonoma County stating toxins (chromium, magnesium, aluminum, and arsenic) had been found in water taken from monitoring wells in the old landfill area. This is the first time in 20 years of living in my home that I had ever received a notice like this. What is happening? What has changed? Are more contaminants being found in the monitoring wells? I can tell you that receiving an official notice like this has caused me enormous concern about the safety of my drinking water already. I did have my water tested, and fortunately, while there were measurable amounts of some of these toxins in my well, they were not (yet) to a hazardous level. My concern about the water table has grown exponentially. Q-2
- Acoustics along Roblar Road are such that sound carries up the sloping hillsides from the road. I live on the hillside off Canfield, north of Roblar Road. As was stated by many people at the hearing, I too, can hear people talking as they walk along Roblar Road. I can hear bicyclists calling to one another as they ride down Roblar. I can certainly hear cars, motorcycles and existing gravel trucks as they go down Roblar. I can also hear very clearly, County trucks and bulldozers whenever they do maintenance work at the closed landfill. One of the most annoying noises is when truckers apply their jake brakes as they approach the intersection of Roblar and Canfield. The DEIR states that truckers will be required to use their jake brakes as they access the proposed Q-3
- Q-4

Comment Letter Q

quarry site. But the DEIR only emphasizes sound mitigation for the two residences closest to the quarry site— what about the rest of the residences along the truck haul routes? The DEIR does not characterize what our lives will be like with the noise of trucks passing by our homes every 1.5 minutes (per the DEIR plan for truck hauls per day). What about noise abatement for the students at Dunham School? The DEIR does not address noise abatement caused by significantly increased truck traffic for the students or the majority of residents.

Q-4
cont.

- The DEIR discusses the significant improvements that will have to be made to Roblar Road to ensure it is structurally sound to handle massively increased gravel truck traffic. The DEIR does not characterize the disruption to the lives of residents that will be caused by the reconstruction of Roblar. How long will this take? It is weeks, months, a year? What will be the impact to our health and safety from this potentially protracted construction project? What is the impact to Dunham School, to students waiting along the road for school bus pickup, or for the thousands of bicyclists who use Roblar Road on their way to the coast?

Q-5

- The last concern I stated at the hearing was my general disbelief at the responsibility 'given' to the applicant to self-monitor many aspects of the quarry construction, operation and reclamation of the property during and after the 20 year period of operation. There are numerous citations of activities the applicant is supposed to monitor. A few that came to mind were: the applicant will 'encourage' contract truck haulers to use only approved routes; he will 'ensure' that all trucks accessing the site will be 2003 models or newer to reduce diesel emissions; he will 'ensure' all trucks wash their wheels before leaving the site; and he will clean the sediment pond prior to each wet season to ready it for runoff. Says who? As a resident who has already experienced what I consider to be less than above-board placement of a major portion of the applicant's Roblar Road property purchase into the Open Space District (funded by my tax dollars) and new alternate haul routes that came up after the County's scoping meeting with residents, why should I believe the applicant will show good faith and monitor every activity called out in the DEIR? As someone whose financial security and way of life will be forced to be on the line if this project is approved, I have no confidence the applicant will self-monitor all activities that will impact the environment and citizen's health and safety. Will Sonoma County then be liable for this?

Q-6

I appreciated the opportunity to speak before the Planning Commission and your careful attention to the citizens who spoke against the quarry project. I also appreciate the extension of time you granted for written comments to allow time for citizens to review documents that had not been made available to us by the time of the public hearing.

Sincerely,

Donna Parlin Spillman

Petaluma, CA 94952

Letter Q. Donna Spilman

- Q-1 The commenter asserts that the Draft EIR did not fully address the concerns of residents to the east of the project site.

The Draft EIR addresses all potential project environmental impacts that would be experienced at nearby properties, including those residences east of the project site. The Draft EIR acknowledges the presence of residences surrounding the project site, and specifically notes that the closest residence is located approximately 600 horizontal feet northeast of the northeast corner of the Phase 3 mining limit. The Draft EIR includes this nearest residence, and several other residences surrounding the project site as study receptors for assessing health risks from diesel particular matter. By analyzing the impact on the closest receptor, the Draft EIR provides a worst-case analysis; impacts at receptors further from the site would be less. The Draft EIR addresses all other potential environmental effects to receptors to the east, including, but not limited to, noise and blasting effects, and potential effects on domestic wells; these impacts were determined to be less than significant with mitigation measures identified in the Draft EIR. Nonetheless, the Draft EIR also acknowledges (in Impact A.1) that when considering the collective environmental effects of operation of the proposed quarry (e.g., visual, truck traffic, noise), the project can be considered to be incompatible with existing nearby residential uses, which would be a significant impact.

The commenter expresses concern about decreased property values. The assessment of economic effects is not within the purview of CEQA, unless an economic effect would itself result in an environmental impact. As specified in CEQA *Guidelines* Section 15131: “Economic or social effects of a project shall not be treated as significant effects on the environment.” No economic effects associated with the project have been identified that would result in substantial adverse physical changes in the environment that are not addressed in the EIR. Nonetheless, when deciding whether to approve the project, the Board of Supervisors would consider the environmental impacts and all other relevant information, including social or economic effects.

- Q-2 The commenter expresses concern about potential groundwater contamination in nearby private wells. The Draft EIR adequately analyzed all potential environmental effects associated with the proposed project on groundwater quality in nearby private wells; the commenter is referred to Impact C.7 in the Draft EIR which determined it to be less than significant. The commenter is also referred to Master Responses HYD-1 for detail on the applicant’s proposed Water Management Plan (WMP), which expands on and refines the proposed management of water resources for the quarry project, and further ensures hydrology and water quality impacts would remain less than significant.

The commenter also expresses concern about the effect of project groundwater pumping on drawdown in nearby private wells. The Draft EIR analyzed the effect of groundwater pumping on periodic drawdown and lowering local groundwater levels, and determined

this impact to be less than significant. Under the WMP, only Well DW-2 would be used to supply supplemental groundwater for quarry operations (i.e., no use of Well DW-1). Furthermore, as discussed in Master Responses HYD-1 and HYD-3, the WMP would include a strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project with no adverse impacts from well pumping. These project refinements would not change any of the conclusions previously reached in the Draft EIR with respect to the less-than-significant effect of project groundwater pumping to neighboring wells.

It should also be noted the applicant does not currently pump at a rate of 60 gallons per minute (gpm); that reference in the EIR were from the results of a well driller report when the well was originally installed. Furthermore, the applicant's proposed Water Management Plan calls for pumping groundwater at a constant rate of approximately 18 gpm, or pumped on a sustainable cyclic basis [e.g., pumping at 35 gpm for a four hour period followed by a recharge (non-pumping) period of four hours] in conjunction with temporary storage in water tanks. Please see Master Response HYD-3, below, for additional information on the step-drawdown test that was conducted by the applicant.

Q-3 The commenter inquires about the August 24, 2007 County Department of Health Services letter that was sent to a number of properties within the vicinity of the project site and expresses her concern regarding water quality. The letter presented information from the initial round of groundwater monitoring conducted on the quarry site by the applicant in support of the Draft EIR for the proposed quarry. See Master Response HYD-2 in Chapter II in this Response to Comments Document regarding subsequent results of groundwater monitoring conducted on the quarry site and the adjacent closed landfill property.

Q-4 The commenter discusses that the acoustics are such that sound carries up the sloping hillsides from the road. The Draft EIR presents a number of short-term noise measurements that were taken on and adjacent to the project site, including along Roblar Road at the proposed access road along the property's west edge, within the proposed mining footprint, and at the top of the ridge along the property's east edge. These noise measurements captured actual existing ambient noise levels as measured at those locations.

The commenter indicates that the Draft EIR states that truckers will be required to use their jake brakes as they access the proposed quarry site. The Draft EIR states that trucks could be required to use their jake brakes²⁵ (i.e., compression release-type engine brakes) on the quarry access road. Engine brakes are a safety feature used primarily on large trucks and are most beneficial on downhill elevations where braking requires more effort. This braking system modifies the truck's engine valve operation to use engine

²⁵ Jake Brake[®] is actually a registered trademark of Jacobs Vehicle Systems[™], although the term "jake brakes" have commonly been used to describe compression release-type engine brakes.

compression to slow the vehicle. Regular truck brakes can often become too hot when trying to stop the momentum of large trucks moving downhill, and engine brakes are useful in helping to safely slow a truck. Consequently, any potential use of engine brakes by project quarry trucks would be most likely when trucks descend the quarry access road.

As part of a truck's exhaust system, engine brakes are required to meet federal passby standards for new trucks (since 1986) of 80 dBA at 50 feet and in-use trucks are required to meet 83 dBA at 50 feet. Engine brakes are required to meet these standards using proper mufflers. According to Jacobs Vehicle Systems, the most common problem associated with excessive engine brake noise when trucks have modified or defective mufflers. Trucks with no mufflers can generate noise levels up to 101 dBA or more at a distance of 50 feet.

To ensure potential project quarry truck engine brake noise on the quarry access road descent would be minimized during quarry operation, the following mitigation measure will be added to Mitigation Measure G.1 in the EIR (all changes to the Draft EIR are compiled in Chapter V, Errata):

“Mitigation Measure G.1c: Consistent with ARM Plan operating standards, the applicant shall develop and implement a truck driver education program that informs drivers of procedures established to reduce public conflicts. This program shall include instructions to drivers to avoid of the use of engine brakes on the quarry access road and local haul routes, as safety allows.

Mitigation Measure G.1d: The applicant shall require and verify that all quarry operator owned off-site-haul trucks, and off-site haul trucks that would be under contract with the quarry operator, use a properly functioning exhaust muffler (capable of meeting the federal passby standards) equivalent to the original factory installed muffler. Each truck shall be re-verified annually.”

- Q-4a The commenter inquires why sound mitigation was only identified for two residences on Roblar Road. In Impact G.2 in the Draft EIR, increases in noise levels from project traffic were estimated for all road segments to be used by the haul trucks using the Federal Highway Administration's (FHWA) Noise Prediction Model. The modeling effort used the peak production project traffic volumes. Under both the Near-term and Long-term scenarios, only the segment of Roblar Road west of the quarry was determined to experience peak-hour noise level increases greater than 3dBA as a result of the project. As a consequence, a significant noise impact was identified for noise sensitive receptors along this road segment, and mitigation was identified for the two residences that exist along this road segment. No significant increases in traffic noise levels as a result of the project were identified on any other study road segments, including on Roblar Road near Dunham Elementary School.

Cumulative noise increases were also addressed in the Draft EIR. In Impact G.4, the project's contribution to cumulative noise level increases was determined to be

significant on the segment of Roblar Road west of the quarry, and on Valley Ford Road between Roblar Road and Pepper Road. As discussed in the Draft EIR, the Sonoma County Aggregate Resources Management Plan (ARM Plan) and EIR identified cumulative noise to be potentially significant where residences, schools, or other noise-sensitive uses are close by to busy haul routes in rural areas. When the ARM Plan was adopted, the Board of Supervisors made a Statement of Overriding Considerations for this significant and unavoidable impact.

The commenter is also referred to response to Comment Y-12 regarding frequency of trucks trips past Dunham Elementary School. It should be noted that the noise impacts on Roblar Road east of the quarry site, including at the school, although less than significant, would be avoided if Alternative 2 (Alternative Haul Route, Contracted sales Only) were implemented.

- Q-5 The commenter indicates that the Draft EIR does not characterize the disruption to the lives of residents that will be caused by the reconstruction of Roblar Road. The commenter inquires how long such reconstruction would take, what the impact would be to public health and safety, including students and bicyclists.

Since no design work has been completed for the roadway improvements, no information is available at this time on the timing or duration of the required construction. The Draft EIR notes that if the proposed roadway improvements were pursued, subsequent detailed environmental analysis and County approval would be required. However, the Draft EIR contains an assessment of the likely range of environmental impacts that would be anticipated with the identified roadway improvements along Roblar and Pepper Roads, including air quality, noise, and traffic and circulation impacts, and identifies mitigation measures to reduce environmental impacts; please see pages IV.E-41 through IV.E-49 of the Draft EIR.

As discussed in the Draft EIR, mitigation measures are identified for ensuring potential impacts to pedestrians and bicyclists would be minimized. Such measures include that the contractor shall follow traffic safety guidelines compatible with Caltrans Standard Specifications, "Construction Area Traffic Control Devices" during construction. Project plans and specifications shall also require that adequate signing and other precautions for public safety be provided during project construction. Further, 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 owners or administrators. 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.

As discussed in the Draft EIR, over the long-term, the identified off-site improvements would serve to mitigate project impacts, and provide a beneficial effect on the movement of large vehicles, cars and bicyclists on haul routes. The commenter is also referred to Alternative 2: Alternative Haul Route / Contract Sales Only in the Draft EIR, which would avoid many of the off-site roadway improvements required for the proposed project.

- Q-6 The commenter expresses concern about monitoring that would be required to be conducted by the applicant for a number of project activities, and cites examples of designated haul routes, use of 2003 model or newer trucks, truck wheel washing, and regular cleaning of the sediment pond.

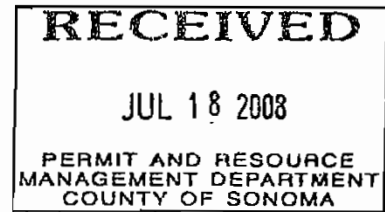
With respect to designated haul routes and use of use of 2003 model or newer trucks, please see response to Comment O-27. With respect to truck wheel washing, as specified in Mitigation Measure F.4 in the Draft EIR, wheel washers shall be installed or other washing method (e.g., water sprayers or use of a water depression crossing) used 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. Wheel washing is a common practice used by quarries and/or similar industrial operations that involve trucks on unpaved roads. Such activity would be included in the comprehensive dust control program that would be implemented for the project.

With respect to regular cleaning of the sediment pond, as described in the Draft EIR Project Description, annually and prior to each wet season, the quarry's sediment pond would be cleaned out, or more often as necessary, and made ready for runoff and sediment for the next season. This activity would be included in the Water Quality Protection Program developed for the project, and described in Mitigation Measure C.2 in the Draft EIR.

Pursuant to CEQA guidelines, the County will prepare a Mitigation Monitoring and Reporting Program (MMRP) to ensure compliance with mitigation measures during project implementation. The mitigation measures required by the County to reduce or avoid significant project impacts not incorporated into the design or program for the project, may be made conditions of project approval as set forth in a MMRP. Until mitigation measures have been completed as required, the County would remain responsible for ensuring that implementation of mitigation measures occurs in accordance with the MMRP.

It should also be noted that County has the authority to revoke a quarry's surface mining use permit if the County determines that the quarry operator is not implementing all required project conditions of approval pursuant to the standards outlined in those conditions. Furthermore, the County would conduct annual monitoring and compliance review of all quarry mining operations, consistent with the requirements of the Sonoma County Aggregate Resources Management Plan.

Comment Letter R



Dear Planning Commissioners,

Re: Proposed Roblar Road Quarry

7-17-08

My name is Bruce Norwitt. I live at [redacted]. My family and I have lived adjacent (to the east) of the proposed project site and the old dump for 49 years. I live 120 feet from the project site. My daughter and grandson live 200 feet from me. I graduated from Dunham School, Rohnert Park Junior/Senior High and Sonoma State College. I have taught high school Biology for 25 years, most of which has been at El Molino High School in Forestville. This is the third 3rd time that my family has fought to keep the county from ruining this pristine community and its environment. Why does the county continue to take applications for permits that have been denied before?

I need the EIR to address the following issues:

1. WIND: The prevailing wind in the area blows from west to east past the project site into the entire county. For 49 years there have been at least 340 days per year of strong winds (20-25 mph and more). These winds are strong enough to hold a 160 pound man up as he leans into the wind. This is the most windy place in the county. The EIR must study wind velocity for an entire year. It must also study how far different sized particulate matter will be carried by the wind in order to evaluate the effect on the entire county. The air quality in Sonoma County will be affected by this project and the EIR must study who will pay for the sicknesses that will result from this quarry. Both my father and my brother died young and of lung and cancer related issues that may be the result of contaminants from the toxic dump. Two other cases of similar health issues occurred within 1/2 mile of the dump.

R-1

R-1a

2. ENVIRONMENTAL DISASTER: The toxic material in the old dump, which is on the property of the proposed quarry will end up in the ocean. The EIR must study all aspects of this federal superfund site. There is no question that it is toxic and any disturbance of the geology nearby can cause toxic material to flow down to the Estero American (200 feet down from the dump), and out to the ocean. My friend at the National Marine Sanctuary of the Farallones has jurisdiction over the estero and will need to know how the county will be able to guarantee that toxic leachate will not get into our waterways. The EIR must study for a year what comes out of the dump and how far this matter has already gone down to the estero to create a baseline. The toxic materials in the dump must be studied before it is allowed to be dynamited. As a kid, I remember 2-3 yearly fires that erupt out of the dump and head towards our fence line. This was a toxic burn dump. My brother and I would jump the fence and check out the dump at night. It glowed and shimmered in its toxicity.

R-2

3. ROAD USE: Roblar Road is a main road to Bodega Bay. It is heavily traveled, with a school on the road. The increased traffic from trucks will create a very dangerous situation. I have seen cows, people and pets die on this road. The EIR must address how they can allow an extra 1.5 trucks per minute to drive on a residential main thoroughfare.

R-3

4. ENVIRONMENT: As a biologist and person who has lived here for 49 years, I have seen the following organisms on the project site: tiger salamanders, rough skinned newts, slender salamander, arboreal salamander, pacific treefrog, california pond turtle, three spined stickleback, steelhead smolt, badgers, long and short tailed weasel, bobcat, coyote, mountain lion, red fox, California ground and grey squirrel, a bird list too numerous to mention (I would be happy to list this as my masters is in ornithology), and a floral environment associated with oak/bay woodlands, open meadowland and riparian habitats. The EIR must address the affects that a quarry will have on these environments. A baseline must be established in order to

R-4

evaluate the effects of this operation on our native organisms.

↑ R-4
| cont.

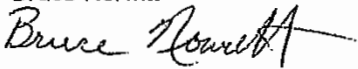
5. LITIGATION: I live 120 feet from the project site. The EIR must address who will pay for me and two other family households to relocate and purchase our property at present values, when the dust and noise becomes impossible for us to remain. The EIR must establish a base property value for us and all other houses on Roblar road. It must also address what the expected loss in property value will result from a quarry at the proposed site and who will be responsible for this. This may result in a cost for the county that exceeds the value to North Bay Construction.

R-5

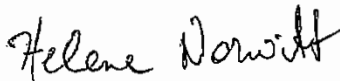
North Bay Construction is not a team player. The owner cares only for himself. I have had a number of across the fence conversations with him where he wanted to bribe me into cooperating with him. These conversations were done before the county and public were aware of his intentions. When cattle from his property came onto ours and I called to tell him, he was in Palm Springs and his 80 year old mother was in charge. It took forever to get the cows out. Another conversation with his neighbor to the south informed me that Borella made a deal with the neighbor only if he promised to never oppose him in his intentions about the quarry. This neighbor apologized to me and wishes he could be involved in the protest. I want the EIR to address how we can benefit by allowing a person who only cares about himself to go ahead with this project at the expense of this County the I love.

R-6

Bruce Norwitt



Helene Norwitt



Letter R. Bruce Norwitt / Helene Norwitt

R-1 The commenters indicate the EIR should study wind speeds for an entire year, and evaluate how particulate matter will be carried by wind to the entire county. The commenters are referred to Impact F.4 in Section IV.F, Air Quality, in the Draft EIR, for a discussion of fugitive dust impact during the construction and operational phases of the project, and design features and on-going practices proposed by the applicant and/or required by the County Surface Mining and Reclamation Ordinance (SMARO) mining and reclamation standards to minimize erosion of exposed surfaces and generation of dust. The Draft EIR establishes a formal comprehensive dust control program for implementation during initial construction and on-going operation to ensure all potential dust emissions would remain less than significant. The commenters are also referred to Master Response AQ-1 in Chapter II in this Response to Comments Document for additional data on wind conditions in the area, including a five-year summary of available data from the BAAQMD Valley Ford meteorological station; and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.

R-1a The proposed project addressed in the EIR is the proposed quarry, and all potential direct, indirect and cumulative environmental effects associated with the proposed quarry are appropriately addressed in the EIR, and mitigated to the extent feasible. In addition to Impact F.4 discussed above, the commenters are referred to Impact F.1 (potential increase in criteria pollutants), Impact F.2 (potential increases in local CO emissions), Impact F.3 (potential increase in diesel particulate matter emissions), Impact F.5 (potential increase in crystalline silica), and Impact F.7 (potential contribution to regional criteria pollutants and toxic air contaminants). See also Master Response AQ-2 in Chapter II in this Response to Comments Document for additional information on asbestos.

R-2 The commenters refer to the Roblar Landfill as a federal Superfund site. The commenters are incorrect; the Roblar landfill has never been, nor is it currently, a Superfund site; i.e., contaminated sites subject to cleanup under the federal Comprehensive Environmental Response, Compensation, and Liability Act.

The commenters also assert that any disturbance of the geology near the landfill can cause toxic material to flow down to Estero Americano, located 200 feet from the landfill. It should first be clarified that while Americano Creek is located adjacent to the quarry site and landfill property, the upstream boundary of the Estero Americano is located over nine miles downstream of the project site. Secondly, all potential impacts associated with proposed excavation of the quarry to groundwater and surface flows are adequately analyzed in Impacts C.1 through C.5 in the Draft EIR. The measures proposed as part of the project, along with mitigation measures identified in the Draft EIR, would ensure that impacts to surface water flows and water quality of Americano Creek would remain less than significant.

The commenters are also referred to Master Responses HYD-1 for detail on the applicant's proposed Water Management Plan (WMP), which expands on and refines the proposed management of water resources for the quarry project, and further ensures hydrology and water quality impacts, including those associated with Americano Creek, would remain less than significant. In addition, the commenters are referred to Master Response HYD-2 for further detail on existing groundwater quality conditions on the project site and adjacent landfill property including additional groundwater data that has been made available.

- R-3 The commenters indicate Roblar Road is a heavily traveled road with a school, and that the increased truck traffic would create a dangerous situation.

The commenters are referred to Section IV.E in the Draft EIR for a full transportation impact analysis, which addressed all potential traffic and safety issues, including those related to pedestrians and bicyclists. The commenters are also referred to Master Response T-1 in Chapter II in this Response to Comments Document for additional discussion of student arrival/departure characteristics at Dunham Elementary School.

Regarding frequency of truck trips, it should be noted that, based on the truck distribution patterns discussed in the Draft EIR on average, the project would generate approximately 17 trips an hour on Roblar Road west of the site, and 13 trips an hour on Roblar Road east of the site. On peak days of operation, the project would generate approximately 26 ½ trips an hour on Roblar Road west of the site, and 20 ½ trips an hour on Roblar Road east of the site. These worst-case assumptions were used in modeling traffic and air quality impacts in the Draft EIR.

As noted in the Draft EIR and Master Response T-1, the potential impacts on Roblar Road would be avoided if the alternative haul routes described in the Draft EIR in Alternative 2 (Alternative Haul Route/Contracted Sales Only) were implemented.

- R-4 The commenters indicate a number of wildlife species have been observed on the project site, including tiger salamanders, rough skinned newts, slender salamanders, arboreal salamander, pacific tree frog, California pond turtle, three spined stickleback, steelhead smolt, badgers, long and short tailed weasel, bobcat, coyote, mountain lion, red fox, California ground and grey squirrel and numerous bird species; in addition to a floral environment associated with oak/bay woodlands, open meadowland and riparian habitats.

The Draft EIR addresses all potential impacts to special status species which have the potential to occur on the project site. Of the specific wildlife species listed by the commenters, only the Central California coast steelhead, California tiger salamander (CTS), northwestern pond turtle (incorrectly cited by the commenters as California pond turtle) and badger are species with recognized state or federal special status. As discussed in the Draft EIR, the central California coast steelhead are not located in the project vicinity, but rather, approximately several miles downstream of the project site within the Estero Americano watershed.

Further, as discussed in the Draft EIR, with respect to the CTS, multiple aquatic surveys for CTS conducted on the project site did not identify presence of CTS. Moreover, CTS breeding has not been identified in other nearby potential breeding ponds located just east and west of the quarry site. Given the survey findings, and the location of the site outside the 2003 USFWS Draft CTS range and the Santa Rosa Plain Conservation Strategy boundary, it can be reasonably concluded CTS are not present on the project site. See also response to Comment J-23. Similarly, no northwestern pond turtle has been observed or reported on the project site.

Impact D.5 in the Draft EIR addresses potential project impacts to American badger and the loss of annual grasslands that support this species, and includes mitigation (preconstruction surveys prior to ground clearing and grading in annual grasslands habitat or areas that are known or suspected to support badger) to reduce to impact to a less than significant level.

Impacts D.4 and D.6 in the Draft EIR also describes potential project impacts to potential foraging and/or roosting habitat that exists on the project site for special-status species birds and bats, and identifies appropriate mitigation to ensure those impacts would be mitigated to a less than significant level.

In addition, the Draft EIR describes all plant communities on the project site in detail, including non-native grasslands, black oak and Coast live oak woodlands, riparian woodlands, and aquatic habitats, resultant project impacts to those plant communities, and feasible mitigation measures to ensure impacts would be mitigated to a less than significant level.

The commenters are also referred to response to Comment X-1 with respect to recent surveys CDFG have conducted in the lower Americano Creek watershed.

- R-5 The commenters indicate the EIR should address potential economic effects of the project, including potential effects of the project on property values for properties in the project vicinity. The commenters are referred to response to Comment Q-1 for a response to this issue.
- R-6 The commenters expresses a number of opinions that do not address the adequacy of the Draft EIR; consequently, no response is required. However, the opinions of the commenters will be made available to County decisionmakers for their consideration.

Comment Letter S

Petaluma CA 94952
June 30, 2008

Sonoma County Planning Commissioners
2550 Ventura Avenue
Santa Rosa, CA 95403
Attn: Jennifer Barnett

Subject: Roblar Road Proposed Quarry DEIR

Dear Commissioners Bennett, Williams, Furch, Murphy and Barrett,

I have lived with my husband at _____ for fifteen years. This property has been in the family for 48 years, and spans four generations. Our property directly borders the quarry property to the east of the quarry. S-1

I am 65 years old and I don't know how I can possibly live with the noise pollution that a quarry of this caliber would produce. The EIR must address how it possibly can mitigate that kind of noise and whether and how much it would cost, and whether the funds and insurance are available to relocate me to a place as lovely and quiet as I live on now. S-2

I am also concerned about all the issues that were brought up at the meeting a couple of weeks ago. I am concerned with air quality, dust & possible asbestos being blown around. The EIR must address this. S-3

I am concerned also about our well becoming contaminated and the groundwater being depleted. EIR must address this. S-4

I am concerned with the added traffic from rock hauling trucks. The EIR must address this. S-5

My 4-year old grandson will be attending Dunham Elementary School in another year or so, and believe me I have tremendous concerns regarding his and other children's safety & noise that absolutely must be addressed. This particular issue lies close to my heart. S-6

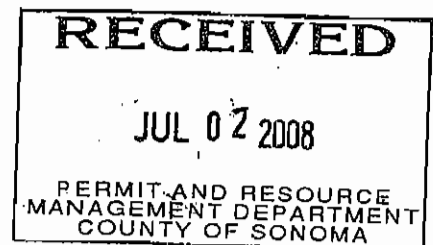
We also enjoy some wonderful bird life here - owls, hawks, finches, bluebirds, swallows, jays, (one year we had a flock of wild pigeons), just to list a few. the EIR must address how a quarry operation will impact the birds around here. S-7

I hope you take my letter into consideration, and I appreciate all the hard work all of you are putting into this dilemma.

Most sincerely yours,

Helene Steinlauf Norwitt
Bruce Norwitt

Helene Steinlauf Norwitt
Bruce Norwitt



Letter S. Bruce Norwitt / Helene Norwitt

S-1 The commenters discuss that the property they own has been in the family for 48 years and directly borders the proposed quarry property. The comment is noted; no response is required.

S-2 The commenters indicate the EIR should address how it will mitigate quarry-generated noise. The commenters are referred to Section IV.G in the Draft EIR which includes a detailed evaluation of potential impacts of all quarry-generated noise, including onsite mobile and stationary sources and off-site truck traffic. Mitigation measures are identified in that section that would mitigate project noise effects to the less than significant. With respect to noise from quarry operations (Impact G.1), the Draft EIR identifies various mitigation measures that will ensure noise in the vicinity of the quarry site does not exceed the applicable General Plan noise standards. With respect to noise from off-site truck traffic (Impacts G.2 and G.4), there would be a potentially significant project and cumulative impact at two residences on Roblar Road (between the project entrance and Valley Ford Road). The proposed mitigation of roadway noise at these two affected residences is noise insulation upgrades sufficient to maintain existing interior noise levels. As noted under Mitigation Measures G.2 and G.4, if the owners of these two residences do not approve the insulation upgrades, the impact would remain significant and unavoidable.

S-3 The commenters express concern about air quality, dust and asbestos. The commenters are referred to Section IV.F in the Draft EIR which includes a detailed evaluation of potential air quality impact, including project generated dust. Feasible mitigation measures are identified in that section to mitigate project air quality effects to the extent possible.

The commenters are also referred to Master Response AQ-1 in Chapter II this Response to Comments Document for additional data on wind conditions in the area, and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.

In addition, the commenters are referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.

S-4 The commenters express concern about their well becoming contaminated and the groundwater depleted. The commenters are referred to response to Comment Q-2.

S-5 The commenters express concern about the added traffic from rock hauling trucks. The commenter is referred to Section IV.E in the Draft EIR for a full transportation impact analysis, which addressed all potential traffic operations and traffic safety issues. Noise

and air quality effects from project-generated traffic are addressed in Section IV.F and Section IV.G in the Draft EIR, respectively.

- S-6 The commenters raise concerns about the project's effect on safety and noise at Dunham Elementary School. Section IV.E, Transportation and Traffic in the Draft EIR addresses the issue of increases in truck traffic on haul roads used by bicyclists or pedestrians, including Roblar Road. The commenters are also referred to Master Response T-1 in Chapter II in this Response to Comments Document for additional discussion of student arrival/departure characteristics at Dunham Elementary School. Please see also response to Comment O-2 regarding noise effects at Dunham Elementary School.
- S-7 The commenters indicate that a range of bird species occur in the area, including owls, hawks, swallows, jays, and wild pigeons; the commenters request that the EIR address impacts to the birds.

The Draft EIR discusses special status birds and raptors that have the potential to occur in the project area. Impact D.4 and D.6 in the Draft EIR describes potential project impacts to potential foraging and/or roosting habitat that exists on the project site for special-status species birds and bats, and identifies appropriate mitigation to ensure those impacts would be mitigated to a less than significant level.

Richard Adam Norwitt

Ridgefield, CT 06877

21 July 2008

Via E-Mail

Mr. Scott Briggs
Environmental Review Division Manager
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 95403-2829
e-mail: sbriggs@sonoma-county.org

Re: Draft Environmental Impact Report on Roblar Road Quarry
SCH# 2004092099 (the "Draft EIR")

Dear Mr. Briggs:

I am writing to comment on the Draft EIR on behalf of the Norwitt family of _____, Petaluma, California. My grandmother is the owner (as Trustee of Norwitt Family Trust) of four plots of land, marked in Figure III-5 of the Draft EIR as Assessor's Parcel Figure Key Numbers _____ respectively (see Exhibit A, collectively, the "Norwitt Ranch"). We are writing in opposition to the planned quarry (referred to herein as the "Proposed Roblar Quarry"), which neighbors the Norwitt Ranch. As will be demonstrated below, the approval of the Proposed Roblar Quarry would result in irreparable harm to all the Norwitt family members, including at least one young child, as well as in severe damage to the environment of the Norwitt Ranch. If the plan for the Roblar Quarry were to proceed, it is likely that the value of our ranch would be destroyed and the property would be rendered uninhabitable.

T-1

Background

My grandfather, Mr. Jerome Norwitt, bought the four parcels of land making up the Norwitt Ranch in 1960. He had owned a store in San Francisco and desired to raise his two young sons, Rick (my father) and Bruce (my uncle) in the countryside. At the time, Roblar Road was largely undeveloped, and the neighboring Roblar Dump site had been closed. Rick and Bruce Norwitt attended Dunham Elementary School as well as middle school and high school in Petaluma. Since acquiring the Norwitt Ranch property, four generations of Norwitt family members have spent time on the ranch:

T-2

- Jerome Norwitt (deceased February 14, 2004, resident until time of death at (the "Ranch House"))
- June Norwitt (wife of Jerome, age 84, resident until 2004 in the Ranch House and currently residing at an assisted living facility in Rohnert Park, CA)
 - Rick Norwitt (son of Jerome and June, deceased October 27, 2007 at age of 61, resident until time of death at _____ on the Norwitt Ranch (the "Rick Norwitt House"))
 - Rick's wife Pamela Norwitt (age 58, currently residing at the "Rick Norwitt House")
 - Rick's sons R. Adam Norwitt (age 39, resident of Connecticut) and Trevor Norwitt (age 24, currently temporarily residing in San Diego, but permanent resident of the Rick Norwitt House)
 - Rick's daughter-in-law and Adam's wife, Giori Norwitt (age 38, resident of Connecticut)
 - Rick's grandchildren, Ella Norwitt (age 4, resident of Connecticut) and Jonah Norwitt (age 8, resident of Connecticut)
 - Bruce Norwitt (son of Jerome and June, age 58, resident at _____ on Norwitt Ranch (the "Bruce Norwitt House"))
 - Bruce's wife, Helene Steinlauf (age 65, resident at the Bruce Norwitt House)
 - Bruce's daughter Brook Norwitt (age 32, resident at the Bruce Norwitt House)
 - Bruce's son-in-law and Brook's husband Dan McCann (age 29, resident at the Bruce Norwitt House)
 - Bruce's grandson, and Brook and Dan's son, Samuel McCann (age 3, resident at the Bruce Norwitt House)
 - Bruce's son, Joshua Norwitt (age 28, resident at the Bruce Norwitt House)

T-2
cont.

Since Jerome, June, Rick, and Bruce moved to the Norwitt Ranch in 1960, the ranch has been used as both a working ranch and a family residence. There are three houses on the property – the Ranch House, the Rick Norwitt House and the Bruce Norwitt House – as well as numerous out-buildings (see diagrams attached as Exhibit B and C for details). Jerome and June's grandchildren, Adam, Brook, Josh and Trevor, spent much of their upbringing on the ranch. All attended Dunham School and were members of the local Roblar 4-H club. Currently, Brook's son, Sam (age 3), lives on the ranch at the Bruce Norwitt House. Adam's children, Jonah (age 8) and Ella (age 4), frequently visit the Norwitt Ranch. All of the living children, grandchildren and great-grandchildren of Jerome and June make extensive use of the Norwitt Ranch and consider it a significant and meaningful part of their lives and upbringing. In addition to family use, June Norwitt leases out use of the ranch pasture land to local ranchers for cattle grazing. The family maintains a small herd of cattle as well. In the past, Rick and Bruce Norwitt raised cattle and sheep on the Norwitt Ranch.

Past Quarry Attempts

Over the last 40 years, my grandfather, father and uncle joined local neighborhood fights against establishing a quarry on or near the site of the Roblar Dump. These successful attempts relied on several basic arguments:

1. There would be significant air quality impacts to any residents of the Norwitt Ranch, based on dust, chemicals, and other air pollutants and the prevailing wind direction which blows directly from the site of the proposed Roblar Quarry towards the Norwitt Ranch.
2. There would be significant risk of water contamination to the residents of the Norwitt Ranch, all of whom primarily rely on well water for drinking and domestic use.
3. There would be significant noise and visual pollution from a quarry on the site of the proposed Roblar Quarry, which would irreparably impair the pastoral quality of the Norwitt Ranch.
4. The extraordinary increase of truck traffic on Roblar Road, regardless of direction of travel, would put at risk members of our family and others in the neighborhood.

T-3

As will be discussed below, these same arguments apply equally in 2008 as they did in prior years. In fact, as will also be discussed below, new circumstances make the proposed Roblar Quarry an even more insidious threat to the entire Norwitt Family, including in particular those resident on the Norwitt Ranch, but also those who frequently visit the Norwitt Ranch. The proposed EIR ignores the serious impact to our family, and thus requires extensive revision to acknowledge such impact. As will be discussed below, the only remediation measure that would be possible would be relocation of all residents of the Norwitt Ranch and replacement of the ranch with a like property.

EIR Review and Comment

The draft EIR is flawed in several areas with respect to the proposed Roblar Quarry's impact to the Norwitt Ranch and the Norwitt Family. These include (1) air pollution impact; (2) water quality impact; (3) sound and visual pollution; (4) impairment of the value of property without just compensation; and (5) traffic impact. I will review each of these separately:

(1) Air Pollution Impacts

As shown in Exhibit A, the Norwitt Ranch borders directly on the plot of land intended by North Bay Construction to be the Roblar Quarry. In fact, the border of the intended Phase 3 exploitation of the Roblar Quarry is 120 feet from the Bruce Norwitt House and 220 feet from the Rick Norwitt House. In addition, the prevailing coastal wind blows directly from all phases of the proposed Roblar Quarry towards both the Bruce and Rick Norwitt Houses. As detailed in the EIR,

T-4

it is anticipated and virtually certain that the proposed Roblar Quarry will create dust. Although there is a plan to mitigate some dust on road surfaces with Water Spraying, it is clear that it will be impossible to prevent all dust from being caught in the prevailing winds and carried directly to the two Houses. Such dust, which will also likely carry with it dangerous minerals and chemicals, will make living in the two Houses highly dangerous for the inhabitants. Moreover, several of the inhabitants are particularly sensitive to such impact. Helene Steinlauf, Bruce's wife, has suffered from serious medical conditions, including most recently pneumonia. Also, Bruce's grandson Sam will grow up on the ranch. It is also likely that Brook will have additional children who will be highly susceptible to such pollution.

T-4
cont.

At the time of the prior quarry attempts, there were not elderly residents of the Norwitt Ranch who were more susceptible to the potential air pollution. In addition, there were fewer family members living on the property.

T-4a

In light of the persistent and prevailing winds and the unstoppable dust and other air pollution that will be carried directly to the residences of the Norwitt Family, the EIR must be revised to account for such critical impact. There is no mention in the EIR of these impacts in the current draft.

(2) Water Usage and Pollution

Much is written in the EIR about aquifers and water, but there is no mention of the fact that the residents of the Norwitt Ranch rely on well water which likely would be impacted by any upsetting of the Roblar Dump sediments due to the Roblar Quarry. In addition, there is no mention of the potential impact on the Norwitt Family of the likely water shortage that would ensue from the proposed Roblar Dump's huge consumption of water per day. *The EIR needs to be revised* to specifically point out the risk to the Norwitt Family of both the potential water pollution and the increased water consumption from the proposed Roblar Dump.

T-5

In addition, there is mounting evidence that the Roblar Dump has created toxic contaminants, potentially in local ground water, which have had adverse health consequences for residents of the Roblar Valley, including residents of the Norwitt Ranch. While we are still in early stages of data gathering, we note anecdotally that there are unusually high rates of leukemia and heart disease in the area. Both Jerome Norwitt and Rick Norwitt died from Idiopathic Dilated Cardiomyopathy, an enlargement and weakening of the heart, which is thought to arise from long-term exposure to environmental pollution.

T-6

(3) Sound and Visual Pollution

Since moving to the Norwitt Ranch in 1960, all of the family members have treasured the property for its serenity and beautiful views in all directions. Over

T-7

the years, our family could have petitioned to subdivide the property and sell off the pieces at a significant profit, or otherwise destroy its natural state, but refused in order to preserve the environment of the property for our family for generations to come. The construction and exploitation of a quarry within 200 feet of our western fence line will create unmitigatable sound pollution, and has the potential to significantly impact the view that originally attracted my grandfather to the property in 1960. Without a doubt, the Roblar Quarry will simply destroy the serenity of our property. The EIR makes no mention of the impact of the Roblar Quarry on the sound and visual pollution to the Norwitt Ranch, and thus should be amended to reflect this significant impact.

↑
T-7
cont.

(4) Traffic Impact

With the addition of more than 400 trucks per day to the Roblar Road traffic, my family's quality of life will be significantly impaired. Residents of the Norwitt Ranch frequently drive on Roblar Road, both in the direction of Cotati, and in the direction of the Petaluma-Bodega Highway for work, school, shopping and recreation. In particular we have been impacted several times in the past with traffic accidents on the particularly dangerous stretch of Roblar Road bordering our property. One accident resulted in a truck ramming into Jerome and June's driveway, and another occurred at the base of the driveway leading to the Rick and Bruce Norwitt Houses. We have also had several pets killed by high speed traffic on Roblar Road. An increase of traffic of nearly 20%, as detailed in the draft EIR, will clearly increase the risk of further accidents and meaningfully degrade the quality of life of our family.

↑
T-8

(5) Impairment of Value of Norwitt Ranch

While the EIR process may not be the appropriate forum to discuss impairment of value of our property, we note that the future impairment of value will be a direct result of environmental degradation of the surrounding area. We will of course pursue every legal remedy against North Bay Construction for injunctive relief and/or monetary damages; in the meantime, it is appropriate for the Board of Supervisors to consider these damages in their assessment of the draft EIR.

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T-9

We are currently in the process of obtaining a valuation on our property. We understand that based on like properties, such value may exceed \$2 million. If the Roblar Quarry is approved, we have been advised that the value may drop by more than 50%, as large parts of the property will become uninhabitable and the water quality will become suspect.

Miscellaneous and Summary

When my grandfather and grandmother purchased the Norwitt Ranch, they wanted to provide a home, playground, sanctuary, and productive ranch for their children and future generations. They had the vision to move to

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T-10
↓

Sonoma County before it was a “trendy” destination. They moved to Sonoma County and established themselves as productive members of society, including as prominent members of the local American Legion. My father, Rick Norwitt, was a union plumber and rancher, and at one time was elected to the Dunham Elementary School Board. My uncle, Bruce Norwitt, was a biology teacher at El Molino High School in Sebastopol, where he inspired hundreds of students over the years to embrace conservation and nature. If this third attempt at establishing a Quarry on what can only be described as a toxic waste dump were to be successful, four decades of work and dreams of my family will be destroyed.

T-10
cont.

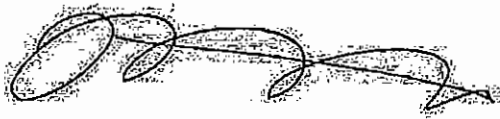
Just before my father passed away last year at the young age of 61, I promised him that I would keep our ranch in the family forever. I am determined to not only keep the ranch, but to keep it in the state that it has always been – without the devastating impact of a neighboring quarry.

We respectfully request that the Board of Supervisors revise the draft EIR and ultimately reject the application of North Bay Construction to construct the Roblar Quarry.

T-11

I am available at any time to discuss this further with you, other representatives of the Permit and Resource Management Department, representatives of the Board of Supervisors or any other interested parties.

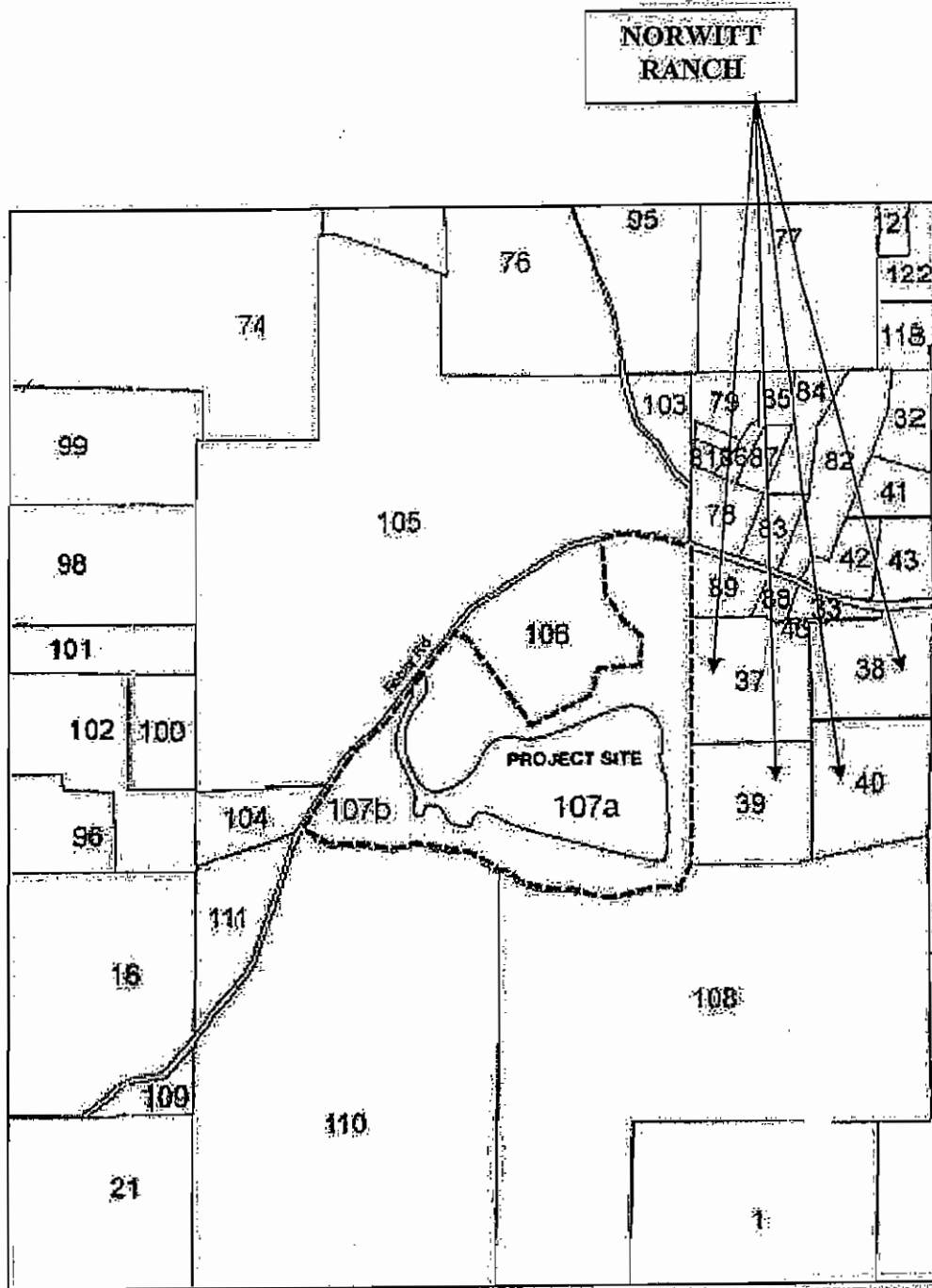
Sincerely,



R. Adam Norwitt

Attachments

Exhibit A – Location of Norwitt Ranch



XX: Assessor's Parcel Number Key
 (please see Table B-1 for accompanying table to this figure)

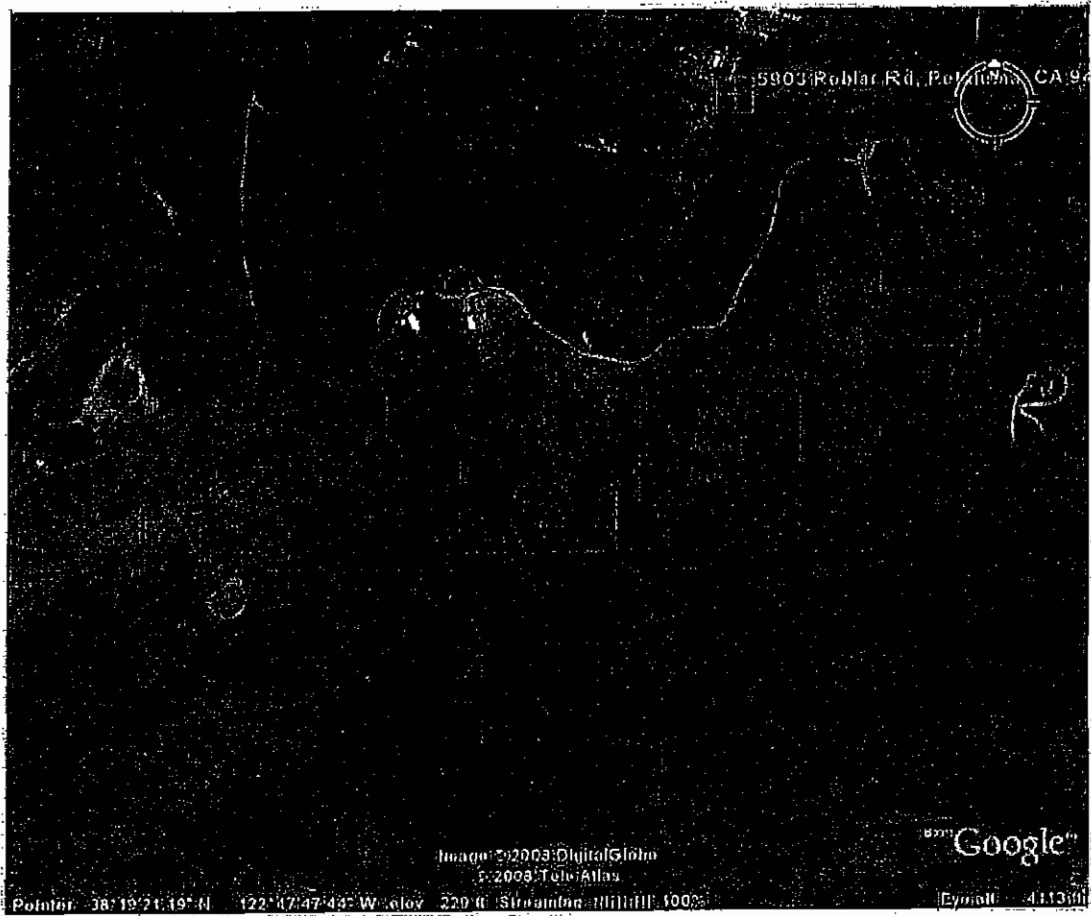
--- Property Boundary

Robbie Road Query . 201334

SOURCE: County of Sonoma

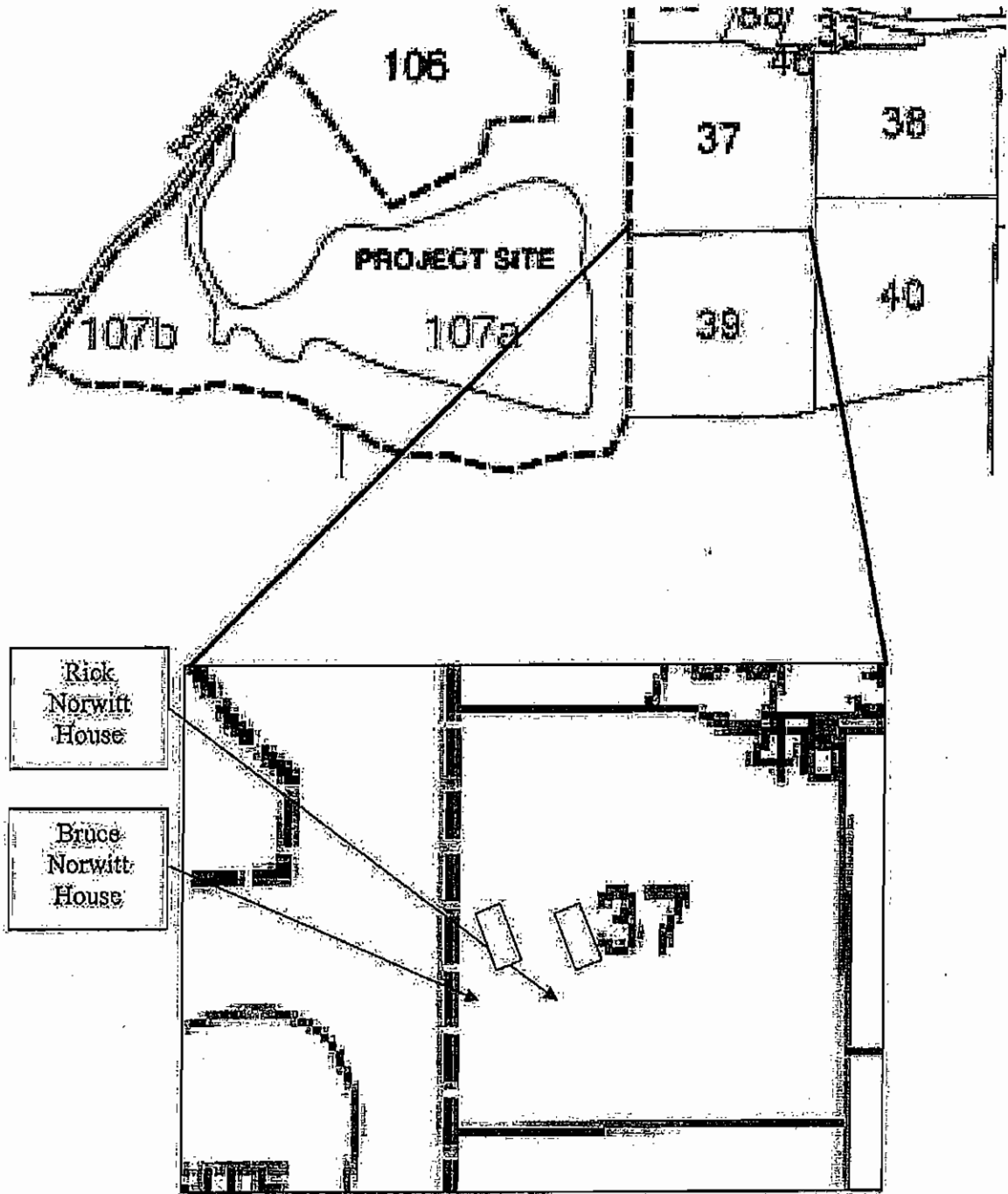
Figure B1-6
 Assessor's Parcel Key Map

Exhibit B – Location of Norwitt Ranch and Houses Relative to Proposed Quarry



Source: Google Maps

Exhibit C – Location of Norwitt Houses



Letter T. Richard Adam Norwitt

- T-1 The commenter indicates his opposition to the proposed project. The comment is noted; no response is required.

The commenter also asserts that the proposed quarry would result in irreparable harm to family members and damage the environmental on nearby properties, and refers to his comments which follow in his letter. Accordingly, the commenter is referred to all responses to specific comments that follow.

In addition, the commenter also indicates the project would affect the value of his family's ranch. The commenter is referred to response to Comment R-5, above.

- T-2 The commenter provides a history of his family's purchase of, presence on, and use of parcels in the project vicinity. The comments are noted; no response is required.
- T-3 The commenter discusses his family's opposition to prior quarry proposals on the project site, and identifies a number of environmental issues associated with those proposals. As discussed in the Draft EIR, there have been two previous quarry proposals on the project site which have been the subject of previous EIRs, neither of which were certified. In addition, those proposals were associated with different applicants, and are not associated with the current quarry proposal.

The commenter indicates the proposed project poses a greater threat to residents and visitors of his family's property, and refers to the comments which follow in his letter. Those comments are addressed in specific responses below.

- T-4 The commenter indicates it will be impossible to prevent all dust from being carried off-site, including to adjacent residences. Impact F.4 in Section IV.F, Air Quality, in the Draft EIR, discusses potential effects related to generation of fugitive dust during the construction and operational phases of the project, and design features and on-going practices proposed by the applicant and/or required by the County Surface Mining and Reclamation Ordinance (SMARO) mining and reclamation standards to minimize erosion of exposed surfaces and generation of dust. The Draft EIR establishes a formal comprehensive dust control program for implementation during initial construction and on-going operation to ensure all potential dust emissions would remain less than significant. The commenter is also referred to Master Response AQ-1 in Chapter II in this Response to Comments Document for additional data on wind conditions in the area, and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.

In addition to Impact F.4 discussed above, the commenter is referred to Impact F.1 (increase in criteria pollutants), Impact F.2 (increases in local CO emissions), Impact F.3 (increase in diesel particulate matter emissions), Impact F.5 (potential increase in

crystalline silica), and Impact F.7 (contribution to regional criteria pollutants and toxic air contaminants).

Please also refer to Master Response AQ-2 in Chapter II in this Response to Comments Document as it relates to asbestos.

- T-5 The commenter indicates that the EIR should discuss that the project would cause upsetting of landfill sediments, which in turn would impact private well water on a nearby residential property. The commenter provides no specific context for how the project could upset sediments on the landfill property. However, the commenter is referred to Impact C.7 in the Draft EIR which addresses the potential for excavation under the project to affect groundwater flow and quality in nearby wells. The commenter is also referred to Impact B.4 and G.3 in the Draft EIR which addresses potential blasting effects on nearby properties. In each of these impacts, measures proposed as part of the project, and/or identified as mitigation in the EIR, would ensure these impacts would remain less than significant.

The commenter is also asserts that the EIR should address the potential for project groundwater use to cause a groundwater shortage on a nearby residential property. The Draft EIR analyzed the effect of groundwater pumping on drawdown and lowering local groundwater levels, and determined this impact to be less than significant. The commenter is referred to Master Response HYD-1 in Chapter II in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. The WMP expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater from wells) and reduces hydrology and water quality impacts.

Under the WMP, only Well DW-2 would be used to supply supplemental groundwater for quarry operations (i.e., no use of Well DW-1). Furthermore, as discussed in Master Responses HYD-1 and HYD-3, the WMP would include a strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project with no adverse impacts from well pumping. These project refinements would not change any of the conclusions previously reached in the Draft EIR with respect to the effect of project groundwater pumping to neighboring wells.

- T-6 The comment offers anecdotal information on adverse health effects in the region near the Roblar Landfill, however the commenter offers no statistically meaningful information to support the assumption that cancer and heart disease rates, or other adverse health effects are higher than expected. For example, statistics published by the American Cancer Society indicate that, overall, approximately 40% of people contract cancer in their lifetime, and many of the causes are unknown. The process of investigating any cluster of health effects require awareness that such outcomes often may occur by chance, and identifying any biologically meaningful causes is severely

constrained by various methodological difficulties, such as: 1) the long and probably variable latent periods between causative events, 2) cancer diagnosis and the limited number of cases available for study in a local area, and 3) the clinical non-specificity of cancer cases whereby no readily available means are available at hand to identify the specific causes for any particular case. Other compounding factors, such as smoking, lifestyle differences, and immune responses can affect the potential for contracting cancer and heart disease.

T-7 The commenter asserts the Draft EIR makes no mention of the noise and visual impact of the proposed quarry to his nearby property. The commenter is referred to Section IV.G in the Draft EIR which includes a detailed evaluation of potential impacts of all quarry-generated noise, including from onsite mobile and stationary sources and off-site truck traffic. The commenter is referred to Section IV.I in the Draft EIR for an assessment of all potential visual impacts associated with the proposed project, including alteration in visual character, and affects on views from public and private vantage points. Feasible mitigation measures are identified in those sections to mitigate project noise and visual effects to the extent possible. See also response to Comment S-2.

T-8. The commenter notes that a number of vehicular accidents have occurred on Roblar Road, that a number of pets have been hit by high speed vehicles, and that the project would increase the risk of further accidents.

The commenter is referred to Section IV.E in the Draft EIR for a full transportation impact analysis, which addressed all potential traffic and safety issues. The Draft EIR included a speed survey which revealed existing traffic on Roblar Road, which consists primarily of passenger vehicles, is currently traveling at speeds higher than the posted speed limit. The Draft EIR also presented historical collision data which showed that Roblar Road's accident rate, while higher than the other study roadways analyzed in the Draft EIR, was less than the County average accident rate for two-lane rural roads (see also response to Comment for Y-3 for additional detail on this issue).

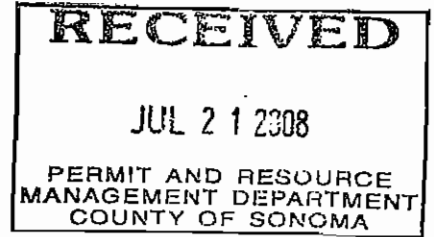
Mitigation measures are identified in the Draft EIR (see Mitigation Measures E.3 and E.4) to mitigate these potentially significant impacts which include, but are not limited to, improving Roblar Road and Pepper Road (between Mecham Road and Stony Point Road) to meet current County road design standards, including, but not limited to, two 12-foot wide vehicle travel lanes, two six-foot wide shoulders, associated striping/signage to meet Class II bike facilities, and posting of warning signs on Roblar Road at key locations where sight distance may continue to be limited after implementation of these roadway improvements.

The Draft EIR concludes that implementation of the above-cited mitigation measures would reduce potential traffic safety impacts to less than significant. However, the Draft EIR also notes that if the roadway widening improvements identified in Mitigation Measures E.3a/E.4a proved to be infeasible (due to right-of-way acquisition considerations), the impacts would remain Significant and Unavoidable.

Please note the Alternatives section of the Draft EIR includes Alternative 2 (Alternative Haul Route / Contracted Sales Only), in which all project truck traffic generated by the quarry would use an alternative haul route, and no project haul trucks would use Roblar Road east of the quarry, or Pepper Road east of Meham Road. This alternative would avoid project trucks on Roblar Road in the vicinity of Dunham and Liberty Elementary Schools, as well as adjacent to the Norwitt property.

T-9 The commenter indicates the project would affect the value of his family's property as a result of environmental degradation of the surrounding area. The commenter is referred to response to Comment R-5, above.

T-10/11 The commenter provides some additional history of his family's presence in Sonoma County, and notes his opposition to the project. The opinions of the commenter will be made available to County decisionmakers for their consideration.



Mrs. Mary Hines

Petaluma, CA 94952

July 1, 2008

The following are comments on the Draft Environmental Impact Report on the proposed Roblar Road Rock Quarry.

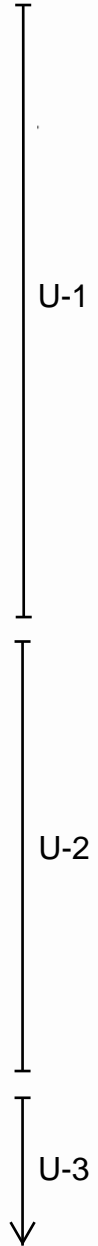
Introduction

The Draft E.I.R. fails to provide a sufficient level of analysis in many areas, draws flawed conclusions regarding many substantial negative environmental impacts, and provides insufficient mitigations to those negative environmental impacts.

I have read the entire E.I.R., and I certainly hope that all decision makers will read it as well and not just rely on staff reports and recommendations as they decide the fate of this project. The, flora, fauna, coastal grasslands, serpentine outcroppings, perennial streams, Estero, wildlife, surface and groundwater, and people of this area will be forever impacted by your interpretation of this document, and by whatever action you take.

Please also take into consideration the fact that this project is proposed to be sited in an area that has already "paid its dues". A drive around the block takes you past the now closed Roblar Road County Landfill, adjacent to the proposed Quarry, and the current County Landfill, on Meacham Road, now closed to landfilling and utilized as a transfer station only due to a breach in the liner and the contamination of groundwater of the headwaters of Stemple Creek. Both of these landfills have caused substantial negative environmental impacts.

The old landfill adjacent to the proposed quarry site was a dump that was operated in the pre- E.P.A. era; no liner, no groundwater monitoring, and you could throw ANYTHING in it. Both landfills were



sited on fractured and fissured Franciscan Formation, among seeps and springs, at a high elevation and at the headwaters of two different watersheds that are the headwaters for their respective Esteros. Neither would have had a chance of being opened at these sites in a post E.P.A. and Clean Water Act world.

↑
U-3
cont.

In fact, the leachate was not even collected and diverted out of Americano Creek at the Roblar dump until recently. Up until then, you could always see a green swale of leachate-irrigated grass winding out of the landfill into Americano Creek in the summertime when all of the surrounding seasonal pastures were brown. This dumpsite is on the property adjacent to the proposed rock quarry, and wells drilled for this project have tested positively for V.O.C.s. see attachment 1.

U-4

Please consider the cumulative negative environmental impacts that are already focused on this small area of our county. Adding another huge project with its myriad negative environmental impacts is an unfair burden to this beautiful place where we live. The southwest corner seems to have been considered the "Alviso" of Sonoma County, a place where anything could be dumped, largely due to the fact that there was a sparse population who had not been an empowered opposition to the negative projects. Farmers who are working 24/7 on their farms have historically not had much time to become active in these issues. "Can't fight City Hall" was the opinion in the past.

U-5

The tables turned on the late 80's when proposed projects to build a 15,000 acre foot dam of wastewater in Two Rock, to expand the current landfill on Meacham Road, and to open the Roblar Road Quarry were actively opposed by local ranchers, farmers, fishermen, environmentalists, and residents. The wastewater E.I.R. was ruled insufficient in court and had to be thrown out, the landfill expansion was dropped due to a flawed process and state mandated recycling, and the Quarry E.I.R. was never certified and fell off the drawing board.

↓

A new era has dawned in this area, and we oppose any more significant negative impacts. Much more information has been gathered as to the full spectrum of the environment of our area. We have reports prepared by the N.O.A.A. on both Esteros, the Americano and The San Antonio. We have studies done by several agencies for the E.I.R.'s of the proposed wastewater projects, proposed expansion of the Meacham landfill, and previous proposed Roblar Road Quarry. (E.I.R prepared by Earth Metrics Incorporated, 1989)

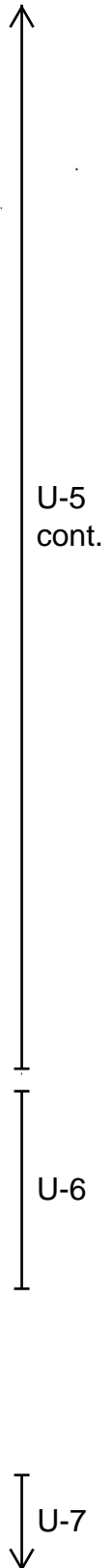
Of these 4 E.I.R.s , only one was allowed to go forward. The expansion of the Meacham landfill into the east canyon was approved by the decision makers, despite the opposition of local residents, environmentalists, and over the concerns of the North Coast Regional Water Quality Control Board, and it ended up being another environmental disaster.

The only acceptable course of action at this time is to access and repair all previous environmental degradation before any other projects can be considered. Simply "mitigating" negative impacts, (for instance, destruction of wetlands by "creating" a wetland elsewhere) do not help *this* environment, and only allow further degradation of the Roblar Road and Estero Americano watershed.

This project should not be considered as a stand-alone project, but as one that will compound previous negative environmental impacts to water quality, air quality, traffic, land use conversion of agricultural lands, visual impacts, etc...

The E.I.R.

Chapter I- "On August 4, 2004 the NOP was sent to governmental agencies and organizations and persons interested in the project."



Was the NOP sent to N.O.A.A.? As the agency responsible for the Gulf of the Farallones National Marine Sanctuary, and author of the N.O.A.A. report which previously assessed the Estero Americano, their baseline studies and jurisdiction over these waterways should be an integral part of this E.I.R. process.

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U-7
cont.

Was the Friends of the Esteros group notified? As lead plaintiffs in the lawsuit against Santa Rosa's Long -Term Wastewater Disposal project, which proposed to release wastewater into the Esteros, Their review and comments on the E.I.R. would be important also.

I disagree in 1-2 that the E.I.R. analyses are "based on conservative assumptions that tend to overstate project impacts" See further comments for specific examples.

U-8

B-3 Impact A.4- This land is under a Williamson Act contract. This contract was made to protect agricultural lands from being converted to non-agricultural use. The County of Sonoma signed this contract and it takes 10 years to remove the contract after an application goes through process and is approved by County Counsel and the Board of Supervisors. The owner of the proposed quarry would like to rescind this contract and create a new contract on land in another part of the County, thus by-passing the 10-year process.

U-9

This subverts the intent of the Williamson Act. This land is a viable part of agriculture in *this* area, and it encompasses all that good ag land in our area does: coastal grasslands, habitat for the multitude of flora and fauna; a food chain that begins with the insect life in the grasslands, and culminates with a meal for the Golden Eagles that live on the neighboring ranch, groundwater seeps and springs that feed the tributaries of Americano Creek that flow into the Estero Americano. This ag land is not comparable to other ag land in another place; this Williamson Act contract should remain on *this* land. The placement of

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the contract onto another piece of land, even with lots of sweetening of the pot, is not an apples for apples trade. It is a loss for the overall agricultural integrity of *this* area.

What other Williamson Act contracts have been extinguished or swapped in this County in the last 20 years? I know of one example: up to 10 acres was removed from the Williamson Act on a dairy property adjacent to the Meacham landfill for use by that landfill. This is an example of the loss of ag lands by attrition in this part of the County.

The existence of the Williamson Act contract on this property should be seen as a fatal flaw in this project.

U-9
cont.

Impact A-5- "This project would result in both temporary and permanent loss of Grazing Land and Farmland of Local Importance on the project site". And this is called less than Significant? To whom? Would you please explain your criteria for this conclusion? Rather than being a co2 emissions generator, this rangeland could be sequestering carbon (see attachment 3), in addition to its value to the Roblar Road area as an integral part of the grassland/riparian ecosystem.

U-10

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." Mitigation Measures: "None required"

What data led to this conclusion ? "The International Agency for Research on Cancer has classified crystalline silica as a known human carcinogen." (See attachment 4) Are the 250 people who die each year from exposure to crystalline silica less than significant? (See attachment 5) Why does the E.I.R. not mention the fact that crystalline silica causes silicosis, lung cancer, pulmonary tuberculosis, and airway diseases? The main industries causing exposure are construction, sandblasting, and

U-11

mining. (See attachment 6) How will workers and residents be protected from exposure to crystalline silica? Why is dust control not mentioned? The silicosis education campaign informs us that “If it’s Silica, It’s Not Just Dust.”

U-11
cont.

Furthermore, no mention is made in this E.I.R. of previous findings in reports prepared for this project that have significant environmental impacts (see attachment 7) I find it perplexing that IV.B-1 references the Geologic Evaluation prepared for North Bay Construction by Consulting Geotechnical Engineer, John H. Dailey, yet omits significant data contained in that report. On page 2 under Geologic Units Mr. Daily describes the mélange as being embedded in a “matrix of sheared shale and serpentinite.” (See attachment 8) Serpentinite is rock composed almost fully of serpentine but contains amounts of Pyroxene and Amphibole minerals. Serpentine contains the asbestos crysotile.

U-12

The Draft E.I.R. ignores the fact that Mr. Dailey identifies this element. Was it overlooked, or was it intentionally ignored?

How will this project comply with the regulatory measures that are required by the California Air Resources Board? (See attachment 9)

U-13

Why is Title 17 CCR 93105 not mentioned? (See attachment 10)

U-14

The F-5 section is insufficient. I am enclosing a letter from the board of supervisors in El Dorado as a proactive example of the seriousness of this issue of toxic airborne particles. (See attachment 11)

U-15

Were ASBESTOS ATCM EXEMPTION APPLICATIONS submitted to the Bay Area Air Management District for the geologic drilling and road grading that was done so far? (See attachment 12)

U-16

I think that these two examples of major issues that have not been properly addressed in the E.I.R. are indicators of a Draft that needs to be redrafted . How can we, the public and residents of this area, have confidence that you are looking out for our health and safety?

A related issue is the WIND FACTOR along the Roblar Road Corridor. The Estero is a close-to-sea-level waterway that becomes a coast to inland conduit for wind. A typical day starts with a calm morning that gives way to windy afternoons. This makes dust control especially problematic. What baseline wind monitoring data have been collected? When and where were they collected? What is the average wind speed for the afternoon hours of 2-6 P.M. for each month of the year/ How many hourly readings of over 25M.P.H. were recorded?

U-17

Who would be responsible for dust and wind monitoring during quarry operations. How will the public be assured that no dust be allowed to leave the site?

U-18

How much water will be needed for total quarry operations (mining, crushing, dust control, etc.) on a daily, weekly, and monthly basis? Where will the water come from?

U-19

What impacts will the old landfill have on quarry operations as far as water wells. Residents in the vicinity received notices that V.O.C.'s were found in a local well, and the draft E.I.R. identifies the source as a well drilled on the proposed quarry site. What will be done about this problem?

U-20

What impacts will the proposed quarry have on the old landfill? What are the potential effects of quarrying and blasting and rock extraction?

U-21

IV.J-1. This section contains information that is outdated. CDF is now Cal Fire. The Two Rock Volunteer Fire Department is not mentioned. With 14 volunteers, a medical aid vehicle, and one of the closest departments, it could be mentioned as one of the first responders.

U-22

In conclusion, C.E.Q.A. requires that the lead agency not approve a project unless significant environmental effects have been reduced to a less-than-significant level. This project has many significant environmental impacts that cannot be mitigated. The conversion of agricultural lands to non-agricultural use, the rescinding of a Williamson Act Contract, the omission of critically important geological data, the significance of that data, issues of wind, water, air, traffic, noise, and visual impacts.

U-23

A sound and responsible process will reveal these flaws and protect *this* place and its inhabitants. As the full impacts of this project are revealed it is obvious that there is no less than significant way to blast and crush this mountain, and then haul it away; a statement of overriding considerations would serve no one.

Thank you for your concern.

Letter U. Mrs. Mary Hines

- U-1 The commenter makes a general comment that the Draft EIR fails to provide a sufficient level of analysis in many areas, and provides insufficient mitigation. The commenter is referred to all responses to specific comments that follow.

The commenter also states she read the entire EIR, hopes decisionmakers will read the EIR, and expresses the opinion that the wildlife, plantlife, surface and groundwater resources, and people of the area will be impacted by the project. The opinions of the commenter will be made available to County decisionmakers for their consideration.

- U-2 The commenter indicates that the project is proposed in an area that has already “paid its dues,” and refers to other industrial developments in the areas, such as the Roblar Landfill and the Central Landfill/transfer station. This comment does not address the adequacy of the Draft EIR. However, as appropriate, the Draft EIR considers the project along with other past, present and reasonably foreseeable future projects in the vicinity in assessing cumulative effects; these cumulative impacts are addressed throughout Chapter IV, and summarized in Chapter VI, Impact Overview, in the Draft EIR. Please see also Master Response GEN-1 in Chapter II in this Response to Comments Document regarding issues related to the approval process for this project and other miscellaneous issues not specifically associated with the EIR.

- U-3 The commenter expresses the opinion that the Roblar Landfill was operated in an era prior to the Environmental Protection Agency (EPA), contains no liner, and did not conduct groundwater monitoring. The Draft EIR Project Description describes the history of the Roblar Landfill; further discussion of drainage and leachate collection systems for the landfill are presented in the Draft EIR, Section IV.C, Hydrology and Water Quality. The Draft EIR acknowledges that the landfill is unlined, and also discusses results of the groundwater quality monitoring that has been conducted on the landfill property to date.

The commenter also indicates both landfills were sited on fractured and fissured Franciscan formation, among seeps and springs, at a high elevation and at the headwaters of two different watersheds. An extensive discussion of the geologic and hydrologic setting of the project site vicinity, including the underlying Franciscan formation, presence of seeps and springs, and watershed boundaries are provided in Draft EIR Section IV.B, Geology, Soils and Seismicity, and Section IV.C, Hydrology and Water Quality, respectively.

In addition, the commenter indicates neither landfill would have been able to be initiated after the inception of the EPA and Clean Water Act. These opinions do not address the adequacy of the Draft EIR; consequently, no response is required. However, the opinions of the commenter will be made available to County decisionmakers for their consideration.

U-4 The commenter discusses that leachate at the Roblar Landfill was not collected and diverted until recently, and that prior to that, leachate-irrigated grass could be observed on the landfill property. These comments do not address the adequacy of the Draft EIR. Please refer to response to Comment U-3, above. Please see also Master Response GEN-1 in Chapter II in this Response to Comments Document regarding issues related to the approval process for this project and other miscellaneous issues not specifically associated with the EIR.

U-5 The commenter requests the EIR to consider cumulative effects. As discussed in response to Comment U-2, above, the Draft EIR addresses cumulative impacts throughout Chapter IV. This includes, but not limited to, assessment of cumulative traffic (Impacts E.1 and E.2), air quality (Impact F.6, and F.7), noise (Impact G.4), and aesthetic effects (Impact I.3).

The commenter describes other development proposals in southern Sonoma County, including environmental documents completed for those proposals, and opposition to those proposals. These comments do not address the adequacy of the Draft EIR; consequently no response is required.

It should be noted that mitigation measures identified in the Draft EIR, including those for water quality impacts, have been prepared pursuant to, and consistent with, the CEQA *Guidelines*, and all applicable jurisdictional agency regulations and guidelines, including, but not limited to, those of the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and the California Department of Fish and Game.

U-6 The commenter asserts that the project should not be considered as a stand-alone project, but as one that will compound previous negative environmental impacts to water quality, air quality, traffic, land use conversion of agricultural lands, visual impacts, etc. The commenter is referred to response to Comment U-2, above.

U-7 The commenter inquires if the Notice of Preparation (NOP) was sent to NOAA and the Friends of the Esteros group. NOAA - National Ocean Service, Gulf of the Farallones National Marine Sanctuary responded to the NOP for the proposed project, please see Comment Letter E and the responses to that comment letter in this Response to Comments Document.

U-8 The commenter disagrees that the EIR analyses are based on conservative assumptions that tend to overstate project impacts, and refers to specific comments that follow. Accordingly, the commenter is referred the specific responses to those comments that follow.

U-9 The commenter indicates the proposed rescinding of the Williamson Act contract subverts the intent of the Act.

As discussed in the Draft EIR, under the provisions of the Williamson Act Easement Exchange Program (WAEEP), Williamson Act contracts can under limited and special circumstances be cancelled while simultaneously dedicating a permanent agricultural conservation easement on another property. Among other requirements, the County Board of Supervisors must make specific findings, and the agreement must be approved by the Secretary of Resources. Participation in the WAEEP as allowed under the Williamson Act would result in a net increase in the number of acres preserved for agricultural preservation. The creation of a conservation easement on the easement exchange site would provide a minimum 3.5 to 1 compensation for rescinding the Williamson Act contract on the project site. As a result, the project would ultimately have a long-term beneficial effect on the preservation of agricultural land in Sonoma County. Separate and apart from the Williamson Act rescission process, this EIR addresses all potential environmental impacts of the proposed project on agricultural land.

The commenter indicates the potential loss of the Williamson Act land on the project site is loss for the agricultural integrity of the local area. As discussed in the Draft EIR, the project as mitigated would also not have any remaining short-term or long-term significant environmental impacts to agricultural land or production in the project vicinity. As a consequence, the cancellation would not result in direct or indirect removal of any adjacent lands from agricultural use. All potential physical environmental effects of the proposed mining activities on surrounding land uses are addressed in their respective sections of this EIR. Mitigation measures proposed as part of the project and identified in this EIR would mitigate or reduce potential impacts to off-site land uses to the extent feasible. Please also note that following mining and reclamation of slopes, the 199-acre project site would undergo final reclamation to open space, the majority of which would be suitable for grazing.

- U-10 The commenter cites Impact A.5 and inquires why the impact is determined to be less than significant and what the criteria was arriving at that conclusion.

As discussed in Impact A.2 in the Draft EIR, for the purposes of this EIR, and taking guidance from Appendix G of the CEQA *Guidelines*, one of the significance criteria used for judging impacts to land use and agricultural resources is whether the project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Department of Conservation (DOC), to non-agricultural use. There is no “Prime farmland,” “Unique farmland” or “Farmland of Statewide Importance” as designated by the DOC FMMP farmland classification system on the project site or on adjacent parcels. Consequently, the project would not result in any temporary or permanent conversion of any areas of Prime farmland, Unique farmland or Farmland of Statewide Importance, nor would it have a direct or indirect effect on these farmland types elsewhere within the project vicinity.

The effect of the temporary and permanent loss of Grazing Land and Farmland of Local Importance in the cumulative context was addressed in Impact A.5 in the Draft EIR. The project would represent less than 0.02 percent decrease to Grazing Land resources in Sonoma County, and a 0.001 percent decrease in the County's Farmland of Local Importance, which would not be considered a cumulatively considerable contribution. In addition, the proposed permanent agricultural conservation for the 244 acre Lakeville Road easement exchange property, classified as Farmland of Local Importance, would ensure that 244 acres would permanently remain in farming use, and protect approximately 0.33 percent of Sonoma County's current Farmland of Local Importance from potential future non-agricultural development. For these reasons, the temporary and permanent conversion of areas of Farmland of Local Importance and Grazing Land that would occur under the project would be less than significant.

The commenter is referred to Impact F.6 in the Draft EIR for a discussion of the project's contribution to cumulative greenhouse gas emissions.

U-11 The commenter inquires what data led to the conclusion that the potential for the project to generate silica is less than significant. The commenter further indicates that silica is associated with silicosis, lung cancer, pulmonary tuberculosis, and airway diseases. The comment is referred to responses to Comments O-10 and O-12; these responses considered the information contained in the attachments provided by the commenter.

U-12 The commenter indicates the Draft EIR did not discuss the serpentinite that may be located on the project site, and contain asbestos crysotile. The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.

U-13 to U-15 Please see Master Response AQ-2 in Chapter II in this Response to Comments Document for a response to issues raised.

U-16 The commenter inquires if ATCM exemption applications were submitted to the BAAQMD for geologic drilling completed to date. This comment does not address the adequacy of the Draft EIR. However, the commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of the applicability of ATCM for the proposed project.

U-17/18 The commenter inquires what wind monitoring data has been collected, and who will be responsible for dust and wind monitoring. The commenter is referred to Impact F.4 in Section IV.F, Air Quality, in the Draft EIR, for a discussion of potential effects related to generation of fugitive dust during the construction and operational phases of the project, and design features and on-going practices proposed by the applicant and/or required by the County Surface Mining and Reclamation Ordinance (SMARO) mining and reclamation standards to minimize erosion of exposed surfaces and generation of dust. The Draft EIR establishes a formal comprehensive dust control program for

implementation during initial construction and on-going operation to ensure all potential dust emissions would remain less than significant. The commenter is also referred to Master Response AQ-1 in Chapter II in this Response to Comments Document for additional data on wind conditions in the area, including a five-year summary of available data from the BAAQMD Valley Ford meteorological station; and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.

- U-19 The commenter inquires how much water will be needed for quarry operations. The commenter is referred to Master Response HYD-1 in Chapter II in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. The WMP characterizes and quantifies the various water demands for the project, including for quarry operations.
- U-20 The commenter inquires what impact the landfill will have on quarry operations; the commenter also apparently references the August 24, 2007 County Department of Health Services letter that was sent to a number of properties within the vicinity of the project site. The commenter is referred to Master Response HYD-2 and response to Comment I-2. It should be noted the County Department of Health Services letter presented information from the initial round of groundwater monitoring conducted on the quarry site by the applicant in support of the Draft EIR for the proposed quarry.
- U-21 The commenter inquires what impacts the proposed quarry would have on the Roblar Landfill, and specifically cites the effects of blasting and rock extraction. The potential impacts of the proposed quarry on the closed landfill site are addressed in the Draft EIR in Impacts A.1 (land use compatibility); C.4 (surface water quality); C.7 (groundwater flow and quality); C.8 (groundwater levels); G.3 (groundborne vibration from blasting); and H.1 (handling and storage of blasting materials).
- U-22 The commenter indicates that the Draft EIR contains information that is outdated, stating that CDF has changed its name to CalFire. The comment is noted. As of recently, the California Department of Forestry and Fire Protection has been using the acronym CalFire instead of CDF, however, these terms are still interchangeable.

The commenter also indicates the Two Rock Volunteer Fire Department should be mentioned as one of the first responders. The comment is noted. As discussed in the Draft EIR, the project site is located within the boundary of the Gold Ridge Fire Protection District (GRFPD), which would be the first responder to structural-related fires/vehicular accidents/medical emergencies at the project site; and CalFire which would be first responders to wildland fires. The Draft EIR also notes that the GRFPD and CalFire maintain mutual aid agreements with Rancho Adobe Fire Protection District and the Sonoma County Department of Emergency Services (SCDES) Fire Division. The Two Rock Volunteer Fire Department, along with the Bloomfield Volunteer Department mentioned in the Draft EIR, are under the jurisdiction of the SCDES.

U-23 The comment indicates the project has many significant impacts that cannot be mitigated. The commenter is referred to Impacts A.2, A.3 and A.5 in the Draft EIR with respect to the conversion of agricultural land; and Impact A.4 with respect to the conflict with the Williamson Act contract governing the project site. All potentially significant impacts associated with these issues are mitigated to a less than significant level.

The commenter also cites the omission of geologic data, although does not identify specifically what type geologic data was omitted. The commenter is referred to responses above with respect to previously-identified issues raised by the commenter related to silica and asbestos.

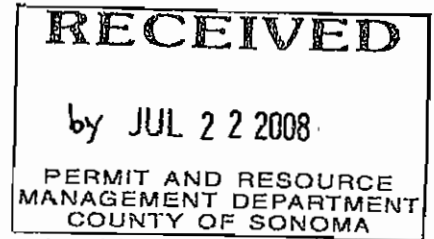
In addition, the commenter cites issues with wind, water, air, traffic, noise and visual impacts. The commenter is also referred to responses above with respect to previously-identified issues raised by the commenter related to these issues.

The comment letter contained a number of attachments. These attachments are included as Appendix C-1 in this Response to Comments Document.

Comment Letter V

June 18, 2008

Sonoma County Planning Commission
2550 Ventura Ave.
Santa Rosa, CA



Subject: DEIR File PLP03-0094, Comments to

Dear Commissioners:

I am a property owner living within 1 mile of the proposed quarry site. I have been a resident of Sonoma County for over 15 years. I own a manufacturing business in Sonoma Valley that has been in existence since 1932. I employ 36 people and export products globally.

I was an original participant and supporter of the Business Environmental Alliance initiated by the Sonoma County Economic Development Board and sponsored by the Board of Supervisors. My plant is environmentally conscious and will remain that way.

V-1

I am currently the County Parole Commissioner appointed by the California Superior Court. This is my second 3 year term.

My point in telling you this is to establish my community, moral and business credentials. Naturally, my property proximity and the potential personal hazards as well as reduction in property value influence my thinking.

I fully appreciate and understand the need for additional local aggregate availability for the needs of the local construction industry. A project of this type adds jobs and hopefully tax payers to add to the revenue stream.

V-2

At the same time, we need to be responsible stewards of our land and environment. I have deep concerns that this quarry, primarily its location surrounding a former landfill, may be a disaster waiting to happen. I urge you to very carefully evaluate the need for this quarry against the potential risks to the county and its citizens.

V-3

Please consider my questions and comments to the subject Draft EIR.

Thank you!

Robert W. Piazza

Petaluma, CA. 94952

CHAPTER IV

Environmental Setting, Impacts and Mitigation Measures

Description of Nearby Properties

Does not mention rural residential properties. They have not been considered yet they do exist within a 1 mile radius of the proposed site.

The DEIR needs to address this impact.

V-4

Impacts and Mitigation Measures

Significance Criteria

Project Impacts

Compatibility with Nearby Land Uses

Impact A.1: *“When considering the industrial nature and scale of the proposed development, and the collective environmental effects of operation of the proposed quarry (e.g., visual, truck traffic, noise) which would be noticeable to nearby residences over a long-term (20-year) period, the project can be considered to be incompatible with existing nearby residential uses, which would be a significant impact.”*

V-5

The area surrounding the proposed site consists of multimillion dollar homes and properties. This project will introduce an industrial enterprise that is neither consistent nor compatible with the residential and agricultural nature of the area. Property values are likely to be negatively impacted because of this project, potentially causing a substantial loss to property owners. The DEIR does not adequately address this issue.

“The proposed project would be generally compatible with the adjacent closed landfill property given the lack of sensitive receptors on the landfill property, and the historical industrial use and altered landform of the landfill property.”

The closed landfill has been undisturbed for many years. There have been no shocks to the underground structure of the geology. The DEIR does not adequately address the chemical makeup of the contents of the dump and the possible ramifications should any toxins or other hazardous liquids or vapors be released due to being disturbed by the proposed industrial operations, specifically, blasting and earth/gravel removal from the area immediately adjacent to the old dump site.

V-6

Will the writers of the DEIR as well and the applicant and their respective liability insurers confirm they will fully cover any and all losses to property owners and Sonoma County should the operations cause harm to others? The DEIR does not address this issue.

V-6
cont.

It would be irresponsible for the applicant and Sonoma County to permit an industrial activity to disturb and release hazardous chemicals to the water supply and the atmosphere.

Conflict with Williamson Act

Impact A.4: The project would conflict with a Williamson Act Contract governing the project site. This would be a potentially significant impact.

The DEIR states that the land will be disturbed and 28 acres will not be returned to grazing land. The applicant is offering to exchange grazing land elsewhere in the county. This is nothing but a sham to nullify the Williams Act principles and purpose. This land will be forever destroyed.

V-7

The DEIR does not address how, following the 20-year mining period, the quarry site final reclamation will be paid for. The taxpayers of the county need guarantees such as a bond to insure the reclamation costs will be paid should the applicant or its successors become insolvent.

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.

As we are all painfully aware we are in a draught condition. Water is a paramount issue which the DEIR superfluously addresses and does not consider it a significant impact.

V-8

The DEIR does not offer any verifiable proof that water drawdown by the applicant during his normal operations will not have a significant impact. I ask, is this scientific fact or supposition?

We rely on well water for our water source. The quantities of water needed by the quarry have not been compared to the current usage by surrounding property owners. The DEIR did not address what the project drawdown will be as a percent of current drawdown within a 2 mile radius and it should. The estimated water usage by the project is likely underestimated for the summer months.

This area of the county is noted for its lack of ground water. Most of our wells are 300 feet or deeper.

The DEIR offers no mitigation should project well drawdown have a detrimental effect on existing surrounding wells within a 2-3 mile radius. If the applicant or the originators of the DEIR are confident the water supply to current surrounding property owners will not be affected, I would like to see the applicant post a substantial bond to insure a life time water supply to property owners should the project operations deprive property owners of water.

V-8
cont.

Impact D.2: Project construction and grading activities within the proposed aggregate mining area would impact protected trees. This would be a significant impact.

The isolated stand of oak trees south of Center Pond is composed of nine black oak trees (see Table IV.D-1). These trees have nine-inch or greater diameters at standard height, and meet the criteria of the Sonoma County's tree ordinance as protected trees. Proposed mining within Phase 3 would result in removal of these nine protected oak trees.

V-9

Mitigation Measure D.2a: What happens if the trees die?

Mitigation Measure D.2b: What happens if the trees die?

Mitigation Measure D.2d: What's the fee for destroyed trees?

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.

V-10

The DEIR only dealt with blasting noise. How about blasting damage to surrounding structures or wells? Need a bond to cover damage claims and lifetime water supply.

E. Transportation and Traffic

Existing Vehicle Speed on Roblar Road

In order to evaluate existing travels speeds on Roblar Road, speed data was collected at the same locations (0.2 miles west of Dunham School, and 0.65 miles west of Canfield Road) and during the same time period (March 11-17, 2005) as the 24-hour traffic count data. As discussed under Roadway System and Site Access, above, the posted speed limit on Roblar Road is 45 mph between Stony Point Road and Orchard Station (an exception is in the immediate vicinity of the Dunham School, where the speed limit is 25 mph when school is in session), and increases to a prima facie 55 mph between Orchard Station and Valley Ford Road.

V-11

The 85th percentile speed collected on Roblar Road was just under 60 mph.² Specifically, near Dunham School (and outside of hours when school is in session), the 85th percentile speed was slightly lower (57.4 mph) than speeds just west of Canfield Road (59.4 mph). The mean, or 50th percentile average speed, was approximately 50 mph, with a 10 mph pace speed between 45 and 55 mph.³ Overall, the speed survey indicates vehicles on Roblar Road are currently traveling at speeds higher than the posted speed limit.

V-11
cont.

The DEIR needs to address changing speed limit from 55 to 45 for all of Roblar and mitigating the minimal (300 feet) line of sight west bound at Carniglia Lane.

Near-Term Cumulative Base Plus Project

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.

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.

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.

V-12

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.

This would require removal of approximately 10-20 feet of the Washoe house to accommodate a south bound right turn lane. The Washoe House is a designated a historical building. This means Stony Point road will have to offset significantly to the East to allow for this improvement. The DEIR admits it is unknown if additional width is needed or can be obtained. **This needs to be properly addressed as it could be a significant expense to the county if not paid by the applicant.**

Impact E.4: The project would add substantial truck traffic to certain primary haul roads that do not meet current County roadway design standards and/or contain limited sight distance. This would be a significant impact.

Mitigation Measure E.4a: Implement roadway improvements for Roblar Road identified in Mitigation Measure E.3a.

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.

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.⁷ The warning signs shall follow guidelines set forth in the *California Manual on Uniform Traffic Control Devices* (Caltrans, 2006c).

V-13

These mitigation measures are insufficient!

Road alignment both horizontal and vertical must be identified and mitigated. Of particular concern is the vertical alignment at Carniglia Lane. The crest is ~250 feet East of Carniglia. A vehicle traveling at 60 mph will travel that distance in 2.7 seconds and at 50 mph the time 3.4 seconds. An empty tandem truck and trailer cannot stop in that distance at either speed.

The DEIR did not adequately or thoroughly address this Impact.

B. Geology, Soils, and Seismicity

Significance Criteria

The significance criteria for this geologic and seismic impact analysis are adapted from the 2006 CEQA Guidelines, Appendix G. Based on the guidelines, geologic, seismic or soils-related impacts resulting from the proposed mining operations and/or future reclamation would be considered significant if the proposed project would:

Expose people or structures to geologic or seismic hazards that could not be overcome by modern geotechnical engineering design and standard construction and maintenance practices. These hazards could cause substantial risk of loss, injury, or death involving:

The DEIR does not address the potential exposure of geologic hazards to people. The rock is reported to contain asbestos which will be released into the atmosphere and atmosphere if mined.

V-14

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.

V-15

Impact B-4 Does not address the potential damage to surrounding (2 mile radius) water wells or any mitigation measures. All wells within a 3 mile radius should be tested prior to the start of operations for water quality and contaminates, to establish a base line. This cost should be borne by the county or the applicant.

General Plan

The following policies from the Resource Conservation and Public Safety Elements of the Sonoma County General Plan are relevant to the project site and/or proposed project:

Prevention of Soil Erosion

RC-2b: Include erosion control measures for any discretionary project involving construction or grading near waterways or on lands with slopes over 10 percent.

RC-2d: Require a soil conservation program to reduce soil erosion impacts for discretionary projects which could increase waterway or hillside erosion. Design improvements such as roads and driveways to retain natural vegetation and topography to the extent feasible.

RC-2e: Retain natural vegetation and topography to the extent economically feasible for any discretionary project improvements near waterways or in areas with a high risk of erosion as noted in the Sonoma County Soil Survey.

RC-2g: Continue to enforce the Uniform Building Code to reduce erosion and slope instability problems.

Water Resources

RC-3a: Grading, filling and construction should not substantially reduce or divert any stream flow that would affect groundwater recharge.

RC-3b: Require groundwater monitoring programs for all large scale commercial and industrial uses using wells.

RC-3c: Continue to encourage research on and monitoring of local groundwater, watersheds, streams, and aquifer recharge areas in order to determine their water supply value.

RC-3e: Encourage wastewater disposal methods which minimize reliance on discharges into natural waterways. If discharge is proposed, review and comment on projects and environmental documents and request that projects maximize reclamation, conservation and reuse programs to minimize discharges and protect water quality and aquifer recharge areas.

RC-3h: Require proof of adequate groundwater in Class III and IV water areas. Require test wells or the establishment of community water systems in Class IV water areas. . . Deny discretionary applications unless a geologic report establishes that groundwater supplies are adequate and will not be adversely impacted by the cumulative amount of additional development.

Reduction of Potential Damage from Flooding

PS-2c: Base land use planning and development review on FEMA maps and data or parcel specific scaled interpretations of these maps and site specific elevation data.

Mineral Resources

RC-11b: Review projects for environmental impact and land use conflicts and consider the following minimum factors when approving mining permits: topsoil salvage, vegetation, fisheries

V-16

and wildlife impacts, noise, erosion control, roadway conditions and capacities, reclamation and bonding, air quality, energy consumption, engineering and geological surveys, aggregate supply and replenishment, drainage, and the need for economical aggregate materials.

The DEIR has not adequately addressed mitigation related to RC-2e, RC-3a, RC-3b, RC-3c, RC-3e, RC-3h. There are no checks and balances!

V-16
cont.

Example:

Mitigation Measure C.2c: Implement corrective measures to meet water quality objectives, if necessary. (BY THE APPLICANT!)

Mitigation Measure C.2d: Maintain and repair storm damage to conveyance and water quality control systems, as necessary. (BY THE APPLICANT!)

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.

Increased use of onsite well DW-1 and/or DW-2 would have the potential to periodically induce groundwater flow from beneath the adjacent Roblar Landfill property towards the supply wells when the wells are operated, when considering the proximity of the landfill property and the underlying water-bearing geologic units of the vicinity. This could cause well DW-1 and/or DW-2 to periodically lower the water levels in the monitoring wells at the landfill property. This flow from under the land fill will likely be contaminated and thus will be pumped to the quarry site for dust suppression. This will result in contamination of the runoff water which can contaminate the Americano Creek as well as other well water supplies.

V-17

The DEIR claims mitigation is not required! This is not an acceptable response.

Letter V. Robert W. Piazza

- V-1 The commenter indicates his property in relation to the project site and summarizes his business credentials. This comment does not specifically address the adequacy of the Draft EIR; consequently, no response is required.
- V-2 The commenter notes the need for additional local aggregate availability, and that the proposed project would generate employment and tax revenue. The commenter expresses opinions about the merits of the project, but does not address the adequacy of the EIR. Consequently, no response is required. However, the opinions of the commenter will be made available to County decisionmakers for their consideration.
- V-3 The commenter indicates responsible stewardship of land and environment is needed; expresses concerns about the about the proposed quarry and its location, and requests that the County evaluate the need for the quarry against the potential risks to the County and its citizens. The commenter expresses opinions about the merits of the project, but do not address the adequacy of the EIR. Consequently, no response is required. However, the opinions of the commenter will be made available to County decisionmakers for their consideration. Please see also Master Response GEN-1 in Chapter II in this Response to Comments Document regarding issues related to the approval process for this project and other miscellaneous issues not specifically associated with the EIR.
- V-4 The commenter indicates the Draft EIR description of nearby properties does not mention rural residential properties. The commenter is incorrect. Under the topic of “Nearby Land Uses” in Chapter III, Project Description, and Section IV.A, Land Use and Agricultural Resources, the Draft EIR notes adjacent land uses includes agricultural residential lots. Nearby rural residences are acknowledged as sensitive receptors in IV F, Air Quality, Section IV.G, Noise and Vibration, in the Draft EIR. The presence of nearby rural residential properties is also noted in Section IV.D, Biological Resources, and Section IV.I, Aesthetics, in the Draft EIR.
- V-5 The commenter quotes an excerpt from Impact A.1 in the Draft EIR. The commenter then goes on to state the area surrounding the project site contains multi-million dollar homes and properties; and that the project would introduce an industrial enterprise that is neither consistent or compatible with the residential and agricultural nature of the area.

The commenter should note that, as discussed in Impact A.1, while the Draft EIR finds the that the project’s compatibility with residential land uses in the project vicinity would be a significant and unavoidable impact (Impact A.1), as mitigated the project’s effect on nearby agricultural uses would be less than significant.

The commenter also states the Draft EIR should address the project’s effect on property values. The commenter is referred to response to Comment Q-1 for a response to this issue.

Please see also Master Response GEN-1 in Chapter II in this Response to Comments Document regarding issues related to the approval process for this project and other miscellaneous issues not specifically associated with the EIR.

- V-6 The commenter asserts the Draft EIR does not adequately address the chemical makeup of the contents of the Roblar Landfill and the possible ramifications should toxins, hazardous liquids or vapors be released due to disturbance from proposed quarrying operations, including blasting and earth/gravel removal.

The commenter is referred to response to Comment D-2 which discusses how the Draft EIR adequately described groundwater quality beneath the landfill property and project site, and potential impacts from quarrying operations on groundwater quality. The commenter is also referred to Master Response HYD-2 in Chapter II in this Response to Comments Documents for further detail on existing groundwater quality conditions on the project site and adjacent landfill property including additional groundwater data that has been made available. The commenter is also referred to response to Comment L-10 and O-16 regarding how the Draft EIR addressed potential impacts from blasting.

The commenter also expressed concern about liability. The commenter is referred to Master Response GEN-1 with respect to concerns regarding potential liability from quarry operations.

- V-7 The commenter quotes an excerpt from Impact A.4 in the Draft EIR. The commenter then asserts that the offer to exchange grazing land elsewhere in the County is an attempt to nullify the Williamson Act principles and purpose. Please refer to response to Comment U-9 for a response to this issue.

The commenter also indicates the Draft EIR does not address how, following the 20-year mining period, the quarry site final reclamation would be paid for. Please refer to response to Comment J-7 for a response to this issue.

- V-8 The commenter indicates the area is in drought condition, and that water is a paramount issue. The commenter asserts that the Draft EIR did not demonstrate that proposed quarry operations would not result in water drawdown. The commenter further asserts that proposed quarry groundwater usage was not considered along with groundwater usage from by surrounding property owners, and that the estimated project groundwater usage may be underestimated for the summer months.

The commenter is referred to Master Response HYD-1 in Chapter II in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. The WMP expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater seepage, precipitation/runoff, and groundwater from wells) and reduces hydrology and water quality impacts. The WMP characterizes

and quantifies the various water demands for the project, and includes highly conservative estimates of water demand required for dust control.

The Draft EIR analyzed the effect of groundwater pumping on periodic drawdown and lowering local groundwater levels, and determined this impact to be less than significant. Under the WMP, only Well DW-2 would be used to supply supplemental groundwater for quarry operations (i.e., no use of Well DW-1). Furthermore, as discussed in Master Responses HYD-1 and HYD-3, the WMP would include a strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project with no adverse impacts from well pumping. These project refinements would not change any of the conclusions previously reached in the Draft EIR with respect to the effect of project groundwater pumping to neighboring wells.

- V-9 As stated in Mitigation Measure D.2d, if any protected tree 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 onsite replacement is not feasible, the proponent shall pay in-lieu fees into the County of Sonoma tree replacement fund. Please note a fee schedule is on file at the County Permit and Resource Management Department.
- V-10 The commenter quotes an excerpt from Impact D.8 in the Draft EIR. The commenter then asserts that the Draft EIR only dealt with blasting noise, and inquires about impact of blasting on surrounding structures and wells.

The impact statement the commenter refers to in the Biological Resources section of the Draft EIR focused on noise disturbance to special-status wildlife species. With respect to a detailed evaluation of blasting effects to people, structures and utilities on nearby properties, the commenter is referred to Section IV.G, Noise and Vibration in the Draft EIR. This section relies as appropriate on an assessment of potential blasting impacts and recommended practices for the proposed quarry that was conducted in support of the EIR by Revey Associates, Inc. (see Appendix F-1 in the Draft EIR). Revey Associates, Inc. have extensive and direct explosive-work experience in hardrock mining, mine planning, blasting research, and blasting explosives management.

As discussed in the Draft EIR, with mitigation, the effects of proposed blasting on nearby properties, including, residences, the landfill, the ground around them, or pipes and wells on those properties would be less than significant. See also responses to Comments V-15 and L-10.

- V-11 The commenter quotes an excerpt from the Setting discussion of the Transportation and Traffic section of the Draft EIR concerning existing vehicle speeds on Roblar Road. The commenter then indicates the EIR needs to address changing the speed limit from 55 to 45 mph for all of Roblar Road and mitigate the minimal sight distance west of Carniglia Lane.

The Draft EIR determines that the project would have a significant impact on traffic safety conditions on Roblar Road because of the addition of project truck traffic on a road that has (1) travel lane and shoulder widths that do not meet current County standards, (2) vehicles traveling at speeds higher than posted speed limits, and (3) winding curves that contributes to limited sight distance in locations. Mitigation measures are identified in the Draft EIR (see Mitigation Measures E.3 and E.4) to mitigate these significant impacts which include improving Roblar 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, associated striping/signage to meet Class II bike facilities, and posting of warning signs on Roblar Road at key locations where sight distance may continue to be limited after implementation of these roadway improvements. The County would assign a speed limit to this improved roadway commensurate with the road design standards.

The project would have no effect on the available sight distance, which is affected by vegetation on the north side of Roblar Road west of Carniglia Lane. The above-cited improvement of Roblar Road to meet current County road design standards (Mitigation Measure E.3a/E.4a) would include consideration of removal of vegetation as a means to improve sight distance.

Please also refer to response to Comment T-8. Finally, the commenter is referred to the Draft EIR discussion of Alternative 2 (see description on page V-4 in the Draft EIR) which would avoid use of Roblar Road east of the quarry by project haul trucks.

- V-12 The commenter quotes excerpts from Mitigation Measures E.1 and E.2a in the Draft EIR. The commenter then states his opinion that this mitigation would required removal of 10 to 20 feet of the Washoe House, a designated historical building, to accommodate a southbound right-turn lane; and that it is unknown if additional width is needed or can be obtained. The commenter then indicates this needs to be properly addressed as it could be a significant expense to the County.

The commenter provides no justification for the claim that the proposed mitigation would require removal of 10 to 20 feet of the Washoe House. In fact, Impact E.9 analyzed the secondary impacts of the roadway improvements proposed in the EIR, including the potential impact on the Washoe House. The discussion under Impact E.9 makes clear that the improvements identified in Mitigation Measure E.1 have already been analyzed by the County and determined to be less than significant; no impact to the Washoe House was identified. Impact E-9 further clarifies that constructing the southbound right-turn lane called for in Mitigation Measure E.2a may require minor additional widening “on the easterly side of Stony Point Road to avoid effects to the historic Washoe House.” (See Draft EIR, p. IV.E-50.) Subsequent detailed environmental review based on final engineering and design will take place when these road improvements are proposed to be constructed. However, based on the information available at this time, the Draft EIR appropriately concludes that the secondary impacts of the road improvements required for the project would be less than significant with mitigation. However, as noted in

Mitigation Measure E.2a, right-of-way acquisition for these improvements may not be feasible. If that were the case, the impact would remain significant and unavoidable, requiring an override from the Board of Supervisors for project approval.

- V-13 The commenter quotes excerpts from Mitigation Measure E.4a-c in the Draft EIR. The commenter asserts these mitigation measures are insufficient, and indicates both horizontal and vertical road alignment must be identified and mitigated.

Horizontal and vertical curvature on roads in the vicinity of the project, including Roblar Road, are acknowledged in the Draft EIR on page IV.E-3 and considered in the analysis and mitigation of traffic safety (see page IV.E-35). In addition, Mitigation Measure E.3a requires improvements to Roblar and Pepper Roads “to meet current County road design standards,” which would address horizontal and vertical curvature. As discussed in the Draft EIR, no design work has been undertaken for the specific alignment and structural improvements that may be required along Roblar and Pepper Roads. However, if and when such task is underway, it would incorporate safety improvements as feasible, including potential modifications to both the vertical and horizontal alignment. As acknowledged in the Draft EIR, if the proposed roadway improvements were pursued, subsequent detailed environmental analysis and County approval would be required. Nonetheless, Impact E.8 in the Draft EIR contains an assessment of the likely range of secondary environmental impacts that would be anticipated with the roadway improvements along Roblar and Pepper Roads, and identifies preliminary mitigation measures to reduce environmental impacts.

- V-14 The commenter quotes excerpts from the significance criteria discussion for the Geology, Soils and Seismicity Section of the Draft EIR. The commenter further indicates the project would release asbestos into the atmosphere if mined. The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.

- V-15 The commenter quotes an excerpt from Impact B.4 in the Draft EIR. The commenter then indicates the impact does not address the potential for blasting-induced damage to surrounding water wells or any mitigation measures, and that all water wells within a three mile radius should be tested prior to start of operations for water quality and contaminants to establish a baseline.

With respect to blasting, as discussed in response to Comment V-10, above, Section IV.G, Noise and Vibration in the Draft EIR addresses all potential blasting impacts in detail. A number of mitigation measures are identified in Impact G.3a-g to ensure potential impacts to nearby residences would also be less than significant. This includes a requirement that all blasting in the eastern edge of the proposed quarry shall be designed to assure that charges are sized to maintain a scaled distance such that the intensity of ground motions at the nearest residence would not exceed the 0.5 in/s limit (in accordance with the low-frequency PPV limits suggested by the US Bureau of

Mines). In Report of Investigations 9523, published by the US Bureau of Mines (Siskind et al, 1993), the recommended safe vibration limit for buried pipes, which are constructed similarly to well-casings, is 5 in/s. Since this limit is ten times greater than the current 0.5-in/s limit that would be in effect at all property where wells might exist, it is reasonable to conclude that blast induced vibrations would have no impact on the condition of existing wells. As discussed in the response to Comment O-16, based on the proposed blasting work limitations, the maximum distance that ground would be cracked or physically ruptured beyond the limits of a blasted area is 65 inches (or 5.4 ft). Since all wells would be located hundreds of feet from blast areas, it is extremely unlikely that direct ground rupturing will impact any wells. Based on these findings, it is reasonable to conclude that all area wells are adequately protected and consequently, there is no need to have all wells inspected before commencing quarry operations.

Another measure includes monitoring of ground vibration and air-overpressure to ensure these effects remain under threshold levels. These measures would ensure blasting effects at nearby residential structures would remain less than significant. This requirement would similarly ensure that blasting-induced vibratory ground motion would not impact to the integrity of nearby residential water wells, or the condition of the aquifers that feed them or the quality or quantity of the water produced by those wells. Please see also response to Comment L-10 for additional mitigation measures identified for blasting.

- V-16 The commenter summarizes a number of Sonoma County General Plan Resource Conservation and Public Safety Elements policies that are presented in the Hydrology and Water Quality section of the Draft EIR. The commenter then indicates the Draft EIR has not adequately addressed mitigation measures related to General Plan policies RC-2e, RC3a, RC3b, RC-3c, and RC-3h. The specific general plan policies the commenter cites are related to prevention of soil erosion, reducing effects on groundwater recharge and proof of adequate groundwater.

The Draft EIR identifies mitigation measures in all cases where the project would result in significant environmental impacts. The criteria developed for judging whether a project would have a significant environmental impact to hydrology and water quality, including effects on erosion and groundwater recharge, and local groundwater levels, is presented on page IV.C-30 of the Draft EIR. The issue of the potential for the project to significantly contribute to soil erosion are addressed in detail in Impacts B.2 and B.3 in the Draft EIR Geology, Soils and Seismicity section; and Impact C.2 in the Draft EIR Hydrology and Water Quality section. Mitigation measures identified in the Draft EIR to address project erosion include, but are not limited to, the construction of sedimentation ponds to minimize soil erosion in Ranch Tributary and Americano Creek, hydroseeding of stockpiles, and establishment of revegetative cover of the site consistent with SMARO to reduce the velocity of surface water runoff on natural soils. The issue of the project's effect on groundwater recharge is addressed in Impact C.6 in the Draft EIR Hydrology and Water Quality section, and determined to be less than significant. The issue of the adequacy of the project's groundwater supply and potential effects on local groundwater

levels is addressed in Impact C.8 in the Draft EIR Hydrology and Water Quality section and determined to be less than significant; see also Master Response Hydro-3 in this Response to Comments document.

- V-17 The commenter summarizes Impact C.8 from the Draft EIR, and then disputes that mitigation is not required. The commenter is referred to response to Comment V-8, above.

References

Siskind, D.E. et al, *Surface Mine Blasting Near Pressurized Transmission Pipelines*, Siskind, David E., Stagg, Mark S., Wiegand, John E. and Schultz, David L., 1993.

Comment Letter W

Submitted on June 19th, to the Sonoma County Planning Commission in regard to the DEIR for the proposed rock quarry on Roblar Rd.

The Draft EIR for the proposed rock quarry does not adequately address or provide data on specific concerns related to this particular site.

The proposed site for this quarry is immediately adjacent to a closed waste dump. I feel the following concerns are absent from or not adequately addressed in the DEIR:

1. What specific data is available on closed toxic sites where significant, long-term blasting has occurred in such close proximity?

2. Have similar proposals, in this or other states, involving a waste-dump/adjacent blasting site been rejected due to potential toxic release concerns? If so, what were the reasons for rejections?

Have similar proposals been implemented and monitored specifically for release of toxic materials into the surrounding area, whether airborne or through ground water seepage? What were the results of the monitoring?

3. Are there any public safety regulations (EPA or other sources) with specific guidelines addressing potential hazards of cracking rock, or disturbing or displacing sand or dirt between rock formations as a result of long-term blasting in the immediate area of a toxic site, thus degrading any existing barrier inhibiting release of toxins from the dump into the underlying soil and water supply?

4. Has North Bay Construction provided proof of liability insurance adequate to cover the scope of potential lawsuits should release of toxic materials from blasting and rock-mining in such close proximity to a toxic waste dump prove injurious to the health of the residence in the area? (Does the County become liable--and therefore, the taxpayers--if it fails to require documentation of coverage in proportion to the risk involved?)

5. Has there been an assessment of the amount or nature of the substances that would be flushed into the Americano Creek as a result of the constant "watering-down" of the area (a process included as part of the proposal) required to keep the "dust" from traveling westward through the windswept corridor that follows Roblar? (The Americano Creek flows into an already endangered estuary.)

6. In a letter of April 16, 2008 from the Dept of Fish and Game, property owners along the Americano Creek were contacted regarding a project for possible restoration of this creek. How will the activities at the proposed quarry impact these efforts and other projects to maintain, restore, or improve our valuable and threatened coastline resources and industries?

7. What are the projected long-term figures for the amount of water required to fulfill the "watering-down" commitment contained in the proposal over the life of its operation?

W-1

W-2

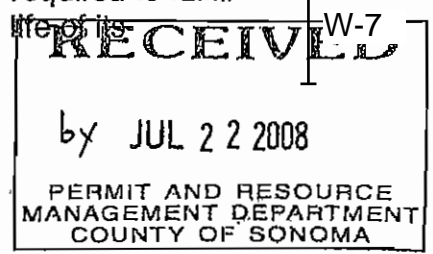
W-3

W-4

W-5

W-6

W-7



8. The current proposal relies on well water from the site to fulfill the watering-down commitment. How will this enormous water demand effect the water supply of the current residents in the area? (This is already considered a water shortage area.)

W-8

These issues were either not addressed or lacked substantive details that should be provided before the project can be adequately evaluated.

(Our property fronts Roblar Rd., and is located approximately 1/2 mile west of the proposed site. The Americano Creek runs year-long along the front of our property and a seasonal creek along our west fence line feeds into the Americano throughout the winter.)

Sincerely,

Donna Norton

Petaluma, CA 94952
707 792-2060

Letter W. Donna Norton

W-1 to W-2 The commenter inquires what specific data is available on closed toxic sites where significant, long-term blasting has occurred in close proximity; if other proposals in California or other states were rejected and the reasons for rejections; and if proposals have been implemented and monitored specifically for release of toxic materials in to the surrounding area, whether airborne or through groundwater seepage.

The Draft EIR relies as appropriate on an assessment of potential blasting impacts and recommended practices for the proposed quarry that was conducted in support of the EIR by Revey Associates, Inc. (see Appendix F-1 in the Draft EIR). Revey Associates, Inc. have extensive and direct explosive-work experience in hardrock mining, mine planning, blasting research, and blasting explosives management. Gordon Revey, the author of the blasting assessment for the proposed project, is the principal at Revey Associates; his resume is included in Appendix B in this Response to Comments Document. Revey Associates, Inc. has previously worked on projects similar to the proposed project, including a blasting assessment in support of an EIR for quarrying operations adjacent to the Central Landfill in Sonoma County (five miles east of the project site). For that project, Revey investigated and reported on potential rock blasting impacts to the adjacent landfill and neighboring properties, and similarly determined that blasting could be designed so blasting effects to the landfill cells, nearby homes and infrastructure, and humans and wildlife would be less than significant.

From a case history perspective, all blasting done at the Central Landfill site between 2000 to 2003 was completed safely and without any incident. In this work done in three separate phases, by three different contractors, thousands of blastholes were drilled and blasted in Franciscan sandstone in areas near active disposal areas.

W-3 The Environmental Protection Agency (EPA) does not have any regulations that directly govern blasting work. However, other research published by the US Bureau of Mines has focused on the extent of cracking that can occur in rock adjacent to blast areas. This specific research is published in Report of Investigations 7001 (Siskind et al, 1983).

The commenter is referred to Section IV.G, Noise and Vibration, in the Draft EIR which addresses blasting impacts in detail, including the extent of rock cracking and other blast impacts. The Revey report in Appendix F-1 of the Draft EIR includes calculations showing that the maximum extent of cracking in rock remaining around blast areas, based on a formula from RI 7001, would be around 65 inches (or 5.4 ft). Since all blasting shall occur at distances of 200 feet or greater from existing landfill cells, it is reasonable to conclude that cracks generated in rock around blast areas would have no impact on ground containing buried waste.

W-4 The commenter inquires if North Bay Construction provided proof of liability insurance adequate to cover the scope of potential lawsuits related to potential release of

contamination from blasting and rock mining. This comment raises concerns outside the scope of CEQA and does not address the adequacy of the Draft EIR. However, the commenter is referred Impacts C.4 and G.3 in the Draft EIR as it relates to the proposed quarry's potential to have an adverse impact as a result of mining and blasting near the closed County landfill.

- W-5 The commenter inquires if there has been an assessment of the amount or nature of the substances that would enter into Americano Creek as a result of watering down of the area for dust control. Only the amount of water would be used for dust control that would be necessary to prevent dust; overwatering of the quarry site to a point of creating surface flow would be neither advantageous or efficient for the applicant.

The commenter is also referred to Section IV.F, Air Quality, in the Draft EIR, for a discussion of the proposed design features and on-going practices proposed by the applicant and/or required by the SMARO mining and reclamation standards to minimize generation of dust. The Draft EIR establishes a formal comprehensive dust control program for implementation during initial construction and on-going operation to ensure all potential dust emissions would remain less than significant. The commenter is also referred to Master Response AQ-1 in this Response to Comments Document for additional data on wind conditions in the area, and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.

Secondly, as discussed in Master Response HYD-1, no water collected within the quarry footprint (either as groundwater seepage or precipitation) or from production well DW-2 that requires VOC treatment would be discharged to adjacent surface waters. Furthermore, in the event that the water collected within the quarry footprint or production well DW-2 does contain contaminants, such water shall be treated onsite 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, and subsequently be available only for either direct onsite reuse or temporary storage prior to onsite re-use.

- W-6 The commenter indicates that the California Department of Fish and Game (CDFG) contacted property owners along Americano Creek regarding a project for potential restoration of the creek. The commenter then inquires how the proposed quarry would impact these and other projects to maintain, restore or improve coastline resources and industries.

Since 1994, the CDFG has been conducting stream surveys to evaluate the distribution and conditions salmon and steelhead trout habitat in streams throughout the State, including in Marin and Sonoma County. In support of this Response to Comments Document, the CDFG were consulted regarding this issue. The CDFG conducted a habitat inventory of Estero de Americano/Americano Creek as recently as 2008, although they only surveyed Americano Creek as far upstream as the community of Bloomfield,

approximately two and one-half miles west (downstream) of the project site. The CDFG ultimately plan to have a report completed on this habitat inventory although no report has yet been published. There is no new information currently available that would change any conclusions previously reached in the Draft EIR regarding the presence of steelhead in Americano Creek, nor change any identified mitigation measures for mitigating potential project impacts special-status fish species downstream of the project site.

W-7 The commenter inquires what long-term figures for the amount of water required for dust control. The commenter is referred to Master Response HYD-1 in Chapter II in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. The WMP characterizes and quantifies the various water demands for the project, including use of highly conservative estimates of water demand required for dust control.

W-8 The commenter inquires how will project water demand for dust control affect the water supply of residents in the area. The Draft EIR analyzed the effect of groundwater pumping on drawdown and lowering local groundwater levels, and determined this impact to be less than significant. As discussed in Master Response HYD-1, the WMP expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater from wells) and reduces hydrology and water quality impacts.

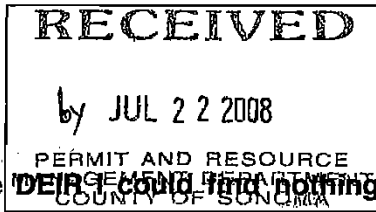
Under the WMP, only Well DW-2 would be used to supply supplemental groundwater for quarry operations (i.e., no use of Well DW-1). Furthermore, as discussed in Master Responses HYD-1 and HYD-3, the WMP would include a strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project with no adverse impacts from well pumping. These project refinements would not change any of the conclusions previously reached in the Draft EIR with respect to the effect of project groundwater pumping to neighboring wells.

References

Siskind, D.E. and Fumanti, R.R., RI 7001, *Blast-Produced Fractures in Lithonia Granite*, United States Bureau of Mines, Report of Investigations 7901, 1983.

Ronald Norton

Petaluma, Ca 94952



In the ~~DEIR~~ **DEIR could find nothing to identify possible impacts to the Americano Creek. The proposed project drains directly into the Americano at the base of the hill. What impact would blasting to fracture rock, and watering to mitigate dust have on the closed dump next door? Would this inadvertently release toxins that would end up in the creek? The Dept. of Fish and Game is currently conducting stream surveys to evaluate the distribution and conditions of salmon and steelhead trout habitats including the Americano Creek. The DEIR needs to address possible impacts from surface and subsurface drainage into this already "impaired" streamway.**

X-1

Precautionary principle

From Wikipedia, the free encyclopedia

The **precautionary principle** is a moral and political principle which states that if an action or policy might cause severe or irreversible harm to the public, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who would advocate taking the action.[1] It aims to provide guidance for protecting public health and the environment in the face of uncertain risks, stating that the absence of full scientific certainty shall not be used as a reason to postpone measures where there is a risk of serious or irreversible harm to public health or the environment.

X-2

An alternate formulation states that the lack of certainty regarding the threat should not be used as an excuse to do nothing to avert that threat. Says P. Saunders, all this principle actually amounts to is "if one is embarking on something new, one should think very carefully about whether it is safe or not, and should not go ahead until reasonably convinced it is."

Ronald Norton

Petaluma, Ca 94952

WATER TESTING

The environmental impact report needs to test contamination of the Americano Creek by the neighboring closed county dump. The closed dump site on Roblar Road may be leaking toxins into the creek at it's base. The county, trucks water from this site to the sewage treatment plant on Llano Road daily, year around presumably to reduce environmental damage. Testing of the water, upstream and downstream from this site needs to be done to establish a base line. This is necessary to evaluate any activity that potentially disturbs the closed dump in the future.

X-3

Letter X. Ronald Norton

- X-1 The commenter indicates that no information could be found in the Draft EIR on possible impacts to Americano Creek. The commenter is referred to Impacts C.1/C.3 which address potential increases in flows to Ranch Tributary and Americano Creek; Impact B.2/B.3 and C.2 which addresses potential increases in sedimentation to Ranch Tributary and Americano Creek; Impact C.4 which addresses potential increases in contaminants to Ranch Tributary and Americano Creek; Impact C.5 which addresses potential decreases in baseflows to Ranch Tributary and subsequently, flows in Americano Creek; and Impact D.7, which addresses potential impacts to special-status species within Americano Creek. All potentially significant impacts to either Ranch Tributary or Americano Creek are mitigated to a less than significant level.

The commenter also inquires about the impact of blasting, and watering to mitigate dust would have on the potential for the landfill to release toxins that could end up in Americano Creek. With respect to blasting, the commenter is referred to response to Comment O-16. As discussed in the Draft EIR Section IV.G, proposed blasting would not result in impacts on the landfill cells, the ground around them, or pipes and wells on that property.

In addition, the commenter indicates the California Department of Fish and Game (CDFG) is currently conducting stream surveys to evaluate the distribution and conditions of salmon and steelhead trout habitat, including in Americano Creek. Please see response to Comment W-6 regarding this issue.

- X-2 The commenter quotes a definition of the “precautionary principle” from an online dictionary. This comment does not address the adequacy of the Draft EIR; consequently, no response is required.

- X-3 The commenter indicates the EIR needs to test contamination of Americano Creek in the vicinity of the closed Roblar Landfill property. The commenter also indicates testing of the surface water, upstream and downstream of the site needs to be done to establish a baseline.

The Draft EIR summarizes available sources of surface water quality data in the project site vicinity, including the results surface water quality monitoring conducted by the applicant in Americano Creek and Ranch Tributary adjacent to the quarry site, and on-going surface water quality monitoring conducted by the County in Americano Creek adjacent to the landfill property (see pages IV.C-8 through IV.C-11).

In addition, as explained in detail in Master Response HYD-1 in this Response to Comments Document, the applicant has prepared a comprehensive Water Management Plan (WMP) that expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR and reduces hydrology and water quality

impacts. The WMP is designed to be consistent with the mitigation measures identified in the Draft EIR for addressing potential hydrologic and water quality impacts.

The applicant has also expanded the proposed drainage and collection system for isolating and controlling all water that enters the quarry footprint. In addition, the proposed VOC monitoring and treatment system would require all water collected within the quarry footprint and in production well DW-2 to be analyzed for VOCs. Any water that tests non-detectable for VOCs would be used, as needed, to maintain baseline flow conditions in Ranch Tributary and Americano Creek (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary and Americano Creek), and/or routed to either direct onsite re-use to support quarry operations or water storage tanks for temporary storage prior to onsite re-use. In the event that the water collected within the quarry footprint or production well DW-2 does contain contaminants, such water shall be treated onsite until concentrations of the chemicals are not detected or the concentrations are within the storm water discharge criteria set forth through the National Pollutant Discharge Elimination System (NPDES) industrial discharge permit, and subsequently be available only for either direct onsite reuse or temporary storage prior to onsite re-use.

The comment letter contained a number of additional attachments, but does not identify any particular comment or concern related to them. These attachments are included as Appendix C-2 in this Response to Comments Document.

Mr. Scott Briggs
Environmental Review Division Manager
Sonoma County PRMD
2550 Ventura Ave
Santa Rosa, Ca 95403-2829

Re: Roblar Road Rock Quarry File PLP03-0094

July 12, 2008

Traffic:

All Mitigation measures **E1** through **E9**, plus any additional added in final EIR, **must be complied with prior to the project start**. Since the applicant primary business deals with road construction they all should be within the means of the applicant.

Y-1

- Traffic study is 3 years old does not include the increased traffic such as Lowe's at 116 and Old Redwood Highway.
- Accident Rates quoted are 4 years old

Y-2

Y-3

An updated study should be commissioned. This should be done during school terms for proper traffic counts during peak school hours (pick up drop off times).

Y-4

In addition areas not addressed are:

- **E4:** is deficient and should include recommendations for **reduction of speed limits on all haul routes** to allow for safe entry/exit where site distance is limited. These should comply with CA Commercial DRIVER HANDBOOK Speed and Stopping Distances with air breaks. This should include the alternate proposed haul routes

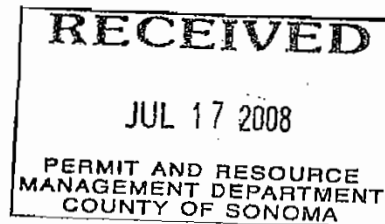
Y-5

- "Near Dunham School (and outside of hours when school is in session), the 85th percentile speed was slightly lower (57.4 mph) than speeds just west of Canfield Road (59.4 mph). Overall, the speed survey indicates vehicles on Roblar Road are currently traveling at speeds higher than the posted speed limit."
- For trucks with air brakes at 55 mph for an average driver under good traction and brake conditions, the total stopping distance is over 300 feet. This is longer than a football field. (CA Commercial Driver Handbook)

- **J2:** Police /traffic enforcement --"Is greater than Less Significant" Sherriff dept and CHP should be consulted on increased patrols that Reduce the overall speed on haul routes. Cost of increased enforcement should be borne by applicant.

Y-6

Re: Roblar Road Rock Quarry File PLP03-0094
Ed Ryska



- **E5:** Inadequate site access is deficient -- in that it should provide that **barriers to prevent owners and non owner trucks from access to or depart from the site going or coming from the East on Roblar Rd.** This can be done with turn barriers that make it impossible for truck of hauling size violate the condition of no east bound traffic on Roblar Rd. This will also mitigate the issue of owner control rules and procedures. Y-7

- All School bus stops and time stop of bus for all haul routes need to be identified and safety needs to be addressed. Y-8

Alternative 2: Alternative Haul Route: V4 through V-17

- Does not discuss the issues of turning on and off of Roblar Rd and Valley Ford Road. Y-9
 - Needs to address left/right turn lanes at access points of private roads.
 - The use of **barriers to prevent owners and non owner trucks from access to or depart from the site going or coming from the East on Roblar Rd.** This can be done with turn barriers that make it impossible for truck of hauling size violate the condition of no east bound traffic on Roblar Rd. This will also mitigate the issue of owner control rules and procedures. Y-10
 - Needs to address how the public would be prevented from using the section called Access Road 2 page V-16 Y-11

Safety, Noise and Air Quality at Dunham School

- Trips would Y-12
 - Average 332 total = 36.8 per hour – one every 1.6 min in afternoon
 - Peak 510 total = 56.6 per hour one every 1.1 min in afternoon
- No Noise mitigation addressed prior EIR had requirement for sound proofing not addressed in **G,2 G,4** - only two residences sited Y-13
- No comments from educators at Dunham on potential disruption of classes. Y-14
 - Need input from school officials
- Air quality of children on play ground and from building ventilation picking up exhaust emissions. Y-15
- No noise mitigation for residences east on Roblar addressed in G,4 only two residences sited **many more effected** Y-16

Water

IV C 4-8 "The applicant estimates the quarry would require approximately three million gallons of water per year, which would be obtained from these two wells, and supplemented by onsite surface water storage

C6 Ground water recharge "Why less then significant?"

Impact C.8: The proposed project would pump groundwater from two onsite supply Significant 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.

- Need specific well water flow rates from current wells in area to determine exact availability of water 3MM gallons

Y-17

Sec. 26A-09-040. Quarry Mining Standards

f) Water Supply. All quarry sites must have adequate water supplies to support the operation. Sites located in Sonoma County Water Availability Zones III and IV will require analysis of the proposed water use, evaluation of the adequacy of the water supply, and mitigation of effects on water resources and nearby water users. Quarry operators may be required to monitor, survey, or report on depth and grades of excavation, groundwater levels, water use, re-vegetation and other subjects.
Sonoma County Dump Site

Deficient evaluation of hazards and potential of old County Owned Dump.

Y-18

- Little or no mention of unlined site and contents of site.
- No study done on contents
- Why was an out of state firm used to evaluate Blasting and the effect on unlined county dump?
 - Uses a reference of earth quakes and opinion of magnitude at site but no data to support exact measurement of magnitude of a single occurrence not multiple blasts over the life of the project.
- County has issues with the lined dump
- Public Health Department letter dated April 3, 1987, there is a potential to disturb the landfill site with any blasting or rock removal. No mention of their involvement with the EIR all effected City, County, State and Federal agencies need input. This agency needs to be involved in the EIR

Y-19

Y-20

Re: Roblar Road Rock Quarry File PLP03-0094
Ed Ryska

Compliance to Mitigation Measures

The EIR discusses compliance to Mitigation measures required by the applicant.

- The applicant should provide the public with records on their compliance with existing projects, State laws, and quality performance on projects
- These can include but not be limited to
 - Cal OSHA safety records – Recordable injures, Injury and Illness Prevention program records (accident investigations, safety inspections, Etc)
 - DMV Records and CHP inspection of equipment including violations and corrective measures.
 - Insurance claim records for property, liability and vehicle damages
 - Truck Drivers education on traffic patterns and all safety issues
 - Including training sessions – Subjects, dates times and attendance
- History of complete projects and compliance with EIR standards, project standards, including quality of work
- Financial responsibility not covered by truckers insurance or if no insurance is present
- To insure all PUC regulations regarding overall truck inspection, hourly log maintenance and driver qualification are current on all haulers
- Put in physical barriers to make drivers conform to committed traffic patterns
 - No access from east
 - No ability to turn east

Y-21

Y-22

Insurance Requirements

- The Risk Managers for the county and City of Santa Rosa need to inform their liability carriers of the blasting in close proximity to the unlined land fill.
 - Not listed in persons consulted Vii-3
- The Risk Managers should take out additional coverage's and inform state and national jurisdictions of proposed blasting in close proximity to the land fill.
- Owner and operators Liability Insurers need to be made aware of activates that could pose major loss to area.

Y-23

Re: Roblar Road Rock Quarry File PLP03-0094
 Ed Ryska

- Owners and operators need to have sufficient limits of coverage's to address breaching of land fill and clean up costs.
- Owners should indemnify and hold harmless the county for breaching the land fill and be responsible for all cost of property damage and cleanup.
 - This should be in form of insurance policy or cash bond with adequate limits to cover all costs. Insurer needs to be informed of exposures.
 - The County should also require those policies to be in force for the life of the quarry, and for a reasonable time after quarry operations cease to assure financial responsibility for the quarry operations
- EIR preparers
 - ENVIRONMENTAL SCIENCE ASSOCIATES
 - REVEY Associates, Inc. Highlands Ranch, CO Gordon F. Revey, Principal,
 - Balance Hydrologics, Inc
- All need to:
 - Make public the limits and certificates of professional liability insurance
 - Inform their professional liability insurance carriers of potential exposure from their work if the land fill is breached

Y-23
cont.

In conclusion of the Draft EIR, which has a questionable adequacy, still identifies that the project should not be approved.

It has 5 "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"

And 7 "significant adverse impacts would be unavoidable if mitigation measures identified in the EIR were found to be infeasible"

When the EIR is expanded to cover pertinent questions from the public, it will become even more evident through facts and figures that this project should not be approved due to a number of issues with Public Safety

Y-24

Y-25

My qualifications to address the above subject are:

- I have a Masters degree, Safety and Health,
- 35 years of Risk Management and Safety consulting experience
- Recipient of the NSC's Distinguished Service to Safety Award for 2000
- Professional Member, American Society of Safety Engineers
- Certified Hazard Control Manager #1569
- Certified Safety Executive #702
- **Have served as:**
 - National Safety Council Board of Directors (1988-1997)
 - National Safety Council Public Safety Vice President
 - National Safety Council Risk Management Committee, Chairperson
 - Sacramento Safety Center Board of Trustees & Directors (1987-2006)
 - Chairperson Sacramento Safety Center Board of Directors (1999/2000)

Edward M Ryska

Petaluma, CA 94952

Re: Roblar Road Rock Quarry File PLP03-0094
Ed Ryska

6

Letter Y. Ed Ryska

Y-1 The commenter indicates Mitigation Measures E.1 through E.9, plus any additional measures identified in the Final EIR, must be complied with prior to the project start. The Draft EIR describes the timing as applicable for implementation of the mitigation measures in Section E, Transportation and Traffic, in the Draft EIR. As discussed in the Draft EIR, the timing for implementation of individual mitigation depends on the specific measure proposed.

With respect to Mitigation Measure E.1, the planned signalization improvements for the intersection of Roblar Road and Stony Point Road are in the fiscal year 2008/09 (see page IV.E-25 of the Draft EIR). For Mitigation Measures E.2c and E.2d, annual monitoring of the intersections of Stony Point Road and SR 116, and Gravenstein Highway and Old Redwood Highway, would be monitored annually until such time the need for the identified improvements at these intersections (optimization of signal timing) are met (see pages IV.E-31 and IV.E-32 of the Draft EIR). With respect to Mitigation Measures E.6b (applicant entering into Roadway Maintenance Agreement), this measure would be implemented prior to mining (see page IV.E-39 of the Draft EIR).

With respect to Mitigation Measures E.3b (cover or maintain adequate free board on loaded trucks) and E.3c (regular sweeping of the intersection of proposed quarry access road with Roblar Road), these requirements would be in place throughout mining. With respect to Mitigation Measures E.4b and E.4c (posting warning signs on Roblar Road), this measure would be implemented prior to mining. With respect to Mitigation Measure E.7 (develop construction traffic management plan), this measure would be implemented prior to initial quarry construction.

With respect to Mitigation Measures E.2a (dedicated right-turn on southbound Stony Point Road approach to Roblar Road), E.3a/E.4a (improve Roblar Road and Pepper Road to meet current County road design standard) and E.5a/E.5b (improve Roblar Road at proposed quarry access), if these measures are found to be feasible, they would be implemented before mining commences. However, as discussed in the Draft EIR, the roadway improvements are neither funded or planned, and would require land acquisition from private properties in order to implement (see pages IV.E-32, IV.E-34, and IV.E-36 in the Draft EIR). Given these circumstances, the Draft EIR acknowledges that the implementation of these measures may not be feasible. If these measures are found to be infeasible, these impacts would remain Significant and Unavoidable. Similarly, with respect to Mitigation Measures E.2b (installation of traffic signals at the intersection of Stony Point Road and Railroad Avenue) and E.6a (potential overlay or reconstruction of Roblar and Pepper Roads), the roadway improvements are neither funded or planned. If these measures are found to be infeasible, these impacts would remain Significant and Unavoidable.

With respect to Mitigation Measure E.8 and E.9, the measures are associated with addressing off-site transportation improvement construction effects, and as such would be implemented during the construction of the off-site improvements identified in Mitigation Measure E.3a/E.4a and E.5a, and prior to mining.

Y-2 The commenter asserts that the traffic study in the EIR is three years old and does not include the traffic associated with the Lowe’s development. As stated on page IV.E-19 of the Draft EIR, area wide growth in traffic volumes were developed using a number of sources, including growth rates projected for the project vicinity by the travel demand model used by the Sonoma County Permit and Resource Management Department, the City of Cotati’s *Citywide Traffic Improvement Plan*, approved and pending developments, and consultation with the Sonoma County Transportation Authority. The applied annual growth rates (three percent for roads in the U.S. 101 corridor, and 1.5 percent for rural roadways outside the U.S. 101 corridor) are considered to be conservatively high, and include traffic consistent with that which would be generated for the Lowe’s store in Cotati.

Y-3. The commenter asserts that the accident rates reported in the EIR are four years old. The statement that the accident rates are four years old is inaccurate. Table IV.E-5, page IV.E-12 of the Draft EIR, presents accident history information (i.e., the number of accidents and the accident rates per million vehicle miles) for area roadways based on collision records for the years 2002 through 2006, obtained from the California Highway Patrol. The statewide and Sonoma County average accident rates for similar type roads (i.e., in rural settings), at the bottom of the table, are from the *2004 Accident Data on California State Highways*, published by Caltrans in 2006.

Accident rates in a subsequent report (*2006 Accident Data on California State Highways*), published by Caltrans in 2007 (made available subsequent to the publication of the Draft EIR, and considered the most-recent currently available), are presented below.

Accident Rates – 2006 (accidents per million vehicle miles traveled)	
Sonoma County Average: 2-lane rural roads	1.30
Caltrans District 4: 2-lane rural roads	1.24
Statewide Average: 2-lane rural roads	1.20

The latest published accident rates range between four and ten percent lower than the accident rates presented in the Draft EIR. These lower rates do not change any findings previously reached in the Draft EIR.

Y-4 The commenter indicates the traffic study should be updated, and include analysis during peak school hours. The traffic analysis presented in the Draft EIR provides adequate and sufficient disclosure of potential impacts associated with the proposed project. Traffic volume data (roadway and intersection counts) were collected when schools were in session. The assessment of project impacts followed standard traffic analysis practice of

- focusing on hours when the highest traffic volumes (for both ambient and “plus project” conditions) occur (i.e., during the morning and afternoon/evening commute hours, not during school pickup and drop-off periods). The commenter is also referred to Master Response T-1 in Chapter II in this Response to Comments Document for additional information on student arrival/departure characteristics at schools along the study haul routes.
- Y-5 The commenter indicates Mitigation E.4 should include recommendations for reduction of speed on all haul routes. Please see responses to Comment T-8 and V-11.
- Y-6 The commenter disagrees that Impact J.2 is less than significant. However, as discussed in Impact J.2, the project would not substantially increase response calls by the Sonoma County Sheriff’s Department, would not prevent the Department from providing adequate law enforcement services to the general area, and would not require any new or physically altered police facilities because of the proposed development. Thus, projects effects to police protection services, including potential contribution to cumulative demand for police protection services, would be less than significant.
- Please see also response to Comment V-11.
- Y-7 The commenter requests that barrier be installed to prevent project trucks accessing to or departing from the site to/from the east on Roblar Road. However, as discussed in the Draft EIR Project Description, while all hauling conducted directly by the applicant, and contract sales, would be conditioned such that trucks hauling materials under those contracts would be required to enter and exit the quarry from the west on Roblar Road, the remaining aggregate materials (up to 40 percent) would be sold to private contractors that may access to quarry from either the west or east on Roblar Road. t The commenter is also referred to Alternative 2, Alternative Haul Route, in the Draft EIR which would limit quarry haul trucks to those associated with the applicant’s own fleet, or private haulers under contract with the applicant; and includes construction of an alternative haul route to provide access to the quarry.
- Y-8 The commenter indicates all school bus stops and time stop of bus for all haul routes need to be identified and addressed. The commenter is referred to Master Response T-1 in Chapter II in this Response to Comments Document for information related to school bus stops and school bus schedules, and traffic and pedestrian safety.
- Y-9 The commenter indicates Alternative 2 needs to address left-right turns at access points of private roads. The Draft EIR addresses the issues raised by the commenter on page V-41, where it describes construction of access road connections for Alternative 2, including the Access Road 1 connection to Roblar Road, and the Access Road 2 connections to Roblar Road and Valley Ford Road. As stated on that page, Alternative 2 would create three new access road connections to public roadways where quarry truck turning movements would be required (as opposed to one new connection under the proposed project), thereby creating a greater potential for conflicts between turning

quarry trucks and other traffic on Roblar and Valley Ford Roads. As shown in Figures V-6 and V-7 in the Draft EIR, preliminary design drawings indicate improvements at each end of the improved section of Roblar Road to accommodate quarry trucks turning in and out of the off-road (private) segments. In addition, the Draft EIR described that field observations and measurements indicate that there is sufficient sight distance at the proposed new roadway intersections to allow approaching vehicles to perceive, react, and safely stop, as well as allow quarry trucks to make their turning movements. Lastly, the provision for new access points to Roblar Road and Valley Ford Road under this alternative to meet all applicable roadway design standards would ensure all potential significant safety effects associated with truck turning movements at new public road connections would be mitigated to a less than significant level.

- Y-10 The commenter requests that barriers be installed to prevent project trucks under Alternative 2 from accessing to or departing from the site to/from the east on Roblar Road. As discussed in the Draft EIR, under this alternative, all quarry haul trucks generated at the quarry would be those associated with the applicant's own truck fleet, or private haulers under contract with the applicant, and where the specified haul route would be imposed in the contract. The use of the specified alternative haul route would be enforced by the applicant, subject to penalties and/or contract termination. Furthermore, the geometrics of the proposed "Access Road 1" connection to Roblar Road would prevent large trucks from being able to access/depart Access 1 to/from the east on Roblar Road. See also response to Comment Y-7, above.
- Y-11 The commenter inquires how the public would be prevented from using the Alternative 2's "Access Road 2." This comment does not specifically address the adequacy of the Draft EIR. However, Access Road 2, as with Access Road 1, would be a private road on private property. The property could include signage stating that this access road is a private road, and/or include an additional gates(s) preventing illegal vehicular travel on this road (such as outside of quarry operating hours).
- Y-12 Under the topic "Safety, Noise and Air Quality at Dunham School," the commenter appears to imply in his stated frequency of trips that all project trips would pass by Dunham Elementary School, which is incorrect. The Draft EIR assumes no more than 40 percent of truck traffic would travel to/from the east on Roblar Road past Dunham Elementary School, and 60 percent would travel to/from the west on Roblar Road. Using this assumption and considering the daily trip generation and hours of operation, on average, the project would generate approximately 13 trips an hour past Dunham Elementary School (or one every 4.5 minutes). On peak days hours of operation, the project would generate approximately 20 ½ trips an hour past Dunham Elementary School (or one every 2.9 minutes).
- Y-13 The commenter indicates a prior EIR had requirement for soundproofing (presumably for Dunham Elementary School), however, the EIR for the proposed project does not include noise mitigation for the school.

As discussed in the Draft EIR (see Project Description, page III-33), there have been two previous quarry proposals on the project site which have been the subject of previous EIRs, although those proposals were associated with different applicants, and are not associated with the current quarry proposal. Furthermore, those previous EIRs were never certified by the Sonoma County Board of Supervisors as adequate and complete. The commenter should also understand the physical baseline setting, regulatory environment, cumulative development and project operational characteristics of those prior quarry proposals were different than that for the proposed project, and correspondingly, conclusions regarding impacts and mitigation identified in these environmental documents cannot be meaningfully compared.

For the record, however, it should be further noted that one EIR for a prior quarry proposal on the project site identified improved windows at Dunham Elementary School as an optional measure to reduce noise, however, it was not a required as mitigation.

The commenter is also referred to response to Comment Q-4a, which explains why sound mitigation was only identified for two residences on Roblar Road.

- Y-14 The commenter indicates input from Dunham Elementary School officials is needed on potential disruption of classes.

As discussed in the Draft EIR Introduction, when the CEQA process was first initiated for this project (August 2004), and as required by CEQA, the County sent a Notice of Preparation (NOP) to governmental agencies and organizations and persons interested in the project to identify the relevant environmental issues that should be addressed in the EIR. In addition, the County held a public scoping meeting on September 1, 2004, at Dunham Elementary School in Sonoma County to receive spoken input from the public on relevant environmental issues. All responses to the NOP and public scoping comments were considered by the County prior to initiating work on the Draft EIR. Further, during the time the Draft EIR was available for public review (May 20 through July 22, 2008), and as required by CEQA, the public and governmental agencies were given the opportunity to submit written comments on the adequacy of the Draft EIR. The purpose of the public hearing in which the commenter attended on June 19, 2008 was an opportunity for the public to provide spoken comments on the adequacy of the Draft EIR. All substantive comments received on the Draft EIR are responded to in this Response to Comments Document.

Furthermore, all environmental analyses in the Draft EIR, including analysis of noise impacts, were prepared in accordance with current State, County and other applicable agency CEQA Guidelines and professional standards.

The commenter is also referred Master Response T-1 in Chapter II in this Response to Comments Document regarding further consultation conducted with Dunham Elementary School.

- Y-15 The commenter raises the issue of potential air quality impacts on children on playgrounds and from building ventilation picking up exhaust emissions.

The commenter is referred to response to Comment O-1, which discusses health risks from DPM associated with the proposed project at Dunham Elementary School, and notes that such impacts would be less than significant.

- Y-16 The commenter indicates no noise mitigation is identified for residences east on Roblar Road in Impact G.4.

The Draft EIR Noise and Vibration section notes the presence of sensitive receptors along Roblar Road east of the project site, including 30-40 houses as well as Dunham Elementary School. Impact G.4 in the Draft EIR addresses the project's contribution to cumulative noise levels on roadways used to access the quarry, including on the segment of Roblar Road east of the quarry. Similar to the discussion in response to Comment O-2, when considering the project along with future increases in non-project background traffic, the cumulative traffic noise increases would be less than 3 db on the segment of Roblar Road east of the quarry. As a result, project or cumulative noise increases on Roblar Road on this segment are determined to be less than significant, and consequently, no mitigation is required for this segment.

- Y-17 The commenter inquires why Impact C.8 in the Draft EIR is determined to be less than significant. The commenter references SMARO Section 26A-09-040(f). The commenter also requests specific well water flow rates from current wells in the area to determine exact availability of water.

The Draft EIR (Impact C.8, pages IV.C-47 to -49) addressed the potential effects from groundwater pumping from Wells DW-1 and DW-2 to neighboring groundwater wells. Based on the project as originally proposed, the Draft EIR analysis assumed that groundwater would be the primary water source for quarry operations and that both Wells DW-1 and DW-2 would be used to supply water to serve the project. The impact analysis in the Draft EIR concluded that the area influenced by pumping Wells DW-1 and DW-2 would not intersect the area of influence of neighboring domestic wells because the onsite wells are far enough away and on the opposite side of the groundwater divide from other wells drawing from the Wilson Grove Formation (as in the case of well DW-1 or DW-2). Domestic wells within an approximate one-mile radius of the site are concentrated along Canfield Road and along Roblar Road east of Canfield Road and are all on the opposite side of the groundwater divide formed by Americano Creek and to the north (upgradient) of the project site. Similarly, any domestic wells located over a ridge east of the project site are outside the subwatershed the project site is located within. Furthermore, Well DW-2 would draw water held in deeper bedrock fractures of the Tolay Volcanics and Franciscan Complex bedrock, exclusively, and only drawing water from the many discontinuous water-bearing fractures that the well intercepts; this condition develops an area of influence that does not extend laterally as much as it extends vertically. Given the proposed cyclic pumping schedules, the hydrogeologic conditions

underlying the site, and the placement of the onsite supply wells, the Draft EIR determined that the impact to neighboring wells would be less than significant.

The commenter is referred to Master Response HYD-1 in Chapter II in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. The WMP expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater seepage, precipitation/runoff, and groundwater from wells) and reduces hydrology and water quality impacts. The WMP characterizes and quantifies the various water demands for the project, and includes highly conservative estimates of water demand.

Under the WMP, only Well DW-2 would be used to supply supplemental groundwater for quarry operations (i.e., no use of Well DW-1). Furthermore, as discussed in Master Responses HYD-1 and HYD-3, the WMP would include a strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project with no adverse impacts from well pumping. These project refinements would not change any of the conclusions previously reached in the Draft EIR with respect to the effect of project groundwater pumping to neighboring wells.

- Y-18 The commenter indicates there is little or no mention of the unlined landfill site and its contents, and that no study has been done on the contents of the landfill. The commenter is referred to response to Comment O-15.
- Y-19 The commenter inquires why an out of state firm was used to evaluate blasting and the effect on the landfill.

This Noise and Vibration section of the Draft EIR relies as appropriate on an assessment of potential blasting impacts and recommended practices for the proposed quarry that was conducted in support of the EIR by Revey Associates, Inc. (see Appendix F-1 in the Draft EIR). Gordon Revey, the author of the blasting assessment for the proposed project, is the principal at Revey Associates; his resume is included in Appendix B in this Response to Comments Document. Mr. Revey has over 25 years of direct explosive-work experience in hardrock mining, mine planning, blasting research, and blasting explosives management. Mr. Revey has previously worked on projects similar to the proposed project, including a blasting assessment in support of an EIR for quarrying operations adjacent to the Central Landfill in Sonoma County (five miles east of the project site). As with the proposed project, for that project, Revey investigated and reported on potential rock blasting impacts on site facilities, neighboring properties, humans and farm animals. Similarly for that project, Revey assessed blast-induced ground motion and air-overpressure impacts on buried leachate and methane gas piping systems, stability of landfill slopes, quality and supply of water in area wells, residential and agricultural structures, and dairy cows, and recommended blasting controls to prevent damage and minimize complaints and claims.

The commenter also claims Revey Associates uses a reference of earthquakes and opinion of magnitude at the site, but no data to support exact measurement of magnitude of a single occurrence, not multiple blasts over the life of the project. The traditional magnitude scale used to measure earthquakes is based on acceleration intensity of ground motion and time duration of the entire quake event. Hence, this combined-measures “magnitude” scale cannot be compared directly to traditional vibration measures like acceleration, velocity or displacement. However, in the Revey report, an actual vibration time-history recording of the Loma Prieta quake, expressed in the same units as those used for traditional vibration measurements (in/s) was used for the comparison. The finding that the actual dynamic ground displacement caused by the Loma Prieta quake was 100 times greater than those expected by the proposed Roblar quarry blasting is accurate and notable because it shows that area structures, ground slopes and buried utilities have not been damaged by much greater motion than that which would occur with the proposed blasting operations.

Y-20 The commenter indicates the “County has issues with the lined dump,” and refers to an April 3, 1987 letter from a public health department.

The commenter is apparently referring to a comment letter from the Sonoma County Health Department (now called the Department of Health Services) to County Planning Department (now called the Permit and Resource Management Department) on the EIR for the first of the two prior quarry proposals. As discussed in the Draft EIR and reiterated in response to Comment Y-13, above, there have been two previous quarry proposals on the project site which have been the subject of previous EIRs, although those proposals were associated with different applicants, and are not associated with the current quarry proposal. Furthermore, those previous EIRs were never certified by the Sonoma County Board of Supervisors as adequate and complete.

As discussed in response to Comment Y-13, above, the physical baseline setting (e.g., 1989 conditions do not reflect subsequent improvements that have occurred on the landfill property since then), regulatory environment, cumulative development and project operational characteristics of those prior quarry proposals were different than that for the proposed project, and correspondingly, conclusions regarding impacts and mitigation identified in these environmental documents cannot be meaningfully compared. Accordingly, the referenced letter is not directly relevant to the proposed project.

Furthermore, the commenter should understand that the Department of Health Services is aware of the current proposed project for which the Draft EIR has been prepared. The commenter is referred to Comment letter I from the Department in this Response to Comments Document and the response to that letter.

Y-21 The commenter indicates the applicant should provide the public with records on their compliance with existing projects, State laws, and quality performance on projects, including Occupational Safety and Health Administration (OSHA) safety records,

Department of Motor Vehicles and CHP inspection of equipment, insurance claim records, and truck drivers education on traffic patterns and safety issues.

This comment does not address the adequacy of the Draft EIR; consequently, no response is required. However, the comment will be considered by the decisionmakers in making a determination whether to approve the project. Please see also Master Response GEN-1 in Chapter II in this Response to Comments Document regarding issues related to the approval process for this project.

Y-22 The applicant indicates that physical barriers should be put in to maker drivers conform to committed traffic patterns. The commenter is referred to response to Comment Y-7 and Y-10, above.

Y-23 The commenter makes a number of claims, regarding the need for insurance coverage, and miscellaneous issues of liability related to the applicant, County, other jurisdictions, and the EIR consultant team. None of these comments address the adequacy of the Draft EIR; consequently, no further response is required.

The commenter also indicates that liability carriers are not listed on page VII-3 of the Draft EIR. As required by the CEQA Guidelines, Section VII is merely a list of the entities who were involved in some aspect of the EIR report preparation. This included staff from the County, the EIR consultant team, project applicant technical consultants, and miscellaneous persons and organizations consulted. No additional entities need be identified in this section of the Draft EIR.

Y-24 The commenter claims the Draft EIR identifies that the project should not be approved. It is important for the commenter to note the purpose of an EIR to identify whether a project should be approved or not. Rather, the purpose of the EIR is serve as a public information document to disclose to governmental agencies and the public the potentially significant impacts of the project, identify feasible measures to mitigate those impacts, and discuss feasible alternatives to the proposed project. The County decisionmakers will ultimately decide whether the proposed project should be approved. Please see also Master Response GEN-1 in Chapter II in this Response to Comments Document regarding issues related to the approval process for this project.

Y-25 The commenter makes a general comment that when the EIR is expanded to cover pertinent questions from the public, that it will become evident that the project should not be approved due to issues with public safety. The opinions of the commenter will be made available to County decisionmakers for their consideration. Please see also Master Response GEN-1 in Chapter II in this Response to Comments Document regarding issues related to the approval process for this project.

Comments by Ed Ryska MS, CHCM, CE on File PLP03-0094 -
6/19/08

My qualifications to address the above subject are:

- I have a Masters degree, Safety and Health,
- 35 years of Risk Management and Safety consulting experience
- Recipient of the NSC's Distinguished Service to Safety Award for 2000
- Professional Member, American Society of Safety Engineers
- Certified Hazard Control Manager #1569
- Certified Safety Executive #702
- **Have served as:**
 - National Safety Council Board of Directors (1988-1997)
 - National Safety Council Public Safety Vice President
 - National Safety Council Risk Management Committee, Chairperson
 - Sacramento Safety Center Board of Trustees & Directors (1987-2006)
 - Chairperson Sacramento Safety Center Board of Directors (1999/2000)

RECEIVED
by JUL 22 2008
PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

Traffic:

All Mitigation measures E1 through E9, plus any additional added in final EIR, must be complied with prior to the project start. Since the applicant primary business deals with road construction they all should be within the means of the applicant.

Z-1

- Traffic study is 3 years old does not include the increased traffic such as Lowe's at 116 and Old Redwood Highway.
- Accident Rates quoted are 4 years old

Z-2
Z-3

An updated to date study should be commissioned. This should be done during school terms for proper traffic counts during peak school hours (pick up drop off times).

Z-4

In addition areas not addressed are:

- E4: is deficient and should include recommendations for reduction of **speed limits** on all haul routes to allow for safe entry/exit where site distance is limited. These should comply with CA Commercial DRIVER HANDBOOK Speed And Stopping Distances with air breaks. This should include the alternate proposed haul routes
 - "Near Dunham School (and outside of hours when school is in session), the 85th percentile speed was slightly lower (57.4 mph) than speeds just west of Canfield Road (59.4 mph). Overall, the speed survey indicates vehicles on Roblar Road are currently traveling at speeds higher than the

Z-5

Comments by Ed Ryska MS, CHCM, CE on File PLP03-0094 -
6/19/08

posted speed limit."

- o For trucks with air brakes at 55 mph for an average driver under good traction and brake conditions, the total stopping distance is over 300 feet. This is longer than a football field. (*CA Commercial Driver Handbook*)

↑
Z-5
cont.

- J2: Police /traffic enforcement --"Is greater that Less Significant" Sherriff dept and CHP should be consulted on increased patrols that Reduce the overall speed on haul routes. Cost of increased enforcement should be borne by applicant.

↑
Z-6

- E5: Inadequate site access is deficient -- in that it should provide that **barriers to prevent owners and non owner trucks from to access or depart the site going or coming from the East on Roblar Rd.** This can be done with turn barriers that make it impossible for truck of hauling size violate the condition of no east bound traffic on Roblar Rd. This will also mitigate the issue of owner control rules and procedures.

↑
Z-7

- All School bus stops and time stop of bus for all haul routes need to be identified and safety needs to be addressed.

↑
Z-8

Safety, Noise and Air Quality at Dunham School

- Trips would
 - o Average 332 total = 36.8 per hour -- one every 1.6 min in afternoon
 - o Peak 510 total = 56.6 per hour one every 1.1 min in afternoon
- No Noise mitigation addressed prior EIR had requirement for sound proofing not addressed in **G,2 G,4** - only two residences sited
- No comments for educators at Dunham on potential disruption of classes.
- Air quality of children on play ground and from building ventilation picking up exhaust emissions.
- No noise mitigation for residences east on Roblar addressed in G,4 only two residences sited **many more effected**

↑
Z-9

↑
Z-10

↑
Z-11

↑
Z-12

↑
Z-13

Comments by Ed Ryska MS, CHCM, CE on File PLP03-0094 -
6/19/08

Water

IV C 48 "The applicant estimates the quarry would require approximately three million gallons of water per year, which would be obtained from these two wells, and supplemented by onsite surface water storage

C6 Ground water recharge "Why less then significant ?

Impact C.8: The proposed project would pump groundwater from two onsite supply Significant 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.

Z-14

Sec. 26A-09-040. Quarry Mining Standards

f) Water Supply. All quarry sites must have adequate water supplies to support the operation. Sites located in Sonoma County Water Availability Zones III and IV will require analysis of the proposed water use, evaluation of the adequacy of the water supply, and mitigation of effects on water resources and nearby water users. Quarry operators may be required to monitor, survey, or report on depth and grades of excavation, groundwater levels, water use, revegetation and other subjects.

Sonoma County Dump Site

Deficient evaluation of hazards and potential

- Little or no mention of unlined site and contents of site.
- No study done on contents
- Why was an out of state firm used to evaluate Blasting and the effect on unlined county dump?
 - Uses a reference of earth quakes and opinion of magnitude at site but no data to support exact measurement of magnitude of a single occurrence not multiple blasts over the life of the project.
- County has issues with the lined dump
- Public Health Department letter dated April 3, 1987, there is a potential to disturb the landfill site with any blasting or rock removal. No mention of their involvement with the EIR all effected City, County, State and Federal agencies need input.

Z-15

Z-16

Z-17

Comments by Ed Ryska MS, CHCM, CE on File PLP03-0094 -
6/19/08

Compliance to Mitigation Measures

- The EIR discusses compliance to Mitigation measures
- The applicant should provide the public with records on their compliance with existing projects, State laws, and quality performance on projects
- These can include but not be limited to
 - Cal Osha safety records – Recordable injures, Injury and Illness Prevention program records (accident investigations, safety inspections, Etc)
 - DMV Records and CHP inspection of equipment including violations and corrective measures.
 - Insurance claim records for property, liability and vehicle damages
 - Truck Drivers education on traffic patterns and all safety issues
 - Including training sessions – Subjects, dates times and attendance
- History of complete projects and compliance with EIR standards, project standards, including quality of work
- Financial responsibility not covered by truckers insurance or if no insurance is present
- To insure all PUC regulations regarding overall truck inspection, hourly log maintenance and driver qualification are current on all haulers
- Put in physical barriers to make drivers conform to committed traffic patterns
 - No access from east
 - No ability to turn east

Z-18

Z-19

Insurance Requirements

- The Risk Managers for the county and City of Santa Rosa need to inform their liability carriers of the blasting in close proximity to the unlined land fill.
 - Not listed in persons consulted Vii-3
- The Risk Managers should take out additional coverage's and inform state and national jurisdictions of proposed blasting in close proximity to the land fill.
- Owner and operators Liability Insurers need to be made aware of activates that could pose major loss to area.
- Owners and operators need to have sufficient limits of coverage's to address breaching of land fill and clean up costs.
- Owners should indemnify and hold harmless the county for breaching the land fill and be responsible for all cost of property damage and cleanup.
 - This should be in form of insurance policy or cash bond with adequate limits to cover all costs. Insurer needs to be informed of exposures.

Z-20

Comments by Ed Ryska MS, CHCM, CE on File PLP03-0094 -
6/19/08

- o The County should also require those policies to be in force for the life of the quarry, and for a reasonable time after quarry operations cease to assure financial responsibility for the quarry operations
- Eir preparers
 - o ENVIRONMENTAL SCIENCE ASSOCIATES
 - o REVEY Associates, Inc.Highlands Ranch, CO Gordon F. Revey, Principal,
 - o Balance Hydrologics, Inc
- All need to:
 - o Make public the limits and certificates of professional liability insurance
 - o Inform their professional liability insurance carriers of potential exposure from their work if the land fill is breached

↑
Z-20
cont.

In conclusion of the Draft EIR, which has a questionable adequacy, still identifies that the project should not be approved.

It has 5 "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"

And 7 "significant adverse impacts would be unavoidable if mitigation measures identified in the EIR were found to be infeasible"

↑
Z-21

When the EIR is expanded to cover pertinent questions from the public, it will become even more evident through facts and figures that this project should not be approved due to a number of issues with Public Safety

↑
Z-22

Letter Z. Ed Ryska

- Z-1 This comment is identical to Comment Y-1. Accordingly, please see response to Comment Y-1.
- Z-2 This comment is identical to Comment Y-2. Accordingly, please see response to Comment Y-2.
- Z-3 This comment is identical to Comment Y-3. Accordingly, please see response to Comment Y-3.
- Z-4 This comment is identical to Comment Y-4. Accordingly, please see response to Comment Y-4.
- Z-5 This comment is identical to Comment Y-5. Accordingly, please see response to Comment Y-5.
- Z-6 This comment is identical to Comment Y-6. Accordingly, please see response to Comment Y-6.
- Z-7 This comment is identical to Comment Y-7. Accordingly, please see response to Comment Y-7.
- Z-8 This comment is identical to Comment Y-8. Accordingly, please see response to Comment Y-8.
- Z-9 This comment is identical to Comment Y-12. Accordingly, please see response to Comment Y-12.
- Z-10 This comment is identical to Comment Y-13. Accordingly, please see response to Comment Y-13.
- Z-11 This comment is identical to Comment Y-14. Accordingly, please see response to Comment Y-14.
- Z-12 This comment is identical to Comment Y-15. Accordingly, please see response to Comment Y-15.
- Z-13 This comment is identical to Comment Y-16. Accordingly, please see response to Comment Y-16.
- Z-14 This comment is identical to Comment Y-17. Accordingly, please see response to Comment Y-17.
- Z-15 This comment is identical to Comment Y-18. Accordingly, please see response to Comment Y-18.

- Z-16 This comment is identical to Comment Y-19. Accordingly, please see response to Comment Y-19.
- Z-17 This comment is identical to Comment Y-20. Accordingly, please see response to Comment Y-20.
- Z-18 This comment is identical to Comment Y-21. Accordingly, please see response to Comment Y-21.
- Z-19 This comment is identical to Comment Y-22. Accordingly, please see response to Comment Y-22.
- Z-20 This comment is identical to Comment Y-23. Accordingly, please see response to Comment Y-23.
- Z-21 This comment is identical to Comment Y-24. Accordingly, please see response to Comment Y-24.
- Z-22 This comment is identical to Comment Y-25. Accordingly, please see response to Comment Y-25.

Comment Letter AA

Re: Roblar Quarry DEIR

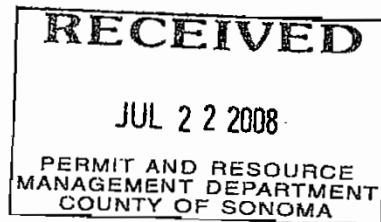
Submitted by Ken Delpit

7/21/2008 page 1

TO: Blake Hillegras
Sonoma County PRMD
2550 Ventura Ave
Santa Rosa, CA 95403

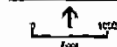
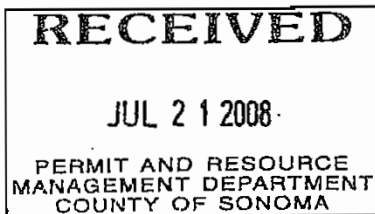
FROM: Ken Delpit

Petaluma, CA 94952



Dear Mr. Hillegras,

Consider the aerial photograph below, which shows the proposed quarry site and the closed county landfill. Notice that the proposed site is not just adjacent to, but *surrounds on three sides*, the landfill.



SOURCE: ESA, 6/20/07/08

Pacific West County, 204234
Figure III-3
Aerial Photo of Project Site

The DEIR does not adequately address the risks to public health and safety of locating a quarry operation such that it surrounds an unlined, toxic landfill, which was largely unregulated during its time of operation. In particular, I ask that the following issues be researched honestly, forthrightly, and thoroughly:

- 1) The quarry operation will disturb the ground violently and repeatedly, with boulder-shattering explosions. What are the possible consequences of subjecting the landfill and its toxic liquid and solid contents to these severe blasts over a period of twenty years or more?

AA-1

Comment Letter AA

Re: Roblar Quarry DEIR

Submitted by Ken Delpit

7/21/2008 page 2

- 2) The quarry operation will disturb the ground continuously, with heavy industrial machinery for crushing, piling, sifting, loading, and hauling rock. What are the possible consequences of subjecting the landfill and its toxic liquid and solid contents to sustained vibrations over a period of twenty years or more? AA-2
- 3) Where, in the DEIR, is the protection of local public health and safety, such that the blasts and sustained vibrations cited above will not disturb the landfill, so as to leak toxins into the local water table? AA-3
- 4) The Roblar valley is known for its prevailing, nearly constant, breezes (the so-called Petaluma Wind Gap). Generally, breezes carry west to east, toward the more populated sections of the Roblar community. Where, in the DEIR, is the protection of local public health and safety, such that the blasts and sustained vibrations cited above will not introduce asbestos fibers or other carcinogens into the atmosphere, to be carried by the nearly constant breezes? AA-4

Personal Notes

If you research the topic "effects of rock quarry operations on adjacent landfill," you will not find much in the way of directly useful information. That is, there are few, if any, studies on this topic. It is obvious, I think, why this is so. Studies have not been commissioned on this topic, because the very notion of surrounding a toxic landfill with a rock quarry operation for periods of years is, both on its face and indelibly in its core, a very bad idea. AA-5

Questions and notes submitted by Ken Delpit

Ken Delpit 7/21/2008

Letter AA. Ken Delpit

AA-1 The commenter indicates that the quarry will disturb the ground violently and repeatedly, and inquires what are the possible consequences to the landfill and its contents. The commenter is referred to response to Comment U-21 for a response to this issue.

AA-2 The commenter indicates that quarry operations related to heavy industrial machinery for processing, loading and hauling operations would create vibrations that would disturbed the landfill.

The Draft EIR analysis of vibration effects at the landfill focused on blasting at the quarry site in the Draft EIR because blasting is the project activity with the greatest vibration potential. Any vibration effects from onsite processing, loading or truck movement at the landfill property would be far less. For context, according to reference vibration levels for heavy construction equipment (e.g., pile drivers, caisson drilling, large bulldozers, loaded trucks and vibratory rollers) published in *Transit Noise and Vibration Impact Assessment* (April 1995), only the upper limit of pile driving at a distance of 25 feet (1.5 ppv [in/sec]) is equivalent to blasting vibration levels at 400 feet as calculated in the Draft EIR. It should noted that no activity such as, or similar to, pile driving would occur on the quarry site. All the other equipment is less than 1.0 ppv (in/sec) at a distance of 25 feet, which is closer than any activity would occur from the project and still below the level of blasting considered at 400 feet. Consequently, vibration from quarry operations would not result in any impact on the landfill or other nearby properties.

AA-3 The commenter inquires where is the protection of local public health and safety, such that the blasts and sustained vibrations will not disturb the landfill, so as to leak toxins into the local water table. As discussed in Impact G.3 in the Draft EIR and response to Comment O-16, impacts associated with blasting to the landfill are not expected to occur with mitigation measures incorporated. In addition, as discussed in response to Comment AA-2, above, no significant vibration impacts are identified associated with on-going operations, including processing, loading and hauling activities.

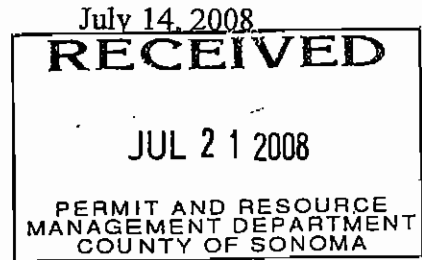
AA-4 The commenter inquires where the Draft EIR addresses blasting-associated generation of particulates, including asbestos fibers or other carcinogens into the atmosphere. The commenter is referred to Impact F.4 in Section IV.F, Air Quality, in the Draft EIR, for a discussion of potential effects regarding the generation of fugitive dust during the operational phases of the project, including from blasting. Mitigation Measure F.4 in the Draft EIR requires all blasting activities be conducted 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 mixing of soil with 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. With implementation of this mitigation, potential blasting effects on fugitive dust generation would be less than significant.

With respect to asbestos, the commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document.

Comment Letter BB

Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403



Dear Sonoma County Planning Commissioners,

Five years ago I was so fortunate to find and actually be able to purchase THE MOST BEAUTIFUL PLACE IN THE WORLD, namely Hawk Ridge Ranch at

. Little did I know that directly across Roblar, my beautiful pastoral view and lifestyle would soon be in jeopardy by what is now being revealed as a nightmare quarry project. It continues to amaze me that this is not the first threat of it's kind, but is the THIRD.

BB-1

I attended the June 19th meeting and I felt that one important item that was overlooked was the fact that two times a day the Diamond W Dairy next door to this property herd their cattle to a pasture right across Roblar Road - stopping traffic in both directions. This occurs early in the morning (when it can be very foggy) and again at the end of the day. Will the big quarry trucks line up - waiting - , or go 100% the other way at this time, or will they even SEE THE COWS IN TIME? I can see a disaster either way. Please understand that this is agricultural country - cows belong here - not a huge noisy gravel industry!

BB-2

Another item that was not addressed is the fact that Roblar to the west of this property FLOODS in the winter and has been closed during these times. Will 100% of the big rigs then head east during these storms? And, do you realize how dangerous this would be at this time, considering that just to the east is a curvy section compete with caution signs warning of the slippery conditions which are made worse by the combination of eucalyptus oils and rainwater. More than once I have personally witnessed big trucks overturned and laying in these ditches.

BB-3

I can't believe that people who live out here in the country could be happy living in a "sound-insulated" home. How ridiculous is this? We move to the country for the outdoors life - we're not IN our homes, we're OUTSIDE, enjoying our rightfully chosen way of life.

BB-4

I would like to invite any or all of you on the commission to visit me and experience Sonoma County at it's best - to see from my view the rolling pastures and valleys dotted with peacefully grazing cows and sheep, along with the myriad of wildlife who also call it home - hawks, ravens, vultures, swallows and so many other birds, badger, deer, coyotes, and bobcats. (Now you know why the famous author, John Steinbeck chose this spot (the potential quarry) to create his masterpieces). Furthermore, as far as the wind issue in this area, if you come up after 1 pm you will experience the WINDIEST place in the world. You'll see my horizontal trees and, if you can't handle the wind outside, you can come into my house and listen to it whistling through the doors and

BB-5

Comment Letter BB


windows. (By the way, before I moved in, there was a wind storm so strong that it snapped the telephone pole in my driveway. I was also told that once a storm blew in the front door and it had to be replaced in another area of the house. I have often wondered why my house isn't cabled at all four corners to the ground!)

To sum it up, just remember one thing – that if you let this quarry pass – ONCE IT'S DONE, IT'S DONE and there's no one except God and lots and lots of time that could ever restore the land to what it is today. It will be destroyed.

↑
BB-5
cont.

So, PLEASE, PLEASE, do NOT let this happen to OUR MOST BEAUTIFUL PLACE IN THE WORLD.

Thank you for your consideration,


Karen Slissman,

cc: Sue Buxton

Letter BB. Karen Slissman

- BB-1 The commenter expresses her admiration for the beauty of her property, which is located in proximity to the project site; and expresses her amazement that the proposed project is the third proposal for a quarry on the project site. These opinions do not address the adequacy of the Draft EIR; consequently, no response is required. However, the opinions of the commenter will be made available to County decisionmakers for their consideration.
- BB-2 The commenter inquires if quarry trucks would line up on Roblar Road as cattle from adjacent dairy are herded across Roblar Road. Any potential herding of cattle across Roblar Road would be an infrequent occurrence. In any case, there would be no substantial difference in potential impacts associated with the need for quarry trucks to slow, stop and wait for a farmer to herd cows across Roblar Road as any other vehicle that may be on the road during such an occurrence.
- BB-3 The commenter inquires whether flooding conditions on Roblar Road would require quarry trucks to take an alternate route. First, it should be noted that quarries typically operate at their lowest production levels of the year in the winter time, due to lowered demand for aggregate during winter. Furthermore, adverse rainy conditions at a level great enough to result in flooding on local roadways would also coincidentally adversely affect mining production/processing and associated truck hauling of aggregate to occur on those days. However, in any case, any potential infrequent flooding of any roadway, including Roblar Road, would affect all traffic on the roadways, including project traffic, and for safety purposes, all traffic would be obliged to follow any potential temporary detours established by law enforcement. In addition, design for a widened Roblar Road to meet County standards (Draft EIR-identified required mitigation measure) would address drainage of rain off the road, lessening the instances of flooding.
- BB-4 The commenter expresses disbelief that people would enjoy living in a “sound-insulated home.” These opinions do not address the adequacy of the Draft EIR. However, the Section IV.G, Noise, in the Draft EIR evaluates all potential project and cumulative noise impacts of the project and identifies feasible mitigation measures to mitigate the project’s contribution to noise impacts, where appropriate.
- BB-5 The commenter indicates wildlife in the area includes farm animals, as well as a myriad of wildlife, including hawks, ravens, vultures, swallows, badger, deer, coyotes and bobcats. All potential project effects to biological resources, including effects to special status wildlife species (e.g., badger, special-status birds and raptors) and their habitat are addressed in Section IV.D in the Draft EIR. All potentially significant impacts to biological resources are mitigated to a less than significant level.

The commenter also indicates the project vicinity is very windy. The commenter is referred to Section IV.F, Air Quality, in the Draft EIR, for a discussion of potential

effects generation of fugitive dust during the construction and operational phases of the project, and design features and on-going practices proposed by the applicant and/or required by the County Surface Mining and Reclamation Ordinance (SMARO) mining and reclamation standards to minimize erosion of exposed surfaces and generation of dust. The Draft EIR establishes a formal comprehensive dust control program for implementation during initial construction and on-going operation to ensure all potential dust emissions would remain less than significant. The commenter is also referred to Master Response AQ-1 in Chapter II in this Response to Comments Document for additional data on wind conditions in the area, and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.

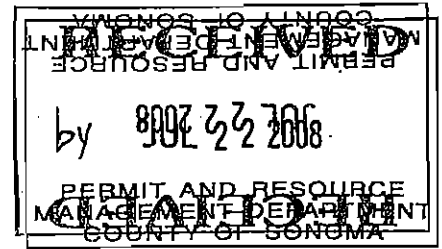
Please see also Master Response GEN-1 in Chapter II in this Response to Comments Document regarding issues related to the approval process for this project.

Re. Proposed Quarry on Roblar Road
Public Hearing June 19, 2008

From: Gary Reed

Sebastopol, CA 95472

gvreed@comcast.net



Overall Impact

With the introduction of the proposed Roblar Rd. quarry, there would if approved be four major environmental impacts within one to three miles of each other. Within this triangle would be the proposed new quarry and the county's unlined landfill, which touch each other on three sides; the Stony Point quarry, and the County's Mecham Rd. landfill and recycling center.

CC-1

When the first of these four was approved, it was as a stand alone project impacting the area. Did the second project, when approved, have an EIR and did that EIR take into consideration the first project?

Did the third project when approved have an EIR, and did that take into consideration the impact on the area?

Does the current DEIR take into account the impact of all four of these projects on the area as a whole?

CC-2

Does the County's Master Plan have any restrictions on the number of major environmental impacts within a 3 mile distance from each other? Are there any restrictions re. a relatively small area? At what point does an area become highly impacted?

CC-3

The three monitoring wells for the proposed quarry: are they currently being tested for contaminants that could have a health impact on ground water? What contaminants are present? How often will they be tested and who is responsible for the testing and dissemination of the results? What impact will 20 years of underground blasting have on the contaminants?

CC-4

The DEIR specifies that during construction if the winds exceed 25 mph during dry conditions the construction must be suspended. Shouldn't quarry operations also be suspended during high winds? Who will be monitoring the wind speeds? If it is the business running the operation there is no incentive to comply, and no objective oversight.

CC-5

Comment Letter CC

EPA Superfund Site, the unlined county landfill

When mitigations were set up for closing this unlined landfill, was the proposed Roblar quarry taken into account? Does the EPA need to be notified that there is now a proposed extreme impact on that site that was thought to be mitigated at the time?

CC-6

Traffic

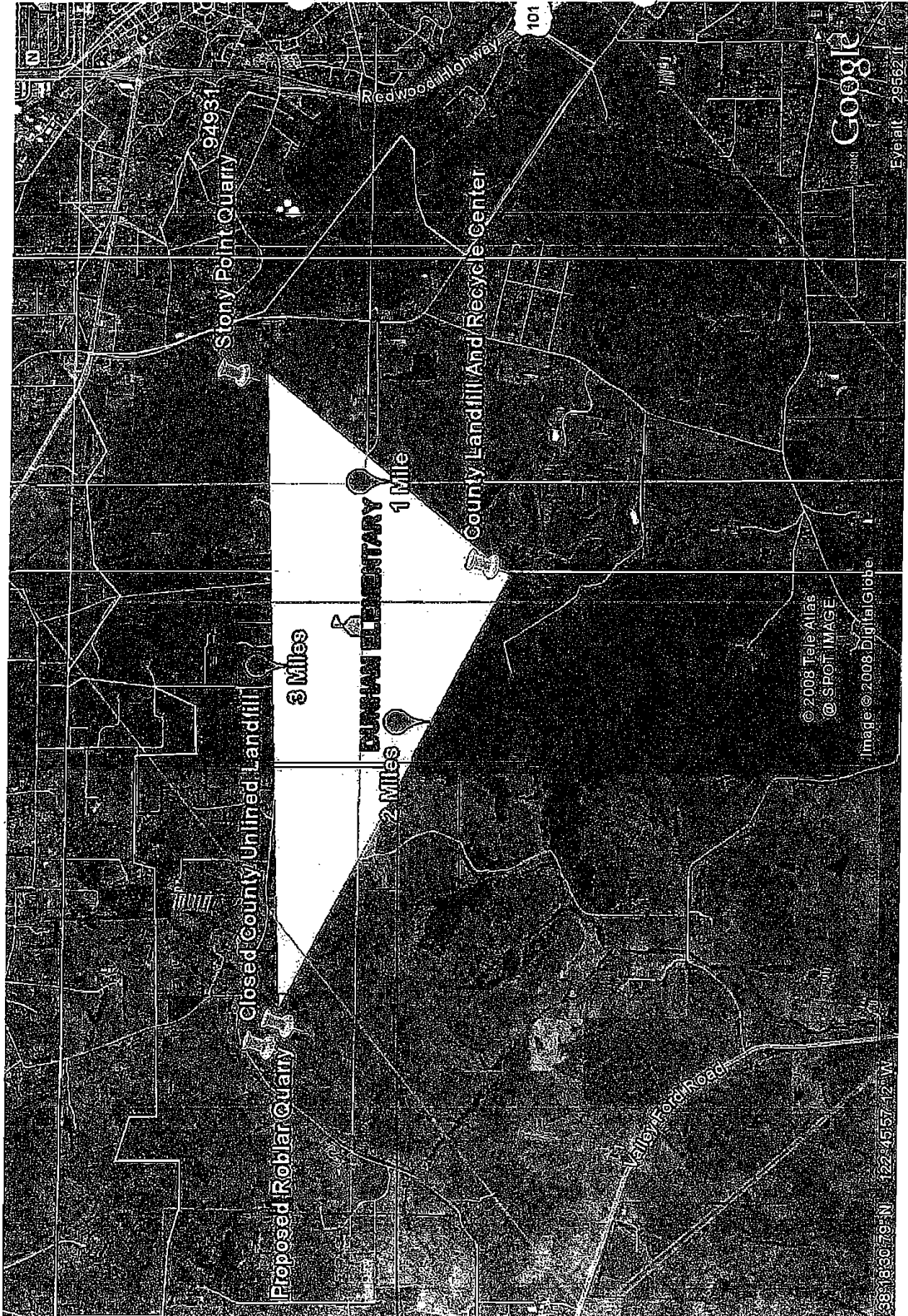
The DEIR estimates 149 daily truck trips. Shouldn't there be a limit placed on number of truck trips?

CC-7

Noise

The DEIR mentions sound monitoring and testing for blasting but shouldn't the report also look at potential noise levels of daily operations?

CC-8



Letter CC. Gary Reed

CC-1 to CC-2 The commenter identifies three other projects within three miles of the proposed quarry, including the closed Roblar Road landfill, the Stony Point quarry, and the Central landfill and recycling center. The commenter asks if the Draft EIR for the proposed project considered the other three projects. The commenter also inquires if the Draft EIR took into account the impact of all four projects as a whole. The Draft EIR, as required by CEQA, considers both the project environmental effects, as well as the potential cumulative effects of the project in combination with past, present and probable future projects causing related impacts. For instance, the cumulative traffic Impacts E.1 and E.2 capture traffic generated from all projects that would contribute traffic to the study intersections under the near and long-term scenarios. For each cumulative impact, the Draft EIR determines whether the project's incremental effect is cumulatively considerable or not, and where feasible, identifies mitigation measures to reduce cumulatively significant impacts to less than significant levels. See also response to Comment JJ-25 regarding the geographic scope of cumulative impacts.

The commenter also inquires if each of the environmental documents for the other three projects also considered the impacts of the other three projects. This comment does not address the adequacy of the EIR for the proposed project. However, environmental review for other projects would similarly have been subject to all applicable CEQA requirements for assessing impacts, including cumulative effects, based on the information that was available at the time of preparation of those environmental documents.

Please see also response to Comment, CC-3, below.

CC-3 The commenter inquires if the County's Master Plan has any restrictions on the number of environmental impacts within a three mile distance of each other or within a relatively small area. Section IV.A, Land Use and Agricultural Resources section in the Draft EIR describes all applicable County planning documents governing land use development in the county, including the General Plan, zoning ordinance, Surface Mining and Reclamation Ordinance (SMARO), Sonoma County Aggregate Resources Management Plan (ARM Plan), and Petaluma Dairy Belt Area Plan. It should be noted many of these documents were the subject of their own environmental review documents under CEQA and considered the cumulative effects of all development contemplated under those plans. While many of these documents, including the recently-adopted General Plan 2020, seek to minimize environmental impacts associated with cumulative development, none of them contain restrictions on the number of environmental impacts within a particular distance of each other.

CC-4 The commenter inquires if the monitoring wells on the project site are currently being tested for contaminants, and what contaminants are present. The commenter is referred to Master Response HYD-2 in Chapter II in this Response to Comments Documents for

further detail on existing groundwater quality conditions on the project site and adjacent landfill property, including additional groundwater data that has been made available.

The commenter inquires how often the quarry site monitoring wells would be tested and who would be responsible for the testing and dissemination of the results. Mitigation Measure C.4 in the Draft EIR included on-going onsite monitoring and management to ensure any water that may enter the quarry walls as seepage and/or supply water from the onsite production wells would be identified, contained and treated appropriately. The commenter is also referred to Master Response HYD-1 in this Response to Comments Document. The applicant has prepared a comprehensive Water Management Plan (WMP) that expands upon and refines the proposed management and monitoring of water resources for the quarry project. As discussed in amended Mitigation Measure C.4e in Master Response HYD-1, the basin water quality sampling schedules, guidelines, protocols, and procedures required to collect and analyze representative samples from each basin will be provided in a detailed Sediment Control Basin Sampling and Analysis Plan, subject to review and approval by the County of Sonoma PRMD, and as applicable, the North Coast RWQCB, prior to commencement of operation of the treatment system. In addition, the groundwater extracted from Well DW-2 shall be sampled and analyzed once every 24-hours during periods of sustained or cyclic pumping, and at the end of each pumping episode during times of intermittent use of the well (intermittent use means pumping episodes separated by more than 24 hours).

The commenter also inquires what impact will blasting have on contaminants. The commenter is referred to response to Comment O-16.

- CC-5 The commenter incorrectly assumes the air quality mitigation measure in the Draft EIR related to suspending operations if winds exceed 25 mph (Mitigation Measure F.4) only applies to construction. In fact, this mitigation measure applies to both the construction and operational phases of the project.

The commenter inquires who will be responsible for wind monitoring. The commenter is referred to Master Response AQ-1 in Chapter II in this Response to Comments Document for additional data on wind conditions in the area; and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.

- CC-6 The commenter refers to the Roblar Landfill as an Environmental Protection Agency (EPA) Superfund site. The commenter is incorrect; the Roblar landfill has never been, nor is it currently, an EPA Superfund site; i.e., contaminated sites subject to cleanup under the federal Comprehensive Environmental Response, Compensation, and Liability Act.

The Draft EIR Project Description describes the history of the Roblar Landfill; additional discussion of the drainage and leachate collection systems for the landfill are presented in the Draft EIR, Section IV.C, Hydrology and Water Quality. Further, the Draft EIR

address all potential impacts from the proposed quarry, including any potential environmental impacts on the landfill property from operating the quarry, and potential environmental effects of the landfill on the quarry. The Draft EIR also finds that all associated potentially significant impacts are mitigated to less than significant levels.

- CC-7 The commenter inquires whether a limit should be placed on the number of daily quarry truck trips. It should be noted that the estimated truck trip generation reflects the operational aggregate production levels proposed by the applicant, and accordingly, the project as proposed is the subject of the environmental analysis in the Draft EIR. However, the Draft EIR also evaluates a number of alternatives to the proposed project (Section V in the Draft EIR). This includes a Reduced Production/Reduced Size Alternative (Alternative 3), that would restrict aggregate production levels to half of that proposed under the project. As discussed in the Draft EIR, Alternative 3 would result in incrementally less direct on- and off-site impacts, although it would likely not avoid any direct significant and unavoidable impacts of the proposed project, or secondary impacts associated with the implementation of off-site transportation improvements. Also, since this alternative would produce half the aggregate materials of the proposed project Alternative 3 would create indirect impacts associated with the deficit in materials coming from the other identified in-county and/or out-of county options. (Please also see discussion of other alternatives, including the Alternative Haul Route / Contracted Sales Only Alternative, which was identified as the environmentally superior alternative).

The County could choose to approve a project alternative with fewer or reduced traffic impacts, if it believes that the project do not justify the impacts of the project as proposed.

- CC-8 The commenter indicates the Draft EIR mentions sound monitoring and testing for blasting and inquires whether the report also looks at potential noise levels of daily operations.

The Draft EIR addresses operational quarry noise impacts to nearby receptors in Impact G.1 in the Draft EIR, and identifies the requirement for monitoring of quarry noise in Mitigation G.1.

I am not an expert on any of these issues
I'm a dairy goat farmer

I live on the corner of Canfield and Roblar Roads. I am told that I live in the Petaluma Wind Gap. Sometime between late morning and early afternoon, an on-shore wind blows up this valley. I'm not talking a light breeze, most days this is a strong wind. The Draft Environmental Impact Report suggests that water will be used to control dust generated at the proposed quarry. I would like to know if the DEIR took into consideration the velocity of the wind in this valley, and the constant amount of water it will take to adequately control this dust, particularly since, it is very possible that the serpentine rock that will be quarried may contain asbestos. Who will be responsible if our wells are contaminated. Who will be responsible for the impact on our health from these factors; an ^{adjacent} unlined contaminated landfill, contaminated dust from the quarry and the exhaust from a constant parade of trucks on our country roads. Will the County be liable?

DD-1

DD-2

DD-3

DD-4

*This was not adequately addressed in the DEIR
and since no insurance will adequately cover this project I ask*

Some people, in this area, are already experiencing water shortages. The amount of water used for dust control will seriously affect ~~not~~ the availability of potable water. The run off into our nationally protected Estero Americano via the Americano Creek will be an environmental hazzard not just from the mining of gravel but the potential leakage from the adjacent landfill. Who will take responsibility for that? Who pays for the clean-up?

DD-5

DD-6

We know who will benefit from this project, ~~and~~ we also know that it will be the tax payers of Sonoma County who will bear any liability it will create and it will be the residents of this valley that will pay the price of the loss of their quality of life, health, safety and tranquility.

but because of the project liability of this to get adequate insurance

DD-7

I implore you not to grant a permit for this venture.

Susan K. Baritell

ill conceived

Petaluma, CA 94952

ALSO →

which was said about traffic from the quarry
to Roblar Rd and that it can be controlled
Who will stop traffic from Storey Point from
going to the quarry.

DD-8

RECEIVED
JUL 22 2008
PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

Letter DD. Susan Baritell

- DD-1 The commenter indicates the project vicinity experiences strong winds. The commenter is also referred to Master Response AQ-1 in Chapter II in this Response to Comments Document for additional data on wind conditions in the area; and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.
- DD-2 The commenter inquires if the Draft EIR took into consideration the velocity of wind in the valley and the amount of water it will take to adequately control dust. The commenter is referred to Master Response HYD-1 in this Response to Comments Document which characterizes and quantifies the various water demands for the project, including for dust control. Note the applicant's WMP includes highly conservative estimates of water demand required for dust control.
- DD-3 The commenter expresses concern that serpentine, known to contain asbestos, may be present on the project site. The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.
- DD-4 The commenter inquires who will be responsible for the impact on health from the Roblar landfill, contaminated dust from the quarry, and exhaust from trucks.

The Draft EIR addresses all potential environmental impacts associated with project, including impacts associated with encountering potentially contaminated seepage and groundwater from the landfill (Impact C-4). The commenter is also referred to Master Response HYD-1 in this Response to Comments Document. The applicant has prepared a comprehensive Water Management Plan (WMP) that expands upon and refines the proposed management and monitoring of water resources for the quarry project. The commenter is referred to Master Response HYD-2 in Chapter II in this Response to Comments Documents for further detail on existing groundwater quality conditions on the project site and adjacent landfill property.

With respect to impacts associated with encountering potential crystalline silica (Impact F.5); and localized increases in dust (Impact F.4). See also Master Response AQ-1 in Chapter II in this Response to Comments Document concerning dust control. The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site. The commenter is referred to Impact F.3 in the Draft EIR for potential project-associated diesel particulate matter (DPM) effects from project haul trucks along haul routes, as well as from onsite mobile and stationary sources at the quarry site. Mitigation measures identified in the Draft EIR identify the responsible parties for implementation of all mitigation measures.

Please see also Master Response GEN-1.

- DD-5 The commenter indicates the area is experiencing water shortages, and that the amount of water required for dust control would affect the availability of potable water.

Impact C.8 in the Draft EIR analyzed the effect of groundwater pumping on drawdown and lowering local groundwater levels, and determined this impact to be less than significant. The commenter is also referred to Master Response HYD-1 in Chapter II in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. As discussed in Master Response HYD-1, the WMP expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater from wells) and reduces hydrology and water quality impacts. The WMP also characterizes and quantifies the various water demands for the project, including use of highly conservative estimates of water demand required for dust control.

Under the WMP, only Well DW-2 would be used to supply supplemental groundwater for quarry operations (i.e., no use of Well DW-1). Furthermore, as discussed in Master Responses HYD-1 and HYD-3, the WMP would include a strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project with no adverse impacts from well pumping. These project refinements would not change any of the conclusions previously reached in the Draft EIR with respect to the effect of project groundwater pumping to neighboring wells.

- DD-6 The commenter states her opinion that runoff into Americano Creek from gravel mining and from potential leakage from the landfill will be an environmental hazard; and inquires who will take responsibility for it and pay for the cleanup. Please see response to Comment DD-4, above.
- DD-7 The commenter states her opinion that the tax payers of Sonoma County will bear liability the project would create, and it will be the residents of the valley that would pay the price of the loss of their quality of life, health, safety, and tranquility. The opinions of the commenter will be made available to County decisionmakers for their consideration. Please see also Master Response GEN-1 in Chapter II in this Response to Comments Document regarding issues related to the approval process for this project.
- DD-8 The commenter inquires who will stop project traffic from Stony Point Road from using Roblar Road to access the quarry. As described in the Draft EIR Project Description, all hauling conducted directly by the applicant, and all contract sales, would be conditioned such that trucks hauling materials under those contracts would be required to follow the prescribed haul routes. The use of the specified haul routes would be enforced by the applicant, subject to penalties and/or contract termination.

5/25/08

Scott Briggs
Environmental Review Division Manager
Sonoma County PRMD
2550 Ventura Ave.
Santa Rosa, Ca. 95403-2829

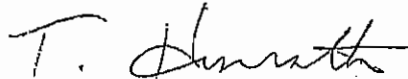
Re: Roblar Rd. Quarry, File PLP03-0094

Dear Mr. Briggs,

When I reviewed the EIR for this project, the Summary Chapter did not address the impact of blasting and mining adjacent to the closed county landfill that has a lot of toxic materials in it that could enter the neighboring properties well water. As one of those at risk of this, I hope that the authors of the EIR will amend their summary report so that the Planning Commission and and the Board of Supervisors are made aware of the risk of our drinking water being contaminated by these toxins and carcinogens.

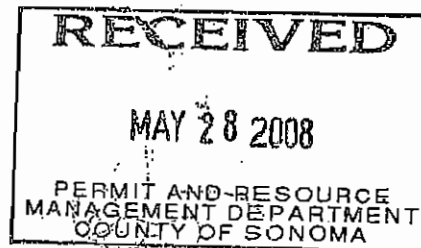
EE-1

Respectfully,



Thomas J. Honrath

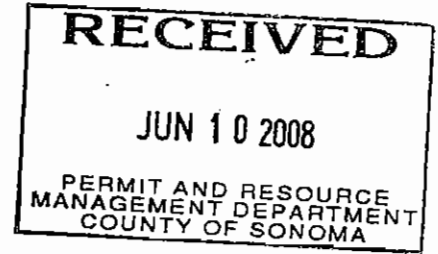
Sebastopol



Letter EE. Thomas Honrath

EE-1 The commenter indicates that the Summary chapter of the Draft EIR does not address the impact of blasting and mining adjacent to the landfill. All potential impacts of the proposed project from project operations, including from rock extraction and blasting, are adequately addressed in the Draft EIR. The commenter is referred to Impacts B.1 through B.5 in the Geology, Soils and Seismicity section, Impacts C.1 through C.6 in the Hydrology and Water Quality section, and Impact G.3 in the Noise and Vibration section of the Draft EIR. Please also see response to Comment O-16.

Comment Letter FF



Date: June 07 2008
To: Sonoma County Planning Commission
Topic: Proposed Roblar Road Rock Quarry

Commission Members:

With regard to the EIR currently before you for your consideration, altho many issues are addressed therein, I wish to direct

your attention to an area of specific interest to me and hereby enclose letter sent to Press Democrat voicing my concerns.

When the mythical Pandora opened the box which unleashed Evil into a pristine world, a defense of ignorance of it's contents could be made in her behalf. However, the advocates for this proposed Rock Quarry on Roblar road in rural Sonoma County adjacent to a closed landfill with unknown toxicity could not mount such a defense. Their goal to proceed forward without a complete, thorough examination by competent professionals of the possible consequences to the environment and groundwater etc. arising from the blasting operations and earth moving and disturbing this sleeping giant seem irresponsible in my own humble view. The EIR in this matter currently before the planning commission lightly scans this toxic potential and seems to imply little consequential environmental impact. Say What? May we at the very least expect full investigation and disclosure of this landfill's content and potential effects before proceeding forward toward the opening of this present-day Pandora's box? The close attention to this issue by the Sonoma County Planning Commission and Board of Supervisors would be sincerely appreciated.

FF-1

Respectfully,
Chris J. McCarthy Sr.

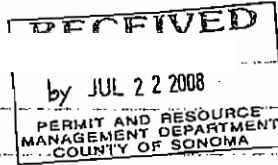
Petaluma, Ca.

Letter FF. Chris J. McCarthy Sr.

FF-1 The commenter expresses a number of opinions regarding the proposed project. The technical issues raised regarding the landfill are addressed in the Draft EIR. The commenter does not raise any specific deficiencies with the Draft EIR analyses.

Judi Slater

Sebastopol, CA 95472



So thru any way the EIR could evaluate the effect the noise this project would generate would have on the local dairy cattle and livestock? My concern is that as they are mammals and might not produce as well under pressure...

GG-1

Also, if the people who had their wells tested were fine last week had their wells tested 5 years from now and had high levels of P.E.S and lead and then were, God forbid, 13 cases of cancer in the neighborhood, would the applicant assume risk management responsibility? Should Sonoma County as owner of the landfill? Who will the landowner go to for help? I need the EIR to outline a "what if" plan please.

GG-2

Thank you

Letter GG. Judi Slater

GG-1 The commenter requests that the EIR evaluate the effect the noise would have on local dairy cattle and livestock. The loudest noise generated by the proposed quarry would be that generated by blasting activities, which may be required on average once or twice a month. The effect of blasting noise on disturbance to special-status wildlife species is addressed in Impact D.8 in the Draft EIR. While the impact discussion focused on special-status wildlife, the literature reviewed and available information extended to domesticated animals, including cattle. In fact, observations have been made of dairy cows within 1,000 feet of regular blasting activities that have occurred on the Sonoma County Central Landfill property, located five miles east of the project site. Blast noise and vibration levels from blasting activities at that property were similar in intensity to that which is anticipated for the proposed quarry. Despite initial concerns by the dairy operators, all involved parties have now concurred that blasting does not disturb the cows. Based on these observations and other available literature, the effect of blasting at the proposed quarry on domestic or wild animals near the site or on neighboring properties would be less than significant.

GG-2 The commenter asks hypothetically if the applicant would assume risk management responsibility if private wells tested in the future for high levels of DES and lead and there were cases of cancer in the neighborhood.

The applicant's groundwater monitoring program included sampling and analysis for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) including DES, organochlorine pesticides, PCBs, and trace metals. Pesticides, PCBs, and SVOCs including DES were not detected in the February 2007 sampling event. It should be noted that the County also analyzed groundwater at the adjacent closed Roblar Landfill property in 2004 for pesticides, PCBs, and SVOCs and these compounds were also not detected in those groundwater samples.).

The commenter is also referred to Master Response HYD-2 in Chapter II in this Response to Comments Documents for further detail on existing groundwater quality conditions on the project site and adjacent landfill property, including additional groundwater data, including for VOCs and metals, which has been made available. Please see also response to Comment L-20 regarding additional information on DES.

The commenter is also referred to response to Comment T-6.

Comment Letter HH

Robert B. Taylor

Petaluma, CA 94952

May 21, 2008

Dear Scott,

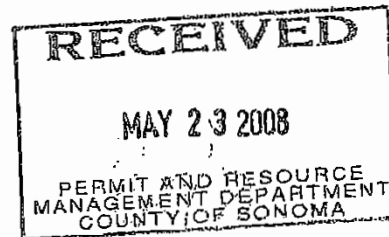
I am completely against the proposed new hard rock quarry at 7601 and 7175 Roblar Road - File
PLP03-0094.

HH-1

Sincerely,



Robert Taylor



Letter HH. Robert B. Taylor

HH-1 The commenter expresses opposition to the proposed quarry. This comment does not address the adequacy of the Draft EIR. However, the opinions of the commenter will be made available to County decisionmakers for their consideration.

Comment Letter II

Eileen Hofer

Petaluma, California 94952

Sonoma County
Planning Commission

June 17, 2008

To Whom This May Concern:

I am a resident on Roblar Road. As you know there is a proposed rock quarry on Roblar Road. Recently there was a meeting of the residents to discuss the quarry E.I.R.

I have several questions which I believe should be addressed before any decision is made concerning the quarry.

1. Roblar Road has a designation that covers bicycle traffic. Daily there are groups of bicyclists on Roblar Road and this number greatly increases on the weekends. I am very concerned about their safety when sharing the road with the big rigs. How wide does Roblar Road need to be to ensure the safety of bicyclists when they are sharing the road when two big trucks are passing each other?

II-1

2. There is an intersection of Roblar Road and Carnigila. There is a visibility issue. The trucks will have insufficient time and distance to stop and/or slow down for the residents to safely turn in and out of their street. This must be seen to be adequately appreciated.

II-2

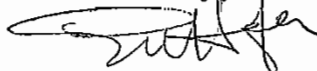
3. Responsibility and risk management. If and when a major lawsuit occurs who will be responsible? The quarry owners may have insurance. If a judgement exceeds their insurance, they may declare bankruptcy, and reincorporate. What is needed is to make sure of adequate coverage is/are bonds. This is the age of big lawsuits and very large awards. To much coverage is not possible.

II-3

4. Child/student safety. I would like to see a lot more concern about the students safety, getting to school, going home from school and waiting for the bus. For all ages. If the students are on the way to and from school on Roblar Road for a total of one hour a day; lets say that there are a total of 100 students using Roblar Road. There are approximately 180 school days per year. If there are trucks at a rate of 30 per hour. This adds up to 5,400 trucks passing 100 students. Or 540,000 possibilities for a truck versus student disaster. Every single year. I hope that makes sense. Over a half a million opportunities to have a student get into s disaster with a big rig. Guess who loses? We all do.

II-4

Sincerely,



Eileen Hofer

Letter II. Eileen Hofer

- II-1 The commenter indicates concern about the safety of bicyclists sharing the road with project trucks. Most roadways in the project area are currently used by bicyclists. In addition, the community of Roblar (and the residential community along east Pepper Road) also generate pedestrians in their respective areas. Further, the Draft EIR discusses that Roblar Road and Pepper Road (east of Mecham Road) do not meet current County road design standards for travel lane and/or shoulder width. When considering these factors, a significant project impact was identified for the entire length of Roblar Road, and the section of Pepper Road east of Mecham Road.

In addition, as discussed in Impact E.4 (traffic safety) in the Draft EIR, when considering the existing condition that vehicles currently travel at speeds higher than posted speed limits on Roblar Road, the winding nature of the roadway, and that topography contributes to limited sight distance in locations, the Draft EIR concludes that the addition of project truck traffic to this roadway would be considered a significant impact. The potential impact could be increased during periods of poor visibility, such as fog; or periods of reduced road traction, such rainy or frosty conditions; and/or during potential infrequent nighttime operations.

Mitigation measures identified in the Draft EIR (see Mitigation Measures E.3 and E.4) to mitigate these significant impacts include improving Roblar Road and Pepper Road (between Mecham Road and Stony Point Road) to meet current County road design standards, including two 12-foot wide vehicle travel lanes, two six-foot wide shoulders, associated striping/signage to meet Class II bike facilities, and posting of warning signs on Roblar Road at key locations where sight distance may continue to be limited after implementation of these roadway improvements.

The Draft EIR discusses whether or not implementation of the above-cited mitigation measures would be feasible (due to right-of-way acquisition considerations), and concludes that if the roadway widening improvements identified in Mitigation Measures E.3a/E.4a were found to be infeasible, the impacts would be Significant and Unavoidable.

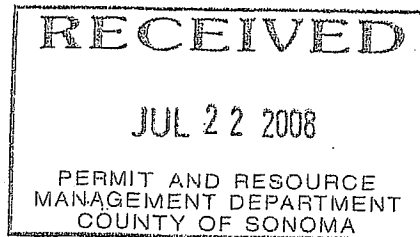
- II-2 The commenter indicates there is a sight visibility issue at the intersection of Roblar Road and Carniglia Lane. The commenter is referred to responses to Comment V-11.
- II-3 The commenter inquires who will be responsible if a major lawsuit occurs. This comment does not address the adequacy of the Draft EIR; consequently, no response is required. Please see also Master Response GEN-1 in Chapter II in this Response to Comments Document regarding issues related to the approval process for this project.
- II-4 The commenter indicates concern about the potential for conflicts of children/students with project trucks. Section IV.E, Transportation and Traffic in the Draft EIR addressed the issue of increases in truck traffic on haul roads used by bicyclists or pedestrians,

including Roblar Road. The commenter is also referred to Master Response T-1 in Chapter II in this Response to Comments Document for additional discussion of student arrival/departure characteristics at Dunham Elementary School.

Please note the Alternatives section of the Draft EIR includes Alternative 2 (Alternative Haul Route / Contracted Sales Only), in which all project truck traffic generated by the quarry would use an alternative haul route, and no project haul trucks would use Roblar Road east of the quarry, or Pepper Road east of Mecham Road. This alternative would avoid project trucks in the vicinity of Dunham and Liberty Elementary Schools.

July 19, 2008

Sonoma County Board of Supervisors
575 Administration Drive, Room 100A
Santa Rosa, California
(707) 565-2241



Re: Roblar Road Quarry DEIR

Dear Supervisors,

My family and I are property owners on Roblar Road directly affected by the proposed quarry through added traffic, noise, air quality, road safety and integrity, and other harmful impacts. Enclosed are our comments along with past comments to similar proposals that are relevant today.

JJ-1

Endangered Species

Under Special-Status Wildlife Species of Section D Biological Diversity, pg. 125 of Environmental Setting, Impacts and Mitigation Measures, it states: "No California freshwater shrimp, **California tiger salamander**, foothill yellow-legged frog, northwestern pond turtle, or central California coast steelhead were identified on the property or the surrounding drainages (Golden Bear Studies, 2003; Fawcett, 2005).

However, through an email conversation with a Fish and Game official the opposite seems true and California tiger salamanders were in fact found on or near the proposed quarry location. (See below email exchange)

JJ-2

If this is the case the Draft EIR is inadequate and misleading. Can you please clear up the discrepancy and follow proper CEQA studies.

- > Subject: RE: address to maps (APN 027-080-010
- >
- > From: Vincent_Griego@fws.gov
- > Date: Mon, 26 Nov 2007 14:07:41 -0800
- >
- > Jason,
- >
- > The closest known site where California tiger salamanders were surveyed for
- > is approximately 5,000 feet to the east of this site. California tiger
- > salamanders were found at that location too. Are you planning on doing
- > surveys here too. I believe the site I'm referring to was being surveyed
- > for California red legged frogs, but tiger salamanders were found in the
- > process.
- >



**Sonoma County Planning Commission
Minutes**

Sonoma County Permit and Resource Management Department
2550 Ventura Avenue, Santa Rosa, CA 95403
(707) 565-1900 FAX (707) 565-1103

Date: **June 19, 2008**
Meeting No.: **08-009**

ROLL CALL

Commissioners

Bob Williams
Don Bennett
Sharon Wright
Rue Furch
Dennis Murphy, Chair

Staff Members

Jennifer Barrett
Melinda Grosch
Blake Hillegas
Sue Dahl

David Hurst, Chief Deputy
County Counsel

UNCONTESTED CALENDAR

Call to order: 1:00 p.m.

Approval of Minutes: Minutes from April 3 will be brought back on a future agenda. Commissioner Furch asked that staff check the tape for clarification of a motion that she thought she made.

Public Appearances on Items not on the Agenda: None

Item No. 1	Time: 1:05 p.m.	File: CMO07-0011
Applicant: Common Ground		Staff: Melinda Grosch
Env. Doc.: Categorical Exemption		
Proposal: Request for a Certificate of Modification to relocate the building envelope as shown on Lot II-8 of the George Ranch Subdivision Phase II, and to modify and relocate an equestrian easement established by the George Ranch Subdivision Phase I as shown on Lot I-3.		
Location: 3366 White Alder, Sonoma		
APN: 142-200-019	Sup. Dist: 1	
Zoning: RRDWA (Resources and Rural Development/Agricultural Preserve), B6-200 acre density, SR (Scenic Resource)		

Public Hearing Opened and Closed: 1:15 p.m.

Commission Discussion: Commissioner Williams made a motion to approve the staff recommendation.

Changes in draft conditions:

Finding 6(a) Modify to state what the actual changes of circumstances could be.

Action: Approved as recommended with modified findings
Appeal Deadline: ten days
Resolution No:

Williams: M/aye Bennett: S/aye Wright: aye Furch: aye Murphy:
Ayes: 5 Noes: 0 Absent: 0 Abstain: 0

REGULAR CALENDAR

Item No. 2 **Time:** 1:05 p.m. **File:** PLP03-0094
Applicant: North Bay Construction **Staff:** Blake Hillegas
Env. Doc.: Environmental Impact Report
Proposal: The applicant proposes: 1) a Zone Change to add the MR (Mineral Resource) combining district to 198.76 acre site designated LEA (Land Extensive Agriculture) B6 - 160 acre density Z (Second Unit Exclusion), VOH (Valley Oak Habitat); 2) A Use Permit to develop a 70-acre quarry (Roblar Road Quarry); 3) A Reclamation Plan to reclaim the site upon completion of mining to open space use, including a conservation easement and an irrevocable offer of dedication for public use; and 4) Cancellation of the Williamson Act agricultural preserve contract on APN 027-080-009 while simultaneously placing a Williamson Act agricultural preservation easement on a 243-acre agricultural property near Petaluma. The annual aggregate production quantities are proposed to be a maximum of 570,000 cubic yards per year for 20 years.

Location: 7601 Roblar Road, Sebastopol
APN: 027-080-007 **Sup. Dist:** 5
Zoning: LEA (Land Extensive Agriculture) B-6 160 acre density, Z (Second Dwelling Unit Exclusion), VOH (Valley Oak Habitat)
Board of Supervisors Hearing date to be determined.

Blake Hillegas summarized the written staff report which is incorporated herein by reference. **Commissioner Wright** recused herself from the item.

Public Hearing Opened: 1:40

Speakers: **Robert Piazza**, nearby long-term resident, is a Parole Commissioner and is heavily involved in the community. While supporting the need for aggregate, he expressed concern about the location of the quarry in proximity to the old landfill, and said the project was a "disaster waiting to happen." PC-1

Chapter 4 of the EIR left out many properties which should be included. PC-2

Impact A-1 should address compatibility with the adjacent landfill and address the agricultural nature of the area and property values. The closed landfill was undisturbed for years, and the proposal will shock the underground geology. The EIR does not address the toxins and vapors that could be disturbed by blasting and gravel removal from the adjacent site. Piazza said it would be irresponsible for the County to permit the release of hazardous chemicals into the air. PC-3

Piazza questioned the matter of the Williamson Act exchange of grazing land and said it was a sham. The subject property's value to agriculture would be lost forever. PC-4

Impact A-4 did not state how the quarry would be reclaimed, and Piazza said that a bond was called for in case the applicant becomes insolvent. PC-5

Impact C-8-projected groundwater pumping. The two onsite wells could impact neighboring wells and lower the water level. Since he relies on water, to him, the impact is definitely not less than significant. The DEIR does not address possible draw down, which should be included for a two mile radius. The figures are underestimated for summer months. The applicant should have to post a substantial bond to insure a life long water supply for the neighbors if the project deprives them of water. PC-6

Grading activity mentioned in Impact D-2 would harm trees. PC-7

Ed Riska, **Roblar Road**, has a MA in Safety and Risk Management, and is a professional member of the Safety Engineers and a certified Safety Executive. PC-8

Traffic mitigations E-1 through E-9. Riska said it is imperative that these measures occur, and that additional measures might come up as a result of the final EIR. The applicant should be able to accomplish this. PC-9

The traffic study is three years old, and does not include the Lowe's Big Box Store in Cotati at Intersection 2. The PC-10

Comment Letter PC

Sonoma County Planning Commission Agenda
Date: June 19, 2008

Page: 3

- study needs to be updated. The accident rates shown in the DEIR are four years old and also need to be updated. ↑ PC-10
cont.
- Riska said that the traffic volume seemed low and should be measured during school hours. He noted that at Intersection 5, which shows a right turn lane, there is a Historical Landmark which would require significant changes. I PC-11
- Impact E-4 is deficient, and should include reduction of speed limits due to sight distance restrictions on all of the roads. Traffic will be significantly impacted, and increased enforcement will be called for. I PC-12
- Impact E-5. There is inadequate access to the site, and Riska wanted to know how the County would insure that the drivers would actually turn to the west. He suggested requiring barriers and other design features that would restrict trucks from being able to take the wrong route. I PC-13
- The school bus stop times on all the haul routes were not addressed in the DEIR. I PC-14
- The DEIR showed that there would be 322 trips of 32.8 trucks per hour, or one every 1.6 minutes. Even at 40% of the total for the trucks going past the Dunham School, this will be a significant distraction to the students, and at peak hours, a truck will be going by the school every minute. The DEIR did not ask the teachers at the school their opinion. The air quality could have a significant impact on kids on the playground. I PC-15
I PC-16
- Noise mitigation #64 should include more residences than just the two nearest to the quarry and mitigation should be provided for Dunham School. I PC-17
- The applicant anticipated using 3 million gallons of water which will result in a significant drawdown. Recharge should be substantiated, particularly since this is in Zone 4. Monitoring should be required. I PC-18
- The dump site is unlined and contains hazardous materials. The dump located on Meacham Road is also unlined and is leaking. This should have been addressed in the DEIR. I PC-19
- The impacts of the Loma Prieta earthquake on the site should have been included. I PC-20
- The applicant should be required to submit Cal OSHA records, safety records, illness and injury reports, accident reports, DMV records, driver education and patterns, insurance requirements, and the consultant for the DEIR should be informed about their professional liability in case they have to take financial responsibility for events. I PC-21
- Sue Buxton, neighbor**, represents the Citizens Against the Roblar Road Quarry. She asked for an extension of the comment period for the DEIR, as some of the reports had not been made available. The consultants need to be able to review them. I PC-22
- Buxton concurred with the first two speakers. Impacts to Dunham School should be addressed. The area is in the Petaluma Wind Gap, which will significantly increase dust and require large amounts of water to control. The serpentine rock, which was not mentioned in the EIR, contains asbestos. Silica can cause lung cancer, and she is concerned for those down wind from the quarry. The Board of Supervisors would have to use Eminent Domain to condemn private land, which is unprecedented in this county. Sediment and toxins will be released into Americano Creek. Volatile toxins have been found in the well at the quarry, which may be from the landfill. Buxton asked how contaminated groundwater will be contained. I PC-23
I PC-24
I PC-25
I PC-26
- The project will require significant water use, which could affect water flows and wells that the residents get their drinking water from. I PC-27
- The DEIR did not analyze the contents of the landfill and the landfill has never been tested. Buxton was concerned about the impact of nearby blasting. The community already has the Stony Point Quarry, the Llano Road Water Treatment Plant, and the Meacham Road dump, located within three miles. Buxton said that the health and safety of the local residents should not be put in jeopardy to build more roads. I PC-28
I PC-29
I PC-30
- Tom Honrath** said that the Environmental Protection Agency should be consulted regarding blasting next to the landfill and their findings be included in the EIR before the quarry is allowed. I PC-31
- Virgil Miller, long time resident of Blank Road**, said that many chemicals, including solvent, sulfur, leftover diesel, and thousands of chicken hormone tablets were disposed of in the dump. He was concerned about health risks to himself and his neighbors from the quarry activity. I PC-32

Comment Letter PC

Sonoma County Planning Commission Agenda
Date: June 19, 2008

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- Donna Norton, Petaluma**, was also concerned about the toxins being released into the atmosphere. More thorough studies are called for, and the wind in the area was not considered. The area also gets a lot of fog, which causes problems with traffic. The noise analysis was not accurate with regard to residences east of the quarry. Norton asked the Planning Commission to visit the site to see what the area looks like east of the project, and to consider the impact that widening the road will have on the residents. I PC-33
I PC-34
I PC-35
- Bruce Norwitt, long time resident of Roblar Road**, lives 120 feet from the site. Norwitt stated that there were more than two residences that need to be mitigated in the analysis. He has seen Tiger Salamanders on Roblar Road. The EIR did not address the fact that they have 340 days a year with wind gusts of 25 mph or more. Norwitt said he thought that the particulate from the quarry would reach as far as Cotati and Rohnert Park. I PC-36
I PC-37
I PC-38
- This is the third time in 49 years that the neighbors have had to fight against activity at this site, and Norwitt was disappointed that the County was not protecting its citizens. I PC-39
- Norwitt has a well that only produces 3 gpm, and needs to buy water four to six months of the year. He was concerned at the possible impact that dynamiting might have on his well and wondered how this would be mitigated and who would pay for it. I PC-40
I PC-41
- Christine Colbert, Bicycle Coalition**, said the DEIR did not address the Class II and Class III bike routes. The County is updating its master bike plan, which calls for bike lanes with 5 foot minimum shoulders. The DEIR should be updated consistent with the draft Bikeways Plan. The entire route should be swept up and maintained every week. Signs warning bike traffic should be required, and right turn pockets should include bike lanes. I PC-42
I PC-43
I PC-44
I PC-45
- Corey Merrick, long time resident of Roblar Road**, said the DEIR does not address the 60/40% truck traffic issue. Merrick said this was uncontrollable, and could change. The cumulative impacts were not addressed. The residents already have to deal with trucks coming to the Stony Point Rock Quarry from Bodega, and no one has controlled the route. The EIR contains no controls for private contractors. Mitigation measures for enforcement and control and are called for. I PC-46
I PC-47
I PC-48
I PC-49
- Thick fog around the Dunham School in the fall and winter months was not addressed. Safety at the bus stop should be addressed. His daughter was run off the road by a rock truck. The trucks are disruptive, and this has not been addressed adequately in the DEIR. Noise at the school should be better addressed. I PC-50
I PC-51
I PC-52
- The County is responsible for possible toxins that could be released. The County should have protected the site, and the DEIR should address the effect that blasting will have on the unsealed dump site. I PC-53
- Susan Baritell, Canfield Road resident**, raises dairy goats. The DEIR did not consider the velocity of wind and amount of water needed to control the dust, and the serpentine rock contains asbestos. Baritell asked who would be responsible if wells were contaminated. The area already has water shortages, and runoff will go into the Americano Creek, which is protected. A potential environmental hazard could occur if the landfill leaks. Baritell asked for denial of the project. I PC-54
I PC-55
I PC-56
I PC-57
- Chair Murphy** said that purpose of the EIR is to identify concerns, and that they are a long way from issuing a permit. I PC-58
- Terry Edington, Roblar Road**, was concerned about noise, diesel exhaust, increased traffic and carcinogens. Sight distance is also an issue around the exit area, and safety near the school needs to be addressed. She opposed the project, and said it will have a negative impact on tourism in the County. I PC-59
I PC-60
I PC-61
- Gary Reed, Canfield Road**. The Air Quality section of the DEIR analyzed what would happen when the wind exceeds 25 mph during the construction and requires that construction and mining cease when the winds exceed 25 mph (basically every day). The EIR should address the impact that the wind will have on gravel harvest and dust. I PC-62
I PC-63
I PC-64
- Deep monitoring wells are needed that go to the bottom of the landfill. Testing that occurred did not analyze chemicals. I PC-65
- A upper limit to the number of truck trips per day is called for. I PC-66
- Noise from daily operations such as grinding machines and jackhammers needs to be included in the noise study. I PC-67
- The EPA decided to close the dump, and mitigations were set. The quarry project was not foreseen. The EPA should be notified to comment on the project. I PC-68

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- The Stony Point Rock Quarry, the Roblar dump, the Meacham Road landfill, and the Dunham School should be analyzed for cumulative impacts in relation to the project. Maybe we should consider putting in a nuclear reactor. I PC-69
- Margaret Hanley, Orchard Station Road**, was concerned about every aspect of the project, and since many issues cannot be mitigated, the community will suffer. Echoing former comments, she added that blasting needs to be constantly monitored, and there would be no way to reverse damage. Unwanted fissures could result that pollute existing wells and the aquifer. Explosive residues were not addressed. Toxins could be released into the water from the dump site. Hanley asked for denial of the project. I PC-70
I PC-71
I PC-72
- Tom Warren, Canfield Road**, was concerned about the impact and flow of the aquifer, and echoed concerns about well pollution. Kendall Jackson winery recently planted vines and they are drawing water. Neighbors are concerned about their wells. Decrease in land values should be addressed. I PC-73
I PC-74
I PC-75
- The bike issue also need to be addressed. The area is known as a world-class biking area, and there are no shoulders. I PC-76
- While acknowledging that rock is needed for roads, Warren said that there is no guarantee that the rock will end up in Sonoma County. He questioned the wisdom of needing the quarry when it would not benefit Sonoma County. I PC-77
- Ann Krinard, Roblar Road** lives near the proposed site and is a member of the Citizens Against the Roblar Road Quarry. She said that volatile compounds have been found in the water, and she received a letter from the County telling her that her well should be monitored, as other wells have shown high levels of chromium, aluminum and copper and manganese. While her well tested OK, it made her nervous. I PC-78
I PC-79
- Ken Delpick, Canfield Road**, said people are justifiably concerned about the toxic waste at the dump site, and the quarry is a bad idea. Continual vibrations will cause a release of toxic carcinogens into the air. I PC-80
- Fern Etienne, Canfield Road**, said that light during the nighttime operations had not been addressed. I PC-81
- Beth Wakelee**, teacher at Dunham School for 15 years, was concerned that the PE program could suffer and that the truck traffic would be a distraction to the kids. A soundwall would not be aesthetically possible and would restrict light. The teachers are very concerned. I PC-82
- Nathan Lange, King Road, Petaluma**, said that enforcement of the truck traffic would be a problem. Trucks should be covered to limit dust. He opposed the project. He got off track, and **Commissioner Bennett** said that the purpose of the hearing today was to take testimony on the DEIR so the consultant could respond to all the comments. **Commissioner Furch** added that the Planning Commission will be commenting on the DEIR also and are also concerned. However, the County doesn't choose who applies for what. I PC-83
- Dan McCannan, Roblar Road**, said that noise carries on the road and echoes down the valley. If the quarry operated from 6:00 in the morning to 10:00 at night six days a week, there would be a huge noise impact. He disagreed that the impact would be less than significant. I PC-84
- Donna Spilman, Canfield Road**, said emotions run high on the issue when it can affect your own property and investment. She concurred with the neighbors and was very concerned about water draw down. She also received a notice to get her water tested. I PC-85
I PC-86
- The DEIR did not address the impacts of noise or mitigation on residents to the east of the project. Maintenance of equipment and back up alarms at the landfill are disruptive to her. The impacts of truck traffic every 1.6 minutes and blasting would be very significant. I PC-87
I PC-88
I PC-89
- The impact of road construction on the residents of Roblar Road was not analyzed, and there are no enforcement measures in place for regulation of the truck traffic. Donna felt that there was no way to guarantee that trucks would be built after 2003, and felt powerless. I PC-90
I PC-91
- Bruce McKeffron, Peterson Road** long time resident, said the truck traffic was incompatible with the pristine nature of the area. He suggested that the applicant look at other areas of the County that are less pristine, and said that the County should protect the rural character of the roads. Improving the roads will result in more development in the area. I PC-92

Public Hearing Closed: closed at 3:25 PM

Commission Discussion: Commissioner Bennett said that the testimony had been excellent, and that he wanted the consultant to address the toxicity/water issues with scientific information. There is justifiable concern about the dump and the potential for impact on the groundwater. He also wanted the impacts on the school to be addressed more thoroughly, noting that Alternative 2 would have the least impact on the school. Commissioner Bennett also wanted the bike issue to be addressed for compatibility with other County plans, the issue of winter lighting to be analyzed.

PC-93
PC-94
PC-95

Commissioner Williams agreed that the public testimony was excellent, and asked that the number of residences in proximity to the project be analyzed in an exhibit that shows the 1/4, 1/3 and one mile radius. Commissioner Williams also noted concern about wind and dust, and asked that the characteristics of the material in the quarry be analyzed for potential toxicity from serpentine rocks/silica. He wanted to know exactly what is there and what the applicant intends to extract, and what could happen as a result of changes in strata from blasting and extraction. Commissioner Williams said more information is needed about the aquifer, such as how far it extends under the landfill.

PC-96
PC-97
PC-98
PC-99

Commissioner Furch said the community was well prepared, and the Department of Conservation has not received a reclamation plan. The applicant needs to produce this in a timely manner, and to be clear about the financial assurance costs. Commissioner Furch asked for a graphic that shows projected County demand vs. supply per year for the first five years of the project, to include the type of gravel vs. other projects in the county, and include importation/exportation to help her to understand the need for the quarry.

PC-100

Commissioner Furch asked for further analysis of the two fault lines that traverse the site, as the EIR said it would be "likely" that an earthquake would occur. This could have an impact on groundwater flow, given the potential for toxic leakage and the future use of the site. If the site is reclaimed to agricultural use, water would be needed. She was concerned that the land could not be restored in perpetuity for agriculture.

PC-101
PC-102

The DEIR allows for administrative approval for hours outside the normal hauling and operating hours, and asked whether neighbors will be notified about changes, and what the criteria for changing hours would be.

PC-103

Commissioner Furch was also concerned about the groundwater, and asked if the test that showed 60 gpm was sustainable or just one focused test. She asked whether this would create local draw down, the impact on surrounding wells, and whether there was adequate water for dust control. She was also concerned about the wind impacts on dust control.

PC-104

The EIR talked about flows going toward the dumpside, and Commissioner Furch was concerned that the flows could shift when water was drawn down, and a cone of depression could change subsurface strata, aquifers, and soil types. She asked for more information.

PC-105

Commissioner Furch said that the California Regional Water Quality Control Board controls for groundwater protection with relevance to subsurface water and seasonal water tables need to be analyzed to see how the water flow affects streams. The site is 7 miles upstream from a protected steelhead area, and could negatively impact it. She asked how this would be managed in perpetuity.

PC-106
PC-107

While the wells will be monitored for toxicity, water also exists in the subsurface strata, and the impacts to streams could be formidable. The Tiger Salamander uplands are also in the area and this was not included in the DEIR.

PC-108

The Williamson Act exchange for acreage in southern Sonoma County near Port Sonoma caused Commissioner Furch concern, as the area is not currently zoned or under pressure for development and the exchange presumes that the County will allow a zone change on the parcel to allow development. Commissioner Furch asked for justification of the reason for the exchange.

PC-109

Commissioner Furch noted that the EIR said that wells would be tested, but this would not address subsurface flow. The DEIR must include Tiger Salamander restoration areas in the study. The DEIR did not look at a long term strategy for decreased flows. A plan is called for to replicate pre-project flows for the long term. Commissioner Furch was very concerned about the long term impact on steelhead. Commissioner Furch asked that the long term filtration to creeks be analyzed for the impact of gravel and soil removal from construction and quarry activity.

PC-110
PC-111
PC-112
PC-113

Commissioner Furch asked that noise be analyzed from outside residences and asked for considerations to be made to reduce greenhouse gas emissions. Commissioner Furch asked that the Valley Ford Rd/Bodega Avenue

PC-114
PC-115

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↑ PC-115
| cont.
| PC-116

intersection be evaluated. She also asked for more information regarding noise from blasting and impacts associated with it and with overland haul routes.

Commissioner Murphy asked staff to clarify page 13 of the staff report that talks about a greater than 85% reduction diesel particulates, as it is unclear what "being reduced to less than 15%" means. **Commissioner Murphy** acknowledged the concern of the community about water quality and quantity and asked that this be addressed in the DEIR. He asked about the well test notice the neighbors had received, and was concerned about administrative adjustments for the permit for night operations and suggested incorporating a checklist of concerns into the permit.

| PC-117
| PC-118
| PC-119

The end of comment period was extended until Tuesday, July 22 at 5:00 p.m. The consultant will have the requested reports- a former EIR and a groundwater study - available by next Monday at 12:00 noon.

Deputy Director Barrett added in closing that comments are taken and staff will work with the consultant to make sure that they are all addressed. If studies are called for, they are done. The consultant will prepare the final EIR with responses to comments and the project then comes back to the Planning Commission in another hearing to discuss the merits of the project in light of the information in the EIR. There is more opportunity for discussion, and then the Planning Commission makes a recommendation, after which the project goes before the Board of Supervisors. The Board also holds a hearing on the project. It usually takes about six to nine months to prepare the responses to technical issues brought up, and each and every comment is evaluated. The County will send out a notice when the Final EIR is available with another hearing date.

Action: Continued off calendar. Staff directed to prepare the final EIR.

Appeal Deadline:

Resolution No:

Williams: **Bennett:** **Wright: recused** **Furch:** **Murphy:**
Ayes: **Noes:** **Absent:** **Abstain:**

There being no further business to come before the Planning Commission/Board of Zoning Adjustments at this time, all items having been handled and all persons having been given an opportunity to be heard on any matter before the Planning Commission/Board of Zoning Adjustments in public hearing or otherwise, the meeting was adjourned.

Minutes adopted July 17, 2008

Responses to Public Hearing Comments

The responses to the comments of each individual commenter are contained below. For ease of reference, each response corresponds to the numeric designators identified in the Planning Commission Minutes.

- Robert Piazza
- Ed Ryska
- Sue Buxton
- Thomas Honrath
- Virgil Miller
- Donna Norton
- Bruce Norwitt
- Christine Colbert, Bicycle Coalition
- Corey Merrick
- Susan Baritell
- Terry Edington
- Gary Reed
- Margaret Hanley
- Tom Warren
- Ann Krinard
- Ken Delpick
- Fern Etienne
- Beth Wakelee
- Nathan Lange
- Dan McCannen
- Donna Spilman
- Bruce McKeffron
- Commissioner Bennett
- Commissioner Williams
- Commissioner Furch
- Commissioner Murphy

Commenter: Robert Piazza

- PC-1 The commenter states he is a long-term resident, his occupation, and that he is heavily involved in the community. The commenter further expresses concerns about the location of the quarry in proximity to the Roblar landfill. These comments do not specifically address the adequacy of the Draft EIR; consequently, no response is required. However, the Draft EIR addresses all potential impacts of the proposed quarry on the landfill, and of the landfill to the proposed quarry.
- PC-2 The commenter suggests that Chapter IV of the Draft EIR left out many properties which should be included, but does not specify which properties have been omitted. However, Chapter IV is the Environmental Setting, Impacts and Mitigation Measures section of the Draft EIR acknowledges the presence of all sensitive receptors on properties that would

be potentially affected by the proposed quarry, including those surrounding the project site, and those along haul routes. This section also addresses all potential environmental effects to these properties, including, but not limited to, air quality and dust, noise and blasting effects, and potential effects on domestic wells, and land use compatibility. See also response to Comment V-4.

- PC-3 The commenter indicates Impact A.1 should address compatibility with the adjacent landfill. As discussed in Impact A.1 in the Draft EIR, with respect to compatibility with the adjacent landfill, given the lack of sensitive receptors on the landfill property, and the historical industrial use and altered landform of the landfill property, the proposed project would be generally compatible with the landfill. The Draft EIR addresses all specific environmental effects of operating the quarry adjacent to the landfill, including geologic effects in Section IV.B, groundwater flows and groundwater quality in Section IV.C, and blasting in Section IV.G.

The commenter indicates Impact A.1 should address the agricultural nature of the area and property values. The commenter is referred to responses to Comments V-4 and V-5.

The commenter also indicates the Draft EIR does not address the toxins and vapors that could be disturbed by blasting and gravel removal from the landfill property. The commenter is referred to responses to Comments V-6 for a response to these issues.

- PC-4 The commenter opposes the proposed Williamson Act exchange for the project. The commenter is referred to response to Comment U-9.
- PC-5 The commenter indicates Impact A.4 in the Draft EIR did not state how the quarry would be reclaimed, and that a bond is needed in case the applicant becomes insolvent. The commenter is referred to response to Comment J-7 for a response to this issue.
- PC-6 The commenter asserts that the two on-site wells could impact neighboring wells and lower the water level; that the Draft EIR does not address possible drawdown, and underestimates estimates for summer months. The commenter is referred to response to Comment V-8.

The commenter also indicates the applicant should post a substantial bond to ensure a lifelong water supply for the neighbors in the project deprives them of water. Based on extensive testing and hydrologic and geologic investigation, the EIR concludes that potential impacts to water supply and water quality would be less than significant. The commenter is referred to Master Response GEN-1 in Chapter II in this Response to Comments Document.

- PC-7 The commenter indicates the discussion of grading activity in Impact D.2 would harm trees. The commenter is referred to response to Comment V-9 for a response to this issue.

Commenter: Ed Ryska

PC-8 The commenter summarizes his educational background and business credentials. No response is required.

PC-9 The commenter indicates Mitigation Measures E.1 through E.9, plus any additional measures identified in the Final EIR, must be complied with prior to the project start. The commenter is referred to response to Comment Y-1.

PC-10 The commenter asserts that the traffic study in the EIR is three years old and does not include the traffic associated with the Lowe's development, and needs to be updated. The commenter is referred to response to Comment Y-2.

The commenter further states that accident rates are four years old and need to be updated. The commenter is referred to response to Comment Y-3.

PC-11 The commenter indicates the traffic volumes appear low and should be measured during school hours. The commenter is referred to response to Comment Y-4.

The commenter also indicates that at Intersection No. 5 (Stony Point Road and Roblar Road), the identified mitigation measure may affect the historic landmark at this location. The commenter is referred to response to Comment V-12.

PC-12 The commenter indicates Impact E.4 is deficient and should include reduction of speed limits due to sight distance restrictions on all of the roads. The commenter is referred to responses to Comments V-11 and Y-5.

The commenter also indicates increased traffic enforcement is needed. The commenter is referred to response to Comment Y-6.

PC-13 The commenter references Impact E.5, and indicates there is inadequate access to the site. The commenter inquires how the County would insure that the drivers would actually turn to the west (on Roblar Road). The commenter suggests requiring barriers and other design features that would restrict trucks from being able to take the wrong route. The commenter is referred to response to Comment Y-7.

PC-14 The commenter indicates the school bus stop times on all haul routes were not addressed in the Draft EIR. The commenter is referred to Master Response T-1 in Chapter II in this Response to Comments Document for information related to school bus stops and school bus schedules, and traffic and pedestrian safety.

PC-15 The commenter indicates truck trip generation and frequency estimates, and indicates that this would be a significant distraction to students. The commenter is referred to response to Comment Y-12 regarding clarification on truck trip generation and frequencies; and response to Comment O-1 regarding project noise effects at Dunham Elementary School.

- The commenter also indicates the Draft EIR did not ask teachers at the school their opinion. The commenter is referred to Master Response T-1, and response to Comment and Y-14.
- PC-16 The commenter also indicates air quality could have a significant impact on the children in the Dunham Elementary School playground. The commenter is referred to response to Comment O-1.
- PC-17 The commenter indicates the noise mitigation should include more residences than just the two nearest the quarry. The commenter is referred to response to Comment Y-16 for a response to this issue.
- PC-18 The commenter indicates the proposed project annual water demand would result in a significant drawdown. The commenter further states recharge should be substantiated, particularly since the project site is located within Zone 3, and monitoring should be required. Please see response to Comment Y-17.
- PC-19 The commenter indicates that the Roblar landfill is unlined and contains hazardous waste. Please see response to Comment Y-18.
- PC-20 The commenter indicates the impacts of the Loma Prieta earthquake should have been included. Please see response to Comment Y-19.
- PC-21 The applicant indicates the applicant should be required to submit CalOSHA records, safety records, illness reports, accident reports, DMV records, driver education patterns, insurance requirements, and the consultant for the Draft EIR should be informed about their professional liability. Please see response to Comment Y-21.

Commenter: Sue Buxton

- PC-22 The commenter indicates her representation on behalf of the Citizens Against Roblar Road Quarry. The commenter requested an extension of the comment period for the Draft EIR, citing some reports were not made available. At the June 19, 2008 public hearing on the Draft EIR, the County Planning Commission extended the public comment period to July 22, 2008. Documents relied upon for analysis in the Draft EIR have been made available to the public.

The commenter indicates impacts to Dunham Elementary School should be addressed. The commenter is referred to responses to Comments O-1 and O-2 regarding potential noise impacts and health risk impacts from diesel particulate matter from project haul trucks at Dunham Elementary Schools.

The commenter indicates the project site is located within the Petaluma Wind Gap, which would significantly increase dust and require large amounts of water to control. The commenter is also referred to Master Response AQ-1 in Chapter II in this Response to Comments Document for additional data on wind conditions in the area, including a five-

year summary of available data from the BAAQMD Valley Ford meteorological station; and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.

The commenter is also referred to Master Response HYD-1 in Chapter II in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. The WMP expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater seepage, precipitation/runoff, and groundwater from wells) and reduces hydrology and water quality impacts. The WMP characterizes and quantifies the various water demands for the project, and includes highly conservative estimates of water demand required for dust control.

The commenter indicates the project site contain serpentine rock which contains asbestos. The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.

- PC-23 The commenter indicates the silica can cause lung cancer, and expresses concern for those located downwind of the quarry. The commenter is referred to response to Comment O-12.
- PC-24 The commenter indicates the private land would be required to implement identified roadway improvements. The commenter is referred to response to Comment O-14.
- PC-25 The commenter indicates sediment and toxins will be released into Americano Creek. Please see responses to Comment O-15 to O-17.
- PC-26 The commenter indicates volatile toxins have been found at the quarry, which may be from the landfill. The commenter inquires how contaminated groundwater would be contained. Please see responses to Comment O-15 to O-17.
- PC-27 The commenter indicates the project will require a significant water use, which could affect water flows and wells that nearby residents get their water from. Please see response to Comment O-19.
- PC-28 The commenter indicates the Draft EIR did not analyze the contents of the landfill and the landfill has never been tested. Please see response to Comment O-19.
- PC-29 The commenter inquires about the impact of blasting. The commenter is referred to response to Comment O-16.
- PC-30 The commenter indicates the community has the Stony Point Quarry, Llano Road Water Treatment Plant, and the Mecham Road landfill located within three miles of the project site, and that the health and safety the local residents should not be put in jeopardy to build more roads. The commenter is referred to response to Comment O-28.

Commenter: Tom Honrath

PC-31 The commenter indicates the EPA should be consulted regarding blasting next to the landfill and their findings should be included in the EIR before the quarry is allowed. The Draft EIR was circulated to a number of applicable governmental agencies, including, but not limited to, the California Department of Toxic Substances Control (a department of the CalEPA), Regional Water Quality Control Board (RWQCB), Sonoma County Department of Health Services (SCDHS), and the California Department of Conservation - Office of Mine Reclamation, the latter three of which submitted comment letters on the Draft EIR.

The commenter is also referred to response to Comment L-10, which discusses applicable State regulations governing storage, transportation, handling of explosives, and licensing requirements for blasters. Please see also response to Comment O-16.

All potential impacts of the proposed project from project operations, including from rock extraction and blasting, are adequately addressed in the Draft EIR. The commenter is referred to Impacts B.1 through B.5 in the Geology, Soils and Seismicity section, Impacts C.1 through C.6 in the Hydrology and Water Quality section, and Impact G.3 in the Noise and Vibration section of the Draft EIR.

Commenter: Virgil Miller

PC-32 The commenter indicated many chemicals, including solvent, sulfur, leftover diesel, and chicken hormone tablets were disposed of in the Roblar landfill. The commenter expressed concern of health risks from quarrying activities.

The Draft EIR presents all available sources of information characterizing existing groundwater quality conditions at the project site and adjacent landfill property. Specifically, the Draft EIR reports the findings of the analytical testing for contaminants on the quarry site and landfill property monitoring wells (see pages IV.C-17 to IV.C-20) conducted as part of the applicant's baseline groundwater monitoring program for the quarry, additional monitoring conducted by the County as part of their on-going groundwater monitoring and leachate monitoring programs for the landfill property, and the results of a Solid Waste Water Quality Assessment Test (SWAT).

Collectively, these independent sources of analytical data represent the best available information characterizing existing groundwater quality beneath the landfill and quarry properties. The commenter is also referred to Master Response HYD-2 in Chapter II in this Response to Comments Documents for further detail on existing groundwater quality conditions on the project site and adjacent landfill property including additional groundwater data that has been made available. This information, along with other data presented in the Draft EIR, are of sufficient detail in which potential impacts of the proposed project to surface and groundwater quality could be conservatively analyzed and mitigated.

With respect to the potential for diethylstilbestrol (DES) to be present in the landfill or quarry sites, please refer to response to Comment L-20.

Commenter: Donna Norton

PC-33 The commenter expresses concern about toxins being released into the atmosphere. The commenter added that more thorough studies are called for, and the wind in the area was not considered. Potential air quality impacts from quarrying operations are addressed in Chapter IV.F of the Draft EIR. The commenter does not indicate any deficiencies in the analysis or what additional studies should be conducted; therefore, no further response is possible. See Master Response AQ-1 in Chapter II in this Response to Comments Document for additional information regarding wind data and dust abatement.

PC-34 The commenter indicates the area gets a lot of fog, which causes problems with traffic. The Draft EIR acknowledges in Impact E.4 that the addition of project truck traffic to Roblar Road would be considered a significant impact, and the potential impact could be increased during periods of poor visibility, such as fog, among other factors. The commenter is referred to Mitigation Measure E.4 in the Draft EIR, which would improve Roblar Road to meet current County road design standards, as well as include posting of warning signs at key locations.

The commenter also indicates the noise analysis was not accurate with regard to residences east of the quarry. Please see response to Comment Q-1.

PC-35 The commenter requested that the Planning Commission visit the project area to see what the area looks like east of the project, and consider the impact that widening the road will have on the residents. This comment does not address the adequacy of the Draft EIR. However, Impact E.8 contains an assessment of the likely range of environmental impacts that would be anticipated with the roadway improvements along Roblar Road and Pepper Road, and identifies mitigation measures to reduce environmental impacts. Furthermore, it is not unusual for Commissioners to visit a project site in preparation for their review of a project that will come before them for consideration.

Commenter: Bruce Norwitt

PC-36 The commenter indicates there were more than two residences that need to be mitigated in the analysis. The commenter is referred to response to Comment S-2.

PC-37 The commenter indicates he has seen California tiger salamanders on Roblar Road. The commenter is referred to response to Comment R-4.

PC-38 The commenter indicates the EIR did not address the windy conditions of the project site, and how particulates from the quarry may reach as far as Cotati and Rohnert Park. The commenter is referred to response to Comment R-1.

PC-39 The commenter indicates this is the third quarry proposal that the commenter and his neighbors have had to fight. These comments do not address the adequacy of the EIR; however, the opinions of the commenter will be made available to County decisionmakers for their consideration. Please see also Master Response GEN-1 in

Chapter II in this Response to Comments Document regarding issues related to the approval process for this project.

PC-40 The commenter indicates his well produces only three gallons per minute, and he needs to buy water four to six months of the year. These comments do not specifically address the adequacy of the EIR; however, the commenter is referred to Master Response HYD-3 in Chapter II in this Response to Comments Document regarding water supply for the project and potential effects on neighboring wells.

PC-41 The commenter expresses concern with blasting at the quarry site to his wells. The commenter is referred to response to Comment V-15 for a response to this issue.

Commenter: Christine Colbert, Sonoma County Bicycle Coalition

PC-42 to PC-43 The commenter asserts that Draft EIR does not address Class II and Class III bike routes, and that the County is updating its master bike plan, which calls for bike lanes and 5-foot minimum shoulders. The commenter is referred to pages IV.E-13 and IV.E-1 in the Draft EIR (Pedestrian and Bicycle Traffic), which discusses existing and planned bicycle facilities on study area roadways, and a description of applicable bicycle planning entities and bicycle planning documents in Sonoma County (including the Sonoma County Bikeways Plan and Countywide Bicycle Plan). It should also be noted that in support of the Draft EIR, 24-hour weekday and weekend bicycle volume data was collected on Roblar Road, the results of which are presented in the Draft EIR. In addition, Impact E.3 in the Draft EIR discusses potential impacts to bicycle and pedestrian safety, and identifies mitigation, as feasible, for improving Roblar and Pepper Roads to provide, among other improvements, road widening with shoulders, appropriate signage and striping to meet Class II bike facilities.

PC-44 The commenter indicates the entire route should be swept up and maintained every week. The commenter is referred Mitigation Measure E.3b in the Draft EIR which requires the applicant to ensure that all loaded trucks are covered or maintain a free board to prevent spillage of materials onto haul routes; and Mitigation Measure E.3c, which requires the intersection of the proposed access road and Roblar Road to 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. (Note the specific freeboard identified in Mitigation Measure E.3c has been increased from six inches to two feet to be consistent with that established in Mitigation Measure F.4 in the Air Quality section of the EIR; please see Errata in Chapter V in this Response to Comments Document.)

PC-45 The commenter indicates signs warning bike traffic should be required, and right-turn pockets should include bike lanes. With respect to warning signs, the commenter is referred to Mitigation Measure E.4c in the Draft EIR, which requires the posting of warning signs on Roblar Road 250 feet ahead of the access driveway that cautions drivers

(and bicyclists) about truck traffic entering and exiting the roadway. With respect to bike lanes in right-turn pockets, as discussed in response to Comment PC-42 to -43 above, Roblar and Pepper Roads would be improved, as feasible, to meet applicable Class II bicycle route standards.

Commenter: Corey Merrick

PC-46 The commenter asserts the Draft EIR did not address the 60%/40% truck traffic issues, indicating it would be uncontrollable, and could change. As described in the Draft EIR Project Description, all hauling conducted directly by the applicant, and all contract sales, would be conditioned such that trucks hauling materials under those contracts would be required to follow the prescribed haul routes. The use of the specified haul routes would be enforced by the applicant, subject to penalties and/or contract termination.

It should also be noted that County has the authority to revoke a quarry's surface mining use permit if the County determines that the quarry operator is not implementing all required project conditions of approval pursuant to the standards outlined in those conditions. Furthermore, the County would conduct annual monitoring and compliance review of quarry mining operations, consistent with the requirements of the Sonoma County Aggregate Resources Management Plan.

PC-47 The commenter indicates that cumulative impacts were not addressed, and that the residents already have to deal with trucks associated with the Stony Point Quarry. The Draft EIR considers the project along with other past, present and reasonably foreseeable future projects in the vicinity in assessing cumulative effects; these cumulative impacts are addressed throughout Chapter IV, and summarized in Chapter VI, Impact Overview, in the Draft EIR.

PC-48 The commenter indicates the EIR contains no controls over the private contractors. It should be noted that the project as proposed assumes up to 40 percent of truck traffic generated by the quarry would be private contractors not subject to control by the applicant; accordingly, this is the scenario (60 percent controlled, 40 percent uncontrolled) that is analyzed in the Draft EIR. However, the commenter is referred to the Draft EIR evaluation of alternatives to the proposed project (Section V in the Draft EIR), including an Alternative Haul Route / Contracted Sales Only Alternative, which was identified as the environmentally superior alternative. Under this alternative, 100 percent of materials produced at the quarry would be either directly used by the applicant or sold under contract. As such, all quarry haul trucks generated at the quarry would be those associated with the applicant's own truck fleet, or private haulers under contract with the applicant, where the specified haul route would be imposed in the contract.

PC-49 The commenter indicates mitigation measures for enforcement and control are called for. The commenter is referred to response to Comment PC-46, above.

PC-50 The commenter indicates thick fog around Dunham School in the fall and winter months was not addressed. The commenter is referred to responses to Comments JJ-22 and JJ-23.

- PC-51 The commenter indicates his daughter was run off the road by a rock truck. While no specific details were provided by the commenter on this unfortunate incident, the commenter is referred to Section IV.E in the Draft EIR for a full transportation impact analysis, including traffic safety. The Draft EIR Setting presents a summary of historical collision data for study area roadways (see also response to Comment for Y-3 for additional detail on this issue). The Draft EIR also assesses all potential bicycle, pedestrian and traffic safety issues (see Impacts E.3 through E.5) associated with the proposed project, and mitigates those impacts to the extent feasible.
- PC-52 The commenter indicates trucks are disruptive, and that truck noise effects at the school, have not been adequately addressed in the Draft EIR. The commenter raises no specific issue of how noise effects may have not been adequately addressed. However, the commenter is referred to response to Comment O-2 for additional detail on this issue.
- PC-53 The commenter indicates the County is responsible for possible toxins that could be released, and that the County “should have protected the site.” The Draft EIR identifies potential impacts that could occur with operation of the quarry. This Response to Comments Document provides additional clarification. See Master Responses HYD-1 and HYD-2 for additional information.

The commenter also indicates the Draft EIR should address the effect of blasting on the unsealed landfill. Please see response to Comment O-16.

Commenter: Susan Baritell

- PC-54 The commenter indicates the Draft EIR did not consider the velocity of wind and amount of water needed to control the dust. Please see response to Comment DD-1. With respect to water use, please see response to Comment DD-2.
- PC-55 The commenter indicates that the Draft EIR did not consider that serpentine rock contains asbestos. The commenter is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site.
- PC-56 The commenter inquires who would be responsible if wells were contaminated. Please see response to Comment DD-4, and Master Responses HYD-1 and HYD-2 and GEN-1.
- The commenter indicates runoff will go into the Americano Creek which is protected. Please see responses to Comment DD-4.
- The commenter indicates a potential environmental hazard could occur if the landfill leaks. Please see also response to Comment DD-4.
- PC-57 The commenter requests denial of the project. The opinions of the commenter will be made available to County decisionmakers for their consideration.

Commenter: Chair Murphy

PC-58 The Chair indicated that the purpose of the EIR is to identify concerns, and that the County is a long way from issuing a permit. No response is needed.

Commenter: Terry Edington

PC-59 The commenter expresses concern about noise, diesel exhaust, increased traffic, and carcinogens. All these potential environmental impacts are addressed in the Draft EIR. Please refer Section IV.G, Noise and Vibration for all potential noise impacts. Please refer to Section IV.F, Air Quality for an assessment of all air quality impacts, including carcinogenic risk from diesel particulate matter, and chronic effects from silica. The commenter is also referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site. Please refer to Section IV.E, Transportation for a full traffic impact analysis.

PC-60 The commenter expresses concern about sight distance in the vicinity of the access road. No sight deficiencies are identified at the proposed location of the new access road, however, Impact E.5 in the Draft EIR addresses issues associated with truck movement in and out of the Roblar Road/proposed access road intersection, and identifies as mitigation the addition of a left-turn lane for project trucks on the westbound approach, and road widening on the eastbound approach to accommodate project trucks. See also Impacts E.3 and E.4 in the Draft EIR which address traffic safety and bicycle/pedestrian safety on Roblar Road and identified roadway improvements to mitigate these potential impacts.

The commenter also expresses concern about safety near the school. The commenter is referred to Master Response T-1 in Chapter II in this Response to Comments Document for information related to specific safety concerns related to the school vicinity.

PC-61 The commenter expresses opposition to the project, and states it would have a negative impact on tourism in the County. The opinions of the commenter will be made available to County decisionmakers for their consideration.

Commenter: Gary Reed

PC-62 to PC-64 The commenter incorrectly assumes the air quality mitigation measure in the Draft EIR related to suspending operations if winds exceed 25 mph (Mitigation Measure F.4) only applies to construction. Please refer to response to Comment CC-5.

PC-65 The commenter indicates that deep monitoring wells are needed that go to the bottom of the landfill. The commenter is referred to response to Comment L-17.

PC-66 The commenter indicates an upper limit to the number of truck trips is called for. The commenter is referred to response to Comment CC-7.

- PC-67 The commenter indicates noise from daily operations at the quarry needs to be included in the noise study. The commenter is referred to response to Comment CC-8 for a response to this issue.
- PC-68 The commenter indicates the EPA decided to close the Roblar landfill, that mitigation measures were identified, and that the quarry project was not foreseen. The commenter further indicates the EPA should be notified to comment on the project. The commenter is referred to response to Comment CC-6.
- PC-69 The commenter indicates the Stony Point Quarry, the Roblar landfill, the Central landfill, and Dunham Elementary School should be analyzed for cumulative impacts in relation to the project. The commenter is referred to responses to Comments CC-1 and CC-2.

Commenter: Margaret Hanley

- PC-70 to PC-72 The commenter indicates that blasting needs to be constantly monitored, and there would be no way to reverse damage. The commenter indicates unwanted fissures could result that could pollute existing wells and the aquifer. The commenter is referred to Impact G.3 on pages IV.G-18 to IV.G-23 of the Draft EIR, and response to Comment O-16.

The commenter also indicates explosive residues were not addressed. As discussed in the Revey assessment, some small amounts of blasting agents, which in quarries is typically ammonium nitrate pellets mixed with fuel oil (ANFO), can be lost to the ground by spillage or wind during loading. The amount of nitrates released to the ground by these losses is typically not toxic to any flora or fauna in an agricultural environment like that near the Roblar Road site. Wind-blown ANFO dust that lands on the ground surface effectively becomes fertilizer for plants that convert it to other natural matter through photosynthesis. With the implementation of best management practices for minimizing spillage and dust generation, concentrations of nitrates or ammonia in soils would not be harmful or even noticeable. Please also refer to Appendix F, page 13 in the Draft EIR Technical Appendix, and Impact H.1 and associated mitigation measures in the Draft EIR.

Commenter: Tom Warren

- PC-73 to PC-74 The commenter expresses concern about the impact and flow of the aquifer, and well pollution. The commenter is referred to responses to Comments D-2.
- PC-75 The commenter expresses concern about decrease in land values. The commenter is referred to response to Comment Q-1.
- PC-76 The commenter indicates issues associated with bicyclists needs to be addressed, including the lack of road shoulders. The commenter is referred to response to Comments PC-42 to PC-43.

PC-77 The commenter indicated that aggregate is needed for roads, but there is no guarantee that the aggregate extracted from the proposed quarry would be used in Sonoma County. This comment does not address the adequacy of the Draft EIR. However, as discussed in the Draft EIR Project Description, the applicant estimates that over 90 percent of the product produced at the proposed quarry would be used in Sonoma County (including the Cities of Cotati, Petaluma, Rohnert Park, Sebastopol, and south Santa Rosa), and the balance used in the Novato area of Marin County. In addition, this issue is one of the many that will be considered by the Board of Supervisors when it weights the merits of the project against environmental effects.

Commenter: Ann Krinard

PC-78 to PC-79 The commenter expresses concern about the August 24, 2007 County Department of Health Services letter that was sent to a number of properties within the vicinity of the project site. Please see response to Comment Q-3 and Master Response HYD-2.

Commenter: Ken Delpit

PC-80 The commenter expressed concern about the landfill contents. The commenter also indicated continual vibrations from the quarry may affect the landfill contents. The commenter is referred to response to Comment U-21 and AA-2 through AA-4.

Commenter: Fern Etienne

PC-81 The commenter indicates that light during nighttime operations has not been addressed. It is important to note, as described in the Draft EIR Project Description, that the anticipated hours of operation of the proposed quarry on weekdays would be 7:00 a.m. to 5:00 p.m., with most plant operations, including loading/weighing of trucks, ceasing by 4:00 p.m., and general maintenance occurring until 5:00 p.m. The anticipated hours of operation of the proposed quarry on Saturdays would be 7:00 a.m. to 4:00 p.m. The applicant indicates the quarry could operate infrequently during permitted evening hours on weekdays, such as when a quarry client requires materials for a nighttime construction project. However, under such circumstance, mining or crushing would not occur in the evening hours; evening operations would be limited to the loading and weighing of material.

The commenter is referred to Impact I.2 in the Draft EIR, which evaluates the potential for the project to result in new sources of light and/or glare. As discussed in Impact I.2, given the infrequent use of proposed evening lighting, and the setback and screening of the project site from view by topography, and distance to nearest receptors, no significant glare or spillover lighting effects are anticipated. However, consistent with County standard conditions of approval, all night lighting associated with the project would be screened to prohibit direct light or glare onto adjacent properties.

Commenter: Beth Wakelee

PC-82 The commenter expresses concern that the Dunham Elementary School's physical education program may be affected by the project, and that truck traffic would be a distraction to the school children. The Draft EIR address all potential project impacts to sensitive receptors in the project vicinity, including the Dunham Elementary School, including potential impacts from diesel particulate matter and noise; the commenter is referred to responses to Comments O-1 and O-2 for additional detail on these issues. The commenter is also referred to Master Response T-1 in Chapter II in this Response to Comments Document for additional discussion of project effects at Dunham Elementary School.

Commenter: Nathan Lange

PC-83 The commenter indicates the enforcement of truck traffic would be a problem. Please see response to Comment O-27 for a response to this issue.

The commenter also indicated trucks should be covered to limit dust. The commenter is referred to Mitigation Measure F.4 in the Draft EIR which requires the applicant to implement a comprehensive dust control program to maintain minimal fugitive dust impacts from the project. One of the measures of the program requires all quarry-operated trucks hauling soil, sand, and other loose materials to be covered, or 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 meet CHP standards.

Commenter: Dan McCannan

PC-84 The commenter indicates noise carries on the road and echoes down the valley. This comment does not address the adequacy of the Draft EIR. However, please see Draft EIR Section IV.G for a discussion of project noise impacts response to Comment S-2. See also response to Comment PC-81 concerning hours of operation.

Commenter: Donna Spilman

PC-85 The commenter expressed concern about issues affecting her property, including water draw down. Please see response to Comment Q-2.

PC-86 The commenter inquires about the August 24, 2007 County Department of Health Services letter that was sent to a number of properties within the vicinity of the project site and expresses her concern regarding water quality. Please see response to Comment Q-3.

PC-87 The commenter indicates the Draft EIR did not address noise impacts or mitigation for residents to the east of the project site. Please refer to response to Comment Q-1 for a response to this issue.

PC-88 The commenter indicates that maintenance of equipment and backup alarms at the Roblar landfill are disruptive. This comments are related to the landfill and do not specifically

address the adequacy of the Draft EIR. However, it is anticipated that regular maintenance of equipment at the quarry would be needed, typical of any industrial operation. As discussed in the EIR Project Description, general maintenance at the quarry would not typically occur past 5:00 p.m. and therefore not occur in the most noise-sensitive times of the day.

With respect to backup alarms, mobile industrial equipment at the quarry would utilize backup alarms, as required by OSHA. The noise from backup alarms are short in duration and contain distinctive tonal characteristics. While they are intended to be noticeable for safety purposes, given their duration of use would be limited throughout the work day, they would contribute little to the overall noise levels measured relative to County General Plan noise standards.

PC-89 The commenter indicates the impacts of truck traffic every 1.6 minutes would be significant. Please refer to response to Comment Q-4a.

The commenter also indicates the impacts of blasting would be significant. All potential impacts of the proposed project from blasting are adequately addressed in the Draft EIR. The commenter is referred to Impact G.3 in the Noise and Vibration section of the Draft EIR. Please also refer to responses to Comments L-10 and O-16.

PC-90 The commenter asserts that the impact of road construction on the residents of Roblar Road was not analyzed. The commenter is referred to pages IV.E-41 through IV.E-49 of the Draft EIR and response to Comment Q-5.

PC-91 The commenter indicates that there are no enforcement measures in place for regulation of truck traffic. The commenter also indicates there is no way to guarantee that trucks would be built after 2003. The commenter is referred to response to Comment O-27.

Commenter: Bruce McKeffron

PC-92 The commenter indicates the truck traffic was incompatible with the pristine nature of the area. The Draft EIR addresses the compatibility of the project with surrounding uses in Impact A.1 in the Draft EIR and finds that the effect of introducing active mining operations at the project site to land use on compatibility with residential land uses in the project vicinity would be a significant impact. The Draft EIR also addresses all other impacts associated with the project trucks, including effects on traffic level of service, traffic safety, bicycle/pedestrian safety, air quality and noise.

The commenter suggests the applicant look at other areas of the County that are less pristine. This comment does not address the adequacy of the Draft EIR. However, the commenter is referred to Chapter V in the Draft EIR which discusses the potential for alternative locations for the proposed quarry in Chapter V. It should be noted that the proposed quarry site has been designated since 1994 in the Sonoma County Aggregate Resources Management Plan as a mineral resource area for rock.

The commenter indicates the County should protect the rural character of the roads, and that improving the roads would result in more development in the area. The commenter is referred to Chapter VI in the Draft EIR which addresses potential growth inducement effects associated with the proposed project, including the identified roadway improvements.

Commenter: Commissioner Bennett

PC-93 The Commissioner requests that toxicity/water issues be addressed with scientific information. The Commissioner is referred to Master Response HYD-1. The applicant has prepared a comprehensive Water Management Plan (WMP) that expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater seepage, precipitation/ runoff, and groundwater from wells) and reduces hydrology and water quality impacts.

The Commissioner is also referred to Master Response HYD-2 in Chapter II in this Response to Comments Documents for further detail on existing groundwater quality conditions on the project site and adjacent landfill property including additional groundwater data that has been made available. Specifically, this master response includes greater detail of the analytical results of applicant's baseline groundwater monitoring program, presents additional groundwater data that has been made available, and compares the detected contaminant levels to pertinent regulatory thresholds established for groundwater quality and the relevance of these comparisons.

See also Master Response HYD-3 for the results of a pump test that was conducted for Well DW-2 in support of the WMP. The pump test confirms that under the applicant's proposed groundwater pumping scenario, Well DW-2 can sustain the predicted pumping discharge rate in conjunction with the use of on-site water storage tanks, without adverse effects on other wells. The WMP also includes a groundwater level monitoring and adaptive management program to be implemented during project operation to ensure that Well DW-2 will continue to supply long-term supplementary water for the project when necessary, without adverse effects on other wells.

PC-94 The Commissioner requested impacts on the school to be addressed more thoroughly, but did not indicate any specific deficiencies. The Draft EIR addresses all potential environmental impacts from the project on, and in the vicinity of, Dunham Elementary School, including noise (Impacts G.2 and G.4), diesel particulate matter from trucks (Impact F.3), airborne silica from quarrying operations (Impact F.5), bicycle/pedestrian safety (Impact E.3), and traffic safety (Impact E.4). The Commissioner is also referred to Master Response T-1 in Chapter II in this Response to Comments Document for information related to school bus stops and school bus schedules, and traffic and pedestrian safety.

PC-95 The Commissioner indicates that the bike issue needs to be addressed as it relates to compatibility with other County plans. The Commissioner is referred to response to Comments PC-42 to PC-43.

The Commissioner also indicates the issue of winter lighting should be analyzed. The Commissioner is referred to response to Comment PC-81.

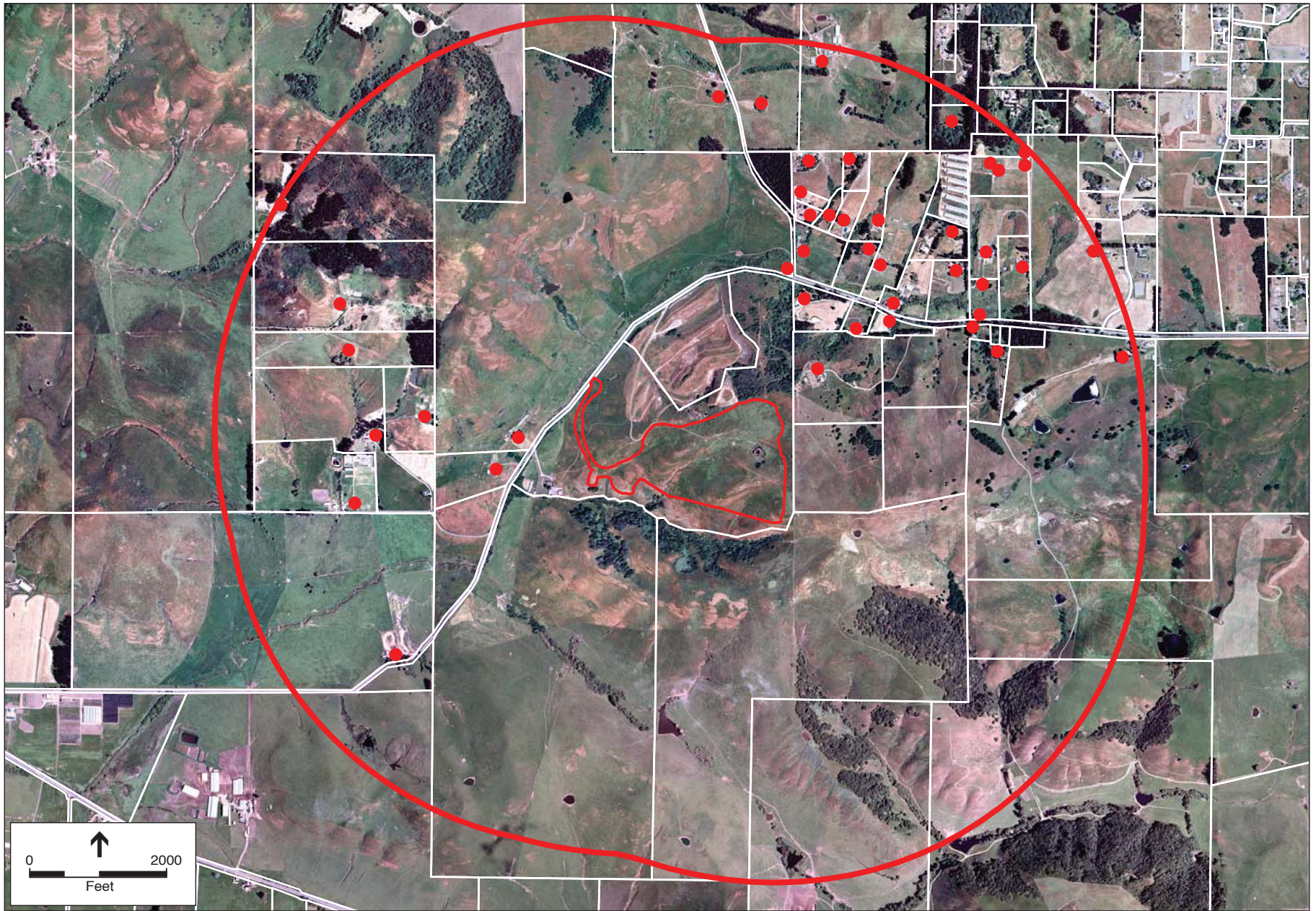
Commenter: Commissioner Williams

PC-96 The Commissioner requests that the number of residences be shown in an exhibit that shows the ¼, 1/3, and one-mile radius. Existing residences located within proximity to the proposed mining area have been identified through the use of aerial photography and field observation (see Figure PC-1 on the following page). Approximately 43 single family residences are located within a mile radius of the proposed mining area. The majority of these residences are situated to the northeast and over a hill from the proposed mining area (see attached aerial photo). Ten of these residences are situated across Roblar Road to the west.

Within a two-thirds mile radius of the proposed mining area, there are approximately 29 existing residences; 23 of which are situated to the northeast and five of which are situated across Roblar Road to the west. There are five residences within a one-third mile radius of the mining area and one residence within one-quarter mile radius of the mining area.

PC-97 The Commissioner expresses concern over wind and dust. The Commissioner is referred to Section IV.F, Air Quality, in the Draft EIR, for a discussion of potential effects regarding the generation of fugitive dust during the construction and operational phases of the project, and design features and on-going practices proposed by the applicant and/or required by the SMARO mining and reclamation standards to minimize erosion of exposed surfaces and generation of dust. The Draft EIR establishes a formal comprehensive dust control program for implementation during initial construction and on-going operation to ensure all potential dust emissions would remain less than significant. The Commissioner is also referred to Master Response AQ-1 in Chapter II this Response to Comments Document for additional data on wind conditions in the area, and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program.

The Commissioner inquires if the characteristics in the materials in the quarry can be analyzed for potential toxicity of serpentine rock and silica. The Commissioner is referred to Master Response AQ-2 in Chapter II in this Response to Comments Document for a discussion of naturally occurring asbestos and why asbestos-containing materials are not likely to be encountered on the project site. With respect potential for the project to result in release of airborne release of crystalline silica from project operations, the Commissioner is referred to response to Comment O-10.



SOURCE: Sonoma County PRMD, 2009

Roblar Road Quarry . 204334

Figure PC-1
Existing Parcels and Residences - 1 Mile Radius of Proposed Mining Area

PC-98 The Commissioner inquires what could happen as a result of changes in strata from blasting and extraction. The commenter is referred to Section IV.G, Noise and Vibration in the Draft EIR which addresses all potential blasting impacts in detail. This section relies as appropriate on a assessment of potential blasting impacts and recommended practices for the proposed quarry that was conducted in support of the EIR by Revey Associates, Inc. (see Appendix F-1 in the Draft EIR). Revey Associates, Inc. have extensive and direct explosive-work experience in hardrock mining, mine planning, blasting research, and blasting explosives management.

Please also refer to response to Comment L-10 for additional mitigation measures identified for blasting, and response to Comment O-16 as it relates to potential blasting impacts to the adjacent Roblar landfill.

PC-99 The Commissioner indicates additional information is needed about the aquifer, such as how far it extends under the landfill. The Draft EIR provided a detailed description of the groundwater hydrology beneath the site and the Roblar Landfill Draft EIR, Section IV.C *Hydrology and Water Quality* pages IV.C-11 through 20). On the project site, groundwater is present in three defined zones: the Wilson Grove Formation, within fractures of the basaltic resource rock (Tolay Volcanics), and in shears and fractures of the underlying Franciscan Formation. On the landfill property, groundwater flows through a shallow sandy deposit thought to be an ancient stream channel through the Wilson Grove Formation and through bedrock (Tolay Volcanics). The groundwater bearing zones extend under the entire landfill. Please also see Master Response HYD-3, and comment responses K-7 and L-16 for additional information.

Commenter: Commissioner Furch

PC-100 The Commissioner requests a graphic that shows county demand versus supply for the first five years of the project, including type of gravel versus other projects in the County, and including importation/exportation.

It is not possible to provide the requested level of detail regarding projected demand versus supply for the first five years of the project, given the many variables that exist that could influence such scenario. This includes unknowns regarding the specific breakdown in volumes of different aggregate grades that would be available from the Roblar Road quarry during the first five years, unknowns regarding potential approvals of other aggregate projects currently underway in the County, and the specific level of future out-of-county importation that may occur. However, Chapter V, Alternatives, in the Draft EIR presents the latest information available on the aggregate reserves within the quarry site, and historic and existing aggregate demand and supply in Sonoma County.

As discussed on pages V-24 to V-25 in the Draft EIR, in 2006, a total of 3.38 million tons of aggregate were sold in the County, of which 75 percent was supplied by quarries, 20 percent from terrace sources, and five percent from instream sources. Adjusting for an

estimated 750,000 tons of imported aggregate, total demand in 2006 is estimated at 4.01 million tons. With respect to PCC-grade aggregate, in 2006, approximately 82 percent was produced by terrace operations, about 12 percent was produced by instream sources, and six percent was produced by hard rock quarries. With respect to AC-grade aggregate, hard rock quarries met 80 percent of this demand, and terrace mines produced the remaining 20 percent. With respect to Class II Base-grade aggregate, hard rock quarries met 98 percent of this demand, and instream mines produced two percent.

The existing permitted mining operations in Sonoma County producing PCC-, AC-, and/or Class II Base-grade aggregate are limited to hard rock quarries and instream mining. Since the ARM Plan imposed deadline for terrace mining on April 15, 2006, no terrace mining within Sonoma County has occurred. However, the Board of Supervisors approved a one-time-only three-year time extension for mining the remaining aggregate materials in Syar's Phase VI terrace pit. That decision is the subject of a lawsuit which has not yet been resolved.

The most recent published Sonoma County PRMD estimate of permitted reserves, based in part on California Geological Survey information (PRMD, June 2006), estimated that in 2005 permitted PCC reserves in Sonoma County were between 385,000 tons and 1,985,000 tons, permitted AC reserves were approximately 1,300,000 tons, and permitted Class II Base grade reserves were approximately 4,430,000 tons. In the absence of implementing potential feasible options for meeting future demand for aggregate, and assuming aggregate is continued to be used at rates similar to that of 2006, PRMD estimate in 2008 (PRMD, February 2008) that the remaining permitted local reserves for PCC -grade aggregate would fall short of the local demand between 2007 and 2008, remaining local AC-grade reserves would fall short between 2008 and 2010, and remaining local road base reserves would fall short in about between 2009 and 2010. To date, however, these predicted shortages have not occurred due to an overall drop in aggregate demand as a result of the economic recession, and in the case of PCC-grade aggregate, unanticipated production of some PCC-grade materials at a number of permitted hard-rock quarries

The proposed quarry project would produce up to 570,000 CY (or about 855,000 tons) of aggregate (including PCC-, AC- and Class II-Base-grade) annually, which could accommodate over 20 percent of the total existing annual demand for aggregate in Sonoma County.

PC-101 The Commissioner requests further analysis of the two fault lines that traverse the site. The Commissioner should note that are not two faults that traverse the site, but rather, there is one ancient inactive fault on the project site (referred to as the Dunham fault). The Draft EIR Section B, Geology, Soil and Seismicity; and Section C, Hydrology and Water Quality, addresses information related to the Dunham fault, including potential project impacts, in detail. The commenter is also referred to responses to Comments K-4, K-6, K-9, K-11, K-14 and K-15.

PC-102 The Commissioner indicates if the site is reclaimed to agricultural use, water would be needed. The end use of the project site upon reclamation would be rangeland, similar to the existing land use. This final land use would require substantially less water than would be required compared to when the quarry is operating, as no water would be required for any quarry operations. Furthermore, as specified in the Draft EIR, all mitigation measures associated with the operation of the site's drainage plan, and implementation of the water quality protection program, including monitoring, and potential containment and treatment facilities, would be in place prior to the start of mining and would remain in place through post reclamation as needed.

The Commissioner further expressed concern that the land could not be restored in perpetuity for agriculture. The Commissioner is referred to Section IV.A, Land Use and Agricultural Resources which discusses in detail all potential impacts to agricultural resources on the project as a result of the proposed project, including permanent conversion of a portion of farmland on the project site to non-agricultural use, and conflicts with a Williamson Act Contract governing the project site. As discussed in the Draft EIR, the project would result in the direct temporary and permanent loss of a portion of agricultural land on the project site currently used for grazing, but would return the majority of the project site to agricultural use following reclamation. Furthermore, the project would establish a permanent agricultural conservation easement on a 244-acre property near Lakeville Road as part of an easement exchange to ensure that site would permanently remain in farming use.

In addition, the SMARO requires that prior to final approval of the Reclamation Plan, Sonoma County PRMD shall certify to the State Department of Conservation (Department) that the Reclamation Plan and financial assurances comply with the applicable requirements of State laws, and must submit the plan and financial assurances to the Department for review. Where the reclamation plan and financial assurances are associated with a surface mining use permit, the County may conditionally approve the use permit with the condition that the approval for mining operations shall not be issued until cost estimates for financial assurances have been reviewed by the Department and final action has been taken on the reclamation plan and financial assurances. The specific requirements for financial assurance, including approval process, are outlined in detail in Section 26A-11-050 of SMARO.

PC-103 The Commissioner inquires about administrative approval for the project to operate outside the normal hauling and operating hours. Specifically, the Commissioner inquires whether neighbors would be notified about changes, and what the criteria would be for changing the hours.

As discussed in the Draft EIR Project Description, the County mining regulations (Ordinance No. 3437) allow the hours of operation for quarries as follows: Monday through Friday 6:00 a.m. to 10:00 p.m.; Saturday, 6:00 a.m. to 4:30 p.m.; and on Sunday, no mining or processing except as authorized. The applicant states that anticipated typical hours of operation of the proposed quarry on weekdays would be 7:00 a.m. to

5:00 p.m., with most plant operations, including loading/weighing of trucks, ceasing by 4:00 p.m., and general maintenance occurring until 5:00 p.m. The anticipated typical hours of operation of the proposed quarry on Saturdays would be 7:00 a.m. to 4:00 p.m.

The applicant indicates the quarry could operate infrequently during permitted evening hours on weekdays, such as when a quarry client requires materials for a nighttime construction project. However, under such circumstance, mining or crushing would not occur in the evening hours; evening operations would be limited to the loading and weighing of material. If it were necessary to operate outside of the hours identified in the Zoning Ordinance, written approval would be required from Sonoma County PRMD in advance. Historically, requests to operate outside the hours of operation allowed by County mining regulations have been rare. Those instances where requests have been received have been associated with Caltrans projects calling for nighttime operations. In these instances, requests have been directed in advance to the PRMD staff who monitor mining operations, and approvals for short-term schedule modifications have been granted.

The applicant has indicated its willingness to notify interested neighbors of such schedule changes. Please note a public notification process has been developed for proposed blasting (see new Mitigation Measure G.3i in Chapter V, Errata). As a Condition of Approval, the public notification process shall also include a procedure, acceptable to PRMD, for notifying nearby residents who have requested to be notified when substantial modifications to standard hours of operation have been approved by PRMD which exceed hours consistent with the County's mining ordinance. The commenter is also referred to response to Comment PC-81.

PC-104 The Commissioner inquires if the test showed that 60 gpm pump rate was sustainable or was determined on the basis of one focused test. The Commissioner further inquires if project groundwater pumping would cause local drawdown and the effect on local wells. The Draft EIR analyzed the effect of groundwater pumping on periodic drawdown and lowering local groundwater levels, and determined this impact to be less than significant. The applicant has also prepared a comprehensive Water Management Plan (WMP) that expands upon and refines the proposed management of water resources for the quarry project discussed in the Draft EIR (including groundwater seepage, precipitation/ runoff, and groundwater from wells) and reduces hydrology and water quality impacts; Master Response HYD-1. Under the WMP, only Well DW-2 would be used to supply supplemental groundwater for quarry operations (i.e., no use of Well DW-1). Furthermore, as discussed in Master Responses HYD-1 and HYD-3, the applicant's WMP would include a strategy to monitor changes to groundwater levels and employ adaptive management of the project production well to ensure a sustainable supplementary groundwater supply for the project with no adverse impacts from well pumping. These project refinements would not change any of the conclusions previously reached in the Draft EIR with respect to the effect of project groundwater pumping to neighboring wells.

It should also be noted, as discussed in Master Response HYD-1, the applicant's proposed WMP calls for pumping groundwater at a constant rate of approximately 18 gpm per day, or pumped on a sustainable cyclic basis [e.g., pumping at 35 gpm for a four hour period followed by a recharge (non-pumping) period of four hours] in conjunction with temporary storage in water tanks. Please see Master Response HYD-3, below, for additional information on the step-drawdown test that was conducted by the applicant.

The Commissioner also inquired if there was adequate water for dust control. The Commissioner is referred to Master Response HYD-1 in Chapter II in this Response to Comments Document for a description of a Water Management Plan (WMP) prepared by the applicant that has been incorporated into the project. The WMP characterizes and quantifies the various water demands for the project, including for quarry operations.

The Commissioner inquires about wind impacts on dust control. The Commissioner is referred to Section IV.F, Air Quality, in the Draft EIR, for a discussion of potential effects regarding the generation of fugitive dust during the construction and operational phases of the project, and design features and on-going practices proposed by the applicant and/or required by the SMARO mining and reclamation standards to minimize erosion of exposed surfaces and generation of dust. The Draft EIR establishes a formal comprehensive dust control program for implementation during initial construction and on-going operation to ensure all potential dust emissions would remain less than significant. The Commissioner is also referred to Master Response AQ-1 in Chapter II of this Response to Comments Document for additional data on wind conditions in the area, and expanded mitigation measures to further minimize project generated dust, including wind screening and a wind monitoring program. Please also refer to the climate discussion on page IV.F-1 in the Draft EIR.

PC-105 The Commissioner expressed concern about groundwater, indicating that existing groundwater gradients could shift when the water is drawn down, and a cone of depression could change subsurface strata, aquifers, and soil types. The Commissioner is referred to response to Comment L-25 and PC-104, above.

PC-106 The Commissioner indicates the California Regional Water Quality Board controls for groundwater protection with relevance to subsurface water and seasonal water tables needs to be analyzed to see how the water flow affects streams. The Commissioner appears to express concern for how changes in the groundwater table could affect surface flow in streams. This potential impact is discussed in detail in the Draft EIR (Section IV.C, Hydrology and Water Quality) as Impact C-5. The Draft EIR concludes that the largest effect on groundwater would occur at the completion of Phase 3 of mining, when the quarry excavation would have encroached into and removed the Wilson Grove Formation and Tolay Volcanic material. This would cause groundwater flow pathways to change thus reducing the area available for recharge (Figure IV.C-5). Reduced recharge would result in diminished baseflow delivered to the streams. The degree to which the proposed project would directly affect the baseflow is not certain due to the varying geology, groundwater conditions, and annual climatic conditions.

Implementation of Mitigation Measure C.5a-b would ensure that existing baseflows would be maintained.

PC-107 The Commissioner indicates the project site is seven miles upstream from a protected steelhead area, and could negatively impact it. The Commissioner is referred to response to Comment J-25 for a response to this issue.

The Commissioner also inquires how water resources would be managed in perpetuity. As specified in the Draft EIR, all mitigation measures associated with the operation of the site's drainage plan, and implementation of the water quality protection program, including monitoring, and potential containment and treatment facilities, would be in place prior to the start of mining and would remain in place through post reclamation as needed. Please see also response to Comment PC-102, above.

PC-108 The Commissioner indicates that while the wells would be monitored for toxicity, water also exists in the subsurface strata and the impacts to streams could be formidable. The Commissioner is referred to response to Comment J-21 and L-25.

The Commissioner also indicates that uplands for the California tiger salamander were not included in the Draft EIR. The Commissioner is referred to response to Comment J-23.

PC-109 The Commissioner expressed concern about the proposed easement exchange, stating that since the area is not currently zoned or under pressure from development and the exchange presumes that the County will allow a zone change on the parcel to allow development.

The Draft EIR presents the regulatory framework for all applicable regulations governing the proposed project, including the Williamson Act. The Draft EIR explains that, the placement of an agricultural conservation easement on the easement exchange site is required to rescind the Williamson Act contract on the project site.

With respect to development pressure, the Farmland Conversion Study (Appendix C of the Draft EIR) contains an extensive discussion of site suitability of the easement exchange site, including a discussion of development pressure in the site vicinity. The study acknowledges that the development threat to the easement exchange property has decreased following Sonoma Land Trust's conservation easement creation of the adjacent Lower Ranch, purchase of the nearby North Parcel/Leonard Ranch properties, recent purchase of the North Point Joint Venture and Dickson Ranch properties, and subsequent establishment of the Sears Point Restoration Project. On the other hand, the Farmland Conversion Study acknowledges there is the potential for nearby development associated with future ferry service at the Port Sonoma property. Future development pressure on the site may also exist from future residential ranchette development, and associated subdivision of larger agricultural properties into minimum required parcels.

The Commissioner requests justification for the proposed exchange. The Commissioner is referred to responses to Comments G-3a and U-9.

PC-110 The Commissioner indicates that testing of wells would not address subsurface flows. The Commissioner is referred to responses to Comments D-2, J-21 and L-25.

PC-111 The Commissioner indicates the Draft EIR must address tiger salamander restoration areas. The Commissioner is referred to response to Comment J-23.

PC-112 The Commissioner indicates the Draft EIR did not look at a long-term strategy for decreased flows; and the impact to steelhead. The Commissioner is referred to response to Comment J-25.

PC-113 The Commissioner indicates that the impact from removal of gravel and soil on long-term filtration to creeks be analyzed. The Commissioner is referred to response to Comment L-25.

PC-114 The Commissioner requests that noise be analyzed from outside residences. The Commissioner is referred to Section IV.G in the Draft EIR which includes a detailed evaluation of potential impacts of all quarry-generated noise, including onsite mobile and stationary sources and off-site truck traffic. The Draft EIR uses the applicable County General Plan exterior noise standards for judging significance of potential operational noise impacts from both quarrying operations and transportational noise. As feasible, the Draft EIR identifies mitigation measures to reduce project noise; see Mitigation Measures G.1, G.2 and G.3 in the Draft EIR for mitigation related to project operational quarry noise, quarry truck traffic, and blasting effects.

It should be noted that the Sonoma County Aggregate Resources Management Plan (ARM Plan) and EIR identified cumulative noise to be potentially significant where residences, schools, or other noise-sensitive uses are close by to busy haul routes in rural areas. When the ARM Plan was adopted, the Board of Supervisors made a Statement of Overriding Considerations for this significant and unavoidable impact.

The Commissioner also requests that considerations be made to reduce greenhouse gas (GHG) emissions. As discussed in the Draft EIR, the project GHG emissions would approximately 75 percent below the lower mandatory reporting limit being developed by CARB. In addition, Mitigation Measures F.1a-c would further reduce project GHG emissions by approximately 20 percent. The project is inherently energy efficient because it is a local source of PCC-grade aggregate that will be used in for construction projects in Sonoma County. Furthermore, the project shall be required to comply (as a condition of approval) with any applicable GHG strategies adopted by CARB through promulgated regulations. Thus the project would not conflict with the state goal of reducing greenhouse gas emissions in California to 1990 levels by 2020, as set forth by the timetable established in AB 32, California Global Warming Solutions Act of 2006

and the project would have a less than significant impact related to GHG emissions. See also response to Comment H-8.

PC-115 The Commissioner requests the Valley Ford Road/Bodega Avenue intersection be analyzed. Valley Ford Road transitions into Bodega Avenue east of Tomales Road. Tomales Road is the minor street at this T-intersection, and is controlled by a stop sign. Virtually all project traffic on Valley Ford Road would be anticipated to continue to/from Bodega Avenue, rather than turn onto Bodega Avenue. When considering the volume of peak-hour project traffic, and the contribution of this traffic to the major through movement (and not critical minor street turning movements), project is not expected to adversely affect traffic operations at this intersection.

PC-116 The Commissioner inquires about potential noise and impacts associated with blasting and with the overland haul route.

With respect to a detailed evaluation of blasting and associated noise effects to people, structures and utilities on nearby properties, the Commissioner is referred to Section IV.G, Noise and Vibration in the Draft EIR. This section relies as appropriate on an assessment of potential blasting impacts and recommended practices for the proposed quarry that was conducted in support of the EIR by Revey Associates, Inc. (see Appendix F-1 in the Draft EIR). Revey Associates, Inc. have extensive and direct explosive-work experience in hardrock mining, mine planning, blasting research, and blasting explosives management.

As discussed in the Draft EIR, with mitigation, the effects of proposed blasting on nearby properties, including residences, the landfill, the ground around them, or pipes and wells on those properties would be less than significant. See also responses to Comments U-21 and L-10.

With respect to the overland haul route, potential short-term and long-term environmental impacts associated with the construction and operation of such route are addressed in Chapter V, Alternatives in the Draft EIR.

Commenter: Commissioner Murphy

PC-117 The Commissioner inquired about a reference to EPA regulations in the June 19, 2008 County staff report for the public hearing on the Draft EIR. Specifically, the commenter indicated a reference to EPA promulgated regulations requiring the sulfur content of on-road vehicle diesel fuel be reduced to less than 15% by June 1, 2006 appeared unclear.

The comment is noted. The County staff report was in error; the EPA regulations required sulfur content in motor on-road vehicle diesel fuel be reduced to less than 15 ppm (not 15%) as of June 1, 2006. Please note that the reference to these regulations in the Draft EIR is correct.

PC-118 The Commissioner acknowledged the concern of the community about water quality and quantity and requested that these issues be addressed in the Draft EIR. The Commissioner refers to other commenters comments; and accordingly, is referred to the specific responses that have been provided, above. For an overview of water quality and quantity issues, however, the Commissioner is referred to Master Responses HYD-1, -2 and -3 in Chapter II in this Response to Comments Document.

PC-119 The Commissioner inquired about the well test notice that neighbors had received. The Commissioner is referred to response to Comment Q-3 and Master Response HYD-2.

The Commissioner expressed concern about administrative adjustments for the permit for night operations. Please see response to Comment PC-103 for a response to this issue.

CHAPTER V

Errata

The following corrections and changes are made to the Draft EIR and incorporated as part of the Final EIR. Revised or new language is underlined. Deleted language is indicated by ~~strikethrough~~ text. Preceding each revision [**in bolded brackets**] is a reference to the revision being the result of a staff-initiated change, or a revision that is in response to a comment received, in which the comment letter and numbers are identified in the bracket.

[J-1] Page III-28 of the Draft EIR, fourth paragraph, the following text is added to the end of the paragraph, as follows:

“The end use of the site would be rangeland, consistent with its current use.”

[G-3b] Mitigation Measure A.4, on page IV.A-34 of the Draft EIR, first paragraph; and on page II-3 of the Draft EIR, third column, fourth paragraph is revised as follows:

“Mitigation Measure 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 512892, 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.”

[M-16] Mitigation Measure B.2d, on page IV.B-24 of the Draft EIR, third full paragraph; and on page II-5 of the Draft EIR, third column, first paragraph is revised as follows.

“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. Evaluation of slope stability under seismic conditions and strategies to reduce slope instability hazards shall conform to the guidelines and recommendations contained in the current edition of the California Geological Survey’s Special Publication 117 *Guidelines for Evaluating and Mitigating Seismic Hazards in California*. Engineering recommendations for slope repair or stabilization shall be approved by PRMD and incorporated into the proposed project.”

[L-18] Page IV.C-18 of the Draft EIR, second paragraph, third sentence is revised as follows:

“The groundwater monitoring program includes sampling and analysis of groundwater for water chemistry (e.g. pH, alkalinity, hardness, and TDS), salts, organochlorine pesticides, PCBs, semi-volatile organic compounds (SVOCs) including diethylsilbestrol (DES) – measured in the initial sampling event; and volatile organic compounds (VOCs) and trace metals – measured in all sampling events. Pesticides, PCBs, and SVOCs including DES were not detected in the sampling event. (It should be noted that the County also analyzed groundwater at the adjacent closed Roblar Landfill property in 2004 for pesticides, PCBs, and SVOCs and these compounds were also not detected in those groundwater samples.)”

[L-21] Page IV.C-20 of the Draft EIR, first paragraph, first full sentence is revised as follows:

“While the levels of each of these constituents were at or slightly over the laboratory method detection limits, The VOC 1,2 DCE was slightly below the applicable state and federal water quality objectives for drinking water (referred to as the Maximum Contaminant Level, or MCL) while the detected concentration of vinyl chloride slightly exceeded the MCL, and in all cases they were below the applicable state and federal water quality objectives for drinking water.”

[L-21] Page IV.C-41 of the Draft EIR, last paragraph, last sentence is revised as follows:

“While the levels of the VOC constituents at the project site and landfill property were at or slightly over the laboratory method detection limits. The VOC 1,2 DCE was slightly below the MCL while the detected concentration of vinyl chloride slightly exceeded the MCL, in all cases, they were below the applicable state and federal water quality objectives for drinking water.”

[Staff-initiated change from Master Response HYD-1] Mitigation Measure C.4d, on page IV.C-43 of the Draft EIR, third paragraph; and on page II-13 of the Draft EIR, third column, third paragraph, is revised as follows:

“**Mitigation Measure C.4d:** Production well DW-1 shall not be used for any quarry-related operations. In the event operational constraints prevent production well DW-2 from being used throughout the project duration, this well shall be relocated onsite within, or in proximity to, the quarry footprint (and no closer to the landfill property than existing Well DW-2). 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.”

[Staff-initiated change from Master Response HYD-1] Mitigation Measure C.4e, on page IV.C-43 of the Draft EIR, fourth paragraph; and on page II-13 of the Draft EIR, third column, fourth paragraph, is revised as follows:

“Mitigation Measure C.4e: ~~Prior to discharge to Ranch Tributary,~~ The applicant shall fully incorporate and implement all measures specified in their Water Management Plan, including that reflected in this mitigation measure as follows:-

The applicant shall regularly sample and analyze all water collected within the quarry footprint and in production well DW-2 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.

The sediment control basin sampling and analysis schedule shall be developed in conjunction with the basin management operations. Prior to the release of water from any sediment control basin, the quarry shall obtain representative samples of the water held in the basin and submit the samples for analysis of VOCs by a California state certified analytical laboratory. Once samples and final analytical results are received, the quarry shall determine the appropriate routing of the water based on the presence or absence of detectable VOCs. Basin water quality sampling schedules, guidelines, protocols, and procedures required to collect and analyze representative samples from each basin will be provided in a detailed Sediment Control Basin Sampling and Analysis Plan, subject to review and approval by the County of Sonoma PRMD, and as applicable, the North Coast RWQCB, prior to commencement of operation of the treatment system.

Groundwater extracted from Well DW-2 shall be sampled and analyzed once every 24-hours during periods of sustained or cyclic pumping, and at the end of each pumping episode during times of intermittent use of the well (intermittent use means pumping episodes separated by more than 24 hours).

Water that tests non-detectable for VOCs would be used, as needed, to maintain baseline flow conditions in Ranch Tributary and Americano Creek (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary and Americano Creek), and/or routed to either direct onsite re-use to support quarry operations or water storage tanks for temporary storage prior to onsite re-use. In the event that the ~~discharge~~ the water collected within the quarry footprint or production well DW-2 does contain contaminants, ~~surface water discharge to Ranch Tributary shall cease and all discharges shall be contained. Once contained, discharged~~ such water shall be treated onsite (e.g., use of granular activated carbon vessels ~~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, and subsequently be available only for either direct onsite reuse or temporary storage prior to onsite re-use.

In addition, in the event that VOCs are detected in the water in the sediment control basins, the sediment within the respective sediment control basin would also be sampled and analyzed for VOCs prior to removal. In the event that VOCs are detected in this sediment, it shall be removed, transported and disposed of off-site at an appropriate licensed facility in accordance with all applicable state and federal regulations.”

[Staff-initiated change from Master Response HYD-1] Mitigation Measure C.5a, on page IV.C-44 of the Draft EIR, third full paragraph; and on page II-14 of the Draft EIR, third column, first paragraph, is revised as follows:

“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.4, only stored surface water that tests non-detectable for VOCs would be used, as needed, to maintain base flows in Ranch Tributary (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary). 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.”

[Staff-initiated change from Master Response HYD-1] Mitigation Measure C.5b, on page IV.C-44 of the Draft EIR, fourth full paragraph; and on page II-14 of the Draft EIR, third column, second paragraph, is revised as follows:

“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 *North Coast Water Quality Control Plan* 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. Consistent with Mitigation Measure C.4, only well water that tests non-detectable for VOCs would be used, as needed, to maintain base flows in Ranch Tributary (i.e., no water requiring VOC treatment would be discharged to Ranch Tributary).”

[Staff-initiated change] Mitigation Measure E.3b, on page IV.E-34 of the Draft EIR, and on page II-27 of the Draft EIR, third column, third paragraph is revised as follows:

“Mitigation Measure E.3b: The project applicant shall ensure that all loaded trucks are covered or maintain at least six-inch two feet of free board to prevent spillage of materials onto haul routes.”

[H-10] Page IV.F-3 of the Draft EIR, Table IV.F-1, second row is revised as follows.

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 Hour 8 Hour	0.09 ppm 0.07 ppm	– 0.08 ppm 0.075 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases and nitrogen oxides react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.

[H-10] Page IV.F-10 of the Draft EIR, Table IV.F-2, second row is revised as follows.

Pollutant	Averaging Time	Attainment Status	
		State Standards ^a	National Standards ^b
Ozone	8 Hour	Nonattainment Unclassified	Nonattainment
	1 Hour	Nonattainment	–

[Staff-initiated change] Page IV.F-17 of the Draft EIR, third and fourth paragraphs are deleted as follows:

~~“For purposes of this EIR, the project would be considered to have a significant impact on greenhouse gases if it would:~~

- ~~• Conflict with the state goal of reducing greenhouse gas emissions in California to 1990 levels by 2020, as set forth by the timetable established in AB 32, California Global Warming Solutions Act of 2006.”~~

[H-6] Page IV.F-18 of the Draft EIR, second full paragraph, third sentence is revised as follows:

“Additional dust control would be provided through use of baghouses on the crushers~~processing equipment~~.”

[H-2 and H-3] Mitigation Measure F.1, on page IV.F-21 of the Draft EIR, following the fifth paragraph; and on page II-36 of the Draft EIR, third column, following the sixth paragraph, the following mitigation measures are added:

“Mitigation Measure F.1e: Implement the following combustion equipment emissions measures:

- Use alternative powered equipment (i.e., hybrid, CNG, biodiesel, electric), where feasible. Feasibility shall be determined by market availability and cost considerations. The applicant shall provide an annual report to PRMD explaining

what alternative powered equipment has been brought online and what efforts were made in the previous 12 months to modify the composition of applicant's equipment. Such report shall include information on market availability and cost in sufficient detail for PRMD to determine whether additional equipment can feasibly be brought online;

- Use equipment which uses add-on control devices, such as diesel oxidation catalysts, as required by CARB's *In-Use Off-Road Diesel Vehicle Regulation and On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation*;
- Limit the hours of operation of heavy duty equipment where feasible;
- The project applicant shall keep all equipment well-tuned and regularly serviced to minimize exhaust emissions, and shall establish a regular and frequent check-up and service/maintenance program for all operating equipment at the quarry; and
- Minimize idling time of diesel powered equipment to five minutes, as required by regulation, or less where feasible."

Mitigation Measure F.1f: The applicant shall use commercially feasible efforts to pursue an offsite mitigation program to achieve contemporaneous emission reductions from sources off-site. Such efforts shall include pursuit of State, Bay Area, and grant funds (e.g., the Carl Moyer Fund, Transportation Fund for Clean Air, etc.) for improved trucks and retrofits such as diesel particulate filters for use in reducing emission sources within the vicinity of the project, such as school bus conversion. Such efforts shall also include incentives to vendees to induce them to achieve greater air quality efficiencies. Applicant shall submit an annual report to PRMD detailing the efforts made during the previous 12 months to achieve off-site mitigation."

[H-6] Page IV.F-27 of the Draft EIR, second paragraph, second sentence is revised as follows:

"The quarry would employ numerous control measures to reduce dust emissions during operation, including use of spray misters and, as needed, baghouses, on all processing equipment, use of baghouse on the crushers; use of a water truck to routinely water down internal access roads, use of tire wash area and tire scrapers to loosen dirt from the trucks and their tires."

[H-8] Page IV.F-31 of the Draft EIR, the following text is added after the last paragraph:

"In summary, 1) the GHG emissions would be approximately 75 percent below the lower mandatory reporting limit being developed by CARB; 2) Mitigation Measures F.1a-c would additionally reduce project GHG emissions by approximately 20 percent, and Mitigation Measures F.1e-f would result in even further reductions in GHG emissions; 3) the project is inherently energy efficient because it is a local source of PCC-grade aggregate that will be used for construction projects in Sonoma County; and 4) the project shall be required to comply (as a condition of approval) with any applicable GHG strategies adopted by CARB through promulgated regulations. Thus it appears the project would not conflict with the state goal of reducing greenhouse gas emissions in

California to 1990 levels by 2020, as set forth in AB 32, California Global Warming Solutions Act of 2006.”

[Staff-initiated change from Master Response AQ-1] Mitigation Measure F.4, on page IV.F-28 of the Draft EIR, following the last bullet; and on page II-38 of the Draft EIR, third column, following the last bullet, additional mitigation is added as follows:

- “• The applicant shall retain a qualified meteorological consultant to design and implement a wind monitoring program at the quarry site during project construction and operations. The monitoring program shall be limited to providing wind speed and direction information sufficient to implement these specific dust mitigation measures. The meteorological consultant shall conduct an initial field meteorological study to select the equipment and establish onsite locations for wind speed monitoring; the meteorological consultant shall use that information to develop an operating plan for the on-going meteorological monitoring program. The meteorological consultant shall prepare a design and operating plan for the meteorological monitoring (subject to the approval of the County). The meteorological consultant shall supervise the long-term operation of the meteorological monitoring program, regularly preparing and submitting to the County a report summarizing the results of the wind monitoring program. (For the first year, quarterly reports shall be required; yearly meteorological monitoring reports may be more appropriate after the first year’s experience.) The long-term meteorological monitoring program shall be reviewed periodically by the meteorological consultant and, subject to the approval of the County, adjustments made to reflect the experience and understanding of wind conditions and the related experience with dust generation and control at the quarry.

The meteorological monitoring plan shall include the basic elements in Attachment AQ-1, *General Meteorological Monitoring Guidelines for Roblar Road Quarry*, which generally discusses aspects of a well-designed and -operated meteorological monitoring system. These elements include use of suitable equipment, proper instrument siting and maintenance practices, electronic data recording and preservation, periodic quality control audits of the station equipment and operating practices, and frequent review of the resulting data. The meteorological consultant shall consider each element in developing a plan that addresses plan objectives.

On-going wind monitoring shall be conducted at the project site during the quarry construction and long-term operation, especially during any dry periods of the year when winds are anticipated to exceed 15 mph at the quarry. As part of the wind monitoring program, suitable anemometry shall be employed to regularly monitor winds at locations within the project site subject to fugitive dust, including quarry slopes being actively mined, stockpiles, unpaved travel paths being used for mobile equipment, and where processing operations are occurring. The wind monitoring shall measure and report, at a minimum, average wind speeds and wind gust speeds during the operating hours of the quarry. The measurement intervals for average wind speed (initially anticipated to be one- or two-minute measurements that are made up of 60 consecutive 1- or 2-second samples, taken once every 15-minutes) and wind gust duration (initially anticipated to be a five- to ten-second gust, extracted as the highest 5 consecutive samples among the 60 samples that make up

an average wind speed reading) shall be reviewed and modified, as appropriate, by the meteorological consultant as a part of the development of an operating plan for the on-going meteorological monitoring.

All applicable electronic and manually measured wind data shall be time-stamped and recorded, so that it can be cross-referenced or linked to time-stamped entries in a (manual or electronic) log book that describe the specific dust control measures or changes in operations made in response to attaining the identified wind speed criteria.

- If, based on the wind monitoring, wind speeds at an active quarry area are found to exceed 15 miles per hour, watering frequency shall be increased and/or other appropriate dust control methods of equal or better effectiveness shall be implemented within the area of effect. Quarry personnel shall put into action and shall document the specific dust control measures or changes in operations that were implemented when the identified 15 miles per hour wind speed was exceeded. These measures shall continue until wind speeds decrease to less than 15 miles per hour, as recorded on two successive regular measurements.
- If wind gusts during quarry operations are determined to exceed 25 miles per hour at any active quarry area of the quarry and those quarry operations generate any visible dust, that dust-generating activity in the area of effect shall be suspended until such time wind gust speeds in that area clearly subside. Quarry personnel shall put into action and document the change in operations that were implemented when the identified 25 miles per hour wind speed was exceeded. These measures shall continue until wind gust speeds decrease to less than 25 miles per hour, as recorded on two successive regular measurements.
- Automated dust control systems shall be used (e.g. automated sprinkler systems) to maintain proper surface moisture in the stockpiles before sufficient vegetative cover in the stockpiles has been established.
- If determined to be needed by the meteorological consultant, the applicant shall plant native evergreen trees along the perimeter of the quarry footprint to further minimize wind from entering the active quarry area. (This would be in addition to the trees already proposed to be planted in the vicinity of the proposed office, equipment storage area and parking lot, and along the proposed access road.) The specific tree type, location, and number of rows and spacing of trees shall be determined by the meteorological consultant.
- The quarry's dust control monitor shall provide nearby landowners (within a radius of potential effect as determined by the meteorological consultant) with a contact phone number for the quarry's dust control monitor for off-site dust complaints that may arise associated with the quarry. The dust control monitor shall determine the cause of the complaint and ensure that measures are implemented to correct the problem."

[Q-4] Mitigation Measure G.1, on page IV.G-17 of the Draft EIR, following the fourth full paragraph; and on page II-39 of the Draft EIR, third column, following the fourth full paragraph, the following mitigation measures are added:

“Mitigation Measure G.1c: Consistent with ARM Plan operating standards, the applicant shall develop and implement a truck driver education program that informs drivers of procedures established to reduce public conflicts. This program shall include instructions to drivers to avoid of the use of engine brakes on the quarry access road and local haul routes, as safety allows.

Mitigation Measure G.1d: The applicant shall require and verify that all quarry operator owned off-site-haul trucks, and-off-site haul trucks that would be under contract with the quarry operator, use a properly functioning exhaust muffler (capable of meeting the federal passby standards) equivalent to the original factory installed muffler. Each truck shall be re-verified annually.”

[L-10] Mitigation Measure G.3, on page IV.G-23 of the Draft EIR, following the sixth paragraph; and on page II-41 of the Draft EIR, third column, following the first paragraph, the following mitigation measures are added:

“Mitigation Measure G.3h: Prior to any blast proposed within 1,500 feet of the Roblar landfill cells, the applicant shall test methane using methane detection devices at hole-collars of six holes drilled closest to the Roblar landfill property. Blasting shall only proceed if any detected methane is below the 0.1 percent minimum trace level established by the Bay Area Air Quality Management District.

Mitigation Measure G.3i: The blasting plan shall include a procedure, acceptable to PRMD, for notifying nearby residents prior to each blasting event. This public notification process shall be fully explained in the blasting education program for area residents (Mitigation Measure G.3e), and shall include the list of residents to be notified, a standard time at which such pre-blast notification shall be made, and a telephone number area residents can call to hear a regularly-updated recording describing the next scheduled blasting activity.”

[Staff-initiated change] Draft EIR Technical Appendix F-1, *Assessment of Rock Blasting Impacts*, page 19 contained a minor error, which is corrected as follows:

“At a peak particle velocity of 1.5 in/s, the peak elastic ground displacement would be around ~~0.0080-012~~ inches, which is ~~100~~^{over 60} times less than the movement the fill-site has already survived during the Loma Prieta Quake.”

APPENDIX A

Applicant's Water Management Plan

Water Management Plan Roblar Road Quarry

Sonoma County, California

September 23, 2009

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1.0 INTRODUCTION

This Water Management Plan (WMP) describes the methods and details of how the various sources of water (including groundwater seepage, precipitation/runoff, and groundwater from wells) will be monitored and managed during operation of the proposed Roblar Road Quarry.

The WMP has been developed and designed based upon more detailed information regarding precipitation, groundwater, surface water and groundwater seepage as discussed in the Draft EIR. The WMP also recognizes the seasonal variation of these components (e.g., excessively "wet" or successive drought years) and has been designed to allow for flexibility in the management of water use/reuse, while at the same time implementing comprehensive water quality monitoring programs to meet the strict water quality goals during development and operation of the quarry. As described herein, the foundation of the WMP is based upon an onsite water use/reuse, storage and treatment (if necessary) program to support quarry operations, while at the same time maintaining "baseline" surface water conditions in the adjacent Ranch Tributary and Americano Creek. Through attentive monitoring of these components, the WMP affords flexibility in the management of water resources while minimizing the reliance on groundwater from onsite production wells.

The management of water resources as presented in this WMP expands upon that proposed by the applicant and addressed in the Draft EIR as a conscious effort to further expound upon the engineering to be employed to mitigate potential impacts related to water quality and water use of the project. Although these refinements impose additional water quality monitoring and treatment programs during development and operation of the quarry, these components have been included to further reduce the water "footprint" of the project with respect to both water quality (surface water and groundwater) and the conservation of water resources.

The following sections of this WMP describe the details and methods of how water resources (i.e., precipitation/runoff, groundwater seepage, surface water and groundwater from wells) have been inventoried and are to be managed during development and operation of the proposed project. A Water Budget Matrix has been included to inventory the various sources of water supply (based on information presented in the Draft EIR, subsequent Results of Well DW-2 Step Drawdown Test [PES, 2009], and other information developed in support of this WMP), and water demand estimates for the project developed by the applicant. An accompanying Water Cycle Diagram and supporting information describe how the various components of the WMP will be implemented (via monitoring, storage and potential treatment for the removal of VOCs from groundwater) to further reduce the water "footprint" of the project and allow for future flexibility to account for variability in water resource conditions.

2.0 WATER MANAGEMENT PLAN

Water Supply

Precipitation/Runoff:

Precipitation and runoff falling within the quarry footprint will be collected and treated (for sediment control and the potential removal of VOCs as appropriate) prior to reuse on-site or discharge to Ranch Tributary or Americano Creek. Runoff collected outside the footprint of the quarry operations will be routed around the perimeter of the quarry and discharged to Ranch Tributary or Americano Creek.

The runoff that falls outside the quarry footprint will be collected in a Surface Water Runoff Collection Ditch that will route the surface runoff around the quarry footprint. This ditch will be constructed at the perimeter of the quarry for each phase and will be sized to carry the 100-year design storm¹. The runoff that falls outside of the quarry footprint will not require sediment treatment. Refer to Figure 3: Site Plan and Figure 5: Sections and Details for location and detail of the ditch.

The runoff that falls inside the quarry footprint will be collected in 10' wide benches placed at 30' intervals. It will flow along the benches toward bench drains located at 500' intervals and be carried down to the quarry floor. Runoff from the North Slope of the quarry will flow through the North Interceptor Trench toward the North Slope Sediment Control Basin and Treatment System. Runoff from the South-East Slope and Quarry Floor will be collected within the South-East Interceptor Trench and Sediment Control Basins located on the south side of the quarry floor. Refer to Figure 3: Site Plan for the location of the trench and sediment control basins. Runoff from the aforementioned sources will be treated (for sediment control and the potential removal of VOCs) prior to reuse on-site or discharge to Ranch Tributary or Americano Creek.

Surface water runoff will be used to maintain baseline flow conditions in Ranch Tributary and Americano Creek. Runoff from the quarry slopes will commingle with groundwater seepage, both of which will discharge into the quarry footprint. This water will flow through the interceptor trenches into the sediment control basins. It will be monitored and treated as necessary. The runoff and seepage that does not contain VOCs could be discharged to Ranch Tributary and Americano Creek to meet baseline flows, or be reused for operations and irrigation.

Monthly runoff volumes for the project were determined by using rainfall data from CIMIS² together with SCWA³ Mean Seasonal Precipitation data. SCWA data show that annual precipitation is 30 inches for the project site. The CIMIS data was used to prorate the SCWA data that resulted in monthly volumes. For purposes of this WMP, the months

¹Roblar Road Quarry, Sizing for Culvert and Interceptor Ditches at Perimeter of Quarry and Quarry Floor. See Appendix.

²California Irrigation Management Information System

³Sonoma County Water Agency

of November through April are identified as “wet” months and the months May through October are identified as “dry” months.

The average amount of precipitation/runoff generated is 48,828 gallons per day in the “wet” months and 6,335 gallons per day in the “dry” months. Separate precipitation/runoff estimates were calculated for the North Slope and South-East Slope & Quarry Floor. From the “wet” months 8,156 gpd comes from the North Slope and 40,673 gpd comes from the South-East Slope and Quarry Floor and for the “dry” months 1,058 gpd comes from the North Slope and 5,277 gpd comes from the South-East Slope & Quarry Floor.

A rain gauge will be installed on-site and will be monitored by the quarry manager. The rainfall data will be used to compare estimates used for the management plan and make appropriate adjustments once quarry operations get underway.

Groundwater Seepage:

As quarry excavation gets underway groundwater seepage will discharge into the quarry footprint. According to the analysis in the Draft EIR seepage rates could range from 1 gpm to 39 gallons per minute (gpm) based on geologic materials and an estimated maximum constant seepage rate of 20 gpm estimate was utilized. This results in an estimated maximum constant rate of approximately 30,000 gallons of water per day to be managed and utilized for the project. To accommodate for seasonal fluctuations groundwater seepage estimates were taken 50 percent above and below the estimated maximum constant rate. This is based on taking the average of the very low seepage rate and estimated maximum constant rate for the “dry” months and the average of the highest seepage rate and estimated maximum constant rate for the “wet” months. This results in 43,200 gallons per day during “wet” months and 14,400 gallons per day during the “dry” months. This seepage will be collected and treated in the same collection system as the precipitation/runoff system. Seepage that does not contain VOCs would be discharged to Ranch Tributary and Americano Creek to meet baseline flows, or be reused for operations and irrigation.

Production Wells:

Two existing production wells are located on the property. Well #1 is located in close proximity to the closed Sonoma County Landfill and will not be used as a water source for quarry operations. Production Well #2 is located in the northeast section of the proposed quarry footprint. This well will be used on an as needed basis to provide water for the quarry operations.

If Well #2 is impacted by placement of stockpile material or quarry mining it will be adjusted up or down accordingly. If necessary, the well will be relocated onsite either within the quarry footprint or at a proximate location to the quarry rim that would draw water from the same aquifer. The location will be such that it is not closer to the Sonoma County Landfill than the existing production well.

Based on the Water Budget Matrix (Figure 1), the project would need to obtain a maximum of approximately 25,416 gallons per day of groundwater from Well #2 to meet the water supply demands during the “dry” months of the season. It should be recognized that the “dry” months of the season presented in the Water Budget Matrix

represents an overly conservative approach and worst case scenario (as described below in the Water Demand section), and the amount of groundwater from pumping is expected to be less than the maximum rate of 25,416 gallons per day or average of 18 gpm. The maximum daily demand for groundwater during the "dry" months of the season is proposed to be met by a combination of pumping from water supply Well DW-2, and temporary storage in water tanks. For example, groundwater could be pumped at a constant rate of approximately 18 gpm per day, or pumped on a cyclic basis (e.g., pumping at 35 gpm for a four hour period followed by a recharge [non-pumping] period of four hours) in conjunction with temporary storage in water tanks.

Details regarding the specific capacity of Well DW-2 are described in the attached Supplemental Analysis Report, Well DW-2 Step-Drawdown Test (Appendix G) and summarized below:

- A step-drawdown test was performed on December 15, 2008 to estimate the specific capacity of Well DW-2;
- The step-drawdown test was performed at pumping rates of 15, 25, and 45 gpm for 60-minute intervals, and at a fourth discharge rate of 50 gpm for an interval of 80 minutes. Consistent with the pump curve available for the pump installed in Well DW-2, 50 gpm was the maximum pumping rate achievable from Well DW-2. A total of 9,000 gallons of water was pumped from Well DW-2 during the 4.3 hour step drawdown test; and
- The analysis of data collected during the step-drawdown test suggest that Well DW-2 should be capable of sustained pumping rates that range from approximately 15- to 45 gpm, for periods that range from at least 10- to 100 days or longer.

A groundwater level monitoring and adaptive management program shall be implemented when the project begins to pump groundwater for quarry operations from Well DW 2. The program would be operated with oversight and reporting requirements to the Sonoma County PRMD. The applicant would retain a California certified hydrogeologist to develop the monitoring program, subject to approval by the County. The groundwater monitoring program would require that Well DW-2 and the onsite monitoring wells (MW-1, MW-2b, MW 3, MW-4 and DW-1) be monitored on a weekly basis by quarry staff during the period of active pumping from Well DW-2. Consistent and frequent monitoring would identify trends of long term water level decline. If pumping at Well DW-2 results in a measurable declining trend of static water levels, the applicant shall employ appropriate adaptive management strategies. These strategies include short-term (e.g. alteration of pumping schedule, reduced pumping, decreased water use, changes in overall water management strategies or temporary cessation of pumping) or long-term corrective measures (e.g. permanent cessation of pumping at Well DW-2, installation of a higher producing well in an alternate onsite location) until the groundwater levels in onsite wells are shown to recover to pre-project pumping conditions.⁴

⁴The preferred location of such a well could be in the southwest portion of the project site, closer to Roblar Road and further away from the Roblar Landfill.

On a routine basis (daily, during initial development and operation of the quarry), groundwater from Well DW-2 will be sampled and analyzed for VOCs by a California state certified analytical laboratory. Water that tests non-detectable for VOCs will be routed to either: (1) direct onsite reuse to support quarry operations (e.g., dust control, crushing plant, stockpile rock watering, wash rack, irrigation, etc.), or (2) water storage tanks for temporary storage prior to reuse. In the event that monitoring data indicate VOCs are present in groundwater from Well DW-2, it will be routed to the groundwater treatment system(as described below) prior to reuse.

Water will be pumped from the well to storage tanks located above the rim of the quarry in the northeast corner of the property. The well water will be stored in a series of three, 10,000 gallon water tanks. If necessary, the amount of storage will be increased to mitigate potential impacts and facilitate the best management of water resources. The tanks will be placed on concrete pads in accordance with manufacturers recommendations and secured as necessary to prevent toppling. The tanks will be surrounded by a gravel pad to allow for ease of access and maintenance. Trees will be planted around the tank area to screen them from surrounding areas. Water from the tanks will flow by gravity to the quarry site operations area operating plant in order to be used for operations and irrigation. Refer to Figure 3: Site Plan for the location and Figure 5 for the Storage Tank Layout detail.

Water Demand

Water demand was budgeted for each month of the year. The year was broken down into “wet” and “dry” months. The “wet” months start at the beginning of November and continue through the end of April, and the “dry” months start at the beginning of May and continue through the end of October. The Water Budget Matrix shows the monthly demands together with an average daily demand for both “wet” and “dry” months.

During wet months (November through April) the quarry will have water demands of 20,105 gallons per day for dust control, the crushing plant, stockpile rock watering, tire wash rack, scale house use, and irrigation for landscape and reclamation planting. In addition, the quarry will use another 48,828 gallons per day to maintain baseline flow conditions to Americano Creek during the wet months.

During dry months (May through October) the quarry will have water demands of 34,810 gallons per day. It is expected that no substantial flows will be needed to maintain base flows to Americano Creek during the dry months.

The total annual water demand (excluding the component of baseline flow to Americano Creek) is 8,881,965 gallons per year. This conservative estimate exceeds the amount originally estimated by the applicant and identified in the Draft EIR. This increase is primarily due to the allowance allocated for Dust Control needed for quarry operations. Due to concerns raised about wind blown dust a much more conservative water demand estimate was developed. This estimate allows for the worst case scenario where water is applied at the same rate each day for the entire operating period. However, the wind condition on-site is variable and does not necessarily blow every day or continuously throughout the day. It should also be recognized that this worst case scenario represents an overly conservative methodology which likely overstates water use, as it is expected that the project will rely on the use of water absorbent (conservation) crystals, gels,

and/or polymers to supplement practices of dust control and irrigation during the “dry” months of the season.

Quarry Operations:

1. Dust Control - 12,500 gallons per day wet season, 25,000 gallons per day dry season.

Dust control will consist of wetting down all areas of exposed soil on site, including but not limited to internal unpaved quarry roads. Water will be pumped into water trucks from the sediment control basins located within the quarry floor, the treated water storage tanks, or well water storage tanks. See Figure 4 Plan view. Water trucks onsite will carry approximately 8,000 gallons. Over a 10-hour period the trucks would use 2500 gallons per hour. This water would be used to keep dust down on the unpaved roads and at the mining area, where active mining is taking place. Water would be sprayed directly onto the harvesting area in order to control dust. On extremely dry and/or windy days dust suppressant will be added to the water trucks to better control the dust.

2. Crushing plant - 4,000 gallons per day

500 gallons per hour to water all rock being crushed over 8 hour period

Spray nozzle setup will be used on all processing equipment, including the jaw crushers, feeding conveyers, primary and secondary cones and stacker belt ends.

3. Stockpile rock watering - 1,200 gallons per day

100 gallons per hour to water stock piles for 12 hours per day.

4. Tire wash rack (recyclable water) - 200 gallons per day

10 truck washes at 20gallons per truck

5. Scale house - 80 gallons per day “wet” months and 40 gallons per day “dry” months.

8 people during peak (6 months) and 4 people during off peak (6 months)

10 gallons per day per employee => 80 gallons per day or 40 gallons per day.

Irrigation:

1. Landscape planting: Irrigation for the landscape planting near the scale house and along the roadway will consist of watering new trees and surrounding landscape planting utilizing drip irrigation. Watering will occur during both “wet” and “dry” months. It is estimated that during dry months watering will occur twice a week for 30 minutes utilizing 50 gallons per minute. During wet months watering will occur once a week for 30 minutes utilizing 50 gallons per minute.
2. Reclamation Planting: Irrigation for the reclamation planting will consist of watering new trees utilizing drip irrigation. Watering will occur during both “wet” and “dry” months. It was estimated that during dry months trees would be watered twice a week 10 gallons each cycle. During wet months watering will occur once a week with 10 gallons per tree.

Treatment & Monitoring

The Interceptor Trenches and Groundwater Treatment System (ITTS) are designed to capture and convey surface water runoff and groundwater seepage within the quarry, and in the event that monitoring data indicate volatile organic compounds (VOCs) are present in groundwater (e.g., due to presence of the nearby closed Sonoma County Landfill) or surface water runoff during mining operations, the ITTS would function to remove VOCs from these sources of water prior to reuse.

As shown on Plate 1 (attached) and Figure 3 the ITTS consists of the following primary components: (1) groundwater seepage interceptor trenches, (2) sediment control basins; (3) water storage tanks; (4) secondary sediment control; and (5) granular activated carbon (GAC) vessels. Prior to construction and operation of the ITTS, the operator will apply for a permit of Waste Discharge Requirements from the California Regional Water Quality Control Board, North Coast Region (RWQCB). The final design and operation of the ITTS will be based upon consideration and criteria of the RWQCB's Waste Discharge Requirements and the Water Quality Objectives presented in RWQCB's Water Quality Control Plan for the North Coast Region (2007).

Operation of Interceptor Trenches and Sediment Control Basins

As shown on Figure 3, the Interceptor Trenches will be located within the limits of the proposed excavation and will be expanded consistent with each of the three phases of quarry operations. The primary objective of the Interceptor Trenches is to control groundwater seepage that enters the base of the quarry and capture potential VOCs in groundwater that have been identified as a potential impact due to proximity from the closed Sonoma County Landfill located north (i.e., hydraulically down gradient) of the quarry property. To facilitate the control of groundwater seepage during development and operation of the quarry, the Interceptor Trenches will be the first components to be constructed during the initial excavation of the subsurface materials and development of the quarry. As such, the base of the Interceptor Trenches will be maintained to a depth of at least five feet below the elevation of all phases of quarry operations (i.e., excavation through both the unconsolidated deposits of the Wilson Grove Formation and underlying Tolay Volcanics) and continue to be deepened and maintained as each phase of quarry operations expand outward and downward. Each segment of the Interceptor Trenches will be approximately two feet in width and sloped west to gravity feed the sediment

control basins at the terminus of each trench segment (as shown on Figure 3). Pump stations will be operated between the Interceptor Trenches and sediment control basins to maintain a hydraulic gradient within the trench system.

The sediment control basins will include an overflow weir that acts as an emergency spillway. In the event that a storm in excess of the 100-year storm event occurs, runoff will overflow into the interceptor ditch then into the sediment basin located adjacent to the quarry access road west of the quarry floor. This basin will serve as a backup to the sediment control basins.

Sediment control basin sampling and analysis schedules will be developed in conjunction with the basin management operations to ensure that water held in each basin is characterized for VOCs prior to release for stream discharge, onsite reuse, or storage. Prior to the release of water from any sediment control basin, the quarry shall obtain representative samples of the water held in the basin and submit the samples for analysis of VOCs (EPA Method 8260) by a California state certified analytical laboratory. Once samples and final analytical results are received the quarry will determine the appropriate routing of the water based on the presence or absence of detectable VOCs. Basin water quality sampling schedules, guidelines, protocols, and procedures required to collect and analyze representative samples from each basin will be provided in a detailed Sediment Control Basin Sampling and Analysis Plan, subject to review and approval by the County of Sonoma PRMD, and as applicable, the North Coast RWQCB, prior to commencement of operation of the treatment system.

Water that tests non-detectable for VOCs will be routed to either: (1) direct onsite reuse to support quarry operations (e.g., dust control, crushing plant, stockpile rock watering, wash rack, irrigation, etc.), or (2) water storage tanks for temporary storage prior to reuse. The water storage tanks connected to the groundwater treatment system will have a minimum storage capacity of 30,000 gallons (for temporary storage). If necessary, the amount of storage can be increased to mitigate potential impacts and facilitate the best management of water resources.

In the event that monitoring data indicate VOCs are present in seepage water at the sediment control basins, the respective water will be piped to the GAC treatment system for the removal of VOCs. As shown on Plate 1, prior to conveyance to the GAC treatment system, the water would be piped to secondary sediment control to remove additional sediments and fine-grained materials. Following treatment for the removal of VOCs (if necessary), the water will be available for either (as described above) direct onsite reuse or temporary storage.

Groundwater extracted from Well DW-2 shall be sampled and analyzed once every 24-hours during periods of sustained or cyclic pumping, and at the end of each pumping episode during times of intermittent use of the well (intermittent use means pumping episodes separated by more than 24 hours).

Maintenance of the on-site sediment control basin will be performed routinely. At the beginning and after each storm event the basins will be checked to see that they are functioning adequately. This will include checking all inlet, outlet and overflow structures. Any debris within the basins will be removed immediately. The levels of sediment and water within the sediment control basins will be monitored regularly with a measuring rod. It is anticipated that sediment within the basins will be removed on an

annual basis or more frequently based on monitoring. From the 60 acre tributary area draining into the sediment control basins approximately 7,800 cubic yards of sediment storage is estimated (130 cubic yards per acre). This amount of sediment material is estimated to be removed from the sediment control basins each year.

In the event that VOCs are detected in water of the sediment control basins the sediment within the respective basin will also be sampled and analyzed for VOCs (by a California state certified laboratory) prior to the removal. In the unlikely event that VOCs are present in the material, it will be managed in accordance with state and federal regulations. If the material is to be removed from the quarry site it will take approximately 390 trucks carrying 20 cubic yards of material (an average of 1 truck per day).

Groundwater Treatment System

Plate 1 presents the preliminary design for the groundwater treatment system. As described above, in the event that monitoring data indicate VOCs are present in seepage water of the Interceptor Trenches, it will be routed to the groundwater treatment system. Water from the sediment control basins would be piped to secondary sediment control to remove additional sediment and fine-grained material prior to treatment. Following secondary sediment control, the water would be piped to the GAC treatment system which will be comprised of two, 2,000 pound GAC vessels (or other appropriately sized GAC vessels should conditions warrant) connected in series. The GAC treatment system will be operated and maintained to facilitate the removal of VOCs from seepage/runoff water. GAC has been demonstrated to be an effective and reliable technology for the removal of VOCs from water and air. VOCs in groundwater can be efficiently removed by GAC to levels below the most stringent groundwater quality regulations. The GAC treatment system is designed to accommodate the average monthly runoff and seepage as summarized in the Roblar Road Quarry, Water Budget Matrix (Figure 1). To allow for flexibility, the treatment system will have a rated treatment capacity of 100 gallons per minute (gpm), which is significantly higher than the average seepage rate of 20 gpm referenced in the Draft EIR.

In anticipation of stringent conditions to comply with a future permit of Waste Discharge Requirements to be obtained from the RWQCB, the two, 2,000 pound GAC vessels will be operated and monitored in series as a precautionary measure to assure the effectiveness for the removal of VOCs from groundwater prior to reuse. As such, it is expected that the condition for GAC changeout of the treatment system would be established if a detectable breakthrough occurs at the effluent from the primary GAC vessel. As such, the secondary GAC vessel will provide an additional measure of precaution to assure compliance with the permit of Waste Discharge Requirements and the removal of any VOCs prior to any reuse of the treated water.

Following treatment for the removal of VOCs, the water would be piped to the water storage tanks (Plate 1) where it will be retained and sampled (post-treatment) for the analysis of VOCs by a California state certified analytical laboratory. Following the receipt of laboratory analytical data that confirms VOCs have been effectively removed from the treated water, the water would be available for either (as described above) direct onsite reuse or temporary storage.

SWPPP:

A Stormwater Pollution Prevention Plan will be prepared for the initial construction of the quarry including the access road and set up of the quarry operation. A SWPPP will also be prepared for the ongoing operation of the quarry followed by one that addresses reclamation activities.

Monitoring in Americano Creek will be performed to monitor turbidity downstream of the development. A baseline turbidity reading will be taken prior to the beginning of construction. Readings will be performed in October 1 at the beginning of the rainfall season or after the first rainfall.

Although there are no known applicable published data regarding "baseline flow rates" in either Ranch Tributary or Americano Creek (USGS, 2009 and Regional Water Quality Control Board, North Coast Region, 2005⁵), it is expected that an appropriate surface water monitoring program will be developed in coordination with the RWQCB. The RWQCB has identified data gaps and future goals to improve permitting programs related to the Russian/Bodega Watershed Management Area (of which Ranch Tributary and Americano Creek is included). The surface water monitoring program is expected to include both stream gauging and water-quality monitoring for sediment control and VOCs. Monitoring and stream gauging stations are expected to be located: (1) at the confluence of Ranch Tributary with Americano Creek, and (2) at locations along Americano Creek at the upstream boundary of the Roblar Road Quarry (to monitor "baseline" data between the Sonoma County Landfill and the Roblar Road Quarry) and downstream boundary of the Roblar Road Quarry (to monitor "baseline" data at the downstream boundary of the Roblar Road Quarry). Moreover, key components of the surface water monitoring program will be to collect the appropriate data and implement best management practices (BMPs) to mitigate soil erosion and sedimentation, and to protect water quality within the watershed of the quarry operations.

⁵North Coast Regional Water Quality Control Board, Watershed Planning Chapter, February, 2005.

List of Figures & Plates

Figure 1: Water Budget Matrix

Figure 2: Water Cycle Diagram

Figure 3: Site Plan

Figure 4: Sediment Control Basin and Treatment System (Plan and Section)

Figure 5: Sections and Details

Plate 1: Interceptor Trench & Treatment System

Appendix (Bound Separately)

A. Preliminary Hydrology Report

B. Hydrology Supplement: 2, 10, 25, 50, 100-year Flow Calculations

C. Sizing of Culvert and Interceptor Ditches at Perimeter of Quarry and Quarry Floor

D. Sediment Basin Calculations and Information Sheet

E. Preliminary Stormwater Runoff Volume and Peak Flow Calculations

F. Irrigation Estimates

G. Supplemental Analysis Well DW-2 Step-Drawdown Test and Groundwater-Level Monitoring Program

**ROBLAR ROAD QUARRY
WATER BUDGET MATRIX**

September 17, 2009

Month	Daily wet	Daily dry	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Days in month	-	-	31	28	31	30	31	30	31	31	30	31	30	31	365
Water Supply	<i>(Gallons)</i>														
<u>Precipitation/runoff within quarry footprint:</u>															
North Slope	8,156	1,058	295,959	404,590	159,978	112,243	67,991	34,834	11,998	3,999	3,870	71,990	135,465	367,949	1,670,866
South-East Slope & Quarry Floor	40,673	5,277	1,475,957				339,071						675,569		8,332,658
Subtotal	48,828	6,335	1,771,916	2,422,289	957,792	672,000	407,062	208,552	71,834	23,944	23,172	431,007	811,034	2,202,922	10,003,524
<u>Seepage within quarry footprint:</u>															
Gallons per minute (GPM)	30	10	2,017,699	797,814	559,757		173,718	59,836	19,945	19,302	359,017		1,834,973		
Gallons per day (GPD)	43,200	14,400	1,339,200	1,209,600	1,339,200	1,296,000	446,400	432,000	446,400	446,400	432,000	446,400	1,296,000	1,339,200	10,468,800
<u>Well (3 cycles per day, 4 hours each) GPM</u>	-	35													
Well GPD	-	25,416	-	-	-	-	787,896	762,480	787,896	787,896	762,480	787,896	-	-	4,676,544
Total Supply	92,028	46,151	4,883,032	6,054,178	3,254,784	2,640,000	2,048,420	1,611,584	1,377,964	1,282,184	1,240,824	2,096,310	2,918,068	5,745,044	35,152,392

Month	Daily wet	Daily dry	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Operating days	-	-	27	24	27	26	27	26	27	27	26	27	26	27	317

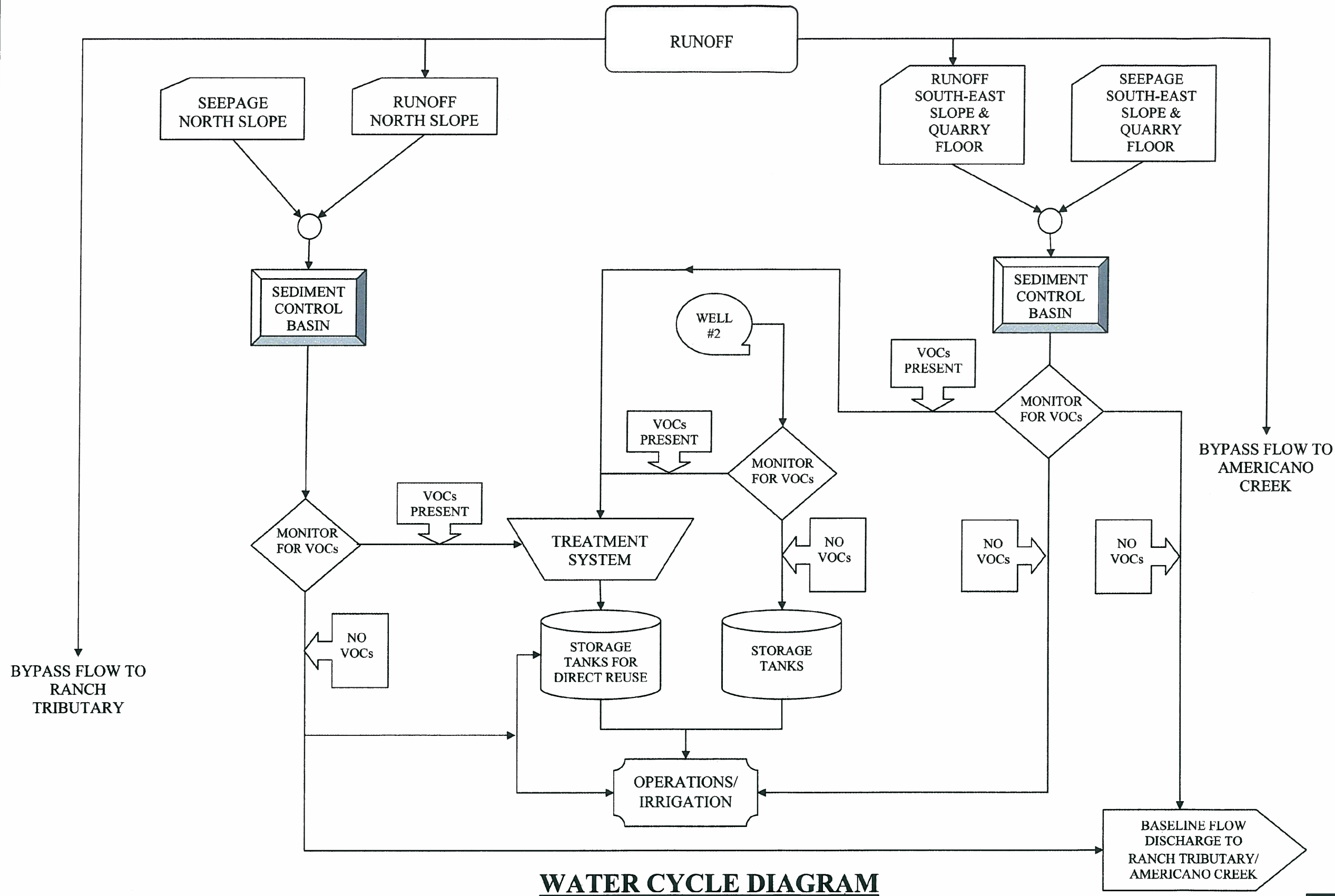
Water Demand	<i>(Gallons)</i>														
<u>Quarry operations:</u>															
Dust control	12,500	25,000	337,500	300,000	337,500	325,000	675,000	650,000	675,000	675,000	650,000	675,000	325,000	337,500	5,962,500
Crushing plant	4,000	4,000	108,000	96,000	108,000	104,000	108,000	104,000	108,000	108,000	104,000	108,000	104,000	108,000	1,268,000
Stockpile rock watering	1,200	1,200	32,400	28,800	32,400	31,200	32,400	31,200	32,400	32,400	31,200	32,400	31,200	32,400	380,400
Tire wash rack-truck washing	200	200	5,400	4,800	5,400	5,200	5,400	5,200	5,400	5,400	5,200	5,400	5,200	5,400	63,400
Scale house-domestic water for office	40	80	1,080	960	1,080	1,040	2,160	2,080	2,160	2,160	2,080	2,160	1,040	1,080	19,080
<u>Irrigation:</u>															
Landscape planting	215	430	6,665	6,020	6,665	6,450	13,330	12,900	13,330	13,330	12,900	13,330	6,450	6,665	118,035
Reclamation planting	1,950	3,900	60,450	54,600	60,450	58,500	120,900	117,000	120,900	120,900	117,000	120,900	58,500	60,450	1,070,550
Subtotal	20,105	34,810	551,495	491,180	551,495	531,390	957,190	922,380	957,190	957,190	922,380	957,190	531,390	551,495	8,881,965
<u>Baseline flow to Americano Creek</u>	48,828	6,335	1,771,916	2,422,289	957,792	672,000	407,062	208,552	71,834	23,944	23,172	431,007	811,034	2,202,922	10,003,524
Total Demand	89,038	75,955	2,874,906	3,404,649	2,060,782	1,734,780	2,321,442	2,053,312	1,986,214	1,938,324	1,867,932	2,345,387	1,873,814	3,305,912	27,767,454

Water Balance (supply-demand)	2,990	(29,804)	2,008,126	2,649,529	1,194,002	905,220	(273,022)	(441,728)	(608,250)	(656,140)	(627,108)	(249,077)	1,044,254	2,439,132	7,384,938
--------------------------------------	--------------	----------	-----------	-----------	-----------	---------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

Notes:

- All figures are in gallons. 1 GPM x 1440 min./day = 1440 GPD
- Figures in bold text represent wet weather periods.
- Seepage water and runoff shall be collected, monitored for VOCs, and treated prior to reuse on-site or discharge to the Ranch Tributary or Americano Creek.
- Precipitation data was gathered from CIMIS rainfall data from January 1, 2000 to December 31, 2008. Rainfall data was averaged from each month during the 8-year period then prorated based on SCWA Mean Seasonal Precipitation data. See Appendix for information.

FIGURE 1



WATER CYCLE DIAGRAM

WATER CYCLE DIAGRAM

2
FIGURE

Plan Prepared By:
CSW | ST2 Engineering Group, Inc.
1310 Redwood Way Suite 200 tel: 707.795.4764
Petaluma, CA 94954 fax: 707.795.0516
© 2009

WATER MANAGEMENT PLAN

ROBLAR ROAD QUARRY

LEGEND:



INTERCEPTOR TRENCH



INTERCEPTOR DITCH



SURFACE WATER RUNOFF COLLECTION DITCH



BENCH DRAIN



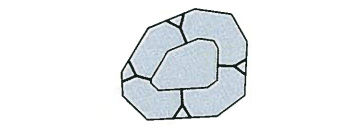
49±AC
NORTH SLOPE



33±AC
SOUTH-EAST SLOPE



11±AC
QUARRY FLOOR



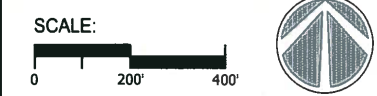
SEDIMENT CONTROL BASIN



SEDIMENT BASIN



FLOW DIRECTION



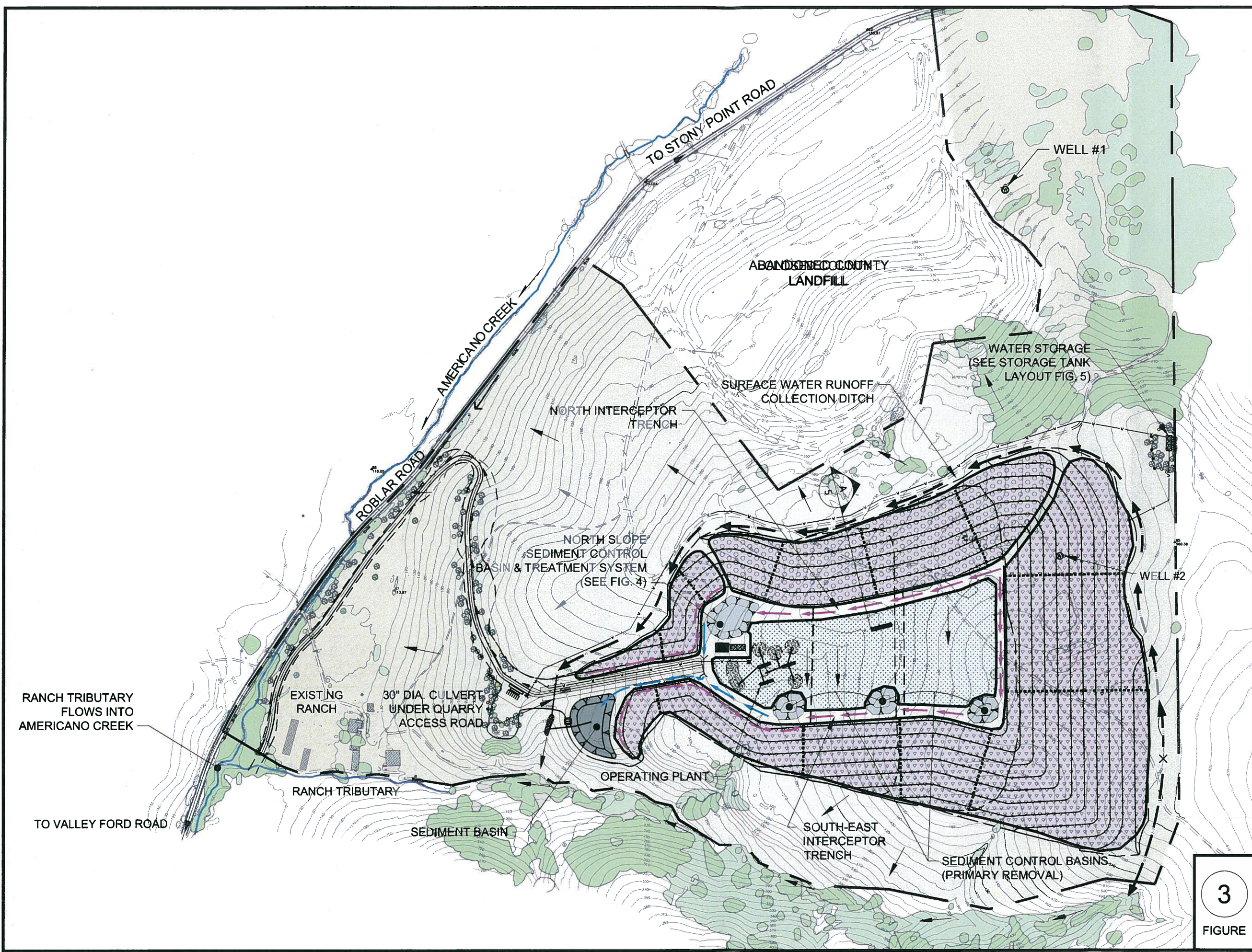
SCALE:



NORTH

SITE PLAN

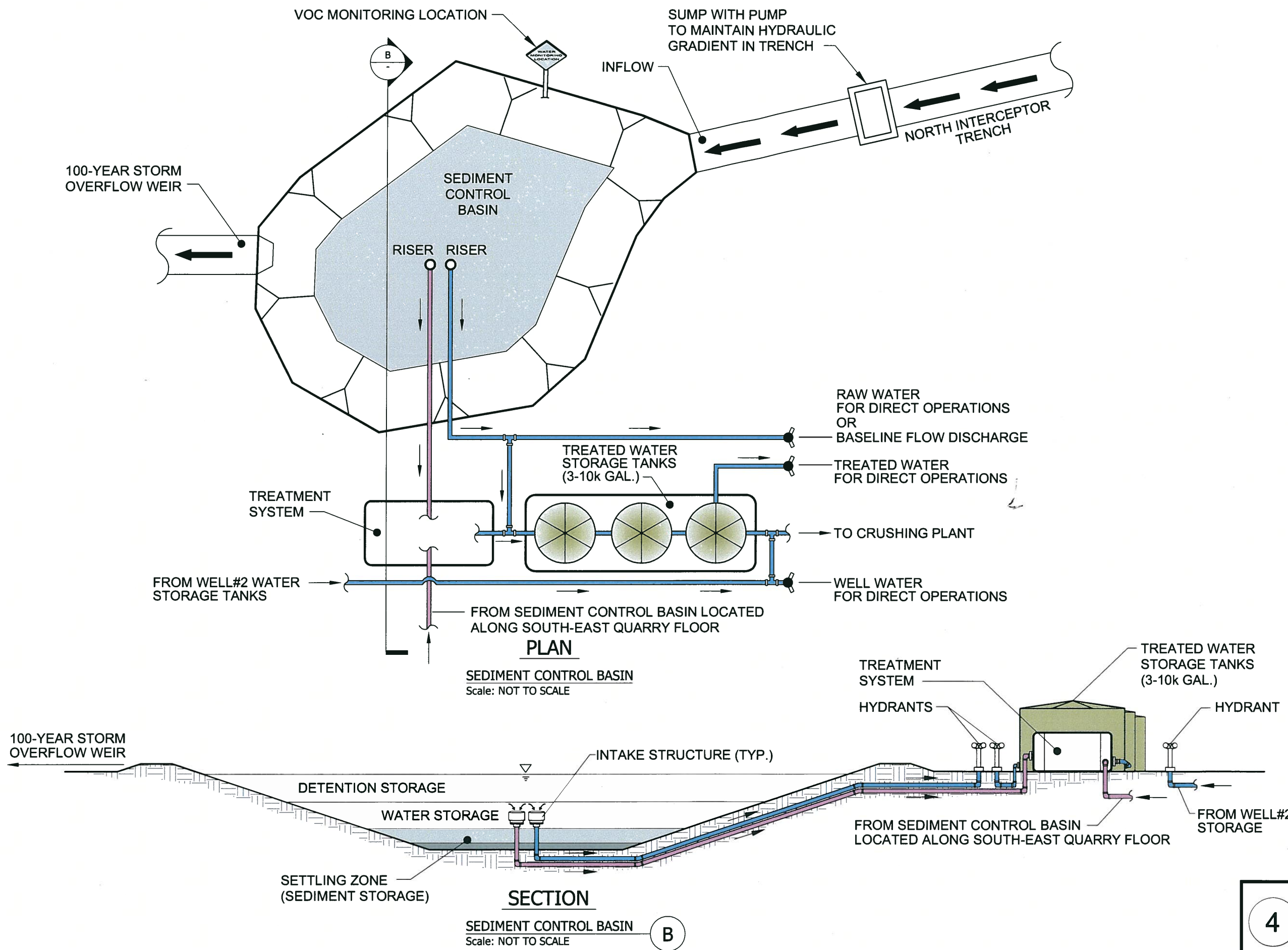
Plan Prepared By:
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3
FIGURE

WATER MANAGEMENT PLAN

ROBLAR ROAD QUARRY



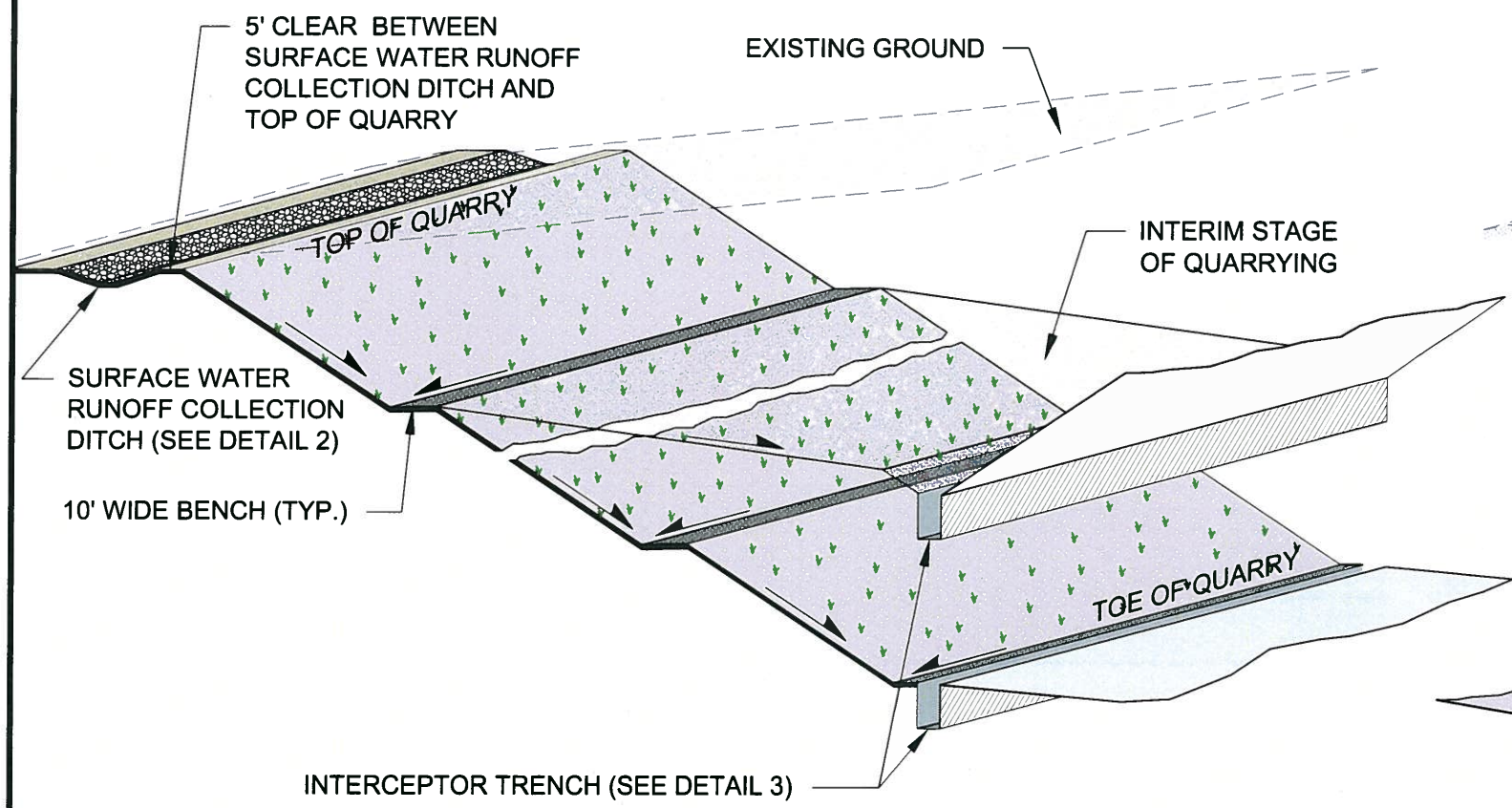
4
FIGURE

SEDIMENT CONTROL BASIN & TREATMENT SYSTEM (PLAN & SECTION)

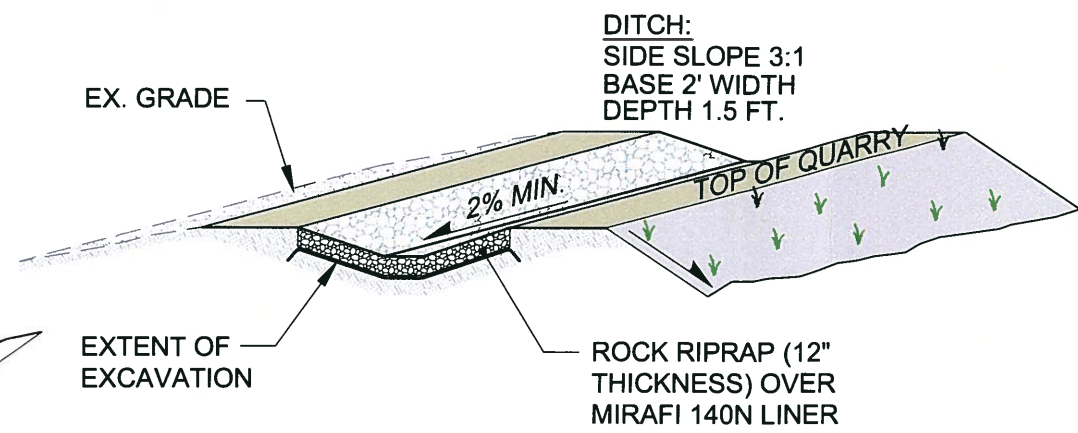
Plan Prepared By:
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 Petaluma, CA 94954 fax: 707.795.0516
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WATER MANAGEMENT PLAN

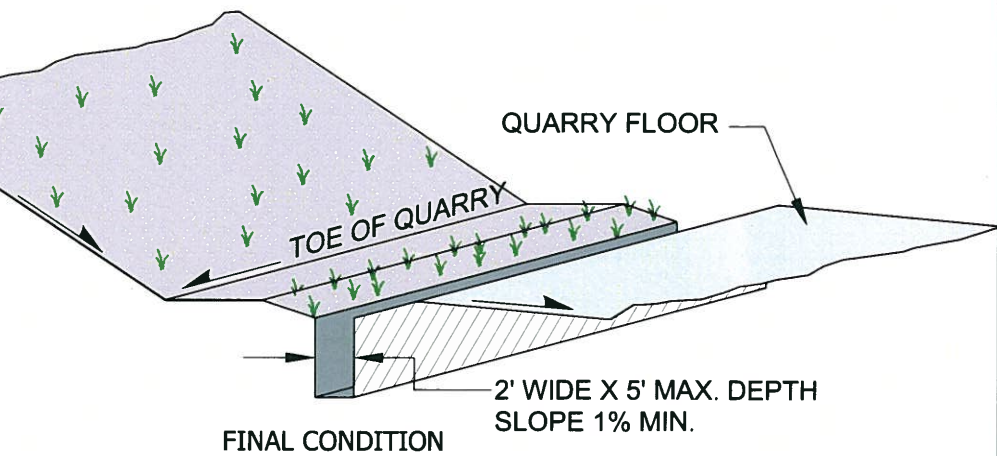
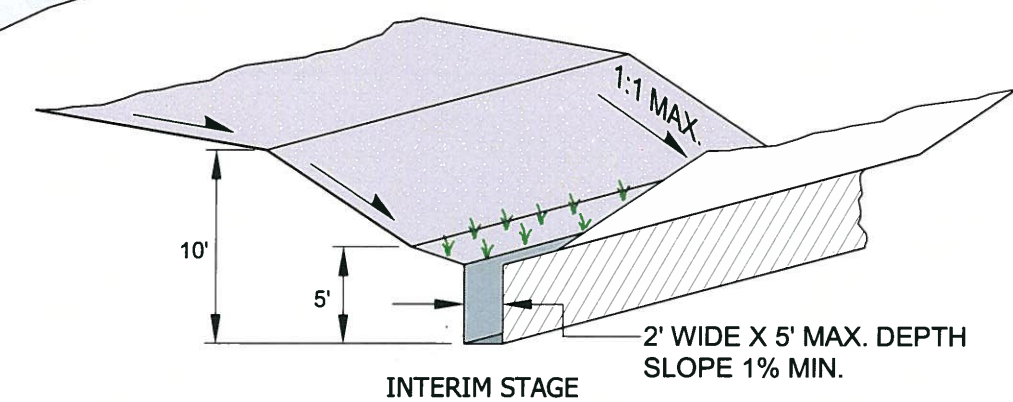
ROBLAR ROAD QUARRY



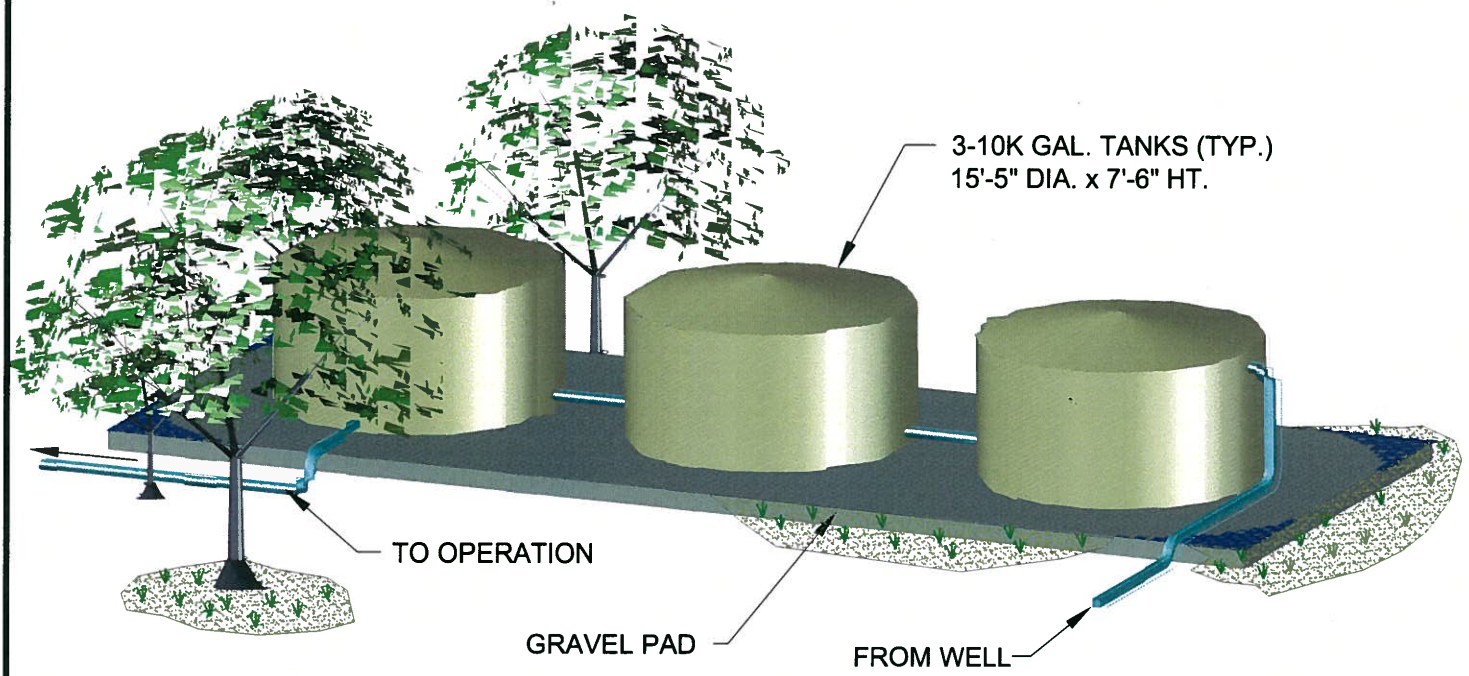
QUARRY WALL SECTION
SCALE: NOT TO SCALE **A**



SURFACE WATER RUNOFF COLLECTION DITCH
SCALE: NOT TO SCALE **2**



INTERCEPTOR TRENCH
SCALE: NOT TO SCALE **3**



STORAGE TANK LAYOUT
SCALE: NOT TO SCALE **1**

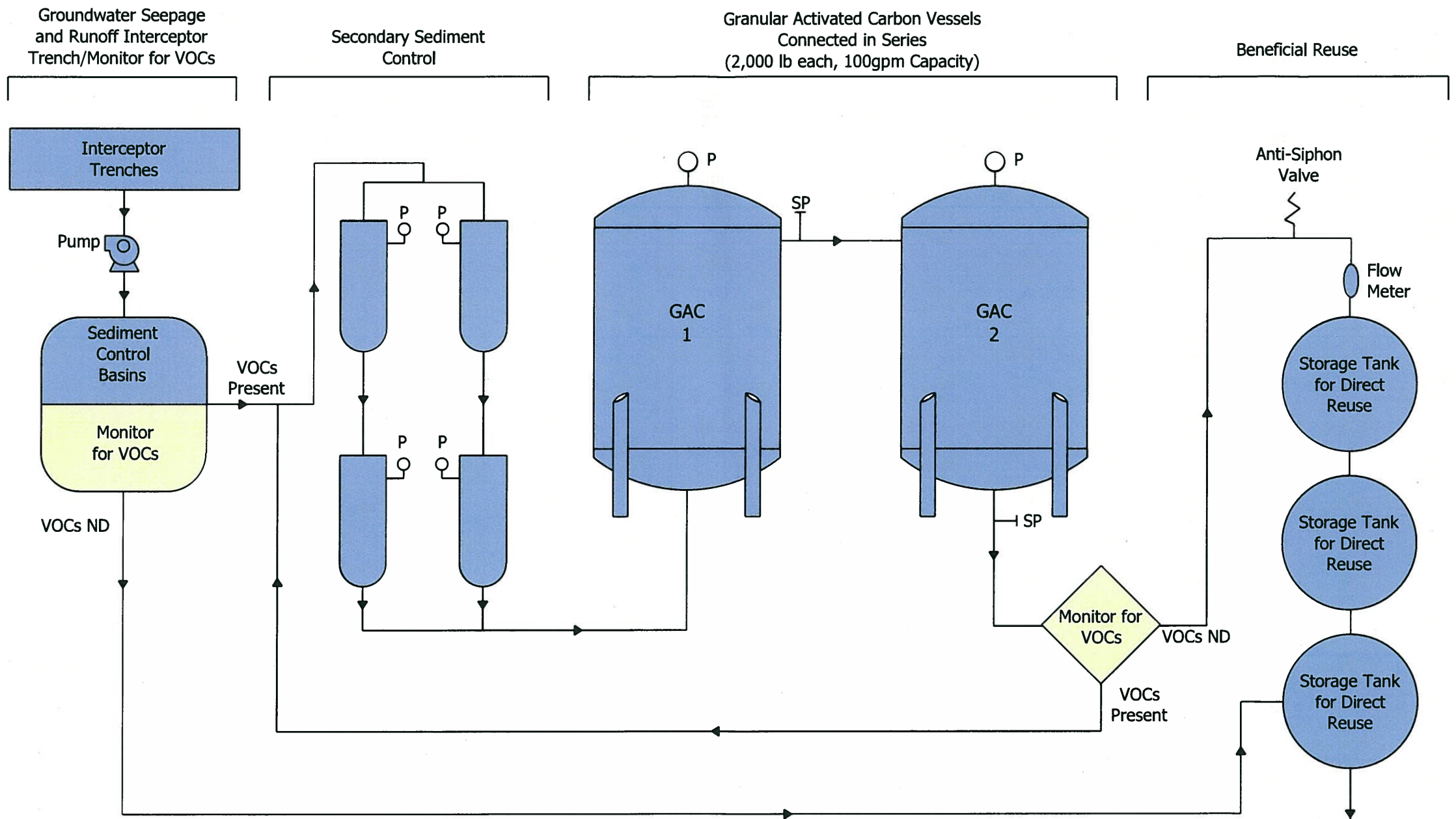
* TREES PLANTED TO SCREEN TANKS

5
FIGURE

SECTIONS AND DETAILS

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INTERCEPTOR TRENCH AND TREATMENT SYSTEM



SP = Sampling Port
 P = Pressure Gauge
 VOCs = Volatile Organic Compounds
 ND = Not Detected

APPENDIX B

Gordon Revey (Revey Associates, Inc.) Resume

GORDON F. REVEY, P. ENG*

Registered in Province of Ontario, Canada

PRINCIPAL – REVEY Associates, Inc.

9250 E. Morning Star Place

Parker, CO 80134-5611

Phone: (303) 470-0416 Fax: (303) 791-0140 E-mail: grevey@earthlink.net

BLAST-ENGINEERING & VIBRATION-NOISE CONSULTING QUALIFICATIONS

Providing consulting services to the mining and heavy construction industry and its Engineering and Management Firms. Services include all blasting related design, training, environmental impact controls, and risk management work.

EXPERIENCE

1996--

Professional Blasting & Vibration/Noise Engineering Consultant

Providing explosives related training, design, and risk management services.

1987—1996

Technical Manager—Western Division ICI Explosives USA, Western Division (formerly Atlas Powder Company, now ORICA Inc.)

- Worked in a number of subordinate positions leading to appointment as Div. Technical Manager.
- Provided and coordinated technical services and training to the mining and construction industry.
- Responsible for explosives, safety and blasting application technical support to major construction and mining sites where damage and vibration control were critical.
- Supervised and lectured at more than twenty Blasters License Training Courses. Certified as trainer in the states of Kentucky, Colorado, Montana, California, New Mexico, Hawaii and Nevada.

1985--

General Manager, Atlas Blasting Services—Millersville, Tn.

Managed explosives sales and service business operating throughout the State of Tennessee. Directly supervised crews performing contract-blasting services to quarries and construction projects. Also directly responsible for on-site storage and over-the-road explosive transportation operations.

1984--

Technical Sales Representative, Atlas Powder Company – Madisonville, Ky.

Provided direct technical support to surface coal mining, and underground coal mining development projects.

1983--

Training Specialist, Atlas Powder Company – Tamaqua, Pa.

Developed company safety and application training programs. Served as editor for “Explosives and Rock Blasting” handbook.

1981—

Research Engineer, INCO Metals Mines Research – Copper Cliff, Ont. Canada

Directed all underground blasting research to improve mining methods and developed specialized state-of-art blast vibration/air-overpressure monitoring and control systems.

EXPERIENCE Continued

1980—

Mine Planner, INCO Metals – Copper Cliff South Mine, Copper Cliff, Ont. Canada

Responsible for mine-planning work and methods development.

1975—76

Driller, INCO Metals -- Frood Mine, Sudbury, Ont. Canada

Operated various hand held and automated drilling equipment and performed blasting work in various mining and development operations.

PROJECT CONSULTING EXPERIENCE (Very limited listing – less than 10% of overall projects.)

Center for Disease Control Building 23 Project – 2007-2008, Atlanta, GA. Developed controlled blasting plans and directed a team of on-site inspectors that oversaw critical close-in blasting work for a deep foundation excavation located within 10 feet of adjacent buildings. Contractor: Turner Construction Co.

Atlanta Sewer Separation Project – 2006, Atlanta, GA. Developed controlled blasting plan and oversaw work for excavation of a tunnel in rock 65 feet below the CSX Railway line. Engineer: Montgomery Watson Harza.

San Vicente Water Tunnel – 2005-07, Escondido, CA. Developed blasting plans for excavations of rock in mixed-face tunnel conditions and for surface portal excavations. Contractor: Traylor-Shea J.V.

Denk and GI Water Pipelines – 2004, Escondido, CA. Developed controlled blasting plans for safe trench blasting for installation of new water pipes installed in trenches located as near as 10 feet from existing water pipes. Blasting work was done for M.J. Baxter Drilling Company under a subcontract with prime contractor for the Olivenhain Municipal Water District (OMWD).

Northeast Cape Fear River Project – 2003-2007, Wilmington, NC. Developed specifications for underwater rock blasting excavation work to deepen the Cape Fear River in areas near historic buildings, bridges, utilities and commercial operations. Estimated cost of drill-blast work and presented a one-day workshop on underwater blasting methods and environmental issues. Client: Wilmington District – USACE.

Howard Hanson Dam Fish Bypass facility – 2003-06, Tacoma, WA. Developed plans for blasting rock located within five feet of the Intake Tower providing water supply for City of Tacoma, WA. Work included design of underwater blasting. Contractor: Traylor Pacific, Inc.

Croton Water Treatment Plant – 2003-05, New York, NY. Evaluated potential impacts of controlled blasting operations needed to excavate 1,000,000-cyd of rock at the Moshulu City Park in the Bronx. Estimated drill-blast costs and developed specifications to ensure the blasting is done safely and without damage to neighboring property.

El Cajon Dam Project – 2003-04, State of Nayarit, Mexico, Provided blast design services for underground and surface excavations, including diversion tunnels, chambers, spillways, shafts and other excavations. Provided evaluation of blasting impacts on new concrete from concurrent nearby rock blasting operations, prepared blasting recommendations for the spillway and borrow area excavations, and developed rock containment strategies to prevent blasted rock from damaging existing facilities.

Hetch Hetchy Water & Power Upgrade Projects – 2003, Yosemite National Park, CA. City of San Francisco. Reviewed blasting plans and directly oversaw blasting work for blasted excavations in a shaft above a critical penstock pipe supplying water for city of San Francisco at the O’Shaughnessy Dam; and oversaw blasting for rock excavations located within 5 feet of the water intake tower at Priest Reservoir.

McAlpine Lock and Dam Replacement Project – 2003, Louisville, KY. TGM, JV – Contractor to Louisville District of US Army Corps of Engineers. Authored blast plan submittals and developed controlled blasting plans designed to protect a critical swing bridge, existing lock walls and other structures. Also designed submerged and surface demolition blasts for removing coffer cells to open the lock entry.

San Francisco – Oakland Bay Bridge Project – 2002, San Francisco, CA. Earth mechanics, Inc./Fugro West JV – under contract with CalTrans. Designed and executed blasting demonstration program used to characterize environmental impacts of blasting to existing bridge piers, US Coast Guard Structures and to area flora and fauna. Study included measurements of ground vibration, air and water overpressure that were used to develop site-specific regression curves. Conclusions from this study were used to develop controlled blasting specifications for new bridge pier excavations on Yerba Buena Island. Designed multiple-stage air-curtains for attenuation of transient water pressure pulses caused by pile driving.

Bath Iron Works Land Level Transfer Facility Project – 2000, Bath ME. Atkinson Construction Company. Developed controls designed to protect endangered Short Nosed Sturgeon from the effects of underwater blasting and to win regulatory permitting approvals.

Allied Pipeline Project – 2000, Mankato, MN. Welded Construction Co. and Universal Ensco. Investigated potential vibration effects on nearby buried gas pipeline and developed blasting recommendations that allowed the work to proceed without incident.

San Roque Multi-use Dam Project (Philippines)– 2000. Evaluated extremely challenging geological conditions and developed controlled blasting methods to reduce overbreak in power plant and dam-spillway excavations.

Cougar Lake Diversion Tunnel Upgrades Project – 1999. Defined controlled blasting methods and wrote specifications for development of a gate-chamber excavation and lake-tap blast designed to facilitate controlled water-temperature releases from the upstream reservoir to the McKenzie river. This blast-engineering work was performed for the Portland District of the US Army Corps of Engineers, under the coordination of INCA Engineers, Inc.

Lake Mead Intake Intake No. 2 Project –1998-99. Designed air-curtain for attenuation of peak water overpressure generated by a large underwater ditch blast, developed controlled blasting methods for rock excavation work near new concrete repairs, and developed extremely controlled blasting methods for a series of elbow connection blasts designed to complete a lake-tap connection between a drilled shaft and a tunnel. These design services were done for the project contractor—Lake Mead Constructors, Inc.—a consortium of Kiewit Companies.

TransColorado Pipeline Project – 1998. Due to concerns about blast effects on springs supplying water to reservoirs for the cities of Palisade and Grand Junction, Colorado, rock blasting was prohibited for the excavations in a nine-mile section of the pipe trench on the Grand Mesa. While excavating the trench in the no-blast zone, U.S. Pipeline, Inc., the contractor encountered many large basalt boulders that could not be removed with conventional excavating equipment. Investigated potential blast-induced vibration effects on nearby water resources and the rock and ground slopes. and recommended practical blasting controls.

Sonoma County Landfill Expansion Project – 1998. Investigated and reported on potential rock blasting impacts on site facilities, neighboring property, people and farm animals. Investigations included analysis of blast-induced ground motion and air-overpressure impacts on; buried leachate and methane gas piping systems, stability of landfill slopes, quality and supply of water in area wells, residential and agricultural structures, and dairy cows. Specific blasting controls, designed to prevent damage and minimize complaints and claims, were also recommended. GEOTEK's findings and recommendations were incorporated into the Sonoma County Environmental Impact Report.

Folsom Dam Air-Intake Tunnel Project – 1997. Developed blasting and vibration control and monitoring program for the construction of a tunnel excavated through concrete. Specially designed blasting rounds were executed without damaging critical dam structures. Blasts occurred very near to the dam's radial gates, trunnion anchors, and other important dam facilities. Work was performed for Dillingham International and the US Bureau of Reclamation, the project contractor and owner, respectively.

Boston Metropolitan Water District METRO-WEST tunnel project – 1997. Evaluated tunnel blasting vibration and noise effects, developed special blasting controls, performed public relations work, and provided claim investigation services to Shea-Traylor-Healy, the contractor.

Bill Emerson Bridge project – 1996-2002 Cape Girardeau, MO Bridge Project 1996. Developed unique submarine blasting plans and bubble-curtain water-pressure mitigation measures for bridge pier excavation blasts below 60 feet of water and sand in the Mississippi river.

Los Angeles METRO Project – 1996-98. Designed an underground explosives storage plan to facilitate a CAL-OSHA variance request for Traylor Bros. Inc./Frontier Kemper Constructors, Inc. J.V.—the contractor. After the plan was approved by the California Standards Review Board, the magazine facility was built and the blasting work was completed without incident. Also provided specialized training and blasting consulting services to JMA (Jacobs Engineering Group, Mott McDonald Hatch, and ACG Environments Joint Venture – Construction Manager).

H-3 Highway Tunnels, Halawa Valley, Hawaii -- April 1991 to 93. Blasting Consultant for Hawaiian Dredging, the contractor; approved by Parsons, Brinckerhoff, Quade & Douglas and Hawaii DOT. Prepared blasting plans and evaluated procedures.

D.H. Blattner & Sons, Cobre Mining, Silver City, New Mexico (surface copper)– 1996. Audited the blasting practices and prepared design change recommendations that improved blasting safety, pit slope stability, and mine productivity.

Nashville Airport Quarry Fill Project -- Metric Construction Company, Nashville, Tennessee. Responsible for Safety Training Program and Vibration/Airblast Control. Consultant to contractor, approved by Nashville Airport Authority. Five million cubic yards of rock was blasted in this project and it included a tunnel for water and utilities.

Hanging Lake Tunnels Project -- 1989 to 1990. Blasting Consultant for Hanging Lake Joint Venture, the contractor; approved by Parsons, Brinckerhoff, Quade & Douglas Inc. and Colorado DOT. Developed controlled blasting plans for surface bridge abutment cuts, portal development cuts and multiple face underground tunnel rounds. Approved all Blasting Supervisor qualifications and loading procedures.

Barrick Meikle Mine, Carlin, Nevada - 1996. Audited the development heading blasting practices and provided practical design improvements that increased round advance rates and reduced overbreak. Presented recommendations concerning safe blasting in hot ground and centralized blasting systems.

Stillwater Mining Company, Nye, Montana – 1994 to 1996. Aided the development and introduction of narrow vein long hole stope mining. Developed controlled blasting techniques designed to minimize dilution from a very weak hanging wall. Provided practical recommendations for controlling ammonia and nitrate losses from explosives.

TRI-MET Light Rail Tunnel Project - October 1993 to present. Blasting Consultant for Frontier/Traylor joint venture. Prepared all blasting plans and vibration/noise mitigation and monitoring systems for this large tunnel and shaft blasting project in Portland, Oregon.

PROJECT CONSULTING EXPERIENCE Continued

Yucca Mountain Nuclear Waste Repository Project -- 1992. Provided controlled blasting designs and information for Raytheon and Kiewit-Parsons Brinkerhoff. This work was for the TBM starter tunnel and the ongoing storage cavern excavations.

Hoover Dam Elevator Shaft Project - August 1990 through April 1991. Blasting Consultant for Frontier Kemper Constructors – contractor. Prepared a Blasting Program designed to meet stringent vibration and flyrock control requirements. Approved all blasting supervisor qualifications and Blast designs.

Roosevelt Dam Retrofit -- 1991 to 92. Developed controlled blast plans for J.A. Jones, the contractor, at this U.S. Bureau of Reclamation project in Arizona.

Seven Oaks Diversion Tunnel -- June 1992 to 93. Blasting Consultant for Tutor-Saliba and Dynatec Mining; the contractors. Prepared the blast plans for the diversion tunnel, valve chamber, and surface excavations at this project in Highlands, California.

Hoover Dam Aeration Slots -- Frontier Kemper Constructors, Boulder City, Nevada, 1986. Responsible for Blasting Safety Program and Blast Vibration Control measures. Consultant to the contractor, approved by U.S. Bureau of Reclamation.

Southdown, Inc., Houston, Texas – 1998. Conducted Blast Design and Risk Management Workshop for quarry managers at annual national meeting—Longmont, CO. Topics included principles of blast design, controlled blasting techniques and measures for preventing blast vibration and air-overpressure damage claims or litigation.

Barretts Minerals, Inc., Dillon, Montana – 1998. Performed Blasting Practices Audit and recommended improvements designed to prevent losses of explosives to groundwater that might cause potential ammonia and nitrate pollution.

INCO Limited -- "Smoothwall" Tunneling Project 1981. Conducted Blasting Method Research at eight different mines to establish Smoothwall Tunneling standards for INCO development and large chamber opening.

Minidoka Dam Replacement Powerplant & Switchyard Project - January 1996 to present. Providing blast design and blast affects control services to Superior Blasting, Inc. and Pirini Corporation, the blasting and prime contractors, respectively, at this very challenging U.S. Bureau of Reclamation project in Idaho.

EDUCATION

B. Eng., Mining Engineering, 1980, Laurentian University, Sudbury, Ontario, Canada

PUBLICATIONS, TRAINING AND PRESENTATIONS

Biannually Conducted ROCK BLASTING TECHNOLOGY AND RISK MANAGEMENT COURSE. This two-day program, sponsored by ASCE, is designed specifically for project managers, engineers, attorneys and government agency professionals. The course covers explosives technology, controlled blast design, identification of blasting risk and management strategies, specification development, and cost estimating.

Published "Underground Bulk Mining Blast Design and Vibration Monitoring at INCO Metal's Sudbury Operations." Printed, August 20, 1981. Prepared for Canada Center for Mineral Energy and Technology.

Editor and Contributing author to "Explosives and Rock Blasting," a comprehensive hard cover blasting handbook published by Atlas Powder Company in 1987.

PUBLICATIONS, TRAINING AND PRESENTATIONS Continued

Presented paper titled, "Controlled Blasting at the Hanging Lake Tunnels Project" at the annual Society of Explosives Engineers meeting in Las Vegas, NV, January, 1991.

Presented "Controlled Excavation at the Trans-koolau Halawa Tunnels" paper at the Society of Explosives Engineers annual meeting in San Diego, California, January, 1993.

Presented "Controlled Blasting at the TRI-MET tunnels" paper at the International Society of Explosives Engineers annual meeting in Nashville, Tennessee, January 1995.

Presented "Practical Methods for Controlling Explosives Losses and Ammonium Nitrate Pollution" paper at the Society of Mining Engineers annual meeting, Denver, Colorado, March 1995. Published in MINING ENGINEERING Journal, July-96.

Presented "The Effects and Control of Overbreak In Underground Mining" at Society of Mining Engineers annual meeting, Denver, Colorado, March 1997. Published in MINING ENGINEERING Journal, Aug-98.

Presented "Blasting a Tunnel Through Folsom Dam," a paper describing controlled blasting, planning, and testing methods used to successfully blast an air-intake tunnel through the Folsom Dam. Despite blasting under the pressure of a very tight schedule and near many critical structures--including radial gates, trunnion anchors, a roadway, and a concrete spraywall, all blasting occurred without damage. ISEE Annual Conference, Nashville, TN, February 1999.

Contributed "To Blast or Not to Blast" to the American Society of Civil Engineer's new Practice Periodical on Structural Design and Construction. This article outlines the liability risks associated with urban construction blasting, and it offers a practical approach for managing these risks. 2000.

Published "Managing Blasting Risk" in the ASCE Practice Periodical on Structural Design and Construction Journal, Vol. 6, No.1, 2001. Article describes methodology for evaluating blasting risks, developing specific controls, and ensuring the work is supervised and overseen by qualified persons. Includes 3 case histories illustrating how methods were used at three projects with extreme blasting risk.

Presented "Controlled Blasting Methods for Excavating Rock and Concrete near Critical Structures" at European Federation of Explosives Users Conference, Prague, CZ, September 2003.

By Special Invitation, Presented "Managing Rock Blasting Work in Urban Environments" At a specialty Seminar by ASCE Metropolitan Section Geotechnical Group and the Geo-Institute of ASCE, New York City, May 2005.

Conducted Controlled Blasting and Risk Management Course for North Carolina Department of Transportation. Two 2-day programs for over 70 staff members held at Asheville and Sylva, NC. December-05 and Jan-06. Program covered principles of blast design, controlled blasting methods, vibration and air-overpressure control, specifications, and risk management systems.

Presented "Blasting Near New Concrete – 3 Case Histories" at ISEE Annual Conference, Dallas, Texas, February 2006.

PROFESSIONAL MEMBERSHIPS

1. Association of Professional Engineers of Ontario, Canada -- PEO
2. International Society of Explosive Engineers – ISEE (Elected to National Board of Directors - 2001)
3. American Society of Civil Engineers – ASCE

Response to Comments Document

ROBLAR ROAD QUARRY

Environmental Impact Report
Appendix C
SCH # 2004092099

Prepared for
County of Sonoma Permit and
Resource Management Department

October 2009



APPENDIX C

Attachments to Written Comments on the Draft EIR

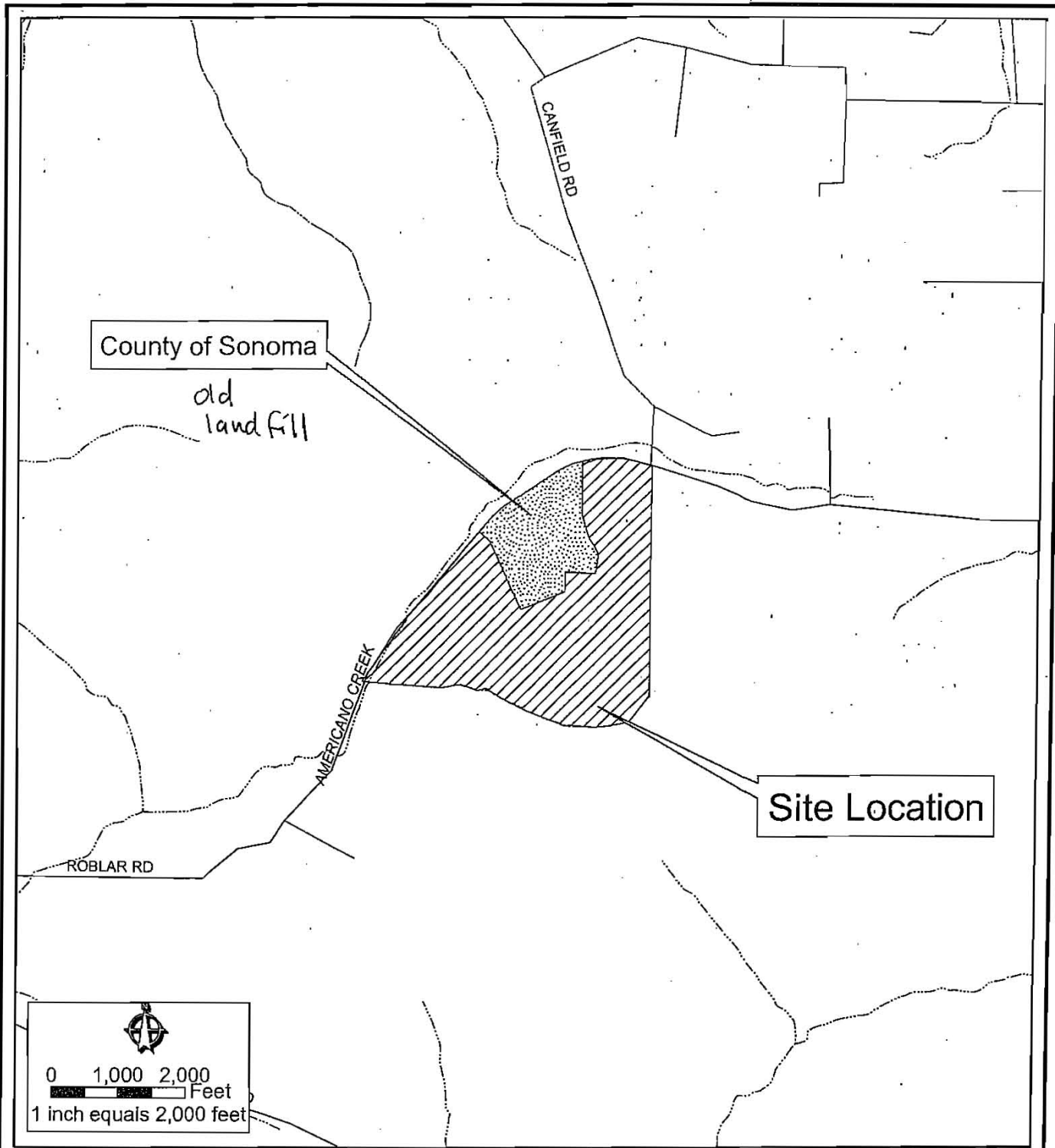
	<u>Page</u>
Appendix C-1 Attachment to Letter U (Mary Hines)	C-1.1
Appendix C-2 Attachment to Letter X (Ronald Norton)	C-2.1
Appendix C-3 Attachment to Letter JJ (Corey Merrick)	C-3.1

(Appendix A and B are included with the Response to Comments Document)

APPENDIX C-1

Attachment to Letter U (Mary Hines)

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Robler Road Quarry Location Map

Forest and Resource Management Department
 12345678901234567890
 COUNTY OF SONOMA

Author: PRMD
 Cartography: D. Henry
 File No.: 12345678901234567890
 robler road quarry
 location.mxd
 Date: 05/11/2004

Figure 2

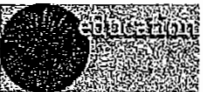


Attachment 1



ecosystem protection

[ecosystem protection programs](#) | [permitting](#)



The goals and objectives set forth by the National Marine Sanctuaries Act (NMSA) direct each of the sanctuaries to take an ecosystem approach to management. Gulf of the Farallones National Marine Sanctuary's (GFNMS) ecosystems include habitat structure, species assemblages, and ecological processes, as well as the many interactions with humans and their activities. GFNMS is developing an Ecosystem Protection program to expressly maintain an integrated perspective, while providing oversight in addressing the multitude of resource protection issues the sanctuary is currently facing. This will also anticipate and plan for new and emerging issues.

As directed by the NMSA, GFNMS's role is protection of the area's natural resource and ecosystem values by protecting the biodiversity, productivity and aesthetic qualities of the marine environment of the Gulf of the Farallones through ecosystem-based management. The goal of the Ecosystem Protection program is to maintain and where necessary, restore, the natural biological and ecological processes in Gulf of the Farallones National Marine Sanctuary by evaluating and addressing adverse impacts from human activities on sanctuary resources and qualities.

Click [here](#) for a complete overview of GFNMS's Ecosystem Protection Program. (880K PDF)

[back to top](#)

[contact](#) | [media](#) | [privacy policy](#)

This page was last updated on January 1, 2007
 2007 Gulf of the Farallones National Marine Sanctuary

Attachment #2

UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION
& MARIN RESOURCE CONSERVATION DISTRICT



CARBON, SOILS, & YOUR RANCH

An Introduction to Carbon Sequestration on Rangelands

June 5, 2008, 4 p.m. - 7 p.m. - Dance Palace Center - Point Reyes Station

The threat of global warming and the opportunity to manage carbon with soils has sparked considerable interest in market-based compensation of soil carbon sequestration that decreases greenhouse gas emissions. Rangelands managed for livestock production represent the largest land-use footprint globally, accounting for 25 to 35% of the global soil carbon pool, and may have potential to sequester more. Plan to attend this meeting to learn more about.

- ▶ *Rangeland management that can lead to improvements in pasture condition and ranch viability through improved soil conditions.*
- ▶ *Soil carbon cycles and how sequestration works.*
- ▶ *Preliminary results from recent soil carbon studies across Marin and Sonoma counties.*
- ▶ *Online soil survey resources.*
- ▶ *Current state of markets & availability of compensation.*

Dr. Whendee Silver – What is carbon sequestration and how does it work in grassland soils?
- UC Berkeley Professor of Ecosystem Ecology

Dr. William Stewart – Existing and needed carbon market connections
- UC Berkeley Forestry Specialist

Dr. Anthony O'Geen – Local soils described online - UC Davis Soil Specialist

Stephanie Larson – Rangeland and livestock management options and tools - UCCE Livestock & Natural Resources Advisor

Andrew Fynn – Introduction to the "Marin Carbon Project" - Spokesperson, Marin Carbon Project

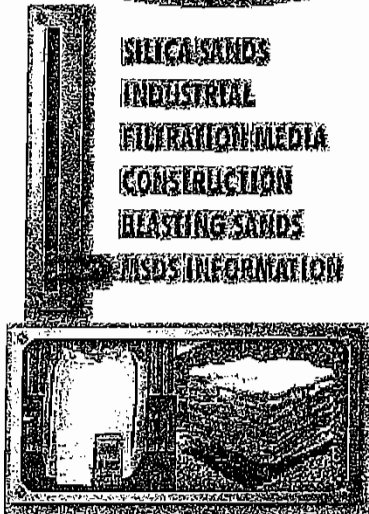
▶ REGISTER ON-LINE AT http://ucanr.org/carbon_workshop ▶ \$10 covers refreshments
▶ For questions: David Lewis, 707-565-2621 or Steve Quirt, 415-499-4204

The University of California prohibits discrimination or harassment of any person on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (including childbirth), and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran (covered veterans are special disabled veterans, recently separated veterans, Vietnam era veterans, or any other veterans who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized) in any of its programs or activities. University policy is intended to be consistent with the provisions of applicable State and Federal laws. Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action/Staff Personnel Services Director, University of California, Agriculture and Natural Resources, 1111 Franklin Street, 6th Floor, Oakland, CA 94607, (510) 987-0096.

attachment 3



1-877-444-7263 TOLL FREE
MAIN CONTACT SANDS SPECIFICATIONS EQUIPMENT SEARCH



MSDS INFORMATION

Health Effects of Silica Sand

Silica sand contains crystalline silica. Avoid breathing dust from this product as prolonged and repeated breathing can cause a progressive lung disease called Silicosis. The International Agency for Research on Cancer has classified crystalline silica as a known human carcinogen. Long term exposures that result in silicosis may cause additional health effects. Follow OSHA, MSHA & NIOSH health standards for silica dust.

This warning only applies to purchases of products that contain crystalline silica. For more detailed information, see Material Safety Data Sheet (MSDS) before using or handling this product. To request an MSDS sheet for a particular product, just visit our contact page above.

(contact us at info@standardsand.com)

attachment 4



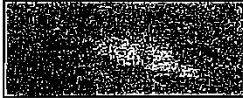
U.S. Department of Labor
Occupational Safety & Health Administration

www.osha.gov

Search



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Safety and Health Topics
Silica, Crystalline

Safet
Healt

Silicosis is a disabling, nonreversible and sometimes fatal lung disease caused by overexposure to respirable crystalline silica. Silica exposure remains a serious threat to nearly two million US workers. The National Institute of Occupational Safety and Health (NIOSH) reports that each year more than 250 die from silicosis and hundreds more are disabled. There is no cure for the disease, but it is 100 percent preventable if employers, workers, and health professionals work together to reduce exposures. [More...]

In Focus

- [Hot Topics](#)
- [eTools](#)

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The following questions link to information relevant to crystalline silica in the workplace.



What OSHA standards apply?

[Standards](#) | [Regulatory Agenda](#) | [Preambles to Final Rules](#) | [Directives](#) | [More](#)

Cont
0



What information is available for the construction industry?

[Alliances](#) | [OSHA Standards](#) | [Hazard Recognition](#) | [More](#)



Where can I find information about silica and its health effects?

[General Resources](#) | [Health Effects](#)



How do I evaluate silica exposures in the workplace?

[Sampling and Analysis](#) | [Analytical Methods](#)



What are some examples of possible solutions for workplace hazards?



What additional information is available?

[Related Safety and Health Topics Pages](#) | [Training](#) | [More](#)

In Focus

Hot Topics

Hurricane Recovery

- [Keeping Workers Safe During Clean Up and Recovery Operations Following Hurricanes](#). OSHA. Includes information such as news releases, public service announcements, fact sheets, frequently asked questions, and more.



attachment 5-1

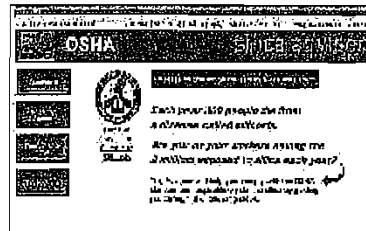
Comment Letter U - Attachment

General

- [OSHA Establishes a New National Emphasis Program on Silica](#). OSHA Trade News Release, (2008, February 1). Announces a new National Emphasis Program (NEP) to target worksites where employees are at risk for developing silicosis.
- [National Emphasis Program – Crystalline Silica](#). OSHA Directive CPL 03-00-007, (2008, January 24). Includes an updated list of industries commonly known to have overexposures to silica; detailed information on potential hazards linked to silica and about current research regarding silica exposure hazards; guidance on calculating the Permissible Exposure Limits (PELs) for dust containing respirable crystalline silica in the construction and maritime industries; and guidance on conducting silica-related inspections.
- [Silicosis](#). OSHA. Links to program information, presentation and training materials, and National Institute for Occupational Safety and Health (NIOSH) articles.

eTools

- [Silica](#). OSHA. A [downloadable version](#) is also available. Links to an expert training and information aid. Includes current information that will assist businesses and workers in identifying potential silica hazards in their workplaces by choosing appropriate sampling and analytical techniques, comparing monitoring results with the silica exposure limits, and selecting appropriate short and long-term control options.



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Occupational Safety & Health Administration
200 Constitution Avenue, NW
Washington, DC 20210

Page last updated

attachment 5-2



[CDC Home](#)

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[CDC Health Topics A-Z](#)



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NIOSH Safety and Health Topic:

Silica

At least 1.7 million U.S. workers are exposed to respirable crystalline silica in a variety of industries and occupations, including construction, sandblasting, and mining. Silicosis, an irreversible but preventable disease, is the illness most closely associated with occupational exposure to the material, which also is known as silica dust. Occupational exposures to respirable crystalline silica are associated with the development of silicosis, lung cancer, pulmonary tuberculosis, and airways diseases. These exposures may also be related to the development of autoimmune disorders, chronic renal disease, and other adverse health effects.

NIOSHTIC-2 Search

NIOSHTIC-2 search results on Silica

NIOSHTIC-2 is a searchable bibliographic database of occupational safety and health publications, documents, grant reports, and journal articles supported in whole or in part by NIOSH.

NIOSH Publications - Silica (General)

Hazard Review

NIOSH Hazard Review: Health Effects of Occupational Exposure to Respirable Crystalline Silica DHHS (NIOSH) Publication No. 2002-129 (April 2002)

This Hazard Review describes published studies and literature on the health effects of occupational exposure to respirable crystalline silica among workers in the U.S. and many other countries. Occupational exposures to respirable crystalline silica are associated with the development of silicosis, lung cancer, pulmonary tuberculosis, and airways diseases. These exposures may also be related to the development of autoimmune disorders, chronic renal disease, and other adverse health effects.

NIOSH Recommendations for Preventing Silicosis

Criteria for a Recommended Standard—Crystalline Silica

DHEW (NIOSH) Publication No. 75-120 (1974)

This report presents the criteria and recommended standards for preventing occupational diseases arising from exposure to crystalline variants of free silica. Criteria presented in this document do not pertain to amorphous, noncrystalline forms of silica.

Current Intelligence Bulletin #36: Silica Flour: Silicosis (Crystalline Silica)

DHHS (NIOSH) Publication No. 81-137 (1981)

This report warns producers and users of silica flour that the risk of developing silicosis may be very high for exposed workers.

NIOSH Alert: Request for Assistance in Preventing Silicosis and Deaths from Sandblasting

DHHS (NIOSH) Publication No. 92-102 (1992)

[En Español](#)

This Alert describes 99 cases of silicosis from exposure to crystalline silica during sandblasting. Of the 99 workers reported, 14 have already died from the disease, and the remaining 85 may die eventually from silicosis or its complications.

Alert: Request in Preventing Silicosis and Deaths in Rock Drillers

DHHS (NIOSH) Publication No. 92-107 (1992)

Silica



Topic Index:

- ▶ [NIOSH Publica \(General\)](#)
- [NIOSH Publicati Industry\)](#)
- [Other Silica Res](#)

On This Page...

- [NIOSHTIC-2 Se: Hazard Review](#)
- [NIOSH Recomm Preventing Silic](#)
- [B-Reader Progr](#)
- [Respirators](#)
- [Video Programs](#)
- [Silicosis Educati](#)
- [Respirators](#)
- [Sampling and At](#)
- [Worker Notificati](#)
- [Surveillance](#)

Attachment 6 -1

En Español

This Alert describes 23 cases of silicosis from exposure to crystalline silica during rock drilling. Of the 23 workers reported, 2 workers have already died from the disease, and the remaining 21 may die eventually from silicosis or its complications.


NIOSH Alert: Request for Assistance in Preventing Silicosis and Deaths in Construction Workers

DHHS (NIOSH) Publication No. 96-112 (1996)

En Español


This Alert describes six case reports of construction workers who have died or are suffering from silicosis. In addition, the Alert cites examples of five construction operations that used poor dust controls and two operations that used good dust controls.

Occupational Health Guideline for Amorphous Silica

 PDF only 4187 KB (130 pages)

This guideline is intended as a source of information for employees, employers, physicians, industrial hygienists and other occupational health professionals who may have a need for information on amorphous silica.

Occupational Health Guideline for Crystalline Silica

 PDF only 4187 KB (130 pages)

This guideline is intended as a source of information for employees, employers, physicians, industrial hygienists and other occupational health professionals who may have a need for information on crystalline silica.

B-Reader Program

NIOSH B-Reader Program

NIOSH B Reader certification is granted to physicians who demonstrate proficiency in the classification of chest x-rays for the pneumoconioses using the International Labour Office (ILO) Classification System.

NIOSH Spirometry Training Page

Information about training for those individuals who will be administering screening pulmonary function testing to employees who are exposed to cotton dust.

Respirators

NIOSH Respirator Topic Page

Provides information about respirators, including user notices, respirator selection, respirator certification processes, standards and rulemaking.

Certified Equipment List

Database of all certified respirators and coal mine dust personal sampler units.


Video Programs

NIOSH Training Videos

Some NIOSH video programs are available online in streaming and downloadable formats. All NIOSH video programs can be borrowed (and copied) free of charge.

Silicosis Education Campaign

A Guide To Working Safely With Silica: If It's Silica, It's Not Just Dust (1997)

 PDF only 213 KB (21 pages)

This guide, a cooperative effort between the Department of Labor and NIOSH, explains how you can protect yourself and others if you work in one of the dozens of industries where dust containing silica


attachment 6-2

Comment Letter U - Attachment

is present.






[If It's Silica, It's Not Just Dust - Announcement of Joint Campaign on Silicosis Prevention](#)
Introductory informational page linking to press releases and NIOSH publications on the subject.

[Press Release on Joint Campaign on Silicosis Prevention](#)
Reprint of original press release from the U.S. Department of Labor - Office of Public Affairs

["Preventing Silicosis" \(October 31, 1996\)](#)
 [En Español](#)
Reprint of U.S. Department of Labor fact sheet.

Sampling and Analytical Methods

[NIOSH Manual of Analytical Methods \(NMAM\), 4th edition](#)
DHHS (NIOSH) Publication No. 94-113 (1994)
NMAM is a collection of methods for sampling and analysis of contaminants in workplace air, and in the blood and urine of workers who are occupationally exposed. These methods have been developed or adapted by NIOSH or its partners and have been evaluated according to established experimental protocols and performance criteria. NMAM also includes chapters on quality assurance, sampling, portable instrumentation, etc.

- [Method #7501 - Silica, Amorphous](#)
 [PDF only](#) 44 KB (8 pages)
- [Method #7500 - Silica, Crystalline, by XRD](#)
 [PDF only](#) 50 KB (8 pages)
- [Method #7601 - Silica, Crystalline](#)
 [PDF only](#) 28 KB (5 pages)
- [Method #7602 - Silica, Crystalline \(IR\)](#)
 [PDF only](#) 29 KB (5 pages)
- [Method #7603 - Silica in coal mine dust](#)
 [PDF only](#) 33 KB (6 pages)

[NIOSH Pocket Guide to Chemical Hazards](#)
DHHS (NIOSH) Publication No. 2005-149
[Exposure limits, Respirator Recommendations, First Aid, more...](#)
The Pocket Guide is a source of general industrial hygiene information on several hundred chemicals/classes found in the work environment. Key data provided for each chemical/substance includes name (including synonyms/trade names), structure/formula, CAS/RTECS Numbers, DOT ID, conversion factors, exposure limits, IDLH, chemical and physical properties, measurement methods, personal protection, respirator recommendations, symptoms, and first aid.

- [Silica, crystalline \(as respirable dust\)](#)
- [Silica, amorphous](#)

Worker Notification Program

Through the [NIOSH Worker Notification Program](#), NIOSH notifies workers and other stakeholders about the findings of past research studies related to a wide variety of exposures. The links below present archival materials sent to participants in studies related to crystalline silica exposure.

- [Gold Miners \(Silica Exposure\) \(1\)](#)
- [Industrial Sand Workers \(Silica Exposure\) \(2\)](#)

Surveillance

[Occupational Respiratory Disease Surveillance \(ORDS\)](#)
NIOSH Topic Page about occupational respiratory disease medical screening and monitoring

Attachment 6-3

Comment Letter U - Attachment

Atlas of Respiratory Disease Mortality, United States: 1982-1993

DHHS (NIOSH) Publication No. 98-157 (1998)

This report presents maps showing geographic distributions (by health service area) of mortality associated with selected respiratory conditions that together represent nearly all respiratory diseases. For categories of traditional occupational lung diseases mapped in this atlas (i.e., the pneumoconioses, including coal workers' pneumoconiosis, asbestosis, silicosis, byssinosis, and other and unspecified pneumoconioses), nearly all cases are attributable to hazardous occupational exposure.

MMWR: Morbidity and Mortality Weekly Report

The MMWR weekly contains data on specific diseases as reported by state and territorial health departments and reports on infectious and chronic diseases, environmental hazards, natural or human-generated disasters, occupational diseases and injuries, and intentional and unintentional injuries. Included here are a collection of articles related to occupational exposure to silica.

- Silicosis Mortality, Prevention, and Control --- United States, 1968--2002
MMWR Weekly for April 19, 2005 / 54(16);401-405
- Silicosis in Dental Laboratory Technicians --- Five States, 1994--2000
MMWR Weekly for March 12, 2004 / 53(09);195-197

Occupational Respiratory Disease Surveillance (ORDS)




NIOSH Topic Page about occupational respiratory disease medical screening and monitoring

Worker Health Chartbook 2004

DHHS (NIOSH) Publication No. 2004-146 (2004)

Fatal and Nonfatal Injuries, and Selected Illnesses and Conditions—Chapter 2: Silicosis

The Chartbook presents data and charts that characterize types of injuries and illnesses by gender, race, industry, and occupation. Sections of the 2000 Chartbook were re-packaged in booklets highlighting fatal and nonfatal illnesses and injuries as well as a focus on mining.

- **Fatal Illness**
DHHS (NIOSH) Publication No. 2002-118
 [PDF only](#) 1.7 MB (60 pages)
- **Nonfatal Illness**
DHHS (NIOSH) Publication No. 2002-120
 [PDF only](#) 2.8 MB (68 pages)
- **Focus on Mining**
DHHS (NIOSH) Publication No. 2002-121
 [PDF only](#) 1.4 MB (44 pages)

Work-Related Lung Disease (eWoRLD) Surveillance System

The Work-Related Lung Disease (eWoRLD) Surveillance System, produced by the National Institute for Occupational Safety and Health (NIOSH), presents up-to-date summary tables, graphs, and figures of occupationally-related respiratory disease surveillance data on the pneumoconioses, occupational asthma and other airways diseases, and several other respiratory conditions. For many of these diseases, selected data on related exposures are also presented.

[NIOSH Publications - Silica \(by Industry\)](#) ►

[NIOSH Home](#) | [NIOSH Search](#) | [Site Index](#) | [Topic List](#) | [Contact Us](#)

Attachment 6-4

Comment Letter U - Attachment

From the Roblar Road Quarry Surface Mining and reclamation plan Application, dated July 23, 2003:

John H. Dailey , consulting geotechnical engineer, page 2.
Geologic Units. "...the bedrock throughout the property consists of the mélange unit...typically characterized by blocks of harder rock types...embedded in a weak matrix of sheared shale and serpentinite"

Definition; Serpentinite: rock composed almost fully of serpentine, but containing small amounts of Pyroxene and Amphibole minerals, as well as Olivine, Magnetite, Calcite, and Dolomite.

"In July, 2001, The California Air Resources Board approved an Asbestos Airborn Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface mining Operations. ... Asbestos occurs naturally in ultramafic rock (which includes serpentine) When this material is disturbed in connection with construction, grading, quarrying or surface mining operations, asbestos-containing dust can be generated. ..projects of one acre or more must prepare and obtain district approval for an asbestos dust mitigation plan....activities must not result in emissions that are visible crossing the property line"

attachment 7-1

**REPORT
PRELIMINARY GEOLOGIC EVALUATION
PROPOSED ROBLAR ROAD QUARRY
7601 ROBLAR ROAD
SONOMA COUNTY, CALIFORNIA**

Job No. 2220

Prepared for

**North Bay Construction, Inc.
P.O. Box 6004
Petaluma, California 94955-6004**

by

**JOHN H. DAILEY
Consulting Geotechnical Engineer
737 Castro Street
San Francisco, California 94114-2826
(415) 357-1215
(707) 778-7978**

October 1, 2002

attachment 7-2

JOHN H. DAILEY
Consulting Geotechnical Engineer
737 Castro Street
San Francisco, California 94114-2826
(415) 357-1215
(707) 778-7978

October 1, 2002
Our Job No. 2220

North Bay Construction, Inc.
P.O. Box 6004
Petaluma, California 94955-6004

Attention: Messrs. John Barella and Jerry Cossey

Report
Preliminary Geologic Evaluation
Proposed Roblar Road Quarry
7601 Roblar Road
Sonoma County, California

INTRODUCTION

As requested, this report presents the results of our preliminary geologic evaluation of a proposed hard rock quarry at 7601 Roblar Road, in Sonoma County, California. The site is located on the southeast side of Roblar Road and northwest of Petaluma, as shown on the Vicinity Geologic Map, Plate 1. The subject site, with our interpretation of the geology, is shown on the Site Plan and Geologic Map, Plate 2. The area under consideration is bounded on the northwest by a closed county landfill. Seismic refraction geophysical surveys were previously performed and borings were drilled to assess the potential hard rock resources on the property. The purpose of the current geologic evaluation was to review the existing subsurface data and perform onsite geologic mapping, and further evaluate the location and potential sources of hard rock materials on the property.

METHODS OF INVESTIGATION

We reviewed published geologic data for the site as well as stereo-paired aerial photographs of the property to assess the surface conditions. We also reviewed a geophysical survey performed by Norcal Geophysical Consultants, and copies of logs of test borings drilled in May 2001 (consultant

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JOHN H. DAILEY
Consulting Geotechnical Engineer

North Bay Construction, Inc.
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not listed on logs). Literature and photos utilized for this evaluation are listed in the *References* section.

On August 20 and 21, 2002, a site reconnaissance was performed by a certified engineering geologist to map the exposed geologic features and field-check geologic conditions depicted on published maps and interpretations made from the aerial photographs. Field data were plotted on a 1"=200' scale base map provided by CSW/Stuber-Stroeh Engineering Group. The geologic mapping is presented on the Site Plan and Geologic Map, Plate 2. Subsurface exploration was not performed during the current evaluation.

SITE CONDITIONS

Surface Features and General Description

The property is bounded on the west by moderately steep slopes down to Roblar Road and by steep slopes on the south margin, above an unnamed creek. Slope gradients flatten somewhat in the central ridge top areas. Elevations range across the property from about 120 feet along Roblar Road, to about 600 feet at the ridge top in the southeast corner. The property is currently being used for cattle grazing. The slopes are predominantly grass-covered, with occasional trees. To the northwest, the property is bounded by cut slopes of a closed landfill. In the cut slopes, light brown and yellow brown sand strata of the Wilson Grove formation are exposed.

Geologic Units

Bedrock Units

Published geologic mapping, from the California Division of Mines and Geology (CDMG, Huffman and Armstrong, 1980) and shown on Plate 1, indicates the bedrock throughout the property consists of the melange unit of the Jurassic- to Tertiary-age Franciscan Complex (map unit KJfs on Plates 1 and 2). The melange unit is typically characterized by blocks of harder rock types, such as sandstone, chert, and metavolcanic rock ("greenstone") embedded in a weak matrix of sheared shale and serpentinite. The published mapping shows the Franciscan bedrock as blanketed by slightly cemented sandstone of the Wilson Grove formation (previously designated the Merced formation; map symbol Tm on Plate 1) and andesitic lava flows of the Sonoma Volcanics (map symbol Tsa).

The geology of the site is shown on Plate 2. Based on the geologic mapping and the prior subsurface data, our interpretation of the subsurface conditions is shown on Cross Sections A-A' and B-B', Plate 3. Our site observations indicate that where exposed in outcrop, the Franciscan bedrock consists of fractured sandstone and minor shale. At the ground surface, the sandstone is moderately to highly fractured with low to moderate hardness. Test borings drilled on the property describe the sandstone underlying the Wilson Grove formation as hard to very hard.

Geologic mapping from the current evaluation indicates that hard, moderately fractured basalt and andesite volcanic rock of the Sonoma Volcanics is present along the southern portion of the site.

attachment 7-4

JOHN H. DAILEY
Consulting Geotechnical Engineer

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October 1, 2002 - Page 3

While not indicated in the published mapping, these volcanic units appear to be in contact with the sands of the Wilson Grove formation along a northwest-striking fault. In general, the volcanic rock appears to have only shallow surface soil cover, and crops out along ridge top areas. The Sonoma Volcanics overlie the Franciscan Complex and may also be in fault contact with the Franciscan bedrock along the drainage to the south.

Within the central and northern portions of the property, the Franciscan Complex bedrock units are blanketed by the Wilson Grove formation (map symbol Twg on Plate 2). Where exposed on the site, the Wilson Grove formation consists of friable, slightly cemented to uncemented silty sand. The fines in the Wilson Grove strata appear to be non-plastic and non-cohesive.

A fault is also shown on the published geologic mapping (Huffman and Armstrong, 1980) as traversing the more northerly portion of the property, near the property line with the closed landfill. Our mapping also identified this fault along Roblar Road, where Wilson Grove formation sands appear to be displaced against Franciscan Complex sandstone. From our mapping, it appears that a northwest-trending block of Wilson Grove formation and underlying Franciscan Complex in the central portion of the site has been uplifted or tilted by faulting, with respect to the units to the north and south. This is evidenced by the higher elevation of the Wilson Grove/Franciscan bedrock contact on the slopes just east of Roblar Road in the central portion of the property.

Surficial Deposits

We mapped several landslides along the contact between the Franciscan Complex and overlying Wilson Grove formation. These landslide deposits are on the slopes just east of Roblar Road, as shown on Plate 2. The landslides also occur along a band of higher, green vegetation, indicative of seasonal springs/seeps.

In the southwest corner of the property, the bedrock units are blanketed by stream alluvium. At the surface the alluvium consists of sand/silt/clay mixtures. The thickness of the alluvium was not confirmed, but may be a few tens of feet thick.

Surface/Ground Water

At the time of our reconnaissance in August, 2002, water was standing in a stock pond at an elevation of about 500 feet, in the eastern part of the site. We noted seepage flowing into the pond from the northeast bank. A surface seep (shown on Plate 2) was mapped along the fault contact between the Wilson Grove formation and Sonoma Volcanics in the southeast corner of the property. As discussed, it appears that seasonal seeps may also occur along the Franciscan/Wilson Grove contact upslope of Roblar Road.

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JOHN H. DAILEY
Consulting Geotechnical Engineer.

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DISCUSSION AND CONCLUSIONS

The geologic mapping from this evaluation modifies the published, regional-scale geologic mapping for the property, and indicates that hard basalt and andesite volcanic flow rock is present near the ground surface in the southern portion of the property. Boring 6, drilled in this area, appears to have incorrectly logged the rock encountered as graywacke sandstone. However, both our geologic mapping and the prior test boring indicate that hard volcanic rock resources are present at shallow depth at the southern margin of the property.

The central portion of the property is blanketed at the ground surface by uncemented sands of the Wilson Grove formation. While the Wilson Grove formation strata may have possible economic value as engineered fill, they would not be a source of hard rock/gravel materials. This central area appears to be a fault-bounded block that was uplifted or tilted with respect to geologic units to the north and south. Geophysical surveys by Norcal Geophysical Consultants interpret hard bedrock to be present at depths of less than 25 feet in the central portion of the block. Test boring 7, drilled in the middle of this block, appears to have encountered gray bedrock (sandstone?) beneath the Wilson Grove formation, at a depth of only about 21 feet. Somewhat further upslope and east, in test borings 1 and 5, bedrock was encountered at a greater depth, about 40 to 50 feet. Further downslope, the geophysical surveys also suggest the Wilson Grove thickens. Verification of the depth to bedrock further downslope would require additional test borings.

The test boring logs provide only limited descriptions of the physical properties of the rock encountered during drilling. Typically, this is limited to a description of rock color and hardness. No indications of fracture intensity or degree of weathered are indicated. The boring logs indicate that core samples were taken in the bedrock, although we have not had the opportunity to review the core.

There is no test boring data, and only limited geophysical survey data, north of the northern fault, and so the depth to Franciscan bedrock was not verified. The north end of geophysical Line 2 indicates a seismic wave velocity interface to 12,700-13,600 ft/sec (typical of harder rock conditions), at a depth of about 20 to 35 feet. However, based on the extensive exposures of Wilson Grove formation extending from Roblar Road, up through the upper slopes of the closed landfill, we would anticipate that the overburden thickness would be greater. This apparent discrepancy is not resolved from the existing data and would most likely need to be confirmed by additional test borings.

Site observations indicate that ground water seepage occurs at the contact between the Franciscan Complex bedrock and overlying Wilson Grove sands. In addition, seepage may occur along fault contacts. Therefore, as part of quarry pit design, we anticipate that surface and/or subsurface drainage provisions will be needed to intercept this seepage and divert it away from the quarry area. A potential exists for slumping of the Wilson Grove formation along the contact with the underlying bedrock, and may require an excavated bench at the interface, to allow for debris catchment.

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Comment Letter U - Attachment

JOHN H. DAILEY
Consulting Geotechnical Engineer

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CLOSURE

We trust this preliminary report provides the information you require at this time. If you have any questions regarding this report, please call. The following plates are attached and complete this report.

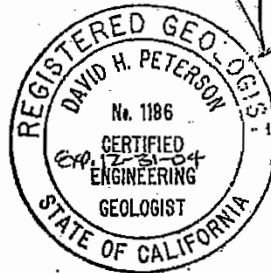
Plate 1
Plate 2
Plate 3

Vicinity Geologic Map
Site Plan and Geologic Map
Cross Sections A-A' and B-B'

Yours very truly



[Handwritten Signature]
John H. Dailey
Geotechnical Engineer 256
License Expires 3/31/04



[Handwritten Signature]
David H. Peterson
Engineering Geologist 1186
License Expires 12/31/02

attachment 7 - 7

JOHN H. DAILEY
Consulting Geotechnical Engineer

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REFERENCES

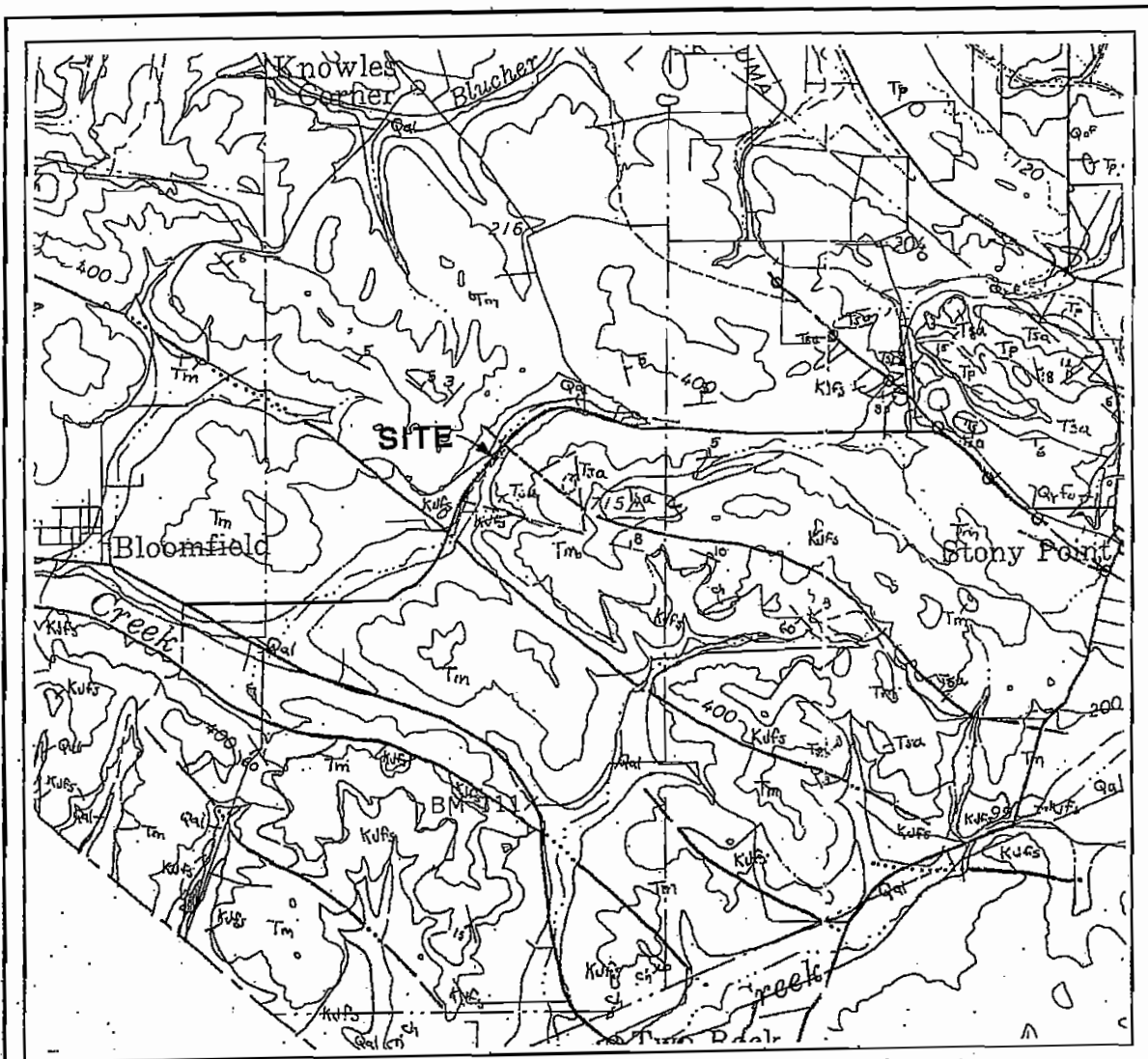
Aerial photographs, from Sonoma County Assessors Office, dated May 7, 1980, scale 1:24,000, photos 18-30, 31, and 32.

Huffman, M.E. and C.F. Armstrong, 1980, "Geology for Planning in Sonoma County", California Division of Mines and Geology Special Report 120.

Norcal Geophysical Consultants, Inc., 2002, "Seismic Refraction Survey, Roblar Road Ranch, 7601 Roblar Road, Sonoma County, CA", unpublished consultant's report to C.R. Fedrick, Inc., dated January 28, 2002, 6p., with illustrations.

Wagner, D.L. and Bortugno, E.J., 1982, "Geologic Map of the Santa Rosa Quadrangle", California Division of Mines and Geology, Regional Geologic Map Series, Map No. 2A, scale 1:250,000.s

attachment 7-8



Reference: Huffman and Armstrong, CDMG Special Report 120.

EXPLANATION

- Qal Alluvial fans
- Tsa Sonoma Volcanics
- Tp Petaluma formation
- Tm Wilson Grove (Merced) formation
- KJfs Franciscan Complex melange
- Contact between geologic units
- Fault traces; inactive
- Attitude of bedding



JOHN H. DAILEY
CONSULTING GEOTECHNICAL ENGINEER

attachment 7-9

Vicinity Geologic Map
Roblar Road Rock Quarry
Sonoma County, California

PLATE
1

Job Number: 2220

Drawn: DHP

Approved:

Date: 9/02

Serpentinite



Serpentinite is the California State Rock. This greenish-gray specimen consists almost entirely of minerals of the serpentine group. Serpentinite is derived from the hydrothermal alteration of previously existing minerals of ultramafic rocks, such as olivine and pyroxene. It is produced when hot sea-water circulates through the lithosphere at ocean ridges. Serpentinite can also form when such water metamorphoses hornblende schists. It is usually found in regions where mountain-building events have occurred in response to the closing of an ocean basin. In California, serpentinite often appears as part of slivers of ocean crust that have been faulted onto the land near the coast.

Geology Home	Rock Garden Home Page	Igneous Rocks	Sedimentary Rocks	Metamorphic Rocks
------------------------------	---------------------------------------	-------------------------------	-----------------------------------	-----------------------------------

attachment 8 - 1

Comment Letter U - Attachment

Serpentinite - Rock composed almost fully of Serpentine, but containing small amounts of Pyroxene and Amphibole minerals, as well as Olivine, Magnetite, Calcite, and Dolomite.

attachment 8-2

<http://www.minerals.net/mineral/silicate/phyllo/serpenti/srpntnit.htm>

2/22/2004



Regulatory Advisory



ASBESTOS AIRBORNE TOXIC CONTROL MEASURE FOR CONSTRUCTION, GRADING, QUARRYING, AND SURFACE MINING OPERATIONS

What is the purpose of this regulation?

At its July 2001 hearing, the California Air Resources Board (ARB) approved an Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations. This ATCM requires road construction and maintenance activities, construction and grading operations, and quarrying and surface mining operations in areas where naturally-occurring asbestos is likely to be found to employ the best available dust mitigation measures.

Why is asbestos of concern?

Asbestos occurs naturally in ultramafic rock (which includes serpentine). When this material is disturbed in connection with construction, grading, quarrying, or surface mining operations, asbestos-containing dust can be generated. Exposure to asbestos can result in health ailments such as lung cancer, mesothelioma (cancer of the linings of the lungs and abdomen), and asbestosis (scarring of lung tissues that results in constricted breathing).

Why was the ATCM adopted?

Information has shown that activities associated with construction, grading, quarrying, and surface mining in areas known to have naturally-occurring asbestos can result in elevated levels of asbestos from these activities. The ATCM is designed to reduce these levels.

To whom does the ATCM apply?

The ATCM applies to road construction and maintenance, construction and grading operations, and quarries and surface mines when the activity occurs in an area where naturally-occurring asbestos is likely to be found. Areas are subject to the regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units or if the APCO or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or naturally-occurring asbestos on the site. The ATCM also applies if ultramafic rock, serpentine, or asbestos is discovered during any operation or activity.

What are the basic requirements of the ATCM?

Road construction and maintenance operations must use dust control measures for a specified set of emission sources and prevent visible emissions crossing the project boundaries. The local air pollution control or air quality management district must also be notified before any work begins.

Comment Letter U - Attachment

For construction and grading projects that will disturb one acre or less, the regulation requires several specific actions to minimize emissions of dust such as vehicle speed limitations, application of water prior to and during the ground disturbance, keeping storage piles wet or covered, and track-out prevention and removal. Construction projects that will disturb more than one acre must prepare and obtain district approval for an asbestos dust mitigation plan. The plan must specify how the operation will minimize emissions and must address specific emission sources. Regardless of the size of the disturbance, activities must not result in emissions that are visible crossing the property line.

Quarries and surface mines must also obtain district approval for an asbestos dust mitigation plan which must address specific emission sources. In addition, they must meet specific opacity standards for certain types of equipment and ensure that there are no emissions visible crossing the property line.

Recordkeeping and Reporting Requirements

Records related to the applicability of the regulation or compliance with the specific provisions of the regulation or the asbestos dust mitigation plan must be kept for seven years. The results of any air monitoring or bulk sampling required by the district, any bulk sampling to document the applicability of, or compliance with, the regulation, and any other records specified in the dust mitigation plan must be reported to the district.

What are the exemptions?

Exemptions are provided for homeowners and tenants working on their own residential property and agricultural operations and timber harvesting except for the construction of roads and structures in connection with agricultural and timber operations. In addition, districts may grant an exemption under any of the following conditions: 1) if a geological evaluation demonstrates that ultramafic rock or serpentine is not likely to be found; 2) for road construction and maintenance activities in a remote location; or 3) for the processing of rock from an alluvial deposit. Finally, for emergency road repairs, district notification may be delayed.

When does this regulation go into effect?

The effective date of the regulation in all air districts is November 19, 2002. Sources should contact their local air districts and take steps now to ensure that the required mitigation is in place by this date.

For more information

To obtain a copy of the regulation, ARB staff report, and other related documents, visit our website at <http://www.arb.ca.gov/toxics/asbestos.htm> or call (916) 327-4327. If you are a person with a disability and desire to obtain this document in an alternative format, please contact the Air Resources Board ADA coordinator at (916) 323-4916. Persons with hearing and speech impediments can contact us by using our Telephone Device for the Deaf (TDD) at (916) 324-9531, or (800) 700-8326 for TDD calls from outside the Sacramento Area. Additional questions may be addressed to Ms. Carol McLaughlin of the Stationary Source Division at (916) 327-5636.

attachment 9 - 2

07/29/02

UPDATED INFORMATIVE DIGEST

ASBESTOS AIRBORNE TOXIC CONTROL MEASURE FOR CONSTRUCTION, GRADING, QUARRYING, AND SURFACE MINING OPERATIONS

Sections Affected: Adoption of section 93105, title 17, California Code of Regulations (CCR).

Background

The California Toxic Air Contaminant Identification and Control Program (Program), established under California law by Assembly Bill 1807 (Chapter 1047, Statutes of 1983) and set forth in Health and Safety Code (HSC) sections 39650–39675, requires the ARB to identify and control air toxics in California. The Board identified asbestos as a toxic air contaminant (TAC) in 1986. Asbestos was identified without a Board-specified threshold exposure level.

Following the identification of a substance as a TAC, HSC section 39665 requires the ARB, with participation of the air pollution control and air quality management districts (districts), and in consultation with affected sources and interested parties, to prepare a report on the need and appropriate degree of regulation for that substance. HSC section 39666(b) requires that this "needs assessment" address, among other things, the technological feasibility of proposed airborne toxic control measures (ATCMs) and the availability, suitability, and relative efficacy of substitute products or processes of a less hazardous nature. A needs assessment for asbestos was conducted between 1989 and 1990 as part of the ARB's development of the Asbestos ATCM for Asbestos-Containing Serpentine ("Asbestos ATCM"; title 17, California Code of Regulations, section 93106). ARB staff prepared an Initial Statement of Reasons (ISOR) for the Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations that, together with the 1990 needs assessment, serves as the report on the need and appropriate degree of regulation for the ATCM.

Once the ARB has evaluated the need and appropriate degree of regulation for a TAC, HSC section 39666 requires the ARB to adopt regulations (ATCMs) to reduce emissions of the TAC to the lowest level achievable through the application of best available control technology (BACT) or a more effective control method, in consideration of cost, risk, environmental impacts, and other specified factors. In developing the proposed ATCM, State law also requires assessment of the appropriateness of substitute products or processes.

In 1990, an Asbestos ATCM was adopted by the Board imposing an asbestos limit of five percent for serpentine material for surfacing applications. At the time of the adoption, the Board directed the staff (Resolution 90-27, 1990) to return to the Board at such time that it be deemed necessary to further control emissions of asbestos from existing sources. Since the 1990 adoption of the Asbestos ATCM, additional

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information from monitoring and modeling studies has been developed. This information shows a potential for significant exposures and risks for individuals living near unpaved roads surfaced with serpentine material meeting the five percent asbestos limit. In order to address this issue, an amended Asbestos ATCM was adopted by the Board in July 2000 restricting asbestos content of surfacing materials to less than 0.25 percent asbestos.

The air monitoring studies, including those conducted in California and Virginia, have also indicated that activities associated with construction, grading, quarrying, and surface mining in areas known to have naturally-occurring asbestos can result in asbestos concentrations in the air that represent a potential public health hazard. Potential asbestos emissions from these activities have also been a source of public concern. Field observations and air monitoring has also demonstrated that actions taken to control dust emissions from these activities are effective in reducing asbestos emissions. Accordingly, the Board has adopted a new asbestos ATCM to protect public health by minimizing emissions from construction, grading, quarrying, and surface mining operations.

Description of the Regulatory Action

The ATCM is designed to minimize the public's exposure to asbestos by requiring work practices that will minimize dust emissions from activities associated with construction, grading, quarrying and surface mining. Three industry sectors are covered by the adopted ATCM: construction, road construction and maintenance, and quarrying and surface mining. The requirements apply to projects where the area to be disturbed is in an area specified on maps published by the Department of Conservation's (DOC) Division of Mines and Geology showing ultramafic rock units or where ultramafic rock, serpentine, or naturally-occurring asbestos is known to occur, even if not shown on the maps.

The requirements for construction and grading projects are divided into provisions for projects that disturb one acre or less (small construction projects), and those that disturb more than one acre (large construction projects). The requirements for small construction projects include wetting the soil area to be disturbed; wetting, covering, or stabilizing storage piles; limiting vehicle speeds; cleaning equipment before moving it off-site; and cleaning up visible trackout on the paved public road.

Large construction projects are required to obtain an approved dust mitigation plan from the district. The plan must specify measures that will be taken to control emissions of dust and must address specific topics. The topics that must be addressed are dust mitigation measures for the following: track-out prevention and removal, disturbed surface areas and storage piles that will be inactive more than seven days, on-site vehicle traffic, active storage piles, earthmoving activities, off-site transport, post construction stabilization, and air monitoring (if required by the district). The ATCM also requires that no equipment or activities emit dust that is visible crossing the property line.

attachment 9-4

Comment Letter U - Attachment

The requirements for road construction and maintenance include notifying the district before starting the project, wetting the area to be disturbed, restricting traffic speed, and preventing visible trackout on the paved public roadway. These requirements also prohibit the emission of dust that is visible crossing the project boundaries. Emergency road repair is exempted from the pre-notification requirement.

Quarries and surface mines must obtain district approval for an asbestos dust mitigation plan that ensures that certain equipment and processes meet specified opacity requirements, that specific dust mitigation measures are employed, and that visible dust does not pass over the property line. In addition to processing controls, the plan must include air monitoring (if required by the district), trackout control, and control for on-site public roads.

Potentially affected sources can obtain an exemption from the ATCM if a geologic evaluation determines that the area to be disturbed is not likely to contain any ultramafic rock or serpentine. Road construction and maintenance activities can obtain an exemption if the activity is more than a mile from any receptor. Agricultural operations and timber harvesting, except for road and building construction, are exempted from the ATCM. Sand and gravel operations can obtain an exemption from the ATCM for activities associated with the processing and storage of material extracted from alluvial deposits.

The ATCM also contains sections addressing recordkeeping and reporting, test methods, timelines, and definitions. In accordance with Government Code sections 11345.3(c) and 11346.5(9)(11), the ARB's Executive Officer has found that the recordkeeping and reporting requirements of the resolution are necessary for the health, safety, and welfare of the people of the State.

Comparable Federal Regulations

The U.S. EPA has promulgated an Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP); 40 C.F.R. Part 61, Subpart M, sections 61.140 et seq. The Asbestos NESHAP established standards that apply to asbestos mills, roadways constructed with asbestos mine tailings or asbestos-containing waste material, manufacturing operations using asbestos, demolition or renovation where asbestos may be present, spraying of asbestos-containing material, fabrication operations using asbestos, insulating material containing asbestos and disposal of waste from various sources. This regulation covers asbestos-containing manufactured products and waste containing asbestos and does not cover naturally-occurring asbestos material.

The U.S. EPA has promulgated a National Pollutant Discharge Elimination (NPDES) storm water program (Phase I); 40 C.F.R. Part 122, 123, 124 to address water discharges from Industrial, Municipal and Construction activities. Quarries and surface mines are covered under the Industrial section of the NPDES regulation. The Construction section covers construction sites that disturb five acres or more. NPDES

attachment 9-5

Comment Letter U - Attachment

provide that discharges of storm water to waters of the United States from Industrial, Municipal, and Construction projects are effectively prohibited unless the discharge is in compliance with a state issued NPDES permit. The NPDES permit requires all Industrial, Municipal and Construction dischargers to develop and implement a Storm Water Pollution Prevention Plan which specifies Best Management Practices (BMPs) that will prevent all pollutants (including soil) from contacting storm water with the intent of keeping all products of (wind and water) erosion from moving off site into receiving waters. Phase II of NPDES (40 CFR Part 122, Subpart B, Section 122.26 et seq) goes into affect March 10, 2003. Phase II reduces the size of the covered construction activity to one acre. Both Phases of NPDES require BMPs for fugitive dust emissions and trackout control. However, the BMPs do not require that no visible dust leave the property and they allow dry sweeping of trackout areas. The proposed Asbestos ATCM is more stringent in that it requires that no visible dust leave the property and does not allow dry sweeping in any situation.

attachment 9-6

THE COHEN GROUP

Environmental Health & Safety Consulting Services

The Cohen Group Newsletter - Volume 5 Issue 3, Article 4. September 2003

Work Site Rules for Naturally-Occurring Asbestos

Julie V. Wellings, CAC, CIH

Under Cal/OSHA regulations (Title 8 CCR §1529), disturbance of asbestos-containing rock and soil is considered an "unclassified" activity and subject to only the minimum work practice requirements (e.g., wet methods, exposure monitoring, use of personal protective equipment). However, regulations adopted by the California Air Resources Board (CARB) in July 2001, include substantial requirements for control of airborne asbestos at work sites with naturally-occurring asbestos.

Title 17 CCR §93105 is the CARB Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying or Surface Mining Operations. The ATCM applies to activities on property that is located in a geographic ultramafic rock unit (as identified on geologic maps) and/or has otherwise been determined to contain ultramafic rock, serpentine or naturally-occurring asbestos. An exemption may be granted for property located in a geographic ultramafic rock unit if a geologic evaluation has determined that neither ultramafic rock nor serpentine are likely to be found in the area to be disturbed. An exemption may also be granted for crushing, screening and conveying equipment, stockpiles and off-site material transport at a sand and gravel operation if only alluvial deposits are processed.

The ATCM specifies requirements for three general types of activities in areas with known or suspected asbestos-containing material: (1) road construction and maintenance, (2) construction and grading operations, and (3) quarrying and surface mining operations. In general, with some exemptions, the following control measures must be implemented:

- ✱ Wet methods must be used during disturbance of known or suspected asbestos-containing material. Equipment and operations must not cause visible emissions across project boundaries.
- ✱ Storage piles, disturbed areas, and unpaved areas subject to vehicle traffic must be stabilized using wet methods, chemical dust suppression or a cover material containing less than 0.25 percent asbestos.
- ✱ The speed of vehicles and equipment traveling across unpaved areas must be limited to 15 miles per hour, unless stabilization is adequate to prevent visible emissions at higher speeds.
- ✱ Crushing, screening and conveying equipment must be equipped with spray-bars and shrouds as necessary to prevent visible emissions exceeding specified opacities.
- ✱ Loads to be transported off-site must be adequately wetted and either (1) covered with tarps or (2) loaded so that the material at the sides is at least six inches below

Comment Letter U - Attachment

and the material in the center does not extend above the top of the cargo compartment.

- ✱ Visible track-out from vehicles and equipment onto paved public roadways must be prevented and cleaned up with 24-hours of accidental occurrence.

In addition:

- ✱ Road Construction and Maintenance: Fourteen-day prior notification of the local air pollution control officer (APCO) is required for construction and maintenance of roads that are not part of a construction or grading activity, quarry or surface mine, except that notification may be provided by the next business day for emergency road repairs.
- ✱ Construction, Grading, Quarrying and Surfacing Mining: Except for construction and grading sites where less than one acre is disturbed, an Asbestos Dust Mitigation Plan must be submitted for approval by the APCO. Air monitoring for asbestos may be required by the APCO. Records of air monitoring, geologic evaluations and bulk sampling must be kept for at least 7 years.

Employers and operators should also note the requirements of Title 17 CCR §93106, the CARB Asbestos Airborne Toxic Control Measure (ATCM) for Surfacing Applications. This section applies to any person who produces, sells, supplies, uses, applies or transports "restricted" material. Restricted material includes (1) aggregate material extracted from property located in a geographic ultramafic rock unit and (2) aggregate material otherwise determined to be ultramafic rock or serpentine and/or known have an asbestos content of 0.25 percent or greater. Under this ATCM, material known or suspected to contain greater than 0.25 percent asbestos may not be used for surfacing. In addition, restricted sold or supplied for surfacing or non-surfacing applications (depending on the asbestos content) must be accompanied by a written receipt containing warnings and information regarding the asbestos content of the material.

Detailed requirements can be found on the CARB website (www.arb.ca.gov/toxics/atcm.htm). Please call if you need assistance in managing your asbestos-related projects and work sites.

Return to Newsletter Index

THE
COHEN
GROUP

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<http://www.thecohengroup.com/news%20534.htm>

Attachment 10-2

2/22/2004

County of El Dorado

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TELEPHONE (530) 621-5390
FAX NO. (530) 295-2552
FAX NO. (530) 622-3645

DIXIE L. FOOTE.....CLERK OF THE BOARD



April 8, 2003

Winston H. Hickox, Secretary
California Environmental Protection Agency
1001 "I" Street
Sacramento, CA 95814

Wayne Nasti, Regional Administrator
United States Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA, 94105

SUBJECT: Naturally Occurring Asbestos Issues in California

Dear Mr. Hickox and Mr. Nasti:

Over the past several months, a host of state and federal agencies have been active in assisting the El Dorado County Air Quality Management District to respond to public concerns of potential exposure to naturally occurring asbestos, and specifically to tremolite asbestos fibers. Apparently, new information regarding increased health risks possibly resulting from even short term exposure to tremolite asbestos, has led to enhanced detection procedures and risk assessment methodology, which has evolved from recent Federal EPA work in Libby, Montana and environmental monitoring of the World Trade Center disaster.

On August 21, 2001, this Board sent a written request (copy attached) to the California Air Resources Board requesting the implementation of a Statewide Asbestos Monitoring Program in association with on-going and future Particulate Matter (PM) surveillance. This request was made to support the El Dorado County Air Quality Management District staff as well as all 35 California air districts implement and enforce the new asbestos Airborne Toxic Control Measure (ATCM) regulating the Construction, Grading, Quarrying and Surfacing Mining Activities in naturally occurring asbestos (NOA) formations. Because this new ATCM authorizes the respective district Air Pollution Control Officer (APCO) to order air monitoring during disturbance of NOA, understanding the background, transport and forms of naturally occurring asbestos and the cumulative relationship with other PM and pollutants is critical.

On behalf of this Board and concerned citizens, we are requesting your agencies to not only establish this broad based air monitoring surveillance request, but to also provide the El Dorado County Air Quality Management District with the resources and funding to implement enhanced

attachment 11-

Comment Letter U - Attachment

Winston H. Hickox, Secretary
Wayne Nastri, Regional Administrator
April 8, 2003
Page 2

sampling and monitoring protocol, especially for areas suspect of containing amphibole/tremolite asbestos fibers, recently utilized in other, similarly affected, parts of the Country.

Respectfully,

Helen Baumann, Chairman
El Dorado County Board of Supervisors

Catherine Witherspoon, Executive Officer, CA Air Resources Board
Edwin F. Lowry, Director, CA Toxic Substances Control Division
Joan E. Denton, Director, CA Office of Environmental Health Hazard Assessment
Robert Ferguson, Superintendent of El Dorado Union High School District
Libby Levy, Agency for Toxic Substances Disease and Registry (ATSDR)
Steve Drogin, MD, El Dorado County Health Officer
California Air Pollution Control Officer's Association (CAPCOA)

Attachment 11-2



County Home Departments Services Employment Board of Supervisors

Welcome to El Dorado County



Environmental Management Home

"Clean air, water, and soil is a legacy we all want to pass on to future generations." Jon Morgan, Director

Environmental Health Air Quality Mgmt Solid Waste & Haz. Materials Tahoe Division (Vector Control) Admin & Finance

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AQMD Division

Asbestos

El Dorado County is located in the Sierra foothills. The geology of the Sierra foothills includes an abundance of serpentine rock. Serpentine rock often contains naturally-occurring asbestos (NOA). Asbestos is the name for a group of naturally occurring silicate minerals. When serpentine rock is broken or crushed, asbestos may be released from the rock and may become airborne for long periods of time, causing a potential health hazard.

The AQMD plays a vital role in the current asbestos-containing serpentine rock issue. The AQMD is responsible for implementing and enforcing Title 17 Section 93106 of the California Code of Regulations, Asbestos Airborne Toxic Control Measure - Asbestos-Containing Serpentine. The County along with other state and federal agencies are taking measures to define the locations of asbestos-bearing serpentine rock, the potential for public exposure, and procedures to minimize the impacts of naturally-occurring asbestos.







Related Websites:

- Agency for Toxic Substances and Disease Registry (ATSDR)
- California Office of Environmental Health Hazard Assessment
- California Air Resource Board - Asbestos Information
- American Lung Association

<ul style="list-style-type: none"> <input type="checkbox"/> Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations (link) <input type="checkbox"/> Naturally Occurring Asbestos (NOA) Letter from County Public Health Officer <input type="checkbox"/> Naturally Occurring Asbestos (NOA) Letters from Board of Supervisors requesting State and Federal aid: <ul style="list-style-type: none"> <input type="checkbox"/> April 8, 2003 <input type="checkbox"/> September 30, 2003 <input type="checkbox"/> Naturally Occurring Asbestos Fact Sheet: June 2003 [.pdf] <input type="checkbox"/> Naturally Occurring Asbestos 	<p>OAK RIDGE HIGH SCHOOL:</p> <ul style="list-style-type: none"> • Final Draft O&M Plan (For public review December 12, 2003-January 2, 2004) • Appendix A (Final Mitigation Work Plan) • Appendix B (Final Mitigation Work Plan- Addendum 1) • Appendix C (Final Mitigation Work Plan- Addendum 2) • Appendix E (Site Plan) • ORHS Final Campus Assessment Sampling Plan • ORHS Campus Assessment Plan Fact Sheet [.pdf] • ORHS Ambient Air Monitoring Plan [.pdf] • ORHS Mitigation Fact Sheet [.pdf] <p>OSHA NOA Letters:</p>
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Attachment 11-3

Comment Letter U - Attachment

<p>(NOA) Real Estate Disclosure Form - Effective June 12, 2003 [.doc] [.pdf]</p> <p> Naturally Occurring Asbestos & Dust Protection Ordinance - Effective June 12, 2003. [pdf]</p> <p> Garden Valley Asbestos Monitoring Program - Summer 2000</p> <p> Asbestos Map of Western El Dorado County, May 12, 2000</p> <p> Prescriptive Standard – Fugitive Dust Prevention and Control and Contingent Asbestos Hazard Dust Mitigation Plan, April 17, 2000</p> <p> Asbestos Map of California, Released October 5, 2000 (link)</p> <p> Indoor / Outdoor Air and Asbestos Consumer Assistance Guide</p>	<ul style="list-style-type: none">• Letter of November 27, 2002, from OSHA RE: (NOA) Naturally Occurring Asbestos definition and significance; and work classification for asbestos excavations) [.pdf] Pages 1 and 2• Letter of September 17, 2001, from OSHA RE: (NOA) Naturally Occurring Asbestos Uncovered During Earthwork [.pdf] Page 1 Page 2 Page 3 Page 4 Page 5• Letter of August 17, 2000, from OSHA RE: Naturally Occurring Asbestos (NOA) [.pdf] Page 1 Page 2 Page 3 Page 4 Page 5
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Page last updated Tuesday, January 27, 2004 10:52 AM

Attachment 11-4

Comment Letter U - Attachment



BAY AREA AIR QUALITY MANAGEMENT DISTRICT
 939 Ellis Street
 San Francisco, California 94109
 (415) 771-6000

For District Use Only	
Date Rec'd:	
File #:	

ASBESTOS AIRBORNE TOXIC CONTROL MEASURE FOR CONSTRUCTION, GRADING, QUARRYING, AND SURFACE MINING OPERATIONS
 § 93105, Title 17, California Code of Regulations

ASBESTOS ATCM EXEMPTION APPLICATION

1. Company and Project Information			
Company Name and Address		Project Location	
Name		Location	
Address		Address	
City/State	Zip	City/State	Zip
Contact		Start Date:	
Phone	Fax	Estimated Completion Date:	

2. Exemption Requested
<p>Indicate the type of exemption(s) that is (are) potentially applicable:</p> <p><input type="checkbox"/> Geologic Evaluation Exemption (Complete FORM A)</p> <p><input type="checkbox"/> Remote Location Exemption (Complete FORM B)</p> <p><input type="checkbox"/> Emergency Road Repair Exemption (Complete FORM C)</p>

2. Detailed Project Information
<p>Type of Project: (Check all that applies)</p> <p><input type="checkbox"/> Road or Railway Construction</p> <p><input type="checkbox"/> Road Maintenance</p> <p><input type="checkbox"/> Housing Development</p> <p><input type="checkbox"/> Commercial Property Development</p> <p><input type="checkbox"/> Trenching / Utilities Work</p> <p><input type="checkbox"/> Other (please describe) _____</p>

Attachment 12-1

ASBESTOS ATCM EXEMPTION APPLICATION

BAY AREA AIR QUALITY MANAGEMENT DISTRICT 939 Ellis Street, San Francisco, CA 93109

FORM A: GEOLOGIC EVALUATION

20PS!

The District may provide an exemption from the Asbestos ATCM for any property that lies within the boundaries of a geographic ultramafic rock unit as indicated by the referenced geologic maps. This exemption would be granted if a registered geologist has conducted a geologic evaluation of the property and determined that no serpentine or ultramafic rock is likely to be found in the area to be disturbed. Before an exemption can be granted, the owner/operator must provide a copy of a report detailing the geologic evaluation to the District for consideration.

A1. Registered Geologist Information

Geologist's Name		Company Name (if applicable):	
Address		Phone:	
City		Fax	
State	Zip	License Number:	

A2. Detailed Site Information

(Check all that applies)

<input type="checkbox"/> Physical Site Inspection	<input type="checkbox"/> Identification of geologic units, rock and soil types, and other geologic features that may indicate the presences, etc.
<input type="checkbox"/> Offsite geologic evaluation of adjacent property	<input type="checkbox"/> Subsurface investigation
<input type="checkbox"/> Evaluation of existing geological maps and studies of the site and surrounding area	<input type="checkbox"/> Other information (please describe)
<input type="checkbox"/> Geologic Maps developed for the site and vicinity	

A3. Additional Information and Materials

(Check all that applies)

- A description of any sampling procedures used
- A description of any analytical procedures used
- Rock samples collected and archived
- The geologic evaluation report prepared by a registered geologist.

Attachment 12-2

ASBESTOS ATCM EXEMPTION APPLICATION

BAY AREA AIR QUALITY MANAGEMENT DISTRICT 939 Ellis Street, San Francisco, CA 93109

FORM B: REMOTE LOCATION

The District may provide an exemption from the requirements of Asbestos ATCM affecting construction and grading operations for any activity that will occur at a remote location. A remote location is defined as any location that is at least one (1.0) mile from the location of a receptor. "Receptor" includes, but is not limited to, any hospital, school, day care center, work site, business, residence, and permanent campground. The distance to the nearest receptor must be measured from the outermost limit of the area to be disturbed or road surface, whichever is closer.

B1. Detailed Site Information

Areas and Facilities within two (2.0) miles of the Project: (Check all that applies)

- | | |
|--|--|
| <input type="checkbox"/> Residence | <input type="checkbox"/> School |
| <input type="checkbox"/> Commercial Business | <input type="checkbox"/> Park / Playground |
| <input type="checkbox"/> Industrial Site | <input type="checkbox"/> Permanent Campground |
| <input type="checkbox"/> Work Site (unrelated to this project) | <input type="checkbox"/> Other (please describe) |
| <input type="checkbox"/> Hospital / Nursing Home | |

B2. Additional Information

The following information MUST be included:

Map(s) clearly indicating:

- | | |
|--|--|
| <input type="checkbox"/> Map(s) indicating location of potential receptors | <input type="checkbox"/> Excavation sites |
| <input type="checkbox"/> Property lines / boundaries | <input type="checkbox"/> Storage areas / piles |
| <input type="checkbox"/> Rights of way / easements | <input type="checkbox"/> Track-out control |
| <input type="checkbox"/> Areas to be cleared or graded | <input type="checkbox"/> Staging areas for removal |
| <input type="checkbox"/> Trenching areas | <input type="checkbox"/> Truck routes |
| | <input type="checkbox"/> On-site parking lots |

If available, please attach the following information:

- Geologic Information
- Topographical Maps
- Meteorological Data

Attachment 12-3

ASBESTOS ATCM EXEMPTION APPLICATION

BAY AREA AIR QUALITY MANAGEMENT DISTRICT 939 Ellis Street, San Francisco, CA 93109

FORM C: EMERGENCY ROAD REPAIR NOTIFICATION

The Asbestos ATCM allows a delay in notification when construction of a road or firebreak, or a road repair is necessary due to a landslide, flood, or other emergency or to mitigate a condition that constitutes an imminent hazard to the public. The owner/operator shall notify the District no later than the next business day of the action taken and the condition establishing the applicability of this subsection.

Pursuant to the Asbestos ATCM for Construction and Quarrying operations, Section 93105(d)(3)(A), Title 17, CCR, I, PRINT NAME HERE, do hereby notify the Executive Officer of the Bay Area Air Quality Management District that an emergency road repair was initiated at the location listed above due to the following reason:

- Landslide,
- Flood,
- Other: DESCRIBE

This location is either within the boundaries of a geographic ultramafic rock unit or is known to have ultramafic rock, serpentine rock or asbestos present.

This repair resulted in at least DISTURBED AREA acres disturbed to complete the repair. In completing this repair, the applicable control measures listed in Section 93105(d)(1)(B) of the Asbestos ATCM are being implemented during the repair.

SIGNATURE

PRINT NAME / TITLE OR POSITION

DATE

Attachment 12-4

Cotati residents fear potential quarry impacts

Dissidents say project will contaminate ground water, cause traffic, noise

By JOSE L. SANCHEZ Jr.
THE PRESS-DEMOCRAT

A proposal to create a quarry next door to an old landfill four miles west of Cotati is drawing objections from neighbors who say the project would contaminate their ground water and air and cause other problems.

The proposed quarry at the intersection of Roblar and Canfield roads drew about 200 people to a meeting called last week by county officials to discuss the scope of an environmental impact report required for the proposal.

Some of the neighbors said they are concerned that:

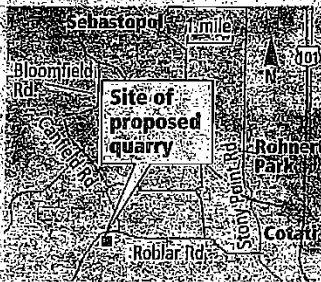
- Dynamite blasting at the quarry would accelerate the leaching of toxic materials from the unlined Roblar Road landfill into the water table and contaminate local wells and the Estero Americano via Americano Creek.

- Trucks would endanger children and other residents pollute the air and ruin the area's rural character.

- The fragmentation of serpentine rock would release asbestos into the air in a windy area.

- Blasting and truck noise would disturb the many dairy cows in the area.

"My husband said he didn't spend his life savings to buy into a lifestyle that includes dynamite and asbestos," said



Judi Slater, who lives 1 1/2 miles from the quarry.

Among the toxics suspected to be in the old landfill are DDT and other pesticides, petrochemicals, battery acid and DES, a chicken growth hormone that was banned after it was found to cause birth defects in humans, she said.

"It's obscene to think that stuff could get in our ground water," Slater said.

The quarry's proponent is John Barella, owner of North Bay Construction Inc. Company officials couldn't be reached for comment.

A report on the proposed quarry by county planner Michael Sotak said contaminated ground water could flow into the quarry and blasting could fracture the rock beneath the old landfill, allowing contaminated water to move beyond the landfill.

Those are among the possibilities to be reviewed in the environmental impact report.

A previous application to create a quarry at the 70-acre site also drew heavy opposition from neighbors, and was turned down by county supervisors in 1990 because the environmental impact report

didn't adequately address the potential for contamination from the closed landfill or traffic impacts.

The land is used for grazing under a Williamson Act contract, which provides a property tax break in return for keeping land in agricultural use.

The quarry would generate approximately 149 truck trips a day, 252 working days a year, for about 20 years, Sotak's report said. Approximately 70 percent of the material taken from the quarry would be used in the Petaluma area and Marin County and the rest would be used from Cotati north.

Trucks going north would use Valley Ford Road, Pepper Road, Mecham Road, Stony Point Road, Highway 116 and Highway 101. Going south, trucks would use Valley Ford Road, Pepper Road and Highway 101.

Dynamite blasting would be limited to once or twice a month and drill holes near the landfill would be monitored for methane.

Charges would be detonated sequentially to avoid fragmentation of rock between the quarry and the landfill, according to Sotak's report.

"I don't deny they need the rock," said Veronica Reed, who moved into a house a mile from the proposed quarry with her husband two weeks ago.

But, she said, the quarry should be in a more industrial area, not in the midst of what is now quiet countryside.

You can reach Staff-Writer Jose L. Sanchez Jr. at 762-7297 or jsanchez@pressdemocrat.com.

Attachment 13

THE PRESS DEMOCRAT • SUNDAY, SEPTEMBER 19, 2004

Negative impacts

EDITOR: We could not agree more with the editorial comment on Sept. 11: "Every project must be judged on its merits, weighing the benefits against the negative impacts." We do not agree with the editorial's implication that neighborhoods should place others' needs before their own. The benefits of a particular quarry are primarily financial ones to the developer of that quarry and will increase the company's net worth by millions of dollars. The negative impacts of the proposed Roblar quarry are substantial.

Roblar Road services an elementary school, numerous homes with blind driveways and many bicyclists. The road is narrow and winding with no shoulders. Quarry trucks would create huge risks to the users of this road. The pro-

posed site is adjacent to an unlined landfill used between 1958 and 1973. Users of the dump site have testified to discarding petroleum, lead products and carcinogens such as DES. Blasting next to this site could allow contamination into water supplies up to 10 miles away, i.e. local wells and the Estero Americano.

There are other sources of rock for Sonoma County both from within and outside the county. I urge John Barella to withdraw his quarry application and look to a safer place for rock. Is rock for development more precious than our water and our health? If locals don't protect their neighborhoods, then who will?

SUE BUXTON and ANN GILLIS
Petaluma

Attachment 14

APPENDIX C-2

Attachment to Letter X (Ronald Norton)

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Comment Letter X - Attachment

DEPARTMENT OF FISH AND GAME

Russian River Watershed Restoration Program
4070 University Road
Hopland, California 95449-9717

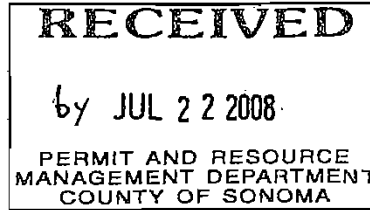


April 16, 2008

Ronald & Donna Norton

Petaluma, CA 94952

Dear Ronald & Donna Norton,



Since 1994, the Department of Fish and Game ("DFG") has been conducting stream surveys to evaluate the distribution and habitat conditions of salmon and steelhead trout ("salmonids") in streams throughout California, including Sonoma and Marin Counties. In cooperation with landowners DFG has been using the survey results to identify and prioritize stream restoration projects that will benefit salmonid populations. Using a combination of state, federal, local, and private funds, numerous fishery restoration projects have been completed, including projects to improve fish passage, enhance stream habitat, plant trees, make road improvements, and control erosion. Some of these restoration projects have also benefited landowners by increasing the value of their property.

DFG would like to expand this program of habitat surveying to tributaries of the Sonoma and Marin coast. To complete this project DFG needs your permission to access the creek(s) on your property.

The presence of DFG's survey team on your property would be brief and hardly noticeable. The team would cross your property to reach the stream, work on foot in the stream channel only, and survey between one-half mile to one mile of the stream daily, depending on the type of survey conducted. Also, at your request, DFG would notify you prior to the team's scheduled arrival.

Without the support of landowners, DFG's ongoing stream restoration efforts could not happen. DFG looks forward to working with you.

If you are willing to allow DFG's survey team temporary access across your property to conduct habitat survey, please complete and sign both copies of the enclosed Temporary Entry Permit, keep one copy for your records, and return the other copy to DFG in the enclosed self-addressed, stamped envelope as soon as possible. DFG would like to begin its work on **June 1, 2008**. Please include your telephone number so DFG can answer any questions you might have and schedule a date and time to access your property.

If you have any questions in the meantime, please contact Derek Acomb, Dan Resnik, or Gail Seymour, Watershed Restoration Program, Department Fisheries Biologists, at (707) 744-8703. Thank you for your cooperation.

Sincerely,

Derek Acomb
Associate Fisheries Biologist

Dan Resnik
Fisheries Biologist

Gail Seymour
Associate Fisheries Biologist

Make a donation to Wikipedia and give the gift of knowledge!

Americano Creek

Coordinates: 38°19′04″N 122°54′09″W﻿ / ﻿38.31778°N 122.90250°W﻿ / 38.31778; -122.90250

From Wikipedia, the free encyclopedia


Americano Creek is a 7.5-mile (12 km) long westward-flowing stream in the California counties of Sonoma and Marin, which flows into the **Estero Americano**,^[1] a 9.2 mi (15 km) long estuary, and thence to the Pacific Ocean. This article covers both watercourses.

<h2>Contents</h2> <ul style="list-style-type: none"> ■ 1 Course ■ 2 Environmental factors ■ 3 History ■ 4 Bridges ■ 5 See also ■ 6 References ■ 7 External links

Course

Americano Creek springs from low-lying coastal hills 4 mi (6 km) west of Cotati and runs westward, paralleling Roblar Road. It passes a closed landfill^[4] and crosses Valley Ford Road. At this point the channel becomes better defined and also deep enough for kayaking in the winter months. Kayakers access the creek here by means of an unpaved boat launch road reachable from Marsh Road.

The lower reach of the creek flows westward past

Americano Creek stream	
	
Upper reach of Americano Creek	
Name origin: Spanish	
Country	United States
State	California
Region	Sonoma County
City	Bloomfield, California
Source	
- location	4 mi (6 km) west of Cotati, California
- elevation	265 ft (81 m)
- coordinates	38°19′18″N 122°46′58″W﻿ / ﻿38.32167°N 122.78278°W﻿ / 38.32167; -122.78278 ^[1]
Mouth	Estero Americano (below)
- location	1 mi (1.6 km) east of Valley Ford, California
- elevation	20 ft (6 m)
- coordinates	38°19′0″N 122°54′0″W﻿ / ﻿38.31667°N 122.90000°W﻿ / 38.31667; -122.90000 ^[1]
Length	7.5 mi (12 km) ^[1]

Estero Americano estuary	
Name origin: Spanish	

the small community of Bloomfield, paralleling Valley Ford Road, and passes under State Route 1, at which point it begins to define the Sonoma-Marín county line.

Just west of Highway One, the watercourse's official name changes to Estero Americano. It meanders past the town of Valley Ford, California. Valley Ford-Franklin School Road crosses at the last bridge across the Estero. Shortly thereafter, Ebabias Creek enters from the north. The last 6 mi (10 km) of the Estero are virtually without road access or visibility from public roads.

The Estero continues to define the county boundary until it reaches the coast, where it empties into Bodega Bay about 4 mi (6 km) southeast of the town of Bodega Bay. Its mouth lies near the north end of the Gulf of the Farallones National Marine Sanctuary.

Environmental factors

California's 1994 water quality report designated all of Americano Creek and most of the Estero Americano as "impaired" streamways as defined in section 303(d) of the Federal Water Resource Statutes, due to runoff from pasture land and feedlots. As recently as 1987, a single gully near Americano Creek released 4,000 tons/year of sediment, contributing to flooding in downstream communities and making the creek non-navigable. Pollutants found at hazardous level in the creek have included fecal bacteria, copper, ammonia, and zinc.^[5]

The creek's headwaters area is a historic habitat for a number of rare and endangered species including Sebastopol Meadowfoam, *Limnanthes vincularis*; Showy Indian clover, *Trifolium amoenum*; and Pitkin Marsh lily, *Lilium pardolinum* ssp *pitkinense*.^[6] This area also contains a closed landfill, and as of 2006, a hard rock quarry was proposed for it.^[4]

Country	United States
State	California
Region	Sonoma and Marin counties
Tributaries	
- right	Ebabias Creek
City	Valley Ford, California
Source	Americano Creek (above)
- location	1 mi (1.6 km) east of Valley Ford, California
- elevation	20 ft (6 m)
- coordinates	38°19′0″N 122°53′56″W﻿ / ﻿38.31667°N 122.90167°W﻿ / 38.31667; -122.90167﻿ (38.31667; -122.90167) ^[2]
Mouth	Bodega Bay
- location	3 mi (5 km) southeast of Bodega Bay, California
- elevation	0 ft (0 m)
- coordinates	38°17′44″N 123°0′9″W﻿ / ﻿38.29556°N 123.00250°W﻿ / 38.29556; -123.00250﻿ (38.29556; -123.00250) ^[2]
Length	9.2 mi (15 km) ^[2]
Basin	49 sq mi (127 km²) ^[3]



Beginning of lower reach of Americano Creek, looking downstream



Cattle grazing in marshy creekbed of upper reach of Americano Creek.

Americano Creek is dry 4 to 6 months each year.^[3] For its first 8 mi (13 km), the stream stream meanders through a broad valley dominated by agricultural uses, principally cattle grazing. The valley floor is flat and wide, especially at the lower elevations. Due to siltation, virtually no rocks are evident in the streambed. Grazing occurs in the streambed itself, putting pathogens directly into the water. During the rainy season (November to April), this bottomland consists in places of an expansive marshy area. Most native wetland vegetation has been destroyed by ongoing grazing. Grazing is so intense that cattle are seen

wading in a broad marshy streambed over 16 in (40 cm) deep and over 300 ft (100 m) wide.

The lower reach of Americano Creek is also surrounded by agricultural uses. However, the channel becomes better separated from grazing areas. The Estero itself is a Federally-protected area.^[4]

Flow rates are highly seasonal with the heaviest flows occurring in the rainy winter months. Water testing of Americano Creek and the Estero has generally found pH (acidity) levels in the range of 7.5 to 8.0, which satisfies the guidelines in the State of California Basin Plan.

In some years, a sand bar forms at the mouth of the Estero, restricting tidal exchange. At other times, tidal influences extend up to 4 miles (6 km) from the mouth. High levels of salinity have been observed in the Estero.^[3]

History

Two permanent Coast Miwok villages were located on the Estero Americano: one named *Uli-yomi* at the head of the Estero, and another named *Awachi* at its mouth.^[7]

Bridges

Bridges cross Americano Creek in three locations: Gericke Road, Roblar Road and Valley Ford Road. The newest of these, built in 1985, is the 73 ft (22.3 m) long concrete slab structure at Valley Ford Road, 3.6 mi (5.8 km) east of the junction with State Route 1. The oldest of these, built in 1964, is the Roblar Road crossing, a 27 ft (8.2 m) concrete culvert situated 0.7 mi (1.1 km) east of Valley Ford Road. The Gericke Road bridge is a 107 ft (32.6 m) long concrete continuous slab built in 1972 about 0.2 mi (300 m) south of Valley Ford Road.^[8]

The Estero Americano is crossed in three places: Valley Ford-Franklin School Road, Highway One, and Slaughter House Road. All three crossing are concrete continuous slab structures. The State Route 1 bridge, built in 1925, is 144 ft (43.9 m) long and located near milepost 50.47. The Valley Ford-Franklin School bridge, built in 1961, is 198 ft (60.4 m) long. The Slaughter House Road bridge, built in 1990, is only 75 ft (22.9 m) long.^[8]

See also

- List of watercourses in the San Francisco Bay Area
- Overgrazing
- Water pollution

References

1. [^][^][^][^][^] USGS GNIS: Americano Creek (http://geonames.usgs.gov/pls/gnispublic/f?p=gnispq:3:::NO::P3_FID:254563)
2. [^][^][^] USGS GNIS: Estereo Americano (http://geonames.usgs.gov/pls/gnispublic/f?p=gnispq:3:::NO::P3_FID:223257)
3. [^][^][^] Marin County Watershed Management Plan Administrative Draft (http://co.marin.ca.us/depts/CD/main/comdev/Watershed/WMP_ApxA%20-%20pp%20i-28.pdf) . Retrieved on 2008-03-03.
4. [^][^][^] Americano Creek monitoring plan (<http://www.ccwi.org/cm/americano.htm>)
5. [^] Ilka M. Jerabek, *Water Use and Management in Sonoma County, California*, (1996) (<http://www.sonoma.edu/users/n/norwick/Document/Jerabek/sowater7.html>)
6. [^] *Environmental Impact Report for the proposed Roblar Road Rock Quarry*, Earth Metrics Inc. Report 7673, prepared for Sonoma County and the California State Clearinghouse, September, 1989
7. [^] Access Genealogy: Miwok Indian Tribe (<http://www.accessgenealogy.com/native/california/miwokindianhist.htm>) .
8. [^][^] National Bridge Inventory Database (<http://nationalbridges.com/>) .

External links

- Americano Creek water temperature habitat designation (http://www.krisweb.com/kris_wms/krisdb/webbuilder/ac_c6.htm)
- Americano Creek monthly flow rates (http://www.krisweb.com/kris_wms/krisdb/webbuilder/ac_c5.htm)

Retrieved from "http://en.wikipedia.org/wiki/Americano_Creek"

Categories: Estuaries of California | Rivers of California | Rivers of Marin County, California | Rivers of Sonoma County, California

Hidden categories: All articles with unsourced statements | Articles with unsourced statements since November 2007

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APPENDIX C-3

Attachment to Letter JJ (Corey Merrick)

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Adjoining Reports

Comment Letter JJ - Attachment

JOHN H. DAILEY
Consulting Geotechnical Engineer
737 Castro Street
San Francisco, California 94114-2826
(415) 357-1215
(707) 778-7978

October 1, 2002
Our Job No. 2220

North Bay Construction, Inc.
P.O. Box 6004
Petaluma, California 94955-6004

Attention: Messrs. John Barella and Jerry Cossey

Report
Preliminary Geologic Evaluation
Proposed Roblar Road Quarry
~~7601 Roblar Road~~
Sonoma County, California

INTRODUCTION

As requested, this report presents the results of our preliminary geologic evaluation of a proposed hard rock quarry at ~~7601 Roblar Road~~, in Sonoma County, California. The site is located on the southeast side of Roblar Road and northwest of Petaluma, as shown on the Vicinity Geologic Map, Plate 1. The subject site, with our interpretation of the geology, is shown on the Site Plan and Geologic Map, Plate 2. ~~The area under consideration is bounded on the northwest by a closed county landfill.~~ Seismic refraction geophysical surveys were previously performed and borings were drilled to assess the potential hard rock resources on the property. The purpose the current geologic evaluation was to review the existing subsurface data and perform onsite geologic mapping, and further evaluate the location and potential sources of hard rock materials on the property.

METHODS OF INVESTIGATION

We reviewed published geologic data for the site as well as stereo-paired aerial photographs of the property to assess the surface conditions. We also reviewed a ~~geophysical survey~~ performed by ~~Norca Geophysical Consultants~~, and copies of logs of test borings drilled in May 2001 (consultant

Comment Letter JJ - Attachment

JOHN H. DAILEY
Consulting Geotechnical Engineer

North Bay Construction, Inc.
October 1, 2002 - Page 2

not listed on logs). Literature and photos utilized for this evaluation are listed in the *References* section.

On August 20 and 21, 2002, a site reconnaissance was performed by a certified engineering geologist to map the exposed geologic features and field-check geologic conditions depicted on published maps and interpretations made from the aerial photographs. Field data were plotted on a 1"=200' scale base map provided by CSW/Stuber-Stroeh Engineering Group. The geologic mapping is presented on the Site Plan and Geologic Map, Plate 2. Subsurface exploration was not performed during the current evaluation.

SITE CONDITIONS

Surface Features and General Description

The property is bounded on the west by moderately steep slopes down to Roblar Road and by steep slopes on the south margin above an unnamed creek. Slope gradients flatten somewhat in the central ridge top areas. Elevations range across the property from about 120 feet along Roblar Road, to about 600 feet at the ridge top in the southeast corner. The property is currently being used for cattle grazing. The slopes are predominantly grass-covered, with occasional trees. To the northwest, the property is bounded by cut slopes of a closed landfill. In the cut slopes, light brown and yellow brown sand strata of the Wilson Grove formation are exposed.

cover for landfill?

Geologic Units

Bedrock Units

Published geologic mapping, from the California Division of Mines and Geology (CDMG, Huffman and Armstrong, 1980) and shown on Plate 1, indicates the bedrock throughout the property consists of the melange unit of the Jurassic- to Tertiary-age Franciscan Complex (map unit KJfs on Plates 1 and 2). The melange unit is typically characterized by blocks of harder rock types, such as sandstone, chert, and metavolcanic rock ("greenstone") embedded in a weak matrix of sheared shale and serpentinite. The published mapping shows the Franciscan bedrock as blanketed by slightly cemented sandstone of the Wilson Grove formation (previously designated the Merced formation; map symbol Tm on Plate 1) and andesite lava flows of the Sonoma Volcanics (map symbol Tsa).

The geology of the site is shown on Plate 2. Based on the geologic mapping and the prior subsurface data, our interpretation of the subsurface conditions is shown on Cross Sections A-A' and B-B', Plate 3. Our site observations indicate that where exposed in outcrop, the Franciscan bedrock consists of fractured sandstone and minor shale. At the ground surface, the sandstone is moderately to highly fractured with low to moderate hardness. Test borings drilled on the property describe the sandstone underlying the Wilson Grove formation as hard to very hard.

Geologic mapping from the current evaluation indicates that hard, moderately fractured basalt and andesite volcanic rock of the Sonoma Volcanics is present along the southern portion of the site.

Sonoma County Will Be Legally Responsible for Future
Problems Arising From This Project Should It Be
Approved

“that the likelihood of injury to others, the probable seriousness of such injury, the burden of reducing or avoiding the risk, the location of the land, and the possessor’s control over the risk-creating condition are all factors the courts should consider in evaluating the reasonableness of a defendant’s conduct.”*

California State Supreme Court
Peter Specher vs Adamson Company, 1981
For subsequent law suits against County Governments See:
California Geology, vol 35 p.165 (1982)

Left out by city, couple sue over contamination

June 28, 2008 6:00 AM

NEW BEDFORD — A couple living in a house north of the contaminated Keith Middle School and New Bedford High School grounds have filed a lawsuit in Bristol County Superior Court seeking to have the city purchase their house and pay for what they believe are medical conditions and problems brought on by pollution.

The house is not one of the five houses the city has announced it intends to buy because of serious pollution from the former "burn dump" where companies disposed of and incinerated hazardous chemicals and waste for decades until the 1950s or 1960s. The houses the city plans to buy are located south of the schools on Greenwood and Ruggles streets, just off Hathaway Boulevard.

Duarte and Aldevina Rito, who have lived at 284 Durfee St. for about 10 years, are seeking \$300,000 for their house and unspecified damages for health-related problems. The lawsuit was filed on behalf of the Ritoses by Attorney Brian R. Cunha of Fall River.

Mr. Cunha said Aldevina Rito has asthma and breathing problems related to contamination, and she had the problems for several years. He said city officials have been "dragging their feet" in terms of addressing residents' concerns, and the Ritos would like to resolve the situation with their home in a more expeditious manner.

"The complaint speaks for itself," Mr. Cunha said.

City Solicitor Irene B. Schall said Friday the city had not been formally notified about the lawsuit and could not respond to it.

Several weeks ago, the city publicly acknowledged for the first time that high enough levels of contamination from the burn dump had been found at five properties in the Hathaway Boulevard area, and the city believed the sites could not be remediated without taking five homes, relocating the residents, tearing the houses down and paving over the sites.

None of those homeowners has filed a lawsuit, although one family has said it is working with an attorney, without specifying if that is to negotiate with the city or because they intend to sue.

The seriousness of the industrial pollution in the area first came to light several years ago when the city began building the Keith Middle School. Work at that site turned up significant concentrations of arsenic, lead and PCBs, all of which can cause serious health problems for humans. As a result, the area across Hathaway Boulevard where the high school had been built decades before was checked and it was found to have significant amounts of contamination.

Working with the U.S. Environmental Protection Agency and the state Department of Health, the city has cleaned up the Keith Middle School site, and recent reports have indicated there is no public health hazard there. The interior of the high school also has gotten an almost completely clean bill of health, but the grounds around the school still need to be dealt with.

The lawsuit filed by Mr. Cunha on behalf of the Ritoses alleges that the Ritoses learned in 2005 from the city that soils adjacent to their property showed signs of contamination and later they were told

Comment Letter JJ - Attachment

samples taken from their property showed the presence of arsenic, lead, PCBs and other hazardous substances.

The Ritoses allege the city was negligent, failed to prevent the contamination and warn residents, and failed to remediate the problem. In addition, the lawsuit alleges there has been emotional distress inflicted and that the city has caused harm to the Ritoses of financial, emotional and health-related natures.

Contact Joe Cohen at jcohen@s-t.com

undefined



Extent of contamination worries neighbors

By Patrick Anderson
Staff writer

May 21, 2008 05:45 am

MANCHESTER — Six months after a family found heavy metals in the soil at their Pine Street home, neighbors are concerned that the extent of contamination of the property remains unknown.

And they're also worried because there's no schedule yet for the testing and cleanup of the site, which authorities believe to be an area where the town regularly dumped and burned trash in the 1950s.

Last fall David and Julie Gesner moved out of their yellow two-story Colonial at 156 Pine St. after discovering high levels of lead, arsenic, chromium and cadmium in the soil when they investigated local rumors that their property had been the site of a landfill where garbage and debris were routinely burned.

The Gesners notified the state Department of Environmental Protection and last month the agency ordered a cleanup of the site, including testing to determine the extent of contamination. The town, as well as the Gesners and Manchester resident Michael Bresnahan, who sold them the house, were all named as parties potentially responsible for the cleanup.

But since that time, questions have been raised about who will initiate the cleanup. Negotiations among all parties who will ultimately pay for it have begun.

But during that time, no more testing in the area has taken place.

On Monday, Stephen and Victoria Lauber, who live next door to the Gesners' house, asked selectmen what was being done to determine whether their property was also contaminated and if it was safe to continue living there.

"Whoever is responsible, we need to know what the site is contaminated with and we need to know the extent," Stephen Gesner said. "This has been extremely trying for us. We understand the town is moving forward and we want to encourage it to do so."

Responding to the questions, Town Administrator Wayne Melville said the town had hired a state-licensed engineer from the firm Woodard & Curran to address the problem.

But because of the likelihood of a legal battle over who ultimately will pay for the cleanup, Melville said, a total resolution to the environmental issues on the site might take longer than many residents hope.

"Our most immediate concern is regulatory compliance," Melville said. "There is going to be negotiation between the parties about who is primary (responsible party) and we have a strategy to deal with that. There is also going to be litigation about the costs, which will be large."

Comment Letter JJ - Attachment

Melville said he thinks Bresnahan, the owner of an asphalt company who lived on the property for years, should pay for the cleanup.

He said questions about whether state regulations required areas known to be contaminated to be cleaned up before adjacent areas are tested, or whether the entire extent of contamination has to be determined before cleanup starts, were also making the process move slowly.

"This is going to take a while," Melville said.

After discovering the contamination last November, the Gesners asked Bresnahan to buy 156 Pine St. back and, after he refused, sued him, saying he sold the property despite knowing it had been used as a landfill.

Orestes Brown, Bresnahan's lawyer, has maintained that the town, which operated the burn dump, should be responsible for cleaning up the site and making it either livable or sellable for the Gesners.

The town is required to submit its initial plan to the state for the Pine Street cleanup by June 11.

Yesterday, state Department of Environmental Protection spokesman Joe Ferson said testing to determine the extent of contamination on the site should be included in the town's plan, as well as what actions will be taken to clean up and make the land safe.

Ferson said in areas where heavy metals are present in the ground, people should avoid direct contact with the soil and ingesting anything that comes in contact with it. He said metals are unlikely to become airborne or migrate into the groundwater.

Ana Costa, another Pine Street neighbor of the Gesners, said yesterday that she was hopeful her property would be not affected by the contamination, but wished the town would find out for certain and inform residents.

"They have known since April and have not contacted me," Costa said about the Gesners' property. "It would be nice to know what is happening."

Patrick Anderson can be reached at panderson@gloucestertimes.com.

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Photos



The residents of 156 Pine St. believe heavy metals found in the soil around their house are the result of a town "burn dump" on the property in the 1950s. The state Department of Environmental Protection has ordered a cleanup. Staff photo



Our partners: [GoDanRiver](#) | [WSLS](#)

Tuesday, October 21, 2008 |

[Lovington, VA 75°](#) Feels Like: 75° Clear [View Warnings/Advisories](#)

Landfill contamination lawsuits continue in Campbell County

Text size: [small](#) | [medium](#) | [large](#)

BY CHRIS DUMOND AND SARAH WATSON
THE NEWS & ADVANCE
Published: April 5, 2008

After three years of legal wrangling, several lawsuits about who is responsible for groundwater contamination from the Campbell County landfill still hang in limbo.

Millions of dollars are at stake between potential damages and ongoing cleanup costs.

Claude and Virginia Royal, owners of the 165-acre Twin Oaks manufactured home park near Yellow Branch, discovered in 2002 that well water serving their residents had elevated levels of volatile organic chemicals, according to a Department of Environmental Quality consent order to the county.

After three years of discussions with the county, the Royals filed several lawsuits in 2005 and 2006 charging that the county operated the landfill in a manner that caused a plume of toxic chemicals to pollute their water and land.

In 2007, Campbell County filed a third-party lawsuit against the landfill's engineer, Richmond-based Joyce Engineering Inc., to recover any damages the county might have to pay to the Royals and for the cost of cleaning the contamination from the ground.

Since then, the legal maneuvering has repeatedly stalled, with trial dates postponed or changed while a multi-million dollar effort by the county to start cleaning up the contaminated wells is ongoing.

The lawsuits

The Royals contend that leakage from the landfill has polluted their wells, and surface water running off the landfill has polluted the ground. The situation is so bad, their attorney Charlie Williams wrote in his filings, that Campbell County has effectively seized the Royals' land.

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They have sued for \$10 million, the maximum the law will allow, Claude Royal said.

Campbell County Attorney David Shreve said the landfill, built in 1979, was unlined — as all landfills were at the time — and that pollutants have leaked into groundwater under the Royals' property.

However, Shreve said, one would have to drink nearly a six-pack's worth of the polluted water every day for 30 years before it might become a health problem.

In his filings, he contends the Royals have interfered with the county's efforts to fix the problem through filing "frivolous" bankruptcies. The Royals also had interfered by refusing to grant the county permanent access to wells used to pump out the polluted water into a treatment facility, and for wells used to monitor pollution levels, Shreve said.

The wells were installed, Shreve said, but the county has had to file lawsuits against the Royals to get permanent access. The county has offered to install public water at the site, he added, but the family has refused.

"It's public water with conditions," Claude Royal said. "(The county) offered it before and wanted me to accept all the liability. I'm not interested in that," he said.

Royal also said he didn't think it was fair to charge him for public water because his wells were contaminated by the county. "I had good water and they took it," he said.

The county's lawsuit also seeks condemnation of the polluted groundwater so no one could drill more wells from the property.

In the meantime, the county also filed a third-party lawsuit against Joyce, the landfill engineering company, to cover any money the Royals may win in their lawsuit and for the cost of pumping and treating polluted groundwater.

"We've determined that (Joyce Engineering was) negligent for not monitoring the situation," Shreve said.

Out-of-court mediation was scheduled for April 1, but Williams said it was canceled. Lawyers representing Joyce Engineering did not respond to interview requests by press time.

Amherst County Circuit Court Judge Michael Gamble is hearing the case in lieu of Campbell County Judge Samuel Johnston, who is expected to retire this summer.

In a February order, Gamble tentatively scheduled a trial for December.

The dates have yet to be finalized, but schedules have called for a 15-day trial — effectively three weeks of court.

While the process has been slow, Claude Royal said they have come a long way. "The county is agreeing with the consultants that I had originally gotten," he said. "I appreciate everything that has been done."

Remediation and expense

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As of last month, Campbell County has spent more than \$3.5 million on design, engineering and construction to start cleaning up the groundwater. As of March 2007, the county has spent more than \$140,000 in legal expenses to Shreve, according to county documents.

The county also paid a \$14,000 fine to DEQ in 2003.

The groundwater remediation started in 2006 and there's no end in sight, said county public works director Clif Tweedy.

The county installed 24 remediation wells on the landfill property and the Royals' property, which pump 20,000 to 30,000 gallons of groundwater per day to the landfill through 24 pipelines.

The water is then filtered to remove the volatile organic compounds, such as benzene, vinyl chloride and acetone, and is discharged into a stream on the landfill property, Tweedy said. "(The discharge is) very clear water and we have to test it on a regular basis to make sure it doesn't have any (volatile organic compounds) in it."

The idea is to pump all the contaminated water out of the ground, treat the water and clean it up, Tweedy said.

The county tests for about 50 chemicals and since the cleanup started, some levels have dropped, some have increased and some stayed the same, Tweedy said. However, he added, it's too early to tell if the process is working.

The remediation does not have a set time frame because it depends on when the pollution levels drop below state standards, Tweedy said. "Until the levels get below the standards, we'll have to continue to operate. No one really wants to hazard a guess."

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4-8-04

Roblar Road Sonoma Cty. Landfill

3/20/1991 CERCLA ASSESSMENT

Pertinent issues:

1) Site operation November 1956 to July 1971 by Sonoma Cty. Public Works, and March 1972 to October 1972 by City of Santa Rosa. No records were required to be kept at the time of operation regarding what went into landfill. The site is composed of 3 bench cells on a steep hill. Each cell is approximately 200 ft. long by 40-50 feet wide, by 20 feet deep. No problems caused by the landfill had been recorded as of 1991. No monitoring had been done. Public works initiated a SWAT (SOLID WASTE ASSESMENT TEST) report at this time.

The CERCLA report uses and HRS Hazard Rnking System to asses the relative threat associated with actual or potential release of hazardous material from the site. It is the principal mechanism EPA uses to place a site on a National Priority List.

The CERCLA report stated that type of wastes in the Roblar landfill are largely unknown. Total volume of waste is esteimated at 12.5 million cubic feet.

The CERCLA report stated the Public Works made 3 exploratory borings at the site for its SWAT investigation. Groundwater is located in 3 geologically independent units under the landfill, and it was unknown if the units are interconnected. Groundwater occurs at 18 ft bgs on the northern side of the landfill adn 40 to 45 ft bgs on the southern side. The landfill has no liner. The report states that it is likely that wastes may be in direct contact with groundwater.

The CERCAL report reports on local groundwater use and states that there are 2 community wells within 2-3 miles of the site and that total population receiving water from within 2-3 miles of the site is estimated at 2,600.

The report states the site receives 20-35 inches of rainfall per year. Water from the site drains directly into Americano Creek.

The report also states that the amount of soil covering the waste in unknown and the potential exists for hazardous gaseous emmisions or airborne particualtes. No soil sampling has been done at the site.

The CERCLA report did not recommend that the EPA look into this site. They did not rate the risk factors high enough to warrant the EPA's attention.

State of California
AIR RESOURCES BOARD

Staff Report: Initial Statement of Reasons for
the Proposed Asbestos Airborne Toxic Control Measure
for Construction, Grading, Quarrying, and Surface Mining Operations

Executive Summary

I. INTRODUCTION

In 1986, the Air Resources Board (ARB or Board) identified asbestos as a toxic air contaminant (TAC) based on its classification as a known cancer causing pollutant. In that process, the Board found that no threshold exposure level could be identified below which adverse health effects would not be expected.

Last year the Board approved amendments to an ~~airborne toxic control measure~~ (ATCM) that was originally adopted in 1990. This amended ATCM reduced the allowable asbestos content in materials used for surfacing applications from five percent to 0.25 percent. At that time, staff advised the Board that we would be returning with a complementary ATCM addressing asbestos emissions from construction, grading, quarrying, and surface mining operations. Air monitoring information, emission estimates using published emission factors, and site visits indicate that construction, grading, quarrying, and surface mining in areas with naturally-occurring asbestos can result in potentially harmful asbestos exposure to the general public. Because of this, staff is proposing an Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations. The proposed regulation is designed to require work practices that will minimize emissions of asbestos-laden dust from operations that occur in areas where naturally-occurring asbestos is found or is likely to be found. If approved by the Board, the proposed ATCM will be sent to the local air pollution control or air quality management districts (districts) to be implemented and enforced. The local districts may implement the proposed ATCM as approved by the Board, or adopt an alternative rule at least as stringent as the ATCM.

II. BACKGROUND

1. Why is the staff proposing an ATCM for Construction, Grading, Quarrying, and Surface Mining?

Air monitoring conducted in California and Virginia has indicated that activities associated with construction, grading, quarrying, and surface mining in areas known to

have naturally-occurring asbestos can result in offsite asbestos concentrations in the air that represent a potential hazard to public health. Because of the variability of asbestos concentrations and dust producing activities, exposures are variable over time and from location to location. However, air monitoring has demonstrated that actions currently being taken in some locations to control dust emissions from these activities are effective in reducing asbestos emissions.

This proposed regulation would apply to construction, grading, quarrying, and surface mining operations in areas identified as potential ultramafic rock units on maps developed by the Department of Conservation (DOC), Division of Mines and Geology. This is consistent with the approach used in the Asbestos ATCM for Surfacing Applications, which the Board approved last year. The DOC has identified ultramafic rock, and its metamorphic derivative serpentine, as the rock types more likely to contain asbestos. For some sources that would be subject to this ATCM, some dust mitigation measures are currently required for air quality or water quality protection. This proposed measure would promote statewide consistency in control requirements and compliance. The proposed ATCM is expected to apply to only one percent of the new construction in California and 25 of the approximately 800 mines and quarries in California.

2. What does the law require to protect public health?

The TAC Identification and Control Program is established in Health and Safety Code (H&SC) sections 39650 et seq. State law requires the Board to reduce emissions of TACs to the lowest level achievable through the application of best available control technology (BACT) in consideration of cost and risk. The Board may require the use of a more effective control method if it is determined to be necessary to prevent an endangerment of public health. The staff is proposing an ATCM consistent with this State law mandate and believes that the proposed dust mitigation measures are technically feasible and will achieve the greatest reductions in exposure at the lowest cost of any approach identified for these source types.

The law is clear in its intent that emissions of TACs should be controlled to levels that reduce health risks and prevent harm to the public health. The law also states that it may be necessary to take action even when undisputed scientific evidence may not be available to determine the exact nature and extent of risk from a TAC.

3. How is serpentine and ultramafic rock related to asbestos?

Two of the most common varieties of asbestos minerals that are found naturally in many parts of California are chrysotile and tremolite. The most common and abundant type is chrysotile. Tremolite also occurs but is found in much lower quantities than chrysotile. Both of these types of asbestos are found in serpentinite, commonly referred to as serpentine or serpentine rock. Ultramafic rock is the parent igneous rock for serpentinite. Ultramafic rock, other than serpentine, may also contain asbestos. Known areas of serpentine and ultramafic rock can be located on geologic maps under

the designation of "ultramafic rock units." The total land area of the State represented by ultramafic rock units is about 1.4 percent, much of which is located in remote areas of northwestern California (DOC, 2000).

When serpentine or asbestos-containing ultramafic rock is crushed, broken, or otherwise disturbed, the asbestos is released to the air and can present a potential health risk. Asbestos released when asbestos-containing soil or rock is disturbed is commonly referred to as "naturally-occurring" asbestos.

III. PUBLIC OUTREACH

An open public process that involves all parties affected by the proposed ATCM is an important component of all ARB's actions. Since 1998, ARB has maintained a website to facilitate the dissemination of up-to-date information on the issues and progress of the regulatory process for naturally-occurring asbestos at www.arb.ca.gov/toxics/asbestos.htm. Many useful advisories and informational items are available at this site, which has received an average of about 950 hits per month. The website has also been used to notify interested parties of meetings and make draft versions of the proposed ATCM available to the public.

ARB staff has held five public workshops to discuss the regulatory approach and draft regulatory language. ARB staff has also participated in four other public meetings and has had numerous meetings with individuals and small groups. ARB staff also meets on a regular basis with representatives of 13 state and federal agencies with an interest in regulation of naturally-occurring asbestos. ARB staff have coordinated with the districts through the California Air Pollution Control Officers Association. ARB staff have also met and talked with concerned citizens, especially citizens from the El Dorado County area.

Industry involvement has included several of the major industry associations with an interest in construction, the production of aggregate materials, mining, and timber production. These associations and individual quarry operators and their representatives have participated in the public workshops and have met with staff on an individual basis.

IV. EMISSIONS AND POTENTIAL HEALTH IMPACTS

1. What are the sources of naturally-occurring asbestos?

Sources of naturally-occurring asbestos emissions include unpaved roads, driveways, and other surfaces covered with asbestos-containing serpentine or ultramafic rock; and construction, grading, quarrying, and surface mining activities in serpentine and ultramafic rock areas. The use of asbestos-containing material for surfacing was addressed in the Asbestos Airborne Toxic Control Measure for Surfacing

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Applications, which the Board approved in July 2000. This measure prohibits the use of material for surfacing if it has an asbestos content greater than 0.25 percent. This proposal addresses emissions of naturally-occurring asbestos from construction, grading and quarrying activities.

2. How much asbestos is emitted from construction, grading, quarrying, and surface mining?

Quantitative assessments of the asbestos emissions from these activities are difficult to estimate because of the many factors which influence the rate of release of the asbestos fibers and the high degree of variability of each of these factors. These factors include the size of the area being disturbed; the level of soil disturbance; the equipment being used including equipment size, speed, and mode of operation; the asbestos content of the material being disturbed; seasonal variations; and meteorological conditions. However, the ARB and others have done air monitoring in locations near these activities in areas where naturally-occurring asbestos was known to be present and found asbestos in the air at potentially harmful concentrations. It is a well-established fact that these activities result in emissions of fine particulate matter. When asbestos is present in soil and rock, it is reasonable to conclude that asbestos, like other particulate matter, will be emitted during such activities.

3. What are the potential health impacts from asbestos exposures related to construction, grading, quarrying, and surface mining?

Asbestos is classified as a known human and animal carcinogen by state, federal, and international agencies. Inhalation of asbestos fibers has been shown to cause several serious illnesses including lung cancer, mesothelioma, and asbestosis. Asbestos, in six mineral forms, was identified by the ARB as a TAC in 1986 and is included on the United States Environmental Protection Agency's (U.S. EPA's) list of hazardous air pollutants. There has been some debate by members of the scientific community regarding the different cancer potencies of the various forms of asbestos. Tremolite and other amphibole asbestos forms are considered by some to be more potent than chrysotile in inducing mesothelioma; however, the available data does not currently enable State or federal scientists to make a distinction of cancer potency by fiber type. It should be noted that chrysotile appears to be equally potent as all other forms of asbestos in causing lung cancer (DHS, 1986).

The asbestos concentrations measured by air monitoring near construction projects, mines, and quarries represent a wide range of estimated potential risks from zero to over a thousand chances per million. The wide range of risk occurs due to the high variability of several factors influencing the rate of emissions, including the asbestos content of the disturbed material, the magnitude of soil disturbance, the measures being taken to reduce dust emissions, and meteorological conditions. The exposure from some of the sources proposed for regulation tends to be episodic. Because the exposures in some locations may be episodic and not a true annual average concentration, the estimated cancer risks may be overstated. While exact risk

numbers are difficult to estimate, health officials agree that asbestos is a known human carcinogen and exposure to it should be minimized.

V. SUMMARY OF THE PROPOSED ATCM

1. What does the proposed ATCM require?

The proposed ATCM is designed to minimize the public's exposure to asbestos by requiring work practices that will minimize dust emissions from activities associated with construction, grading, quarrying and surface mining. The ATCM proposes different requirements for three sectors of the industries covered: construction and grading, road construction and maintenance, and quarrying and surface mining. These requirements apply to projects where the area to be disturbed is in an area specified on maps published by the DOC showing ultramafic rock units or where ultramafic rock, serpentine, or naturally-occurring asbestos is known to occur even if not shown on the maps.

In developing the ATCM, one of our goals was to evaluate current practices being used by these sources to minimize dust emissions. We have designed this proposed ATCM by reviewing the existing regulations and incorporating best management practices into the measure. A number of information sources formed the basis for this proposed regulation. Among them are visits to numerous quarries and construction sites, district dust control rules, district permits for sources subject to dust control rules, asbestos air monitoring data collected over many years, U.S. EPA studies of fugitive dust sources, and the emission factors published in the U.S. EPA Compilation of Air Pollutant Emissions Factors (AP-42). The requirements in the proposed regulation reflect the best dust mitigation measures currently being used on these sources. The adoption of this ATCM will help ensure that sources throughout the State are subject to a consistent set of requirements.

The requirements for construction projects are divided into requirements for projects that disturb one acre or less (small construction projects), and those that disturb more than one acre (large construction projects). The requirements for small construction projects specify wetting the soil area to be disturbed; wetting, covering, or stabilizing storage piles; limiting vehicle speeds to 15 miles per hour (MPH) or less; cleaning equipment before moving it off-site; and cleaning up visible track-out on the paved public road. These requirements would not apply to individuals working on their own property that are less than one acre.

Large construction projects are required to prepare a dust mitigation plan and receive approval from the district prior to start of the project. The plan must specify measures that will be taken to ensure that no visible dust crosses the property line and must address specific topics. The dust mitigation plan must address control of emissions from: track-out, disturbed surface areas, storage piles, on-site vehicle traffic, off-site transport of material, and earthmoving activities. The plan must also address

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post construction stabilization and air monitoring (if required by the district). Table 1 shows control options for the topics to be addressed in the asbestos dust mitigation plan for large construction projects. Many of these requirements would already be carried out by such projects to minimize nuisance dust complaints and protect water quality.

Table 1. Dust Mitigation Options For Large Construction Projects

Emission Sources	Dust Mitigation Options
Track-out	<ul style="list-style-type: none"> • Gravel pad • Grizzly • Wheel wash system • Wet sweeping • HEPA filter vacuum
Disturbed surface areas and inactive storage piles	<ul style="list-style-type: none"> • Apply water • Maintain a crust • Apply dust suppressants or chemical stabilizers • Cover with tarps or vegetative cover • Install wind barriers
Traffic on unpaved on-site roads	<ul style="list-style-type: none"> • Restrict vehicles to 15 MPH or less • Keep roads adequately wetted • Apply dust suppressants • Cover with non-asbestos gravel
Active storage piles	<ul style="list-style-type: none"> • Keep wet • Cover with tarps
Earthmoving activities	<ul style="list-style-type: none"> • Prevent the generation of dust • Use water to suppress dust • Apply water
Off-site transport of material	<ul style="list-style-type: none"> • Ensure trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments • Ensure that loads are wet and tarped or wet and loaded with 6 inches of freeboard
Post-construction disturbed areas	<ul style="list-style-type: none"> • Establish and maintain a vegetative cover • Cover with at least 3 inches of non-asbestos material • Pave

Most measures require water

I want to go to some sites or follow truck and see dust & other material fall out

The requirements for road construction and maintenance include notifying the district before starting the project, wetting the area to be disturbed, restricting traffic speed to 15 MPH or less, and preventing visible track-out on the paved public roadway. Again, many of these projects currently employ measures to control fugitive dust.

Quarries and surface mines must obtain district approval for an asbestos dust mitigation plan that ensures that emissions from processing equipment does not exceed either 10 percent or 15 percent opacity depending on the equipment. Also, the plan must ensure that visible dust does not pass over the property line. In addition to processing controls, the plan must include track-out control, control for on-site public

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roads, and air monitoring (if required by the district). Table 2 shows control options for the topics to be addressed in the asbestos dust mitigation plan.

Table 2. Dust Mitigation Options for Quarries and Surface Mines

Emission Sources	Dust Mitigation Options
Material handling	<ul style="list-style-type: none"> Spraybars on conveyors Shrouds on drop points Keep materials wet during excavation, grading, and truck loading
Track-out prevention and removal	<ul style="list-style-type: none"> Gravel pad Grizzly Wheel wash system 50 feet of paving Wet sweeping HEPA filter vacuum
On-site roads open to the public	<ul style="list-style-type: none"> Pave with asphalt or concrete Treat with a dust suppressant Cover with non asbestos gravel
On-site traffic	<ul style="list-style-type: none"> 15 MPH speed limit Keep roads wetted
Active stock piles	<ul style="list-style-type: none"> Keep wetted
Offsite transport of material	<ul style="list-style-type: none"> Ensure trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments Ensure that loads are wet and tarped or wet and loaded with 6 inches of freeboard
Inactive stockpiles and exposed areas	<ul style="list-style-type: none"> Keep wetted Apply dust palliatives or suppressants Cover with non-asbestos material

More water use:
 - Seepage of asbestos into water supply
 - Other contaminant
 - low water tables area

The proposed ATCM also contains sections addressing recordkeeping and reporting, test methods, timelines, and definitions.

2. What exemptions are allowed?

Potentially affected sources can obtain an exemption from the ATCM if a geologic evaluation determines that the area to be disturbed does not contain any serpentine or ultramafic rock. Agricultural operations and timber harvesting activities, except for the construction of roads and buildings, are exempted. Individuals engaged in construction and grading activities on property they own or rent are exempt if the area disturbed is one acre or less. This exemption is provided because staff believes the administrative burden on the local air districts, and the difficulty in enforcing the requirements for work practices on homeowners and renters, makes such an approach unworkable. The ARB plans to pursue an education and outreach program to inform homeowners and renters of the potential for exposure and what they can do to reduce their exposure. An exemption is provided for emergency road construction or repair. Road construction and maintenance activities can obtain an exemption if the activity is

more than a mile from any receptor. Sand and gravel operations working from an alluvial deposit can obtain an exemption from the dust mitigation measures for processing equipment if the material being processed is from an alluvial deposit.

3. What are the key unresolved issues?

While ARB staff have been able to resolve the majority of the concerns raised by the industry and concerned citizens, there are some issues on which we have not reached a consensus. Some people believe different types of asbestos should be regulated differently. This would not be consistent with State law and the guidance from the Office of Environmental Health Hazard Assessment on health effects analysis. Some companies fear that the districts will routinely require extensive air monitoring without a reasonable cause. We have been working with the air districts informally on this issue and do not expect the districts to respond in this way. Also, we will provide air monitoring guidance to the districts. Some organizations want to be allowed an exemption if they can demonstrate that there is no asbestos in an ultramafic rock area. We are working with the DOC on this issue to see if criteria and a methodology can be developed to reliably make such a determination. Staff does not believe that the necessary tools and techniques exist that would enable a geologist to make this determination. Additionally, implementing this option could result in significant costs to state and local government agencies, including the ARB and DOC.

VI. **IMPACTS OF THE PROPOSED ATCM – HEALTH, ECONOMIC, ENVIRONMENTAL**

1. Will the revisions reduce public health risk?

The proposed revisions will minimize health risks associated with the disturbance of asbestos-containing material in construction and grading projects, road construction and maintenance projects, and the excavation and processing of asbestos-containing material in quarries and surface mines. This proposed measure will ensure that best management practices for minimizing dust emissions from these activities are implemented when the soil or rock is disturbed. The proposed regulation will also result in a small reduction in the total emissions of particulate matter statewide. Another potential result of this proposed regulation would be reduced worker exposure.

What about the employees?

2. What will the ATCM cost?

The increase in cost for small construction projects at existing homes is estimated to be less than \$55 per project. Additional costs for new housing construction are estimated to range from \$200 to \$500 per lot. Costs may vary depending on dust management practices currently being used. Less than one percent of new housing construction is expected to be located in an area covered by the ATCM.

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No significant additional costs to California Department of Transportation (Caltrans) or public works departments for road construction and maintenance are expected because these agencies routinely employ measures to minimize dust emissions during road construction.

There are about 800 mines and quarries in California that hold active permits under the Surface Mining and Reclamation Act. Of these, the staff has identified 25 that may incur costs to comply with the ATCM.

Costs to quarries will vary depending on which activities will need additional control and which options are available to sources. Small mines and quarries, that do not have on-site public roads and do not have roads that exit onto a paved public road, would incur the lowest costs. We estimate these quarries will incur first year costs of \$500 to \$700 and ongoing costs from \$0 to \$2,000 per year.

Quarries which must add process control, track-out control, and control for on-site public roads. Those that can not use their own gravel for on-site road control are expected to incur the highest costs. These costs range from \$5,500 to \$6,800 the first year depending on which of the available options they chose. Ongoing costs could range from \$0 to \$2,000 per year. These costs are not expected to be a significant burden. However, the ATCM will affect the same three quarry operations located in serpentine or ultramafic rock deposits that were identified as having potentially significant economic impacts from a prohibition of the use of asbestos-containing materials for surfacing (ARB, 2000). Several quarries currently are using effective dust mitigation measures for many of the activities addressed in the proposed regulation.

Overall, the proposed regulation is estimated to cost approximately \$3 to \$5 million over 5 years or an average of \$600,000 to \$1 million per year.

3. Are there any significant adverse environmental impacts associated with the proposed revisions?

No significant adverse environmental impacts are expected, with the exception that staff has identified a potential for a very small increase of emissions from diesel-powered water trucks, a small increase in water use, and a small increase in electricity used to pump that additional water.

The ARB is committed to evaluating community impacts of proposed regulations, including environmental justice concerns. Because some communities experience higher exposures to toxic pollutants, it is a priority of the ARB to ensure that full protection is afforded to all Californians. The proposed ATCM is not expected to result in significant negative impacts in any community. The proposed ATCM is designed to reduce emissions of asbestos-laden dust in those geographic areas within ultramafic rock units. The result of the regulation will be reduced exposures to potential asbestos emissions for all communities in these areas, with associated lower potential health risks.

VII. NEXT STEPS

If the proposed ATCM is adopted, the local districts must implement and enforce the ATCM. However, if the district wishes to adopt an alternative regulation, it has 120 days to propose a regulation that is at least as stringent as the ATCM. The alternative regulation must be adopted within six months of the adoption of the ATCM. Sources would need to be in compliance by the date the district implemented and enforced the ATCM or by a compliance date specified in the alternative regulation.

The staff is working with the DOC to develop guidance to assist local air districts and geologists on the appropriate contents of a geologic assessment for facilities or operations in asbestos-containing soils. This guidance can be used for the exemption clause in both the amended ATCM for surfacing applications and this ATCM for construction, grading, quarrying, and surface mining. ARB staff will also be working with the DOC to provide updated maps for critical areas likely to contain naturally-occurring asbestos.

VIII. RECOMMENDATION

The ARB staff recommends that the Board adopt the proposed Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations. In recognition of the State law requirement for the ATCM to reflect BACT, the staff is proposing provisions that will require the use of best management practices for control of dust from construction, grading, quarrying and surface mining operations with the potential to emit asbestos to the air. Benefits from the proposed ATCM are reduced public exposures to asbestos emissions from activities that disturb the soil surface in areas that are known or likely to contain naturally-occurring asbestos. Exposure to asbestos is known to cause lung cancer and mesothelioma. The proposed actions to minimize the public's exposure to this known carcinogen are consistent with State policy to control TACs to the lowest level achievable to prevent endangerment to public health.

CALIFORNIA THORACIC SOCIETY

CURRENT EVENTS

NATURALLY-OCCURRING ASBESTOS Article Excerpted from MEMO FROM THE CTS PRESIDENT

John R. Balmes, MD

September, 2001 (Vol. 9, No. 1)

In just the few months that I have been president, CTS has had to develop relatively rapid responses to two important issues. One environmental health issue, exposure to naturally occurring asbestos, had not even been on our radar screen.

NATURALLY-OCCURRING ASBESTOS

Serpentine is the state mineral of California, and there is a lot of it in our state. Many of you have probably seen the green veins of this silicate mineral in outcroppings of rock, canyon walls, or excavated hills. When serpentine rock crystallizes in a fibrous form, it becomes a type of asbestos, called chrysotile. The last commercially viable asbestos mine in the country was here in California. Sometimes deposits of chrysotile asbestos also contain another type of asbestos, known as tremolite. The physical difference between chrysotile and tremolite is that the former has curves (hence serpentine or snake-like) whereas the latter is straight or needle-like. The needle-like forms of asbestos are called amphiboles. Both chrysotile and amphibole types of asbestos can cause pleural thickening, parenchymal fibrosis, and lung cancer with equal potency. Amphibole asbestos appears to have greater potency in causing mesothelioma. For any of these health effects of asbestos to occur, respirable fibers must be inhaled in sufficient doses. As the development of residential homes grows in the foothills of the Sierra, concern has arisen over potential environmental exposure to naturally-occurring asbestos (NOA) dust when surface deposits are disturbed by construction activities. The greatest public outcry to date has occurred in El Dorado County, but geologic mapping of the state shows that there are surface deposits of NOA in many other locations. Recently, one of the ALAC Branches (Redwood Empire) brought the NOA issue to CTS attention by requesting assistance from our Executive Director, Colleen Richardson. Colleen did her usual superb job in quickly reviewing the available information on health risks from environmental exposure to NOA and putting together a Tremolite Asbestos Fact File that was sent to every ALAC affiliate. She also developed a summary of questions for which further research is needed and a list of suggested NOA-related activities for ALAC and affiliates that would have the greatest impact. One joint ALAC/CTS activity that has already had such impact was testimony before the California Air Resources Board (CARB) in support of stronger regulation to limit asbestos release from quarrying and construction. ALAC/CTS supported the regulation to control asbestos emissions although we said it does not go far enough in protecting public health. The regulation approved by CARB does not require air monitoring of every construction project or quarrying operation in NOA zones, but rather leaves to the discretion of local air pollution officials whether monitoring should be done. The regulation also is focused on a standard of "no visible emission" at the perimeter of construction/quarrying sites. We contended that by the time there are visible emissions at the property line of a site, it will be impossible to contain or control any potential asbestos fibers. Without ALAC/CTS testimony to counterbalance construction and quarrying industry lobbying efforts, the proposed regulation may have been watered down (i.e., industry wanted no provision of air

monitoring at all).

A lot of the recent concern over NOA, especially tremolite, in California has been fueled by reports about the situation in Libby, Montana, where residents of the town have been exposed to tremolite in tailings from a vermiculite mine. Exposed residents of Libby have developed asbestos-related health effects from tremolite exposure. However, it is important to remember that exposure to mine tailing dust that has been spread over various areas of a town is different than exposure from construction activity in an area with surface deposits of NOA. What is the relative risk of health effects from NOA exposure to the *general population* in such areas? We do not really know the answer to this question, in large part because we do not have sufficient exposure assessment data.

CTS will continue to work with ALAC and local affiliates to develop an action plan regarding exposure to NOA that will seek to protect public health in a responsible manner. We want to reduce the risk of health effects from environmental exposures without unduly alarming the public.

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6/17/04

Gulf of Farrallones Meeting

Issues Concerning the Estero Americano and Estero de San Antonio

1) Estero de San Antonio

The Estero de San Antonio is being threatened by dump leachate discharge into springs at the Headwaters of Stemple Creek. The dump on Meacham Road is situated on a hillside of fractured and fissured Franciscan Rock. The elevation of the landfill is currently 500 feet. A stones throw away at the bottom of the hill of waste is the headwaters of Stemple Creek (elevation 50 feet). Recent expansion of the landfill has allowed contaminants into Stemple Creek. The county is now diverting the headwaters of Stemple Creek and trucking them to the county wastewater treatment plant. Water Quality control is also forcing them to divert 2/3 of the county's trash to out of county landfills until they can solve the current leachate leaking into local water supply. Local residents have shallow wells there is additional concern about a proposed pipeline from the sub-regional sewage treatment plant that may be used to bring treated wastewater to the landfill for dust control. The addition of wastewater potentially containing heavy metals and toxins that are concentrated during the wastewater treatment process will only magnify the problem at the landfill.

This landfill has outlived it's usefulness for Sonoma County. Sending the trash to a new site will only bring up these issues in a new location. We advocate a total resource recovery facility in Sonoma county. This is an enviromentally sound solution for the county and the esteros.

2) Protect Estero Americano (originating just North of Roblar Road.)

There are 2 current threats to the Estero Americano on Roblar Road.

A) The county of Sonoma owns and maintains a closed landfill on Roblar Road. This landfill was used from 1956 to 1971 for discharge of local waste. At this time there were no regulations regarding what could be discharged into a landfill and no records were kept about what was put into the landfill. We know that there are probably lead based paints and petroleum, Chemicals such as DDT, and probably farming products including natural and synthetic hormones buried at this site.

No testing has ever been done on the shelves to see what is underground.

In 1995 severe erosion occurred after a large winter storm allowing large volumes of sediment into Americano Creek. At this time Public Works required the county to establish a plan to control future erosion and prevent off site sedimentation. They also established a once yearly surface ground water monitoring plan after the first fall rain on this site. That is the only monitoring done on this dump site. No one is monitoring local water supply either on or off site.

B) In December of 2003 an application was filed to establish a hard rock mining quarry on the adjacent property to the Roblar Road Landfill. This quarry plan includes blasting and digging away an entire hillside above the Americano Creek. It is highly likely that blasting next to the landfill will release toxins from the lanfill site and into the quarry sedimentation ponds.

C) Serpentine Rock and Asbestos. The hillside slated for quarry development is composed of Wilson Grove and Franciscan Formation with a band of Sonoma Volcanic Rock with a matrix of serpentine rock with conatins asbestos amphiholes. The State of California identifies asbestos as a toxic contiaminent and only allows quarrying in a site with asbestos if 100% dust containment can be acheived. The Toblar Road Valley is in a very high wind area. It would be infeasible to contain all dust is this coaatl wind tunnel. Air discharges from the quarry would permeate adjacent populated areas of Cotati/Rhonert Park. Water discharge containing asbestos would flow into the Americano Creek.

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Rcommendations to GFNMS:

1. Endorse a total resource recovery facility in Sonoma county to protect the Estero de San Antonio from the continued release of toxic pollutants.
1. Oppose a hard rock quarry proposed near Americano Creek due to 1) issues regarding the adjacent landfill and ground and surface water contamination, 2) Air and water asbestos release into the local enviroment, and 3) sedimentaion into the Americano Creek.

Past DEIR Comments

Comment Letter JJ - Attachment

October 18, 1990

Sonoma County Board of Supervisors
575 Administration Drive
Santa Rosa, California 95401

Dear Supervisors:

Since the E.I.R hearing we learned by reading the SWAT Proposal that, to the Roblar-area citizens' dismay, the Roblar/Steinbeck Dump has no liner or seal. Therefore, we understand that the concern over the prospects of the proposed quarry operations breaching a seal that does not exist is now a moot point.

However, we now know that there is even greater concern over the possible installation of a hard rock quarry within ~200 ft of this dump which is actually in a much more delicate condition than we had been told at Planning Commission Hearings. Common sense tells us that vibrations have a significant effect upon percolation rates through porous media, such as the sandy and silty units which the SWAT Proposal reveals underlie the Roblar/Steinbeck Dump. That water is flowing beneath the dump is now clear from the results of B-2 and B-3 well tests presented in the SWAT proposal.

That the Dump contains toxic materials can not be questioned: research by the University of Arizona has shown that any dump of this vintage contains a minimum of ~18% by weight toxic materials (personal communication: Prof. W. L. Rathje). Since this dump site also served as a burn pit for nearly 10 years it is reasonable to suspect that its concentrations of toxics (especially heavy metals) are much higher. Moreover, we have heard testimony that large quantities of diethylstilbestrol, a potent carcinogen and mutagen were placed in the Roblar/Steinbeck dump during its operation as a landfill. The analytical chemical methods to be used to analyze SWAT samples do not include specific provisions for detection of this unusual, but particularly deadly substance.

For a dump in this condition, enhanced percolation of toxics into the Santa Rosa Plain Ground Water Basin resulting from vibrations associated with the proposed blasting and the continual operation of 80,000 lb. trucks and other heavy equipment within a few hundred feet is a concern that can not be shrugged-off.

Perhaps the most urgent concern is draw-down effects which would be associated with proposed quarry operations. To meet minimum air quality control standards the quarry will require many thousands of gallons of water a day. This level of water consumption

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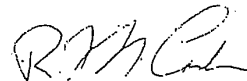
in this area will require significant ground water usage: ask the farmers living and working there. Results of the B-2 well test reported in the SWAT test Proposal show water production from fractured basalt (the same basalt body the quarry proposes to mine). Under these conditions for a dump without a liner, draw-down of toxics from the dump into the Santa Rosa Plain Ground Water Basin is a forgone conclusion.

Furthermore, elevated levels of heavy metals found by Dr. D. W. Smith (results were presented at the first hearing) in water samples taken from the base of the dump site are data that should not be ignored or dismissed lightly. Particularly in light of the fact that the property owner now refuses to give permission to County Staff to begin SWAT sampling. Dr. Smith's measurements are likely to be the only data available before the decision on the quarry will be made.

How many dumps of this vintage and in this condition which overlie fluvial sands that lead into a main aquifer are present in Sonoma County? In fact, do any others exist? Conversely, how many potential hard rock quarry sites exist in the county? The County's ARMP and the State Geological report No.146 show the existence of vast reserves of basalt within the county; the proposed quarry site isn't even listed as a resource site in either publication.

Can the Applicant and land owner guarantee that the proposed quarry operations will not cause the release of toxics into our ground and surface waters: their refusal to allow testing makes their position clear. The consequences of any release would be disastrous. It is clear to us that a thorough analysis of the potential for problems associated with this proposed quarry has not been performed. Moreover, with the present state-of-the-art in environmental sciences, there are possible factors which would be missed by any current evaluation. Should you gamble with the integrity of the Roblar-area residents' ground water resources given these facts, or should you take a more prudent course?

Sincerely,



R. M. Carlson
3775 Roblar Road
Petaluma, CA 94952

Comment Letter JJ - Attachment

Ben Berto
70 Crane Drive
San Anselmo, CA 94960
(415) 454-2923

October 23, 1990

Sonoma County Board of Supervisors
County Administration Center
575 Administration Drive
Santa Rosa, CA 95401

RE: Comments on the Amendment of the Aggregate Resources Management Plan, Rezoning and Use Permit for the proposed Roblar Quarry, and on the proposed expansion of the Use Permit for the Stony Point

Dear Members of the Board:

I have been hired by The Citizens Against the Roblar Rock Quarry (CARRQ) to represent their interests in the proposed Roblar Quarry project. This is the first presentation I have made before your Board; although I have appeared before the Sonoma County Planning Commission and submitted letters on this matter several times previously. It is requested that this letter be read and submitted into the record, along with other comments submitted by CARRQ.

This letter addresses three issues:

1. The proposed amendment of the Aggregate Resources Management Plan (ARMP) to include the area proposed for the Roblar Rock Quarry.
2. The proposed zoning change and use permit for the Roblar Quarry.
3. The proposed expansion of the Stony Point Quarry.

1. Proposed amendment of the Aggregate Resources Management Plan.

As part of the Roblar Quarry application, it is proposed that Sonoma County's Aggregate Resources Management Plan (ARMP) be amended to include the quarry area as an identified resource site. There are several reasons why this amendment should not occur.

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Another policy used in the ARMP states:

Require that mineral-extraction operations be performed in a way that is compatible with surrounding land uses and minimizes adverse effects on the environment.

These ARMP policies are important in light of the position which Planning Department appears to be taking on the Roblar Quarry application. Recent Planning Department staff reports on the project indicate that there may need to be "overriding considerations supporting a Plan which allows mining activities with unavoidable significant effects." In other words, forget about the ARMP policies requiring compatibility with surrounding land uses. There are some serious internal inconsistencies both within the ARMP and in its relationship to the current Sonoma County General Plan. Before the County can use the ARMP to review or justify projects, it must be brought up to standards for a specific plan and made consistent with the current General Plan. Projects involving the ARMP must be deferred or denied until the County has a legally supportable document.

2. Proposed zone change and use permit to allow the Roblar Quarry.

In keeping with the questionable nature of what has occurred so far, the proposed zone change and use permit are presented with inaccurate facts and insufficient findings.

For example, the Planning Department staff states in its February 20, 1990, staff report: "Hardrock operation use permit application (sic) may be considered and approved on lands under Type II Agricultural Preserve contracts since such operations are compatible with extensive grazing operations." The staff report continues: "The above statements are relevant to the approval of this project because of the fact that the project site is governed by a Type II Williamson Act Contract and because the ARM Plan states that such a contract does not have to be cancelled in order to approve a mining permit if the proposed mining operation is "incidental to the agricultural use".

How does a change in the zoning of the site of the proposed quarry from Exclusive Agricultural (AE) to Mineral Resource (MR) in any way qualify as "incidental to agricultural use"? If the use intended for this area is agricultural, why is a zone change required? A piece of land with a Mineral Resource zoning designation and containing a quarry cannot be "incidental" to an agricultural use which can no longer be conducted on that land. An absolutely fundamental principle of zoning is that the zoning classification defines the primary permitted use. All other uses are incidental to this primary use. Thus, it is proposed that a

Comment Letter JJ - Attachment

Mineral Resource zoning classification, that quarrying becomes the primary, approved use. Cancellation of the Williamson Act contract is necessary in order to secure either a zoning change or use of the property as a quarry. I agree with staff that use of a 60-acre portion of land as a quarry first requires a zone change. The rest of the process cannot be bypassed either.

Another criticism of the staff report that has been previously raised and not responded to concerns the requirement in California state law that any zoning change must be found to be in compliance with the adopted General Plan. Sonoma County is in serious trouble in this regards.

Sonoma County's 1989 General Plan serves as its constitution for development. All land use decisions, including zoning changes and project approvals, must flow from the information, direction and policies contained in the General Plan. Sonoma County's General Plan no longer serves as the constitution for local development. The reason is that Sonoma County has already exceeded the level of development permitted in its General Plan.

Table LU-1 on page 27 of Sonoma County's General Plan shows the projected population in the unincorporated areas of the County at full buildout in the year 2005 (the General Plan time horizon) at 147,000 persons. Yet the General Plan notes on page 26 that "It should be noted that actual population for the unincorporated area may differ from the projections used in this plan at a given point in time. The January, 1988 estimated population in the unincorporated areas was 147,000, 11,500 higher than projected in this plan." Sonoma County already reached its General Plan buildout population in 1988, a year before the Plan was even adopted! Since then, Sonoma County has continued to grow, as demonstrated by the latest census figures. The 1990 National Census preliminary figures for the unincorporated area of Sonoma County show the population to be 157,650 persons. This is 10,000 people over the supposed year 2005 population!

A quick glance at general plan policies, objectives, and goals reveals the implications of buildout.

GOAL LU-4.1: Maintain adequate public services in both rural and urban service areas to accommodate projected growth [my emphasis].

Objective LU-4.1 Assure that development occurs only where physical public services and infrastructure, including... roads, are planned to be available in time to serve the projected development [my emphasis].

Policy LU-4d: Assure that County-provided physical services and infrastructure will accommodate the projected amount of growth authorized by the land use

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plan [my emphasis].

Policy LU-4f: Assure that new development contribute its fair share toward provision of the public services and infrastructure needed for projected growth [my emphasis].

No development can be approved, no infrastructure can be provided, no justification for expansion can be found, unless it is authorized by the General Plan. There is a whole series of discussions in the October 9, 1990, staff report about who should assume the primary financial responsibility for improving Roblar Road so that it can accommodate trucks from the proposed quarry. The questions need to be asked "Why should the Roblar Quarry be allowed in the first place?" and "What justification is there for widening Roblar Road to allow a quarry?" Sonoma County is already 10,000 people over its year 2005 buildout population. Where does staff, the Planning Commission, or the County Board of Supervisors think that justification can be found for the quarry, especially in the context of "overriding benefit and need"? There can be none, the general plan does not authorize it.

California zoning statutes require zoning changes to be consistent with the General Plan. There have been no findings of General Plan consistency from staff. Sonoma County zoning regulations require that the Planning Commission make findings and recommendations on a proposed zoning amendment to your Board of Supervisors. Where are the Planning Commission's findings of consistency with the General Plan? How is the public who will be affected by this project supposed to assess it, lacking these findings?

Aside from the problem with the General Plan's basic validity, the plan does contain a variety of policies, objectives, and goals which this project must comply with. One reason for a lack of findings of General Plan consistency is that the project in fact conflicts with Sonoma County General Plan on numerous counts. For example, General Plan Goal LU-4.1 states:

Maintain adequate public services in both rural and urban service areas to accommodate projected growth.
Authorize additional development only when it is clear that a funding plan or mechanism is in place to provide needed services in a timely manner.

The EIR authors, the County Public Works Department, and Planning Department staff all recognize that in order to approve this project, improvements to Roblar Road will be necessary. However, because Sonoma County has exceeded its projected growth, there is no justification for increasing its road capacity. There can be absolutely no justification for asking the general taxpayers of the County to pay for the expansion. As a matter of note, the

Comment Letter JJ - Attachment

October 9, 1990 staff report states:

It is the opinion of Sonoma County Public Works that the proposed quarry could provide the only viable funding for the required improvements in the foreseeable future. In other words, in the judgement of the Public Works Department, failure to assess the proposed quarry operation as part of the Conditions of Approval could potentially result in a situation that would be detrimental to the long-term traffic circulation and productivity of the area.

CARRQ has previously commented that if the worst occurs and the project is approved, as a condition of approval the developer must be required to pay for all road improvement costs. The Sonoma County department in charge of road improvements states that this is the only way the improvements can occur. The residents on Roblar Road can live with the layout of the existing road. The Roblar Quarry is the only potential use which would require substantial road improvements. Where is it proposed as a Condition of Approval that the applicants pay their fair share of the needed road improvements?

Further justification of the need for road improvements is found in General Plan Objective LU-4.3, which states:

Reduce congestion on the county wide highway system by maintaining a "C" level of service or better on all designated arterial and collector roadways unless a lower level of service is shown on Figures CT-2c and CT-2d on pages 363-365 of the Circulation and Transit Element, a lower level of service is determined to be acceptable due to environmental or community values existing in some portions of the County, or the project(s) which would cause the lower level of service has an overriding public benefit which outweighs the increased congestion which would result.

A level of service below "C" is not shown in the General Plan figures for the Roblar Road/Stony Point Road intersection. From the EIR, it is known that without improvements, the Roblar Quarry project would reduce the level of service at the intersection of Roblar Road and Stony Point Road to "E". What environmental or community values could exist to justify creating such a low level of service at the Roblar/Stony Point Road intersection? In the absence of these findings, a level of service "C" must be maintained. Doing so requires either denying this project (the best option), or road improvements.

A final traffic-related policy concerning this project is Objective LU-4.4, which states:

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Correlate new development with roadway improvements necessary to maintain the countywide levels of service set forth in Objective LU-4.3 or better on arterial and collector roadways.

This reinforces the policy objectives stated earlier.

The Sonoma County's General Plan presents itself as doing everything it can to avoid adverse impacts on agriculture. Such intent is found in the fact that the County included an agricultural element in the general plan, although not required to do so by state law. This Agricultural Resources Element states on page 259: "The Agricultural Element establishes policies that support the needs and practices of agriculture as the highest priority in areas designated for agricultural use." This is followed up with Goal AR-4, which states: "Allow farmers to manage their operations in an efficient, economic manner with minimal conflict with nonagricultural uses." The specifics are pointed out in policy AR-5e, which states:

Local concentrations of any commercial or industrial uses, even if related to surrounding agricultural activities, are detrimental to the primary use of the land for the production of food, fiber and plant materials and shall be avoided.

Objective LU-8.1 in the General Plan states: "Avoid conversion of lands currently used for agricultural production to non-agricultural use". It also notes on page 288 that "the most significant issue [resulting from mining activities] is the loss of agricultural land as a consequence of mining uses".

Given the build-up which Sonoma County appears to give agriculture, it seems unusual that the Roblar Quarry project, which has a number of adverse impacts on agriculture, has not really been considered in this light. For example, at least a couple of farmers or ranchers have testified that the operation will be detrimental to their operations. The FEIR and staff continue to ignore them. One ranch family, the Tabers, will be especially adversely impacted, since they operate their ranch on both sides of the road. At peak traffic times for the quarry (estimated at 30 gravel trucks per hour, or a gravel truck every two minutes), the Tabers would have a difficult to impossible task in trying to cross the road with their cattle.

What it all comes down to is that the General Plan policies on agriculture are empty rhetoric if this project is approved. You cannot rezone land from agricultural to mineral resource and damage the viability of an existing ranch and still claim to be doing anything to help agriculture. If this project is approved, Sonoma County will be in violation of both the agricultural policies in its General Plan and its basic responsibilities

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towards agriculture.

Another general plan policy which this project would appear to be at odds with is Goal PS-4, "Prevent unnecessary exposure of people and property to risks of damage or injury from hazardous materials." The issue of the abandoned landfill was discussed at length in the public hearing on the DEIR. It was pointed out that no-one knows what is in the dump, but based on affidavits it may involve some rather dangerous chemicals. Given the uncertain impact that quarrying operations may have on the water table, prudence dictates that no approvals be given which could expose people and property to risks of damage or injury from hazardous materials, at least until more information is known on the potential for hazards at the dump. An added irony to this situation is that the County has been prepared to begin monitoring test wells at the landfill site for several months but has been unable to obtain permission from the property owner to do so. The County has missed a quarter of the hydrological cycle in monitoring. This seems to be just one more example of where Sonoma County seems to be willing to abrogate its public responsibilities.

Why haven't the owners of the landfill property permitted testing? What are they trying to hide? Equally significantly, how can the Board make a decision based on the results of landfill tests if the landowners will not allow the testing to occur? Instead of having the first set of landfill test results, the public and your Board are once again being asked to operate on assumptions and guesses. It would be ludicrous to allow the quarry application to proceed under these circumstances. In any case, until and unless full test results are received, the Board would be violating both its General Plan policies and the public trust in allowing the quarry application to proceed.

One final General Plan policy which would be violated if this project is approved is Objective LU-2.4, which states: "Coordinate with cities to maximize cooperative planning and implementation of the general plan." The City of Cotati has already stated its opposition to this project. It is one thing to create a policy, it is another to comply with it, especially if it involves a neighboring jurisdiction.

The February 20, 1990, staff report states that "the mitigation measures recommended in the final EIR are the bulk of the conditions of approval recommended by staff." What happens if the EIR and staff have recommended one set of mitigation measures and the Planning Commission has evidently recommended another? Where is the complete list of recommended Conditions of Approval from either group? In the absence of these recommendations and findings, we are left with the unenviable task of trying to piece the mitigation measures together from the EIR.

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With respect to the landfill and other areas, the overall monitoring proposed in the EIR (as a condition of approval?) is clearly inadequate. The mitigations scattered around the draft, final, and final supplemental EIR do not amount to an adequate program. Assembly Bill 3180, which became effective on January 1, 1989, incorporates strict monitoring requirements to CEQA-governed projects. The new CEQA section states:

When making the findings required by subdivision (a) of Section 21081 or when adopting a negative declaration pursuant to paragraph (2) of subdivision (c) of Section 21080, the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition or project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of an agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead or responsible agency, prepare and submit a proposed reporting or monitoring program.

Who is responsible for general monitoring of this project? Where are the specific monitoring conditions? It is not acceptable to defer monitoring requirements to those listed in the DEIR and FEIR when it is precisely those that have been criticized all along. For example, where any kind of monitoring is referred to at all, the County Planning Department appears to be the responsible agency. This is the same department that took over 8 months to follow up on a 45-day abatement action related to this project. Incidentally, the applicant in this project was the subject of those abatement proceedings. Placing the Planning Department in charge of monitoring the mitigation measures sounds like sending a chicken to guard the fox. Before the County continues any further towards project approval, all necessary monitoring programs must be stated in detail. Monitoring should be designed to minimize the Sonoma County's and the applicant's direct involvement, because unfortunately, both have demonstrated that they cannot be relied upon.

For Planning staff to say that the applicant will be responsible to pay for the monitoring programs is not adequate. Where are the monitoring programs, what will they cost, where is it spelled out that the applicant will pay for them, how will this be paid... the list of deficiencies goes on and on. The County is treating the conditions on this project too loosely, considering that it will be making a decision on a use permit which, if approved, will be binding on the County. For example, it is impossible to determine whether the \$500,000 bond requested by

away from agricultural, requires cancellation of a Williamson Act contract, and violates the Sonoma County General Plan. This General Plan is in itself invalid and must be updated prior to approving any projects. Further, the proposed project violates a myriad of General Plan policies; none of which have been adequately mitigated in the EIR or staff reports. Even with all the mitigation and monitoring conditions in place, the shaky justifications for the zone change, the lack of a valid General Plan to justify this projects, and the lack of consistency with the General Plan make the Roblar Quarry project very questionable at best. Given the lack of conditions spelled out for public discussion, those affected by the project must anticipate the worst. Otherwise, given the total impacts of the project, no decision on the project can occur until the SWAT landfill monitoring tests have been completed and all proposed conditions of approval are made available for public discussion.

3. Proposed expansion of use at the Stony Point Quarry

The primary problem with the proposed expansion of use at the Stony Point Quarry is that the expansion is taking place on Roblar Road. Much as the Hagemann Quarry faced abatement hearings because of export of rock to the Stony Point Quarry on Roblar Road, any expansion of use involving this road is not acceptable to residents of the area.

Stony Point Quarry is running out of on-site aggregate resources. Whereas we are asked to believe that the Roblar Quarry will close up after its 15 year approval is up, the Stony Point Quarry appears to be trying to artificially extend its life by importing rock. Such extensions, if granted, lead one to wonder if any quarry will ever close before its mineral resources are exhausted, or even if it will close after that. Regardless of the Stony Point Quarry's grandiose plans to supply 20% of the Sonoma County's hardrock production, approval of such plans can only follow after a careful consideration of all issues relating to the project. A discussion of these issues should keep in mind a sentence from the ARMP:

Considering the distribution of geologic units within the County, that Sonoma County probably does have large reserves of hardrock aggregate. Therefore, it would appear that other factors besides geology must be used to determine the locations for future quarries. (p. 128).

Availability of the resource is not the issue. Alternatives to the opening of the new Roblar Rock Quarry and expansion of the Stony Point Rock Quarry exist, both from expansion of existing quarries and exploration of the five untapped ARMP aggregate resource sites.

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- 3) include noise measurements adequate to describe local conditions
- 4) include estimated noise levels in terms of Ldn and/or the standards of Table NE-2 for existing and projected future (20 years hence) conditions, with a comparison made to the adopted policies of the Noise Element
- 5) recommend measures to achieve compliance with this element. Where the noise source consists of intermittent single events, address the effects of maximum noise levels on sleep disturbance
- 7) be reviewed by the Health Department.

In the section on management of transportation related noise (page 492), the General Plan states:

Transportation sources are by far the most significant sources of environmental noise in Sonoma County. They include vehicular traffic, especially trucks.... An important part of the planning for a healthful environment is the avoidance of unnecessary transportation noise.

If the EIR is going to say that the background noise levels on Roblar Road exceed 60 dB, then the road is a noise impacted area, and all of the above requirements for those areas apply. However, the requirement that outdoor activity area noise levels be reduced to less than 65 dB cannot be achieved for the Little Lambs Preschool playground. The noise levels in this area, which is approximately 10 feet off Roblar Road, will be considerably higher when the trucks go by. Again, there is no meaningful discussion of monitoring or mitigation of these impacts in either the EIR or the staff report. No mention is made of best available technology to reduce the noise impacts.

The current Sonoma general plan defers to the ARMP in the area of noise associated with mineral extraction. The ARMP states on page 216 "Provide for buffer zones between mining and other land uses in order to minimize air quality, noise, truck traffic, [my emphasis] and visual impacts. The tone of the staff requirements is found in the sentence in the October 9 staff report which says that noise increases will be two decibels. This simply is not true. Your Board must weigh the above evidence and either; one, require a new noise study which accurately depicts the current and projected noise situation, or two, deny the project, citing as reasons the unacceptable nature of the projected noise impacts.

The zone change and use permit are not justified by the rationale which is used by planning staff. The zone change is not acceptable because it changes the fundamental use of the land

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the Public Works Department is a requested condition of approval. The only statement on this condition in the October 9, 1990 staff report is "Requirement of the stated performance bond is a common practice." What does that mean? "Is a common practice" does not constitute a recommendation for either requiring or not requiring the bond? Similar vague discussions are found throughout both the staff reports and the EIR. The bottom line is there is very little required monitoring proposed.

Staff is silent on the issue of proposed haul routes. The Planning Commission refused to place any limitations on the applicant in this respect. That is hardly comforting to other people in the area who now cannot even be sure that the impacts, unpleasant as they will be, will be confined to the section of Roblar Road discussed in the EIR.

Policies stated in the General Plan regarding noise impacts have not been adhered to in proposed mitigations or conditions of approval. For example, the noise element states "Infrequent single events such as passage of a train, truck, or airplane may interfere with adjacent uses even though the cumulative noise exposure is within acceptable limits. These events call for a single event noise standard." The EIR makes no reference to any such standard. Further, the General Plan states in Goal NE-1 to "Protect people from the harmful effects of exposure to excessive noise and to achieve an environment in which people and land uses may function without impairment from noise", and follows this up with policies NE-1a and NE-1b, which state:

NE-1a: Designate areas within Sonoma County as noise impacted if they are exposed to existing or projected exterior noise levels exceeding 60 dB Ldn, 60 dB CNEL, or the performance standards of Table NE-2 on page 489.

NE-1b: Avoid noise sensitive land use development in noise impacted areas unless effective measures are included to reduce noise levels. For noise due to traffic on public roadways, railroads and airports, reduce exterior noise to 60 dB Ldn or less in outdoor activity areas and interior noise levels to 45 dB Ldn or less with windows and doors closed. Where it is not possible to meet this 60 dB Ldn standard using a practical application of the best available noise reduction technology, a maximum level of up to 65 dB Ldn may be allowed but interior noise level shall be maintained so as not to exceed 45 dB Ldn.

Policy NE-1d states that where an acoustical analysis is required prior to approval of a discretionary project, the analysis shall:

**THE STEINBECK/ROBLAR DUMP IS KNOWN TO CONTAIN
DIETHYLSTILBESTROL (DES) AND MUST CONTAIN
OTHER BANNED AND
DANGEROUS CHEMICALS**

-- QUOTE FROM CONCERNED CITIZEN'S LETTER,

"THIS SITE WAS USED FOR DISPOSAL OF MANY VARIETIES OF TOXINS OVER THE YEARS. BASED ON MY OWN EXPERIENCE IN THE CHICKEN BUSINESS, I HAVE FIRST HAND KNOWLEDGE OF SUBSTANCES WHICH WERE DISPOSED OF AT THIS SITE. ONE CHEMICAL WHICH I PERSONALLY DUMPED WAS THE HORMONE DES. DES WAS USED FOR MANY YEARS AS A METHOD OF NEUTERIZATION OF POULTRY (CALLED CAPONIZING). WHEN THE FDA DECLARED DES TO BE HARMFUL, WE HAD THOUSANDS OF DOSES REMAINING. I THREW MANY BOTTLES OF THIS CARCINOGEN INTO THE DUMP SITE. I WOULD ASSUME THAT OTHER POULTRY RANCHERS DID LIKEWISE."

COMMENT NO. 144, DEIR 1987
This information is also contained in
the 1989 E. I. R.

Comment Letter JJ - Attachment

Impacts of the Known Presence of Hazardous Chemical in the Steinbeck Dump

The Steinbeck dump (directly adjacent to the proposed quarry site) is a known to contain diethylstilbestrol (DES) and must contain other banned and dangerous chemicals.

Quote from concerned citizen's letter:

"This site was used for disposal of many varieties of toxins over the years. Based on my own experience in the chicken business, I have first hand knowledge of substances which were disposed of at this site. One chemical which I personally dumped was the hormone DES. DES was used for many years as a method of neuterization of poultry (called caponizing). When the FDA declared DES to be harmful, we had thousands of doses remaining. I threw many bottles of this carcinogen into the dump site. I would assume that other poultry ranchers did likewise."

Comment No. 144, DEIR 1987

DES is in fact a:

- Dangerous banned synthetic chemical structurally relate to carcinogenic dinuclear aromatics.
- Carcinogen
- Teratogén
- Mutagen

*** DES has been shown to cause cancer or pre-cancer symptoms in 62% of women whose mother's were exposed to the chemical during pregnancy (Mangan Et. AL, 1979). Furthermore, DES is also implicated in causing Cancer in Grandchildren of People Exposed to the Chemical (see section c).**

Based on the time-line for the operation of the the Steinbeck dump; shown in Figure 1, that dump must contain other hazardous class 1 chemicals as well as DES. A list of Carcinogenic Agricultural banned during operation of the Steinbeck dump is included in section g. Since DES was disposed of in the Steinbeck dump when it was banned, it is reasonable to assume that these other banned toxics were also placed in that dump.

What level of Carcinogenic Chemicals is acceptable in our drinking water or food?

- Federal Law (and common sense) asserts that No Lower Limit can be set (Ragsdale and Menzer, 1989).

TABLE V. Notice of Intent to Cancel/Suspend Issued

Chemical	40 CFR 162.11 Criteria Possibly Met or Exceeded
Aldrin	Carcinogenicity Bio-accumulation Hazard to Wildlife and other Chronic Effects
Chlordane/Heptachlor	Carcinogenicity Reductions in Non-target and Endangered Species
Chlordecone (Kepone)	Oncogenicity
DBCP	Oncogenicity Mutagenicity Reproductive Effects
DDE (TDE)	Carcinogenicity Bio-accumulation Hazard to Wildlife and other Chronic Effects
Dieldrin	Carcinogenicity Bio-accumulation Hazard to Wildlife and other Chronic Effects
Dinitramine	Oncogenicity
EPN	Hazard to aquatic organisms
Nirex	Carcinogenicity Bio-accumulation Hazard to Wildlife and other Chronic Effects
Ronnel	Oncogenicity
2,4,5-T/Silvex	Oncogenicity Teratogenicity Fetotoxicity
Toxaphene	Oncogenicity Hazard to Wildlife and other Chronic Effects Reduction in Non-target Organisms

Question How well is the Roblar Dump sealed? At the Quarry Hearings we were led to believe that the Roblar Dump was well designed and had a liner sealing its bottom.

Sonoma
Co. Report "The Roblar Disposal Site has no liner or leachate collection system." page 3.

"-the landfill is underlain by a thin brown silt to silty sand unit which appears to vary in thickness over the site." page 5. (this is high permeability material)

"The permeability of the cover material is not known." page 2.

We Can Find No Precedent For Governmental Approval
For Locating a New Hard Rock Quarry Adjacent to An
Existing Dump On The SWAT Test List

• Environmental Law is Becoming Increasingly Stringent

-- A Dump that was "State-Fake Act" according to the
Planning Commission is now a recognized hazard

• Prudence and Common Sense Demand That This Project
Be Denied

Question What kind and how much waste is in the Roblar Dump?

Sonoma
Co. Report

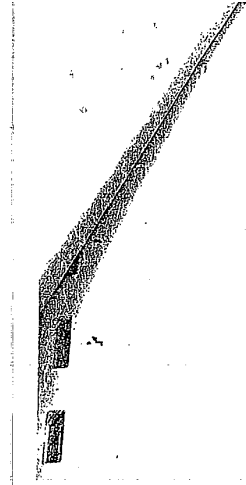
“The quantity of waste buried is unknown.” page 3.

“Waste was disposed of directly into the trench by the public and commercial haulers.” Page 2.
(there was no inspections: anything could be in this Dump)

Approval of This Proposed Quarry Throws-Out the Sonoma County General Plan

- The Proposed Quarry Requires Rezoning of Agricultural Land to Allow Mining at the Roblar Site. (General Plan Amendment Needed)

- Rezoning Severely Impacts Businesses and Schools which Are Currently Zoned for Their Operations in the Current General Plan. How can the County Consider Destroying Properly Zoned "welcome" Community Members Which Have Precedence in Order to Bring in This Unwelcome and Dangerous Operation?

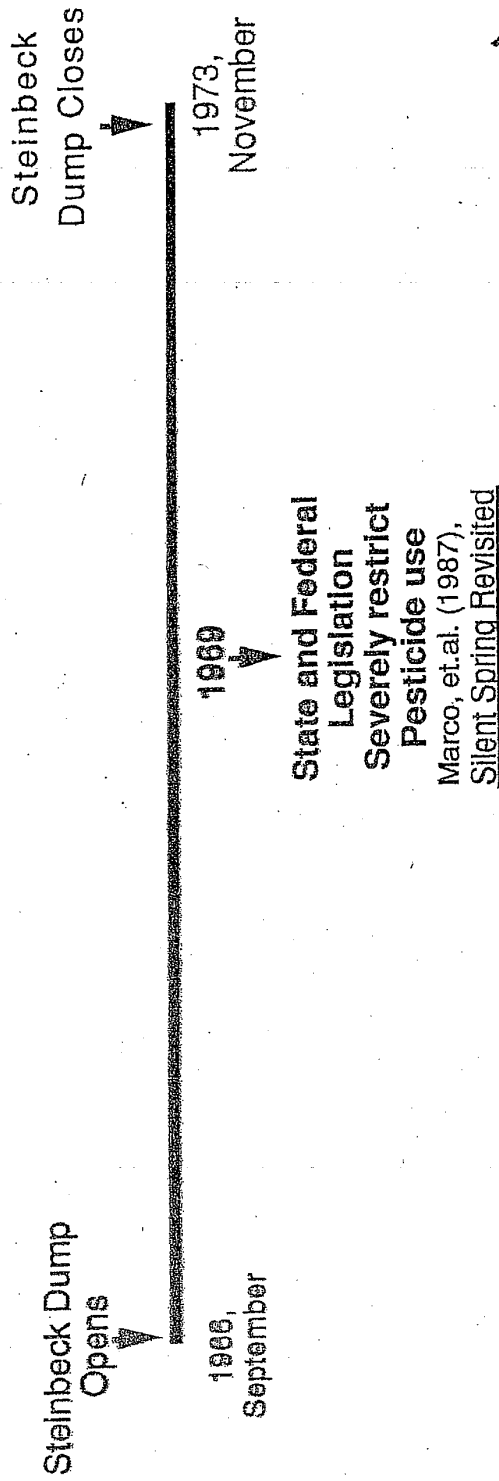


The Steinbeck Dump is Producing a Heavy Metal Containing Leakage

“The concentration of copper, lead and zinc in our sample (water from the base of the landfill) is higher than the concentration that we have observed in groundwater or surface water samples collected elsewhere in the Americano and Stemple Creek watersheds. The values are elevated and indicate contamination from a source such as the nearby landfill.”

Letter from Dr. D. W. Smith to C. Merrick, February 14, 1990.

Figure 1. The Steinbeck Dump Must Contain Other
Hazardous Class 1 Chemicals As well as DES



Comment Letter JJ - Attachment

David W. Smith Consulting
Water Quality - Aquatic Toxicology

14 February, 1990

Mr. Corey Merrick
4422 Roblar Road
Petaluma, California 94952

Dear Mr. Merrick:

Subject: Americano Creek Monitoring Data

We have spoken on the telephone several times regarding studies that we are conducting to evaluate the potential to reuse reclaimed water in the Stemple and Americano Creek watersheds for pasture irrigation and habitat enhancement.

In our telephone conversation of 12 February you requested that a report on the analyses of a groundwater discharge sample that we have collected on September 28, 1990, from near the landfill across Roblar Road from Americano Creek. Our sample was collected from standing water in the ditch along the southeast side of Roblar Road at the landfill access road to characterize groundwater seeping from the hillside. We submitted the sample to NET Laboratories in Santa Rosa to be analyzed for heavy metals. The analytical results (in $\mu\text{g/L}$ or parts per billion) are as follows:

Cadmium	<20
Chromium	<50
Copper	170
Lead	2
Zinc	320

The concentration of copper, lead and zinc in our sample is higher than the concentration that we have observed in groundwater or surface water samples collected elsewhere in the Americano and Stemple Creek watersheds. The values are elevated and indicate contamination from a source such as the nearby landfill. We do not believe that the contaminated groundwater is the source of elevated copper values that we have observed several miles away at our sampling station 6 in Americano Creek at Gericke Road. The concentration of copper observed at our sampling station 8 in Americano Creek located much closer to the landfill is nearly always lower than that observed at Gericke Road, suggesting a copper source located between the two stations. Although we have not quantified the flow of groundwater discharge, it has been insufficient to cause a plume of surface flow to reach the Creek since we began our studies in February, 1988.

7040 Sayre Drive
Oakland, California 94611
415 339-0582

Comment Letter JJ - Attachment

March 14, 1990

Planning Commission
County of Sonoma
575 Administration Drive
Santa Rosa, CA

re: Mr. Mertens' question regarding the existence of heavy metal containing leachate coming from the Old Steinbeck Dump

Dear Commissioners:

It is our concern that the letter from the Biological Consultant, David Smith, was misunderstood. We followed up on Mr. Mertens question to clarify whether or not Dr. Smith was claiming that his tests revealed that the metals copper, lead and zinc were coming from the landfill. In a telephone conversation, Dr. Smith explained that he is testing the Americano and Stemple Creek basins to determine the possible existence of pollutants, and therefore, has sampled many areas in the Americano/Stemple Creek basin. His testing significant to the Quarry project is that the water which collects directly at the base of the landfill definitively contains significantly higher levels of 3 out of the 5 metals tested than the water in the Americano Creek upstream, adjacent and slightly downstream the landfill. However, he also adds that further downstream the landfill he finds high levels of copper (but not the other metals) in the Creek which he states are coming from yet another undetermined source. The existence of additional pollution of the Americano/Stemple Creek basins in no way changes or weakens the determination of leachate from the landfill.

Dr. Smith states that his tests reveal that the landfill is very probably leaking, but the leachate has not at yet contaminated the Americano Creek. If you have further concerns, we are confident Dr. Smith would accurately and without bias answer your questions. He can be reached at the following phone number: (415) 339-0582.

Sincerely,



Elaine Carlson for
Citizens Against the Roblar Rock Quarry

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Comment Letter JJ - Attachment

Potential contamination of ground water by Toxics is a very important issue. "Because of its location beneath the water table, groundwater presents especially difficult problems in detecting and monitoring contaminant levels and in evaluating the fate and effects of the pollutants", Carsel and Smith, 1987.

Most importantly epidemiologic studies implicate micro-contaminants in water supplies with elevated cancer mortality rates." (G.W. Page, 1987)

A critical finding is that the Steinbeck dump is producing a heavy metal containing leachate:

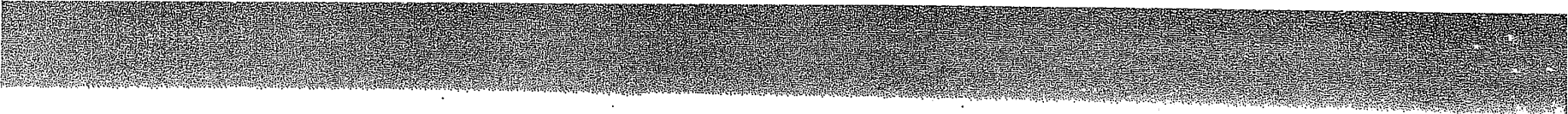
"The concentration of copper, lead and zinc in our sample (water from the base of the landfill) is higher than the concentration that we have observed in Groundwater or surface water samples collected elsewhere in the Americano and Stemple Creek watersheds. The values are elevated and indicate contamination from a source such as the nearby landfill."

Letter from Dr. D. W. Smith to C. Merrick. February 14, 1990 (see section d).

Also recent groundwater contamination letter (see section f)

The former DEIR stated that in the presence of a hazardous leachate from the Steinbeck would be sufficient conditions for the denial of the project. Since a heavy metal-containing leachate is now known to be coming from the Dump the project should not be approved.

Since the failure of the last proposal for quarrying operations at this site no mitigation measures have been taken by the County to relieve groundwater contamination from the landfill which contains an estimated 12.5 million cubic feet of waste (see section j). According to the County the only ongoing work at the site is annual surface grading for erosion control and water run-off.



“Because of its location beneath the water table, ground water presents especially difficult problems in detecting and monitoring contaminant levels and in evaluating the fate and effects of the pollutants.”

Carsel and Smith “Impacts of Pesticides on Ground Water Contamination”, In Marco et.al., (eds.) (1987) Silent Spring Revisited.

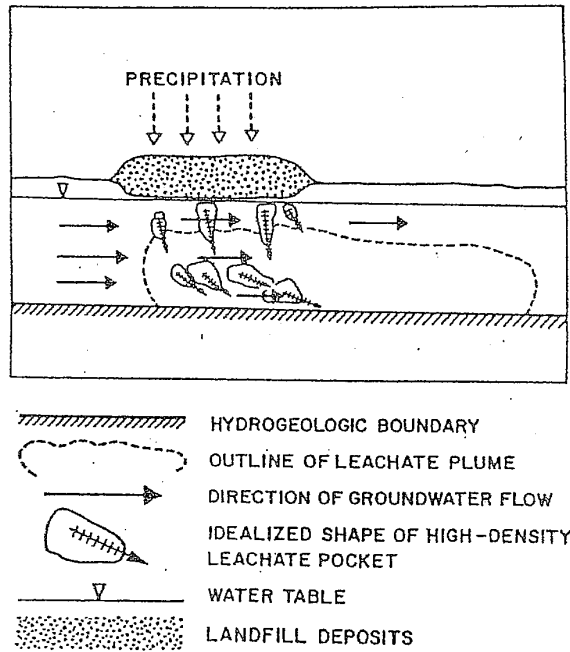


Fig. 7. Sinking leachate plume (adapted from Kimmel and Braids, 1980).

**Widening Roblar Road Would Create Severe
Hardships for Many Homeowners with Houses Very
Close to the Existing Road and Must Require a Full
Environmental Impact Report.**

Dunham School Children Will Be Exposed to Unreasonable Risks

- Unreasonable Noise Levels (values listed in the EIR are too low.)
- Carcinogens in Diesel Exhaust from Heavy Diesel Traffic
- Long term Dust Exposure*
- Danger of Injury

* Ann. Occup Hyg 1982, 26(1-4) p401-9.

A More Remote Site with Multiple Alternate Routes to Markets

- Reduce Risks.
- Reduce Congestion.
- Provide jobs for Truck Drivers.

“Epidemiologic studies implicate microcontaminants in water supplies with elevated cancer mortality rates.”

G. W. Page (1987) Planning for Groundwater Protection

What Level of Carcinogenic Chemicals is Acceptable in Our Drinking Water or Food

- Federal Law asserts that No Lower Limit Can Be Set.

Ragsdale and Menzer, Carcinogenicity and Pesticides- Principles, Issues and Relationships (1989).

Rock from the Roblar Site Can Not Replace Russian River Gravel

- Aggregate From the Russian River is Portland Cement Concrete (P.C.C) Grade
- Rock at the Roblar Site is an Inferior Grade and Can Not be Used for Concrete

Stinson, Melvin C., *et. al.*, Special Report 146, "Classification of Aggregate Resource Areas North San Francisco Bay Production - Consumption Region", California Department of Conservation, Division of Mines and Geology, 1983.

The ARMP States

“Considering the Distribution of Geologic Units Within the County, That Sonoma County Probably Does Have Large Reserves of Hard Rock Aggregate. Therefore, it Would Appear that **Other Factors Besides Geology Must Be Used to Determine the Locations for Future Quarries**”

The Roblar Road Quarry Proposal
Summary of the CARR-Q Position

In the past several months the Commission has heard many hours of testimony on the proposed Roblar Road Quarry. The purpose of this document is to summarize the many arguments presented during the hearings on the Roblar Road Quarry. Inevitably not all of the issues can be included. Also, a very abbreviated wording has been used.

In standard policy analysis, there are several elements which must be examined before a policy is implemented.* These are:

Significant Advantage. Is there a significant advantage to be gained from a proposal?

Uniqueness: Is there another better way to gain the advantage?

Timeliness: Is now the time to act?

Workability: Are there reasons why the proposal will not actually gain the proposed advantages?

Disadvantages: Are there disadvantages which will follow from the implementation of the proposal?

When these questions are applied to the Roblar Road Quarry the following decision matrix results:

I. **Significant Advantage.** Is there a significant advantage to be gained from a proposal? Three advantages seem to be present in the proposal:

A. The applicant will make money.

CARR-Q has no objection to making money. However, we note that this is a **private good, not a public one.** If the argument is that this profit will benefit the county it should be quantified so that the taxes received can be balanced against other parts of the equation. The applicant has not done this.

B. Rock will be provided to Sonoma County users.

A quarry will, of course, provide rock. Again the problem is significance. How much cheaper will the rock be for most purchasers? Will this difference in cost be passed on to ultimate buyers or, as our speakers have suggested, will free-market forces simply increase profits for builders?

C. The county can cut back on river rock production.

[This last issue has never been raised publicly, but the it is obviously present.] As noted, the rock that Roblar would produce is a different type of river rock. By and large, river production would not be reduced and the advantage cannot be claimed.

Many of my colleagues have noted their professional backgrounds. I teach critical thinking and policy analysis at Santa Rosa Junior College.

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primary of CARR-Q position on Roblar Road Quarry

II. Uniqueness: Is there another better way to gain the advantage?

A. In response to making money

Only the applicant can answer this, but again, this is a private issue and not a public one.

B. In response to providing rock to Sonoma County

Many other sources of rock are available. At this moment Hagemann Quarry, which we are advised by Mr. Gaiser has better rock anyway, wants to expand its production by an amount equal to the Roblar quarry.

C. In regard to river cutbacks

No doubt this is a tough issue. The Commission has heard hours of testimony on the river also. Now one must ask if creating a basalt quarry on Roblar is the best way to alleviate problems on the river. Since Roblar rock is a different type the replacement factor would be minimal. At best, Roblar isn't a solution. At worst, it's the creation of a new problem of similar dimensions.

III. Timeliness. Is now the time to act?

Delay is warranted.

A. Waiting for the SWAT report would provide a needed safety element without prejudicing the applicant.

B. There is no pressing need for rock.

C. The pending sale to the City of Santa Rosa of the U.C. land on the south side of Roblar Ridge opens up possibilities of alternate haul routes which should be explored.

Ms. Kalpolchek's analysis that there were no haul route options were based on an inability to negotiate with U.C. Now this has changed. Mr. Ferris of the City of Santa Rosa Utilities Department has said to one of our members (Bill Tabor) that the City is negotiating for the land and that he sees no objection in principle to an access road.

D. Since Roblar Rock won't affect river production anyway, the urgency of the river's problems do not affect the Roblar quarry.

Workability

I. Who pays to re-build Roblar Road? All parties agree it has to be re-built if it is to sustain the traffic from the new quarry. The applicant wants the County to pay for it, but the County doesn't have the money. Does the applicant?

II. The Roblar quarry would not get the County out of the river because the types of rock are not the same.

At this point a prima facie case for policy adoption does not exist. However, even if it did, the problems the project would generate would outweigh any marginal advantages which might be claimed.

Submitted by Jack Perella (4988 Canfield Rd. Petaluma) of the Citizens Against the Roblar Road Quarry

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Comment Letter JJ - Attachment

Summary of CARR-Q position on Roblar Road Quarry

Disadvantages: bad things which will happen if the proposal is adopted.

page 3

I. The Old Steinbeck (toxic) Dump could be breached, with staggering potential County liability.

The applicant's attack on this problem as consisted on denigrated DES as "chicken hormones." This analysis is:

- a) not correct (as noted in Carlson's presentation) and
- b) does not create confidence in the attitude of the applicant towards environmental issues.

II. Truck traffic will create a significant safety hazard on Roblar Road. Some number of increased injury or fatality will occur.

The proposed driver training mitigation is obviously not enforceable. The drivers are independent truckers, not employees. The monitoring problem would be worsened.

III. Stony Point Road will be significantly less effective as a commute road to relieve congestion on Highway 101.

IV. Currently successful businesses and services along Roblar (Dunham School and Little Lambs Pre-School) will have to re-locate or change operations.

V. Significant new burdens will be placed on the County's monitoring responsibilities.

VI. The rural nature of Roblar Valley will be changed to a semi-industrial environment.

VII. The Commission will arguably breach State statute and case law by not conforming to the existing general plan.

We submit that:

even if the plan were needed, which it isn't,
even if it were unique, which it isn't
even if it would work, which it won't
once one weighs the disadvantages against the advantages of a few dollars discount in rock prices for a few developers we submit on behalf of the citizens of this County that the project is a bad policy option and should not be approved.

Submitted by Jack Perella (4988 Canfield Rd. Petaluma) of the Citizens Against the Roblar Road Quarry

B-4

Comment Letter JJ - Attachment

March 13, 1990

The Honorable George Deukmejian
Governor of California
State Capitol
Sacramento, California 95814

Dear Governor Deukmejian:

My brother, Harry Steinbeck, and I own a 440 acre working ranch at 7180 Roblar Road, Petaluma, which is in Sonoma County. This property has been in our family since 1915 and my brother has raised sheep there for 40 years. He and his wife, Agnes, live there and I, who live in San Francisco, visit as often as possible and ranch-sit whenever business or pleasure take my brother and sister-in-law away from our ranch.

John Scott, the owner of the property across the road from us, at 7175 Roblar Road, is trying to start a quarry on his property. Can he do this? We are greatly dismayed at the thought of having our ranch life style and property trashed in this way. This property is in a tranquil setting and we have kept it so. A quarry would ruin one of the few remaining pristine countrysides; having a quarry in this setting would be like having a boiler factory in a library.

Can you help us? We would greatly appreciate any assistance.

Yours very truly,

Barbara Steinbeck Schelling

Barbara Steinbeck Schelling
1654-24th Avenue
San Francisco, California 94122
and
7180 Roblar Road
Petaluma, California 94952

c.c. Mr. Ernie Carpenter, Supervisor
Mr. Jim Harberson, Supervisor
Sonoma County Planning Commission

B-5

Comment Letter JJ - Attachment



COUNTY OF SONOMA
DEPARTMENT OF HEALTH SERVICES

Rita Scardaci, MPH - Director
Ruth Lincoln, PHN, MA - Assistant Director

Environmental Health Division

Walter L. Kruse - Director

river watch

August 24, 2007

Dear Property Owner:

This letter is to advise you that there has been a detection of groundwater contamination in a monitoring well located within 1/2 mile of your Sonoma County property(ies) in the 7600 block of Roblar Road in Sebastopol. The chemicals identified in the contamination are:

- ◆ 35 ppb (parts per billion) Arsenic
- ◆ 2,300 ppb Aluminum
- ◆ 280 ppb Chromium
- ◆ 190 ppb Manganese

Public drinking water supplies operate under governmental permit and are tested to ensure that water quality meets state standards. Public water system operators are required, at least once each year, to provide a notice of water quality to their customers. **If you are on a public water supply (i.e. you get a water bill each month) and do not have a well, this letter does not apply to you.**

The quality of water from private wells is not regulated by government agencies. **If you get your water from a private well, the only way to be sure your water is safe is to have it tested.** On the reverse is a list of local laboratories certified by the State of California to perform water quality testing.

While the standards established for public drinking water systems are not enforceable for private well water, they can provide a parallel indication of the quality and safety of water that comes from private wells. Standards associated with public drinking water supplies are:

- MCL is the Maximum Contamination Level permissible in public drinking water supplies. MCLs are established based on a number of considerations, including health risk, technological feasibility, treatment costs to water systems, and public hearings.
- PHG is the Public Health Goal established for public drinking water based on health risk assessment alone and is the level at, or below which, health effects are not expected to occur from a lifetime of exposure.

Sonoma County, operating under the Sonoma County Groundwater Contamination Response Plan, believes that its citizens should be promptly informed of any contamination in groundwater occurring above the PHG that may present a potential threat to public health. Enclosed are information sheets for the detected contaminants from the Agency for Toxic Substances and Disease Registry.

(over)

Comment Letter JJ - Attachment

Following is a chart showing the established standards for public drinking water systems for the chemicals discovered in the groundwater contamination at this site:

	ARSENIC (ppb)	ALUMINUM	CHROMIUM	MANGANESE
Amount Detected	35	2,300	280	190
MCL	50/10*	1000	50	50** Notification level
PHG	0.004	600	None Available- Previously established level withdrawn	None Established

\$190

Nitrate Sulfate

*The current California MCL is 50 ppb; however, California is required to adopt an MCL at least as stringent as that of the federal United States Environmental Protection Agency (USEPA) and is in the process of doing so. The current USEPA MCL for Arsenic is 10 ppb. As of January 2006, the USEPA standard of 10 ppb applies in place of the California standard until California adopts new regulations.

**Notification levels are health-based advisory levels established by CDPH for chemicals in drinking water that lack maximum contaminant levels (MCLs).

For more information on water quality and private wells, please visit the Sonoma County Department of Health Services, Environmental Health Division, website at:

http://www.sonoma-county.org/health/eh/water_quality.htm

If you have questions about potential health risk, please contact Sonoma County Environmental Health Division at (707) 565-6565.

WHERE CAN I HAVE MY WATER TESTED?

Water should be tested at a laboratory certified by the State of California to do water testing. Certified laboratories located in or near Sonoma County include the following:

ALPHA ANALYTICAL
208-Mason Street
Ukiah, CA 95482
(707) 468-0401

Robbie Phillips

650 466-3237

ANALYTICAL SCIENCES
110 Liberty Street
Petaluma, CA 94952
(707) 769-3128

Mark Valeriano

BRELJE & RACE
425 South E Street
Santa Rosa, CA 95404
(707) 544-8807

CALTEST ANALYTICAL
1885 North Kelly Road
Napa, CA
(707) 258-4000

Running an Inorganics Panel (17-22 chemicals) is recommended over requesting tests for individual chemicals. Should you have an arsenic contamination and choose to add a treatment system to your water supply for arsenic removal, knowledge of other inorganic constituents is essential, as some of these chemicals compete with the binding material for arsenic removal and they must be removed prior to adding the arsenic treatment system.

geo tracker web site