

COUNTY OF SAN BERNARDINO  
WHITE KNOB/WHITE RIDGE LIMESTONE  
QUARRIES EXPANSION  
FINAL ENVIRONMENTAL IMPACT REPORT

---

SCH No. 2013061020



*Prepared for:*

COUNTY OF SAN BERNARDINO  
385 N. ARROWHEAD AVENUE  
SAN BERNARDINO, CA 92415

*Prepared by:*



6020 CORNERSTONE COURT WEST, SUITE 260  
SAN DIEGO, CA 92121

**MAY 2015**



# COUNTY OF SAN BERNARDINO

## WHITE KNOB/WHITE RIDGE LIMESTONE QUARRIES EXPANSION FINAL ENVIRONMENTAL IMPACT REPORT

---

SCH No. 20130641020

*Prepared for:*

COUNTY OF SAN BERNARDINO  
385 N. ARROWHEAD AVENUE  
SAN BERNARDINO, CA 92415

*Prepared by:*



6020 CORNERSTONE COURT WEST, SUITE 260  
SAN DIEGO, CA 92121

**MAY 2015**



**VOLUME 1 - FINAL ENVIRONMENTAL IMPACT REPORT**

EXECUTIVE SUMMARY

ES.1	Purpose and Scope of the Final EIR .....	ES-1
ES.2	Project Characteristics.....	ES-1
ES.3	Project Alternatives Summary .....	ES-1
ES.4	Effects Found Not to Be Significant .....	ES-2
ES.5	Issues to Be Resolved and Areas of Controversy.....	ES-3
ES.6	Summary of Impacts and Mitigation Measures.....	ES-3

1.0 INTRODUCTION

1.1	Background and Purpose of the EIR.....	1.0-1
1.2	Intended Uses of the EIR.....	1.0-3
1.3	Organization and Scope of the Final EIR .....	1.0-4

2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT SEIR

2.1	List of Commenters.....	2.0-1
2.2	Comments and Responses.....	2.0-1

3.0 REVISIONS TO THE DRAFT EIR

3.1	Introduction .....	3.0-1
3.2	Changes and Edits to the Draft EIR.....	3.0-1

TABLES

Table ES-1	Executive Summary .....	ES-4
Table 2.0-1	Summary of Affected Habitat.....	2.0-19

FIGURES

Figure 3.3-7	Desert Tortoise Habitat Suitability .....	3.0-17
Figure 2.0-4a	Site Change Location .....	3.0-19
Figure 2.0-4b	2013 Original Site Area Configuration.....	3.0-21
Figure 2.0-4c	2014 Site Area Change .....	3.0-23

APPENDICES

Appendix A - CHJ Consultants

**VOLUME 2 - DRAFT ENVIRONMENTAL IMPACT REPORT**

Submitted under separate cover



---

# **EXECUTIVE SUMMARY**

---



## **ES.1 PURPOSE AND SCOPE OF THE FINAL EIR**

San Bernardino County, serving as the lead agency under the California Environmental Quality Act (CEQA), has prepared an environmental impact report (EIR) to provide the public and responsible and trustee agencies with information about the potential environmental effects implementation of the White Knob/White Ridge Limestone Quarries Expansion project. This Final EIR summarizes the environmental effects of the proposed project and mitigation measures, responds to comments received on the Draft EIR, and identifies minor revisions to the Draft EIR.

## **ES.2 PROJECT CHARACTERISTICS**

Omya Inc. proposed an Amended Mine and Reclamation Plan (Amended Plan or proposed project) for expansion of the existing White Knob/White Ridge Limestone Quarries, a limestone mining operation located in the San Bernardino Mountains in southwestern San Bernardino County. The Amended Plan would increase the operational years of the quarry by 24 years from the existing permit expiration date of 2031 to the year 2055.

The Amended Plan includes approximately 375.1 acres, consisting of approximately 335.1 acres of existing or planned surface mining operation-related disturbance and approximately 40 acres of existing Bureau of Land Management (BLM) haul road right-of-way. This 375.1-acre area comprises the "project site" for this EIR. The primary areas to be reclaimed are the existing White Knob Quarry and White Knob Annex Quarry, the approved White Ridge Quarry, the existing Overburden Site #1 and proposed Overburden Sites #2 and #3, and the ancillary disturbance areas, which include haul/access roads, sediment basins, storage pads, crusher location, west slope impact area, and boulder roll-down area.

The proposed project is designed to make the reclaimed lands suitable for future open space uses and wildlife habitat. It includes site-specific activities to satisfy the reclamation requirements of the Surface Mining and Reclamation Act of 1975, as amended, and its implementing regulations (collectively, SMARA) as well as the County's surface mining and land reclamation ordinance (San Bernardino County Code Section 88.03.000). A lead-agency-approved reclamation plan is required for all surface mining operations in the state that are subject to SMARA. The County has primary discretionary authority over the proposed project and serves as the lead agency responsible under CEQA and SMARA. If approved, the proposed project would not preclude future permitting of extraction and reclamation activities within or beyond the project site. Any such future proposal would require authorization from the County and compliance with CEQA.

## **ES.3 PROJECT ALTERNATIVES SUMMARY**

CEQA Guidelines Section 15126.6(a) states that an EIR shall describe and analyze a range of reasonable alternatives to a project. These alternatives should feasibly attain most of the basic objectives of the project, while avoiding or substantially lessening one or more of the significant environmental impacts of the project. An EIR need not consider every conceivable alternative to a project, nor is it required to consider alternatives that are infeasible. The discussion of alternatives shall focus on those which are capable of avoiding or substantially lessening any significant effects of the project, even if they impede the attainment of the project objectives to some degree or would be more costly [CEQA Guidelines Section 15126.6(b)]. The Draft EIR considered the following alternatives:

- **Alternative 1 – No Project** – This alternative would retain the approved 1986 White Knob-White Ridge Limestone Mine Site Approval and Reclamation Plan. The 1986 Plan has an

expiration date of December 31, 2031. The approved quarry site consists of 145 acres of mining facilities within 357.5 acres of patented fee land, portions of which are leased and owned by Omya. Additionally, as with the proposed project, Alternative 1 would include proposed changes to the existing haul road to the White Knob/White Ridge Quarries from the processing plant.

- **Alternative 2 – Elimination of OB-2** – Under Alternative 2, overburden site 2 (OB-2) would be eliminated from the project. This alternative would remove the impacts on the wetland features in this area. The overburden that would have been placed in this 13-acre site would be placed in OB-1 or OB-3, increasing the size and height of these areas. The elimination of OB-2 would also result in the reduction in size of the project area from 335.1 acres to 322.1 acres. The proposed project lists the total size of OB-1 as 31.9 acres and OB-3 as 3.0 acres. Assuming the overburden from the OB-2 site would be absorbed into OB-1 and OB-3 using the same proportional size, OB-1 is approximately 10.6 times the size of OB-3, OB-1 would increase to 43.7 acres and OB-3 to 4.3 acres in size. Additional changes to these overburden sites would also have to be incorporated into this alternative such as additional sedimentation basins or other drainage features and the re-contouring of OB-1 and OB-3 to accommodate the additional overburden, as well as the realignment of the on-site haul road to reach the White Ridge Quarry.
- **Alternative 3 – Backfill Central White Knob and Annex Quarries** – Alternative 3 would include the backfilling of the White Knob and Annex Quarries. This alternative would be similar to the proposed project except that upon reclamation the OB-1 overburden storage area and central portions of the White Knob and Annex Quarries would be much higher because material placed in the White Ridge Quarry would now be placed in the White Knob and Annex Quarries. This would require that the final backfill elevation of OB-1 and the White Knob and Annex Quarries be raised to accommodate the additional fill, depending on slope stability. Under the proposed project, design of overburden fill slopes in all three disposal areas was found to have adequate slope stability; however, Alternative 3 would remove the fill in OB-3, the upper portions of OB-2, and some portion of the toe of OB-1, thereby reducing the potential for the mining-related fill slopes to fail or otherwise become unstable, and reducing the area of disturbance in the central and eastern drainages. The amount of fill that can be placed in each quarry would be restricted by the stability of the final fill, i.e., the slope angle and height. Overburden that could not be placed in the White Knob and Annex Quarries would continue to be placed in OB-1.

### ES.4 EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA Guidelines Section 15128 requires an EIR to briefly describe any possible significant effects that were determined not to be significant and were therefore not discussed in detail in the Draft EIR. The Final EIR has determined that the project would not result in significant impacts in the following environmental issue areas:

- Agricultural and Forestry Resources
- Hazards and Hazardous Materials
- Land Use and Planning
- Mineral Resources

- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic

## ES.5 ISSUES TO BE RESOLVED AND AREAS OF CONTROVERSY

Chapter 1.0, Introduction, in the Draft EIR provided a description of issues were identified during the Notice of Preparation (NOP) comment period. These issues, discussed in comment letters received during the NOP review period, include potential impacts on biological resources, the potential impacts on Native American cultural resources, and the requirements of the California Department of Conservation – Office of Mine Reclamation (OMR) for the proposed Amedned Plan. These issues were evaluated in the Draft EIR, and mitigation measures were identified to reduce the impacts to less than significant levels.

One other significant environmental impact, not raised during the NOP process, was identified during preparation of the Draft EIR. A substantial adverse effect on a scenic vista and the existing visual character was determined to result in cumulatively considerable and significant and unavoidable impact, as no feasible mitigation is available to reduce this impact to a less than significant level.

## ES.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES

**Table ES-1** provides a summary of project impacts and mitigation measures identified in the Draft EIR. Changes to mitigation measures identified in the table below are as a result of comments made on the Draft EIR and are shown in revision marks (underline/~~strikeout~~).

CEQA Section 21100(b)(2)(A) requires an EIR to identify significant environmental effects that cannot be avoided if a project is implemented. The Draft EIR evaluated the following topics in detail: aesthetics, air quality, biological resources, cultural and paleontological resources, geology and soils, greenhouse gas emissions, hydrology and water quality, and water supply and storm drainage. Most of the impacts of the project either would be less than significant or would be mitigated to a less than significant level.

Two impacts were identified in the Draft EIR that would remain significant and unavoidable after mitigation. Implementation of the proposed project could have a substantial effect on a scenic vista (Project Impact 3.1.1). Implementation of the proposed project, in combination with other reasonably foreseeable mining projects in San Bernardino County, would contribute to the alteration of the visual character of the San Bernardino Mountains (Cumulative Impact 4.0.1).

**TABLE ES-1  
EXECUTIVE SUMMARY**

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<b>Aesthetics</b>			
<p><b>Impact 3.1.1</b> Substantial Adverse Effect on a Scenic Vista and the Existing Visual Character</p>	<p>Significant and unavoidable</p>	<p><b>MM 3.1.1</b> The Amended Plan includes design features and reclamation activities that would reduce visual impacts. These measures are incorporated into this DEIR in order to ensure compliance. These measures include the following:</p> <ul style="list-style-type: none"> <li>• Implement measures to minimize boulder roll-down visual impacts including:                             <ul style="list-style-type: none"> <li>- Precision drilling and buffer blasting when the outside edge is approached.</li> <li>- Drilling lifters on the edge to undercut the remaining slope and let it fall into the pit (like directional falling of a tree).</li> <li>- Excavator to pull down and pull in toward the pit blasted rock away from the edge.</li> <li>- Use of alternatives to blasting along the outside such as rock breakers, surface miners, cutting heads, and excavators.</li> <li>- Loader to pull back material from the edge.</li> <li>- Loader to dig at an angle to the edge or parallel to the edge when possible.</li> <li>- Manually scaling boulders from the high walls where they may be above a haulage road.</li> </ul> </li> <li>• Maintain the existing crusher site at the White Knob Quarry or use a portable plant within an active quarry to reduce its visibility from Lucerne Valley.</li> <li>• Deposit waste rock within the White Knob Quarry footprint, as described in the Amended Plan, to reduce the area of disturbance for overburden stockpiles and visual impact outside the quarry.</li> <li>• Design and phase mining of the White Ridge Quarry, which allows for concurrent reclamation and leaves an approximately</li> </ul>	<p>Significant and unavoidable</p>

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p>300-foot-high ridge of undisturbed hillside facing Lucerne Valley to minimize visual impacts.</p> <ul style="list-style-type: none"> <li>• Implement reclamation and revegetation on completed equipment-accessible quarry benches and on overburden stockpiles concurrent with mining where feasible.</li> <li>• Utilize color-staining product to darken the visible quarry and roll-down slopes where not subject to raveling to reduce visual impacts.</li> <li>• Deposit darker waste rock on overburden sites where available to reduce color contrast.</li> <li>• Design adequate erosion control features along the haul and access roads and quarry to control and limit erosion and sediment transport for a 20-year, one-hour duration storm event.</li> <li>• Where feasible, construct catchment berms at the foot of stockpiles to reduce rock roll-down and sediment flow.</li> <li>• Limit surface disturbances to areas identified in the Amended Plan.</li> <li>• Implement appropriate dust controls to reduce visible dust.</li> </ul>	
<b>Impact 4.0.1</b> Cumulative Impacts on Aesthetics and Visual Resources	Cumulatively considerable and significant and unavoidable	None available	Cumulatively considerable and significant and unavoidable
<b>Air Quality</b>			
<b>Impact 3.2.1</b> Emissions of Air Pollutants Resulting in Violation of Air Quality Standards or Contributing to Existing Violations	Potentially significant	<p><b>MM 3.2.1</b> It shall be required in the final Amended Mine and Reclamation Plan that the following PM10 reduction measures be implemented as part of quarry operations and reclamation.</p> <ul style="list-style-type: none"> <li>• Limit maximum speed on unpaved roads to 25 miles per hour.</li> <li>• Water unpaved roads at least twice per day, more if needed to control dust emissions by at least 80 percent. Alternatively, a dust palliative, such as magnesium chloride, may be used to treat the unpaved roads.</li> <li>• Water all areas to be graded and areas where bulldozers operate at least twice per day, more if needed, to control dust emissions.</li> </ul>	Less than significant

**ES EXECUTIVE SUMMARY**

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<b>Impact 3.2.2</b> Conflict with MDAQMD Air Quality Management Plans	Less than significant	None required	Less than significant
<b>Impact 3.2.3</b> Conflict with Federal Land Managers' Air Quality Related Values	Less than significant	None required	Less than significant
<b>Impact 3.2.4</b> Exposure of Sensitive Receptors to Localized Criteria Pollutants	Potentially significant	Implement mitigation measure <b>MM 3.2.1</b> .	Less than significant
<b>Impact 3.2.5</b> Exposure of Sensitive Receptors to Toxic Air Contaminant Pollutant Concentrations	Less than significant	None required	Less than significant
<b>Impact 4.0.2</b> Cumulative Impacts on Air Quality	Less than cumulatively considerable	None required	Less than cumulatively considerable
<b>Biological Resources</b>			
<b>Impact 3.3.1</b> through <b>Impact 3.3.10</b> Impacts on Candidate, Sensitive, or Special-Status Species	Potentially significant	<p><b>MM 3.3.1a</b> The mine operator shall retain a qualified biologist to conduct mandatory contractor/worker awareness training for project personnel. The awareness training will be provided to all personnel to brief them on the identified location of sensitive biological resources, including how to identify species (visual and auditory) most likely to be present, the need to avoid impacts on biological resources (e.g., plants, wildlife, and jurisdictional waters), and to brief them on the penalties for not complying with biological mitigation requirements. If new personnel are added to the project, the mine operator will ensure that they receive the mandatory training before starting work.</p> <p><b>MM 3.3.1b</b> The mine operator shall designate a field contact representative (FCR) responsible for overseeing compliance with protections to special-status species. The FCR shall be on-site during all project activities that could potentially cause significant impacts on sensitive biological resources. The FCR shall have the authority to halt activities that are in violation of the committed measures and non-emergency project-related activities that may endanger special-status species. The FCR shall authorize re-initiation of project activities after the hazards are removed, the species is no longer at risk, or the individual(s) are moved out of harm's way by the qualified biologist.</p>	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p><b>MM 3.3.1c</b> Project-related vehicles will stay on roads and observe a 25 mile per hour speed limit in all project areas, except on county roads and state and federal highways.</p> <p><b>MM 3.3.1d</b> Project-related vehicles shall be checked before moving for wildlife, as wildlife may seek shade and shelter under parked vehicles and construction equipment.</p> <p><b>MM 3.3.1e</b> All construction pipes, culverts, or similar structures that are stored on the project site for one or more nights shall be inspected thoroughly for the presence of wildlife before they are used or moved. If wildlife is present, they shall be allowed to move out of the area on their own or moved out of harm's way by a qualified biologist.</p> <p><b>MM 3.3.1f</b> Encounters with a special-status wildlife species shall be reported to the FCR and qualified biologist. The qualified biologist shall maintain records of all encounters during the project, the species' condition, location found, and location released.</p> <p><b>MM 3.3.1g</b> All food-related trash items such as food wrappers, cans, bottles, and food scraps shall be disposed of in secured, closed containers and removed regularly from the project site.</p> <p><b>MM 3.3.1h</b> Fueling of vehicles and equipment shall be prohibited within 100 feet of riparian/riverine areas.</p> <p><b>MM 3.3.1i</b> No rodenticides shall be used on the project site.</p>	
<p><b>Impact 3.3.2</b> Special-Status Plant Species</p>	<p>Potentially significant</p>	<p><b>MM 3.3.2 <del>Rare Plant Surveys</del> Carbonate Habitat Management Strategy (CHMS) Consistency.</b> Prior to initiating project-related activities in undisturbed portions of the site, the mine operator shall complete land dedication or claim relinquishments to offset project impacts on listed threatened or endangered plants at a 3:1 ratio, consistent with the requirements of the CHMS, and provide documentation of the completed transaction to the County. The 3:1 ratio will apply to total number of conservation units (CUs) (calculated by San Bernardino County National Forest [SBNF] staff according to the provisions of the CHMS) and total occupied habitat, in acres or fractions of acres, for each listed species. This mitigation measure consists of four parts: (1) field surveys to determine conservation value of proposed disturbance areas; (2) comparable</p>	<p>Less than significant</p>

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p>field surveys to verify conservation value of mining claims to be relinquished; (3) administrative requirements to complete the land dedication or claim relinquishments (which may include mineral withdrawal); and (4) protection measures for special-status plants located adjacent to project disturbance areas that are not planned to be removed.</p> <p>(1) <u>Project Area Field Surveys and Conservation Value Calculation.</u> The mine operator shall retain a qualified biologist to perform focused surveys to determine the presence or absence of special-status plant species identified in Table 3.3-1 and within 100 feet of the proposed impact area. For listed threatened or endangered plants, the extent of occupied habitat shall be mapped and quantified. For any other special-status plants located in the project area, the biologist shall collect global positioning system (GPS) coordinates of occurrences and qualitative estimates of their abundance.</p> <p>These surveys shall be conducted in accordance with the CDFW (2009) <u>Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.</u> These guidelines require that rare plant surveys be “floristic in nature,” conducted by field botanists familiar with the regional flora, and conducted at the proper time of year when rare or endangered species are both evident and identifiable. Field surveys shall be scheduled to coincide with known flowering periods and/or during appropriate developmental periods that are necessary to identify the plant species of concern.</p> <p>Field survey results and mapping data shall be provided to the County and the SBNF for inclusion in the CHMS GIS data and calculation of total CHMS conservation value of the proposed project area.</p> <p>(2) <u>Mitigation Lands Field Surveys and Conservation Value Calculation.</u> The mine operator shall identify one or more parcels of land or mining claims suitable for relinquishment and shall retain a qualified biologist to perform focused botanical surveys of those lands. Survey methods and data collection shall be as described above for project site field surveys. Field survey</p>	

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p><u>results and mapping data shall be provided to the San Bernardino National Forest for inclusion in the CHMS GIS data and calculation of total CHMS conservation value of the proposed project area.</u></p> <p>(3) <u>Land Dedication or Claim Relinquishment. The mining operator shall specify lands or mining claims whose conservation values and habitat area occupied by listed species total no less than three times the total conservation value of the project area and roughly three times the occupied habitat for each affected listed species. The mining operator shall dedicate the lands or relinquish those claims according to the terms of the CHMS and the MOU. The operator shall provide written documentation of the land dedication or claim relinquishment to the County upon completion.</u></p> <p>(4) <u>Protect Special-Status Plant Locations Adjacent to Project Site. Any special-status plant species that are identified within 100 feet of the proposed impact area, but not proposed to be disturbed by the project, shall be protected by barrier fencing to ensure that construction activities and material stockpiles do not impact any special-status plant species. These avoidance areas shall be identified on project plans.</u></p> <p><u>If any state or federally listed, CNPS List 1, or CNPS List 2 plant species are found in or adjacent to (within 25 feet) the proposed impact area during the surveys, these plant species shall be avoided to the extent feasible and the following mitigation measures shall be implemented:</u></p> <p><del>(1) In some cases involving state listed plants, it may be necessary to obtain an incidental take permit under Section 2081 of the Fish and Game Code (2081 permit). The mine operator shall consult with the CDFW to determine whether a 2081 permit is required and obtain all required authorizations prior to initiation of ground breaking activities.</del></p> <p><del>(2) Before the approval of grading plans or any ground breaking activity within the PSA, the mine operator shall submit a mitigation plan concurrently to the CDFW and the USEWS (if appropriate) for review and comment. The plan shall include</del></p>	

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p><del>mitigation measures for the population(s) to be directly affected. Possible mitigation for impacts to special status plant species can include implementation of a program to transplant, salvage, cultivate, or re-establish the species at suitable sites (if feasible) or through the purchase of credits from an approved mitigation bank, if available. The actual level of mitigation may vary depending on the sensitivity of the species, its prevalence in the area, and the current state of knowledge about overall population trends and threats to its survival. The final mitigation strategy for directly impacted plant species shall be determined by the CDFW and the USFWS (if appropriate) through the mitigation plan approval process.</del></p> <p>(3) <del>Any special status plant species that are identified adjacent to the PSA, but not proposed to be disturbed by the project, shall be protected by barrier fencing to ensure that construction activities and material stockpiles do not impact any special status plant species. These avoidance areas shall be identified on project plans.</del></p>	
<p><b>Impact 3.3.3</b> Desert Tortoise</p>	<p>Potentially significant</p>	<p><b>MM 3.3.3a Desert Tortoise Surveys.</b> Prior to implementation of project-related activities, the mine operator shall retain a USFWS-authorized desert tortoise biologist to conduct pre-project surveys in accordance with the USFWS pre-project field survey protocol (2010). If no desert tortoises are identified during pre-project surveys, no further mitigation is required. If individuals or their sign are identified during pre-project surveys, mitigation measure <b>MM 3.3.3b</b> shall be implemented.</p> <p><b>MM 3.3.3b Desert Tortoise Avoidance, Minimization, and Mitigation.</b> Should occupied desert tortoise habitat be identified during the pre-project surveys, a <del>habitat biological</del> mitigation and monitoring plan <del>and raven control plan</del> shall be developed in consultation with the USFWS and the CDFW. This plan shall describe all measures to be implemented prior to, during, and after construction, including, but not limited to, the following:</p> <p>(1) All tortoise burrows shall be avoided to the greatest extent feasible, and temporary exclusionary tortoise fencing (1x2-inch mesh hardware cloth) shall be installed at the limits of</p>	<p>Less than significant</p>

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p>disturbance prior to initiation of construction activities. Fence installation and ongoing oversight of the need for maintenance shall be monitored by a USFWS-authorized desert tortoise biologist.</p> <p>(2) Upon completion of fence installation, the authorized biologist shall conduct a clearance survey of the fenced area prior to declaring the construction area free of tortoises.</p> <p>(3) If it is necessary to excavate a desert tortoise from its burrow to move it out of harm's way, excavation shall be done with hand tools, either by or under the direct supervision of the authorized biologist.</p> <p>(4) Desert tortoises removed from burrows shall be placed in an unoccupied burrow of approximately the same size as the one from which they were removed. If an existing burrow is not available, the authorized biologist shall construct one.</p> <p>(5) Desert tortoises moved during inactive periods will be monitored for at least two days after relocation or the end of construction, whichever occurs first.</p> <p>(6) If desert tortoises need to be moved at a time of day when ambient temperatures could harm them (less than 40 degrees and over 90 degrees Fahrenheit), they shall be held overnight in a clean cardboard box and released the following day during more favorable temperatures. Cardboard boxes used to hold tortoises shall only be used once.</p> <p>(7) All handling of desert tortoises shall be performed consistent with the <i>Guidelines for Handling Desert Tortoises During Construction Projects</i> (Desert Tortoise Council 1994).</p> <p>(8) The mine operator shall mitigate for impacts on occupied desert tortoise habitat at a 1:1 minimum ratio through the purchase of credits from an approved desert tortoise mitigation bank. The amount of credits purchased and the location of the mitigation bank used shall be established through consultation with and are subject to approval by the USFWS and the CDFW. The mine operator shall provide the County with evidence that the permit and/or other requirements established by either agency have been satisfactorily met.</p>	

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<p><b>Impact 3.3.4</b> Coast Horned Lizard</p>	<p>Potentially significant</p>	<p><b>MM 3.3.4 Coast Horned Lizard Surveys.</b> Prior to implementation of project-related activities in undisturbed portions of the site, the mine operator shall retain a qualified biologist to determine if suitable habitat for this species occurs within 250 feet of the proposed impact area. If suitable habitat exists, preconstruction surveys must be performed by a qualified biologist in a manner to maximize detection of coast horned lizards (i.e., during warm weather, walking slowly). If any lizards are discovered within the work areas, they shall be actively moved or passively encouraged to leave the work area.</p>	<p>Less than significant</p>
<p><b>Impact 3.3.5</b> Burrowing Owl</p>	<p>Potentially significant</p>	<p><b>MM 3.3.5 Burrowing Owl Surveys.</b> If clearing and construction activities will occur during the nesting period for burrowing owls (February 1–August 31), the mine operator shall retain a qualified biologist to determine if suitable nesting habitat occurs within 500 feet of the proposed impact area. If suitable habitat exists, focused surveys must be performed by a qualified biologist in accordance with the CDFW’s <i>Staff Report on Burrowing Owl Mitigation</i>, published March 7, 2012. Surveys shall be repeated if project activities are suspended or delayed for more than 15 days during nesting season.</p> <p>If no burrowing owls are detected, no further mitigation is required. If active burrowing owl nest sites are detected, the mine operator shall implement the avoidance, minimization, and mitigation methodologies outlined in the CDFW’s <i>Staff Report on Burrowing Owl Mitigation</i> prior to initiating project-related activities that may impact burrowing owls.</p>	<p>Less than significant</p>
<p><b>Impact 3.3.6</b> Le Conte’s Thrasher and other Migratory Birds</p>	<p>Potentially significant</p>	<p><b>MM 3.3.6 Migratory Bird Surveys.</b> If clearing and/or construction activities will occur in undisturbed portions of the site, <u>or blasting activities will occur in any portion of the project site</u>, during the migratory bird nesting season (March 15–August 15), preconstruction surveys to identify active migratory bird nests shall be conducted by a qualified biologist within 14 days of <del>construction</del> <u>initiation of project activities</u>. Focused surveys must be performed by a qualified biologist for the purposes of determining the presence/absence of active nest sites within the proposed impact area and a 200-foot buffer (if feasible). Surveys shall be repeated if project activities are</p>	<p>Less than significant</p>

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p><u>delayed or postponed for more than 30 days.</u></p> <p>If active nest sites are identified within 200 feet of project activities, the mine operator shall impose a limited operating period (LOP) for all active nest sites prior to commencement of any project <del>construction</del> activities to avoid construction or project-related disturbances to migratory bird nesting activities. An LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, <u>blasting</u>, and construction) will not occur and will be imposed within 100 feet of any active nest sites until the nest is deemed inactive. Activities permitted within and the size (i.e., 100 feet) of LOPs may be adjusted through consultation with the CDFW and <del>for</del> the County.</p> <p><u>When an active nest is located within 200 feet of project activities, monitoring shall be conducted weekly by a qualified biologist until the nest is deemed inactive. If nest monitoring detects changes in behavior of nesting birds associated with blasting activities, use of noise attenuation devices or techniques (e.g., blast mats, different blasting compounds) shall be used during the breeding season. When active nests are present, a monthly nest monitoring report shall be prepared by the qualified biologist and submitted to CDWF and the County until the nest(s) are deemed inactive.</u></p>	
<p><b>Impact 3.3.7</b> Golden Eagle and Other Raptors</p>	<p>Potentially significant</p>	<p><b>MM 3.3.7a Raptor Conservation Strategy.</b> The applicant shall participate in and implement the Raptor Conservation Strategy.</p> <p><b>MM 3.3.7b Raptor Surveys.</b> <u>If clearing and/or construction activities would occur in undisturbed portions of the site, or blasting activities will occur in any portion of the project site, during the raptor nesting season (January 15–August 15), preconstruction surveys to identify active raptor nests shall be conducted by a qualified biologist within 14 days of construction initiation. Focused surveys must be performed by a qualified biologist for the purposes of determining presence/absence of active nest sites within the proposed impact area. If no active nests are found, no further mitigation is required. Surveys shall be repeated if project activities are delayed or postponed for more than 30 days.</u></p> <p><u>If active golden eagle or other raptor nest sites are identified within a half mile of project activities, the applicant shall impose a limited</u></p>	<p>Less than significant</p>

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p><u>operating period (LOP) for all active nest sites prior to commencement of any project activities to avoid construction- or project-related disturbances to nesting raptors. A LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, blasting, and construction) will not occur and shall be imposed within 500 feet of any active nest sites until the nest is deemed inactive. Activities permitted within LOPs and the size (i.e., 500 feet) of LOPs may be adjusted through consultation with the CDFW and the County.</u></p> <p><u>When an active nest is located within a half mile of project activities, monitoring shall be conducted weekly by a qualified biologist until the nest is deemed inactive. If nest monitoring detects changes in behavior of nesting birds associated with blasting activities, use of noise attenuation devices or techniques (e.g., blast mats, different blasting compounds) shall be used during the breeding season. When active nests are present, a monthly nest monitoring report shall be prepared by the qualified biologist and submitted to the County until the nest(s) are deemed inactive.</u></p>	
<b>Impact 3.3.8</b> Mule Deer and Bighorn Sheep	Less than significant	None required	Less than significant
<b>Impact 3.3.9</b> Special-Status Bats	Potentially significant	<p><b>MM 3.3.9 Bat Surveys.</b> Prior to implementation of project-related activities in undisturbed portions of the site, the mine operator shall retain a qualified biologist to determine whether potential roosting sites for special-status bats may be affected. If potential roost sites are identified, a preconstruction survey by a qualified biologist shall be conducted <del>prior to the end of April</del> between March 1 and July 31 to determine the presence or absence of roosting bats. If the survey does not identify the presence of occupied roosts, no further mitigation is required.</p> <p>If <del>day roosts or maternity roosts</del> <u>non-breeding roosts</u> occupied by special-status bat species are documented within construction areas, the bats shall be safely flushed from the sites where roosting habitat is planned to be removed prior to May of each construction phase (<del>maternity roosts are generally occupied from May to August</del>) and prior to the onset of construction activities. The removal of the roosting sites shall occur during the time of day when the roost is</p>	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p>unoccupied.</p> <p><u>If a maternity colony is detected, a 100-foot construction-free buffer shall be established around the roost site and remain in place until it has been determined by a qualified biologist that the nursery is no longer active. Removal of maternity roosts shall be restricted to between March 1 and April 15 or August 15 and October 15 to avoid interfering with an active nursery.</u></p> <p>The loss of each roost will be compensated for by the construction and installation of two bat boxes suitable to the bat species and colony size excluded from the original roosting site. The bat boxes shall be installed in the vicinity prior to removal of the original non-breeding/maternity roost sites. A detailed program for bat flushing, roosting site removal, and installation of bat boxes shall be developed in consultation with a qualified biologist.</p>	
<b>Impact 3.3.10</b> Pallid San Diego Pocket Mouse	Potentially significant	<b>MM 3.3.10 Pallid San Diego Pocket Mouse Surveys.</b> Prior to implementation of project-related activities in undisturbed portions of the site, the mine operator shall retain a qualified biologist to determine if suitable habitat for this species occurs within 250 feet of the proposed impact area. If suitable habitat exists, preconstruction surveys must be performed by a qualified biologist in a manner to maximize detection of pallid San Diego pocket mice. If any mice are discovered within the work areas, they shall be actively moved or passively encouraged to leave the work area.	Less than significant
<b>Impact 3.3.11</b> Impacts on Riparian Habitat or Sensitive Natural Communities	Potentially significant	<p><b>MM 3.3.11a No Net Loss of Riparian Vegetation.</b> The mine operator shall ensure there is no net loss of riparian vegetation. Mitigation can include on-site restoration or purchase of mitigation credits at a USACE-approved mitigation bank, placing a conservation easement over a riparian area, or quit claiming mineral claims over a riparian area. Mitigation, as required in regulatory permits issued through the CDFW, the USACE, or the RWQCB, may be applied to satisfy this measure.</p> <p>Evidence of compliance with this mitigation measure shall be provided prior to construction and grading activities for the proposed project.</p> <p><b>MM 3.3.11b Oak Woodlands.</b> The mine operator shall ensure there</p>	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p>is no net loss of oak woodland habitat. Mitigation can include any one or combination of the following:</p> <ol style="list-style-type: none"> <li>(1) <u>Preservation of existing oak woodlands by recording a conservation easement(s) in favor of the County or an approved organization or agency.</u></li> <li>(2) <u>Replacement or restoration of former oak woodlands. The County may require the planting and maintenance of replacement trees, including replacing dead or diseased trees. The replacement ratio and tree sizes shall be based on the recommendation of an Oak Reforestation Program prepared by a registered professional forester. The requirement to maintain trees in compliance with this paragraph shall terminate seven years after the trees are planted.</u></li> <li>(3) <u>Contribution of in-lieu mitigation fees to the Oak Woodlands Conservation Fund, established under Fish and Game Code Section 1363 for the purpose of purchasing oak woodlands conservation easements. A project applicant who contributes funds in compliance with this subsection shall not receive or use a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project. The in-lieu fee for replacement trees shall be calculated based on their equivalent value as established by the International Society of Arboriculture's current edition of the <i>Guide for Plant Appraisal</i>.</u></li> <li>(4) <u>Performing other mitigation measures as may be required by the County (e.g., inch-for-inch off-site replacement planting, transfer of development rights, enrollment of project with offset provider for carbon credits in greenhouse gas emission registry, carbon reduction, and carbon trading system).</u></li> </ol>	
<b>Impact 3.3.12</b> Impacts on Federally Protected Wetlands	No impact	None required	No impact
<b>Impact 3.3.13</b> Impacts on Wildlife Movement	Less than significant	None required	Less than significant
<b>Impact 3.3.14</b> Conflict with Local Policies and Ordinances	No impact	None required	No impact

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<b>Impact 3.3.15</b> Conflict with Conservation Plans	Less than significant	None required	Less than significant
<b>Impact 4.0.3</b> Cumulative Impacts on Biological Resources	Cumulatively considerable	Implement mitigation measures <b>MM 3.3.1a</b> through <b>MM 3.3.1i</b> , <b>MM 3.3.2</b> , <b>MM 3.3.3a</b> and <b>MM 3.3.3b</b> , <b>MM 3.3.4</b> , <b>MM 3.3.5</b> , <b>MM 3.3.6</b> , <b>MM 3.3.9</b> , and <b>MM 3.3.10</b> .	Less than cumulatively considerable
<b>Cultural and Paleontological Resources</b>			
<b>Impact 3.4.1</b> Substantial Adverse Impact on an Archaeological or Historical Resource	Potentially significant	<b>MM 3.4.1</b> It shall be required in the final Amended Mine and Reclamation Plan, that if, during the course of construction, mining, or reclamation activities previously unknown cultural resources (i.e., prehistoric or historic sites) are discovered, work shall be halted immediately within 50 feet of the discovery, the San Bernardino County Land Use Services Department shall be notified, and a professional archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to determine the significance of the discovery. Determination of impacts, significance, and mitigation that protects the discovered resource shall be made by a qualified archaeologist in consultation with recognized local Native American groups, if appropriate. The San Bernardino County Museum shall also be contacted for review of the archaeological find(s). In addition, prior to the commencement of project excavations, all construction and mining personnel shall be informed of the potential to inadvertently uncover cultural resources and the procedures to follow subsequent to an inadvertent discovery of cultural resources.	Less than significant
<b>Impact 3.4.2</b> Disturb Human Remains	Less than significant	None required	Less than significant
<b>Impact 3.4.3</b> Destroy a Unique Paleontological Resource or Geologic Feature	Potentially significant	<b>MM 3.4.3</b> If non-metamorphosed fossiliferous limestones are encountered during mining activities, they shall be removed and retained for examination by a qualified paleontologist. If any fossil-bearing materials are encountered, a program to protect and preserve such resources that might be exposed or unearthed shall be developed in cooperation with the project applicant and San Bernardino County. The program shall be developed in accordance with the proposed guidelines of the Society of Vertebrate	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p>Paleontology and shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> <li>• All non-metamorphosed fossiliferous limestones that are encountered during mining shall be stockpiled for examination by a qualified paleontologist. The monitor shall be prepared to quickly salvage any fossils that might be present. The monitor should also remove samples of sediments that are likely to contain the remains of small fossil vertebrates and invertebrates.</li> <li>• Collected samples of sediments shall be processed to recover small invertebrate and vertebrate fossils. Recovered specimens shall be prepared so that they can be identified and permanently preserved.</li> <li>• Any specimens shall be identified, curated, and placed into a repository with permanent retrievable storage.</li> <li>• A report of findings, including an itemized inventory of recovered specimens, shall be prepared on completion of the steps outlined above. The report shall include a discussion of the significance of all recovered specimens. The report and inventory, when submitted to San Bernardino County, will signify completion of the program to mitigate impacts on paleontological resources.</li> </ul>	
<b>Impact 4.0.4</b> Cumulative Impacts on Cultural Resources	Less than cumulatively considerable	None required	Less than cumulatively considerable
<b>Geology and Soils</b>			
<b>Impact 3.5.1</b> Exposure of People or Structures to Potential Substantial Adverse Seismic Effects	Less than significant	None required	Less than significant
<b>Impact 3.5.2</b> Slope Stability	Less than significant	None required	Less than significant
<b>Impact 3.5.3</b> Rock and Soil Talus Erosion	Potentially significant	<b>MM 3.5.3</b> Omya shall prepare and submit periodic monitoring of the Western Drainage and Ruby Springs area to the County of San Bernardino. If the results of periodic monitoring of the Western Drainage and Ruby Springs area finds that sediments from the White Knob Quarry operation have caused a measurable impact on Ruby	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p>Springs, Omya shall prepare and submit for approval additional mitigation measures that may include (1) revision of the 2008 Sedimentation and Erosion Monitoring Technical Work Plan, and/or (2) remediation of the Western Drainage and/or Ruby Springs area. Any remediation efforts in the Western Drainage and/or Ruby Springs area will occur prior to proceeding with work on the ground. Omya shall obtain all necessary permits and pay all required fees and financial assurances, including, but not limited to, County of San Bernardino permits, BLM permits, California Department of Fish and Wildlife permits, and US Fish and Wildlife Service permits.</p> <p>Reporting of monitoring results shall be done at least once every two years and following any significant rain event that is equal to or exceeds the 10-year return period rainfall for the project site. Reports of monitoring activities, data, and findings shall be provided to the County of San Bernardino at least once every two years prior to the annual SMARA inspection. The first report shall be submitted within the year following the approval of the Amended Reclamation Plan. The monitoring shall be done in accordance with the 2008 Sedimentation and Erosion Monitoring Technical Work Plan (dated May 31, 2008) and any subsequent approved amendments.</p>	
<b>Impact 3.5.4</b> Erosion and Soil Loss	Less than significant	None required	Less than significant
<b>Impact 4.0.5</b> Cumulative Impacts on Geology and Soils	Less than cumulatively considerable	None required	Less than cumulatively considerable
<b>Greenhouse Gas Emissions</b>			
<b>Impact 3.6.1</b> Impact on the Environment	Less than cumulatively considerable	None required	Less than significant
<b>Impact 3.6.2</b> and <b>Impact 4.0.6</b> Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases	Less than cumulatively considerable	None required	Less than cumulatively considerable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<b>Hydrology and Water Quality</b>			
<p><b>Impact 3.7.1</b> Substantially Alter Drainage Pattern</p>	<p>Potentially significant</p>	<p><b>MM 3.7.1</b> The following mitigation measures shall be implemented in addition to requirements contained in the project’s SWPPP and SPCC. All measures shall be subject to County of San Bernardino approval prior to implementation.</p> <p>a. Implement the recommendations for modifications of the project’s haul road drainage and sediment control structures given in the September 12, 2013, Stantec technical memorandum and August 2011 Stantec report, White Knob Haul Road Drainage Study and Plan Development, to implement Sections 15, 16, and 17 of the April 20, 2011, Settlement Agreement between Omya and the Bureau of Land Management in sections:</p> <ul style="list-style-type: none"> <li>- 2.3 Culvert Flow Calculations (EIR Appendix G, Stantec 2013, p.6);</li> <li>- 2.4 Culvert Riprap Calculations (EIR Appendix G, Stantec 2013, p. 7);</li> <li>- 3.1.2, Roadway Grading and Ditch Recommendations (EIR Appendix G, Stantec 2011, p. 3.3);</li> <li>- 3.2.2, Sediment Catchment Basins Recommendations(EIR Appendix G, Stantec 2011, p. 3.6); and</li> <li>- 4.0, Right-of-Way Recommendations (EIR Appendix G, Stantec 2011, p. 4.1).</li> </ul> <p>Inclusion of these improvements would ensure that no flow increases to downstream flows during flood events.</p> <p>b. All quarry areas, overburden fills, and haul roads shall be maintained to minimize erosion and sedimentation.</p> <p>c. Sedimentation basins shall be inspected regularly, at least once every 30 days during the rainy season, October to April, and following any significant precipitation event, equal to or greater than ½ inch of direct rainfall. Sediment shall be removed and basin function restored as needed.</p> <p>d. Any sediment removed from basins shall be deposited on the overburden areas or into the White Knob Quarry sedimentation</p>	<p>Less than significant</p>

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		<p>pond. Sediment placed on the overburden areas shall utilize temporary stormwater BMPs to prevent further sediment discharge and shall be revegetated in accordance with the 2013 Amended Reclamation Plan.</p> <ul style="list-style-type: none"> <li>e. Basin spillways shall remain in good working condition and repaired as necessary.</li> <li>f. Areas in haul roads that experience erosion shall be backfilled and rocked to minimize future erosion.</li> <li>g. Overburden fill slopes and benches shall be inspected regularly, at least once every 30 days during the rainy season, October to April, and following any significant precipitation event, equal to or greater than ½ inch of direct rainfall. If erosion or sedimentation is observed, temporary BMPs shall be utilized on overburden slopes and benches as soon as possible to minimize future erosion.</li> <li>h. Areas of erosion or sediment deposition in overburden areas shall be permanently remediated as soon as possible, preferably before the next precipitation event. Remediated overburden slopes and benches shall be revegetated and/or armored in accordance with the 2013 Amended Reclamation Plan.</li> <li>i. Haul road culverts and Arizona crossings shall be inspected regularly at least once every 30 days during the rainy season, October to April, and following any significant precipitation event, equal to or greater than ½ inch of direct rainfall. Culverts and crossing shall be repaired and maintained to allow for proper passage of floodwaters.</li> <li>j. If any of the haul road culverts are damaged or washed out, they shall be replaced with a culvert that provides a minimal capacity to pass a 20-year storm event without overtopping or excess erosion.</li> <li>k. The seven procedures that were implemented to minimize boulder roll-down shall continue for the life of the project. These procedures are identified in mitigation measure <b>MM 3.1.1</b>. Procedures shall be modified and/or additional measure put in place, as necessary, to achieve minimal boulder roll-down.</li> </ul>	

**ES EXECUTIVE SUMMARY**

---

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<b>Impact 4.0.7</b> Cumulative Impacts on Hydrology and Water Quality	Less than cumulatively considerable	None required	Less than cumulatively considerable
<b>Utilities and Service Systems</b>			
<b>Impact 3.8.1.1</b> Construction of New Stormwater Drainage Infrastructure	Less than significant	None required	Less than significant
<b>Impact 3.8.2.1</b> Adequate Water Supply	Less than significant	None required	Less than significant
<b>Impact 4.0.8</b> Cumulative Impacts on Public Services and Utilities	Less than cumulatively considerable	None required	Less than cumulatively considerable

---

# **1.0 INTRODUCTION**

---



This Final Environmental Impact Report (Final EIR) was prepared in accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (Section 15132). The County of San Bernardino (County) is the lead agency for the environmental review of the proposed White Knob/White Ridge Limestone Quarries Expansion project. The County has the principal responsibility for approving the project. This Final EIR summarizes the environmental effects of the proposed project and mitigation measures, responds to comments received on the Draft EIR, and identifies minor revisions to the Draft EIR.

### 1.1 BACKGROUND AND PURPOSE OF THE EIR

#### OVERVIEW OF CEQA REQUIREMENTS FOR PREPARATION OF AN EIR

The County, serving as the lead agency, has prepared this EIR to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed project. As set forth in the provisions of CEQA and implementing regulations, public agencies are charged with the duty to consider the environmental impacts of proposed development and to minimize these impacts where feasible while carrying out an obligation to balance a variety of public objectives, including economic, environmental, and social factors.

State CEQA Guidelines Section 15121(a) states that an EIR is an informational document for decision-makers and the general public that analyzes the significant environmental effects of a project, identifies possible ways to minimize significant effects, and describes reasonable alternatives to the project that could reduce or avoid its adverse environmental impacts. Public agencies with discretionary authority are required to consider the information in the EIR, along with any other relevant information, in making decisions on the project.

CEQA requires the preparation of an environmental impact report prior to approving any project, which may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed project, the County has determined that the proposed White Knob/White Ridge Limestone Quarries Expansion is a "project" within the definition of CEQA.

#### BACKGROUND OF ENVIRONMENTAL REVIEW PROCESS OF THE PROJECT

The following is an overview of the environmental review process for the proposed White Knob/White Ridge Limestone Quarries Expansion project that has led to the preparation of this Final EIR.

##### **Background**

The San Bernardino County Planning Commission approved the existing White Knob/White Ridge Limestone Mine Site Approval and Reclamation Plan in 1986 (RP# 86M-04) with an expiration date of December 31, 2031. RP# 86M-04 permits mining operations on 145 acres of the mine operator's 357.5 total acres of land holdings.

Omya Inc. has proposed an Amended Mine and Reclamation Plan for expansion of the existing White Knob/White Ridge Limestone Quarries. The Amended Plan would increase the operational years of the quarries by 24 years from the existing permit expiration date of 2031 to the year 2055. The Amended Plan also includes an increase in mine area of approximately 190.1 acres

## **1.0 INTRODUCTION**

---

over the existing approved quarry area of 145 acres. This increase results in a total quarry area of approximately 335.1 acres of existing or planned surface mining operation-related disturbance.

Approval of the Amended Plan by the San Bernardino Planning Commission is a discretionary project, as defined by CEQA Section 15357, and therefore requires environmental review.

### **Notice of Preparation**

An Initial Study was prepared and circulated during the Notice of Preparation (NOP) review period. Analysis presented in the Initial Study determined that project would have potentially significant impacts on the physical environment and therefore, completion of an Environmental Impact Report was necessary.

The NOP was submitted for public review on June 10, 2013. As of the close of the public review period (July 12, 2013), four comment letters were received by the County of San Bernardino, the lead agency for the proposed project. The major topics of the received letters that are relevant to the Draft EIR were potential impact to biological resources and potential impact to Native American cultural resources. The Notice of Preparation and the comments received are included in Appendix A of the Draft EIR.

### **Draft EIR**

The Draft EIR (Draft EIR) was released for public and agency review on October 30, 2014, and ended on December 15, 2014. The Draft EIR contained a description of the project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives. The Draft EIR was provided to interested public agencies and the public and was made available for review at the County offices and on the County's website. Over 135 copies of the Draft EIR were mailed to interested parties and public agencies at the beginning of the 45-day review period.

### **Final EIR**

The County received six comment letters from interest groups, government agencies, and the public regarding the Draft EIR. This document responds to the written comments received as required by CEQA. This document also contains minor edits to the Draft EIR, which are included in Section 3.0, Revisions to the Draft EIR. This document constitutes the Final EIR.

### **Certification of the Final EIR/Project Consideration**

The County will review and consider the Final EIR. If the County finds that the Final EIR is "adequate and complete," the County may certify the Final EIR. The rule of adequacy generally holds that the EIR can be certified if (1) it shows a good faith effort at full disclosure of environmental information, and (2) it provides sufficient analysis to allow decisions to be made regarding the project in contemplation of its environmental consequences.

Upon review and consideration of the Final EIR, the County may take action to adopt, revise, or reject the proposed project. A decision to approve the proposed project will be accompanied by written findings in accordance with State CEQA Guidelines Section 15091 and Section 15093. Public Resources Code Section 21081.6 also requires lead agencies to adopt a mitigation monitoring and reporting program to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.

## **1.2 INTENDED USES OF THE EIR**

The EIR is intended to evaluate the environmental impacts of the proposed project. This EIR, in accordance with CEQA Guidelines Section 15126, should be used as the primary environmental document to evaluate all planning and permitting actions associated with the proposed project. Please refer to Section 2.0, Project Description, in the Draft EIR for a detailed discussion of the proposed project.

### **COUNTY OF SAN BERNARDINO**

The EIR is intended to be used by the County as a tool in evaluating the proposed project's environmental impacts and can be further used to modify, approve, or deny approval of the proposed project based on the analysis provided in the EIR. A description of any requested entitlements and subsequent approvals associated with approval and implementation of the proposed project are described in Section 2.0, Project Description, in the Draft EIR.

### **KNOWN TRUSTEE AND RESPONSIBLE AGENCIES**

For the purpose of CEQA, the term "trustee agency" means a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. Specifically, the following trustee agencies may have an interest in the proposed White Knob/White Ridge Limestone Quarries Expansion project:

- California Department of Fish and Wildlife
- California Department of Forestry and Fire Protection (Cal Fire)

In CEQA, the term "responsible agency" includes all public agencies other than the lead agency that may have discretionary actions associated with the implementation of the proposed White Knob/White Ridge Limestone Quarries Expansion project. The following agencies have been identified as responsible agencies for the proposed project:

- California Department of Conservation, Office of Mine Reclamation
- California Department of Fish and Wildlife
- U.S. Bureau of Land Management
- Mojave Desert Air Quality Management District
- Colorado River Basin Regional Water Quality Control Board
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service

## **1.0 INTRODUCTION**

---

### **1.3 ORGANIZATION AND SCOPE OF THE FINAL EIR**

This document is organized in the following manner:

#### **SECTION ES – EXECUTIVE SUMMARY**

Section ES includes an updated Executive Summary that provides a brief project description and presents a summary table of probable environmental effects of the project.

#### **SECTION 1.0 – INTRODUCTION**

Section 1.0 provides an overview of the EIR process to date and what the Final EIR is required to contain.

#### **SECTION 2.0 – COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR**

Section 2.0 provides a list of commenters, copies of written comments (coded for reference), and the responses to those written comments made on the Draft EIR.

#### **SECTION 3.0 – REVISIONS TO THE DRAFT EIR**

Section 3.0 provides a list of minor edits made to the Draft EIR as a result of comments received and other staff-initiated changes.

---

## **2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR**

---



## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

### 2.1 LIST OF COMMENTERS

The following individuals and representatives of organizations and agencies submitted written comments on the Draft EIR.

Letter	Agency, Organization or Individual	Date
A	Alan J. De Salvio, Mojave Desert Air Quality Management District	November 10, 2014
B	Franklin A. Dancy, Morongo Band of Mission Indians	November 18, 2014
C	Leslie S. MacNair, California Department of Fish and Wildlife	December 15, 2014
D	Beth Hendrickson, Department of Conservation, Office of Mine Reclamation	December 15, 2014
E	Scott Morgan, Governor's Office of Planning and Research	December 17, 2014
1	Ileene Anderson, Center for Biological Diversity	December 15, 2014

### 2.2 COMMENTS AND RESPONSES

#### REQUIREMENTS FOR RESPONDING TO COMMENTS ON A DRAFT EIR

State CEQA Guidelines Section 15088 requires that lead agencies evaluate all comments on environmental issues received on the Draft EIR and prepare a written response. The written response must address the significant environmental issue raised and must be detailed, especially when specific comments or suggestions (e.g., additional mitigation measures) are not accepted. In addition, there must be a good faith and reasoned analysis in the written response. However, lead agencies need only respond to significant environmental issues associated with the project and do not need to provide all the information requested by commenters, as long as a good faith effort at full disclosure is made in the EIR (State CEQA Guidelines 15204).

State CEQA Guidelines Section 15204 recommends that commenters provide detailed comments that focus on the sufficiency of the Draft EIR in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. State CEQA Guidelines Section 15204 also notes that commenters should provide an explanation and evidence supporting their comments. Pursuant to State CEQA Guidelines Section 15064, an effect shall not be considered significant in the absence of substantial evidence supporting such a conclusion.

State CEQA Guidelines Section 15088 also recommends that where a response to comments results in revisions to the Draft EIR, that those revisions be incorporated as a revision to the Draft EIR or as a separate section of the Final EIR. This Final EIR includes a section (Section 3.0) identifying changes made to the Draft EIR.

## **2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR**

---

### RESPONSES TO COMMENT LETTERS

Written comments on the Draft EIR are reproduced on the following pages, along with responses to those comments. To assist in referencing comments and responses, the following coding system is used:

- Agency and service provider comment letters are coded by letters and each issue raised in the comment letter is assigned a number (e.g., Comment Letter A, comment 1 is referred to as A-1).
- Individual and interest group comment letters are coded by numbers and each issue raised in the comment letter is assigned a number (e.g., Comment Letter 1, comment 1 is referred to as 1-1).

Where changes to the Draft EIR text result from responding to comments, those changes are included in the response and demarcated with revision marks (underline for new text, ~~strikeout~~ for deleted text).



Letter A

Mojave Desert Air Quality Management District
FISCAL ADMIN
Park Avenue, Victorville, CA 92392-2310
760.245.1661 • fax 760.245.2699
Visit our web site: http://www.mdaqmd.ca.gov
Eldon Heaston, Executive Director

NOV 17 PM 2:54

November 10, 2014

RECEIVED

Carrie Hyke, District Planner
Land Use Services Department, Planning Division
385 North Arrowhead Avenue
San Bernardino, CA 92415-0187

NOV 18 2014

San Bernardino County
Planning Division

RE: White Knob/White Ridge Limestone Quarry Expansion Project

Dear Ms. Hyke:

The Mojave Desert Air Quality Management District (District) has reviewed the Draft Environmental Impact Report (DEIR) for the White Knob/White Ridge Limestone Quarry Expansion Project. This action proposes the expansion of the existing White Knob/White Ridge Limestone Quarries, a limestone mining operation. The proposed project would increase operational years of the quarries by 24 years from the existing permit expiration date of 2031 to the year 2055. The Amended Plan includes an increase in mine area of approximately 190.1 acres over the existing approved quarry area of 145 acres. This increase results in a total quarry area of approximately 335.1 acres of existing or planned surface mining operation-related disturbance. The Amended Plan would not result in the increase of mining equipment used at the quarry or the increase of daily quarried material. Approximately 40 acres of the existing 83.5-acre Bureau of Land Management (BLM) haul road right-of-way on federal public land must be reclaimed and is added to the proposed project reclamation total. The primary areas to be reclaimed are the existing White Knob Quarry and White Knob Annex Quarry, the approved White Ridge Quarry, the existing Overburden Site #1 and proposed Overburden Sites #2 and #3, and the ancillary disturbance areas, which include haul/access roads, sediment basins, storage pads, crusher location, west slope impact area, and boulder roll-down area.

A-1

Based on the information provided in the DEIR, the District agrees with the proposed mitigation measure MM3.2.1 to reduce PM10 emissions.

A-2

Thank you for the opportunity to review this planning document. If you have any questions regarding this letter, please contact me at (760) 245-1661, extension 6726, or Tracy Walters at extension 6122.

Sincerely

[Handwritten signature of Alan J. De Salvo]

Alan J. De Salvo
Supervising Air Quality Engineer

AJD/tw

Omya White Knob White Ridge DEIR

City of Adclanto, Town of Apple Valley, City of Barstow, City of Blythe, City of Hesperia, City of Needles, County of Riverside, County of San Bernardino, City of Twentynine Palms, City of Victorville, Town of Yucca Valley

## **2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR**

---

LETTER A      ALAN J. DE SALVIO – MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

Response A-1:      The commenter provides a description of the project. No remarks were made regarding the adequacy of the Draft EIR. This comment is noted.

Response A-2:      The commenter states that the district agrees with proposed mitigation measure MM 3.2.1 to reduce PM<sub>10</sub> emissions. This comment is noted.

Letter B

RECEIVED

NOV 20 2014

San Bernardino County  
Planning Division

MORONGO  
BAND OF  
MISSION  
INDIANS



A SOVEREIGN NATION

November 18, 2014

Carrie Hyke, District Planner  
County of San Bernardino  
Land Use Services Department  
385 N. Arrowhead Avenue, First Floor  
San Bernardino, CA 92414

**SUBJECT: Notice of Availability for the Draft Environmental Impact Report for OMYA Inc. White Knob/White Ridge Limestone Quarry Expansion Project (State Clearinghouse Number 2013061020)**

Dear Ms. Hyke:

Thank you for contacting the Morongo Band of Mission Indians regarding the above referenced project. The Tribe greatly appreciates the opportunity to review the project and, respectfully, offer the following comments.

The project is outside of the Tribe's current reservation boundaries but within an area that may be considered a traditional use area or one in which the Tribe has cultural ties (e.g. Cahuilla/Serrano territory). Because the project involves a proposal for the expansion of the Omya Inc. White Knob/White Ridge Limestone Quarry, the Morongo Band of Mission Indians asks that you impose specific conditions regarding cultural and/or archaeological resources and buried cultural materials on any development plans or entitlement applications as follows:

B-1

- o If human remains are encountered during grading and other construction excavation, work in the immediate vicinity shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5.
- o In the event that Native American cultural resources are discovered during project development/construction, all work in the immediate vicinity of the find shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the overall project may continue during this assessment period.

B-2

If significant Native American cultural resources are discovered, for which a Treatment Plan must be prepared, the developer or his archaeologist shall contact the Morongo Band of Mission Indians

12700 PUMARRA ROAD - BANNING, CA 92220 - 951-849-4697 - FAX: 951-849-4425

## Letter B Continued

("Tribe")<sup>1</sup>. If requested by the Tribe, the developer or the project archaeologist shall, in good faith, consult on the discovery and its disposition (e.g. avoidance, preservation, return of artifacts to tribe, etc.)

B-2  
Cont.

If I may be of further assistance with regard to this matter, please do not hesitate to contact me at your convenience.

Very truly yours,

MORONGO BAND OF MISSION INDIANS

  
Franklin A. Dancy,  
Director of Planning

---

<sup>1</sup> The Morongo Band of Mission Indians realizes that there may be additional tribes claiming cultural affiliation to the area; however, Morongo can only speak for itself. The Tribe has no objection if the archaeologist wishes to consult with other tribes and if the city wishes to revise the condition to recognize other tribes.

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

LETTER B FRANKLIN A. DANCY – MORONGO BAND OF MISSION INDIANS

Response B-1: The commenter states that the project is outside of the Tribe's current reservation boundaries but within an area that may be considered a traditional use area or one in which the Tribe has cultural ties. No remarks were made regarding the adequacy of the Draft EIR. This comment is noted.

Response B-2: Impact 3.4.2 in the Draft EIR discusses the requirements if human remains are discovered during project development. This discussion explains that should human remains be discovered during any phase of the proposed project, the measures contained in Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5 would be followed, as required by state law. These measures include halting all work within a 200-foot radius of the discovery and notifying the County Coroner. If the remains are determined to be Native American, the coroner would notify the Native American Heritage Commission and the procedures outlined in CEQA Section 15064.5(d) and (e) would be followed. Compliance with these existing regulations would ensure that any human remains encountered during project implementation would be handled appropriately, and no significant impacts would occur.

For those cultural resources that are discovered during project development, mitigation measure MM 3.4.1 requires, in part:

...if, during the course of construction, mining, or reclamation activities previously unknown cultural resources (i.e., prehistoric or historic sites) are discovered, work shall be halted immediately within 50 feet of the discovery, the San Bernardino County Land Use Services Department shall be notified, and a professional archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to determine the significance of the discovery. Determination of impacts, significance, and mitigation that protects the discovered resource shall be made by a qualified archaeologist in consultation with recognized local Native American groups, if appropriate.

This mitigation measure is required to be a part of the final Amended Mine and Reclamation Plan and therefore is considered part of the development plan and entitlement process.

The process outlined in mitigation measure MM 3.4.1 is consistent with the conditions requested in the comment. It requires consultation with local Native American groups regarding the discovery cultural resources and implementation of state law requirements regarding the discovery of human remains. No further mitigation is considered necessary.

## Letter C



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Inland Deserts Region  
3602 Inland Empire Blvd Suite C-220  
Ontario, CA 91764  
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor  
CHARLTON H. BONHAM, Director



December 15, 2014

Carrie Hyke, District Planner  
San Bernardino County  
385 N. Arrowhead Avenue, 1st Floor  
San Bernardino, CA 92415-0184

Subject: White Knob-White Ridge Limestone Quarries Expansion Project  
Draft Environmental Impact Report  
State Clearinghouse No. 2013061020

Dear Mr. Hyke,

The Department of Fish and Wildlife (Department) appreciates the opportunity to comment on the Draft Environmental Impact Report (EIR) for White Knob-White Ridge Limestone Quarries Project (Project) prepared by San Bernardino County (Lead Agency) State Clearinghouse No. 2013061020. The Department is responding to the Draft EIR as a Trustee Agency for fish and wildlife resources (California Fish and Game Code Sections 711.7 and 1802, and the California Environmental Quality Act (CEQA) Guidelines Section 15386), and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines Section 15381), such as the issuance of a Lake or Streambed Alteration Agreement (California Fish and Game Code Sections 1600 et seq.) and/or a California Endangered Species Act (CESA) Permit for Incidental Take of Endangered, Threatened, and/or Candidate species (California Fish and Game Code Sections 2080 and 2080.1).

### Project Location

The Project is located in the San Bernardino Mountains southwest of Lucerne Valley in southwestern San Bernardino County. The Project is located approximately 6 miles southwest of the community of Lucerne Valley and 8 miles northwest of Big Bear Lake just north of the San Bernardino National Forest (Sections 5, 6, 7, and 8 of Township 3 North, Range 1 West).

### Project Description

The proposed Project will expand the existing White Knob-White Ridge Limestone Quarries from an existing 145 acres to 335.1 acres, an increase of a 190.1 acres. The Project will also increase the operational years of the quarry by 24 years from the existing Mine and Reclamation Plan permit with an expiration date of 2031 to the year 2055. Another 40 acres of Bureau of Land Management (BLM) haul road Right-Of-Way (ROW) on federal public land will be reclaimed as part of this Project as well. The total amount of disturbed acreage analyzed in this draft EIR is 375.1.

C-1

*Conserving California's Wildlife Since 1870*

## Letter C Continued

White Knob-White Ridge Limestone Quarries Expansion  
Draft Environmental Impact Report  
State Clearinghouse No. 2013061020  
Page 2 of 6

### Project Specific Comments and Recommendations

Following review of the Biological Resources section of the Draft EIR, the Department offers the comments and recommendations listed below to assist the Lead Agency (i.e., San Bernardino County) in adequately identifying and/or mitigating the project's significant, or potentially significant, impacts on biological resources. The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species (i.e., biological resources). The Department is a Trustee Agency with responsibility under CEQA for commenting on projects that could affect biological resources. As a Trustee Agency, the Department is responsible for providing, as available, biological expertise to review and comment upon environmental documents and impacts arising from project activities (CEQA Guidelines, § 15386; Fish and Game Code, § 1802). The comments and recommendations listed below are based on the requirement for the environmental document to include the following information:

C-2

- A description of feasible mitigation measures to avoid potentially significant impacts, and/or mitigate significant impacts, of the proposed project on the environment (CEQA Guidelines, §§ 15021, 15063, 15071, 15126.2, 15126.4 & 15370).

### State Threatened, Endangered, and Candidate Species

The Department has discretionary authority over activities that could result in the "take" of any species listed as candidate, threatened, or endangered, pursuant to the California Endangered Species Act (CESA; Fish and Game Code, § 2050 et seq.). The Department considers adverse impacts to CESA-listed species, for the purposes of CEQA, to be significant without mitigation. Take of any CESA-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). Consequently, if a project, including project construction or any project-related activity during the life of the project, results in take of CESA-listed species, the Department recommends that the project proponent seek appropriate authorization prior to project implementation. This includes submitting an incidental take permit (ITP) to the Department (Fish and Game Code, §§ 2080.1 & 2081).

C-3

Please note that the Department must comply with CEQA prior to issuance of an ITP for a project. As such, the Department may consider the lead agency's CEQA documentation for the project. To minimize additional requirements by the Department and/or under CEQA, the CEQA avoidance, minimization, mitigation, monitoring and reporting measures for issuance of the ITP.

## Letter C Continued

White Knob-White Ridge Limestone Quarries Expansion  
Draft Environmental Impact Report  
State Clearinghouse No. 2013061020  
Page 3 of 6

### Desert Tortoise

MM 3.3.3b. Desert Tortoise Avoidance, Minimization, and Mitigation.

The Draft EIR identifies the potential for Project-related impacts to desert tortoise (*Gopherus agassizii*). Protocol level survey results are valid for one year during the calendar year they were conducted. If the surveys indicate the onsite presence of desert tortoise a California Endanger Species Act (CESA) Incidental Take Permit (ITP) may be warranted along with consultation with the United States Fish and Wildlife Service.

The Department recommends that the applicant apply for a CESA ITP for incidental take of desert tortoise prior to commencing Project activities. An ITP will provide for greater flexibility during project construction, and minimize Project delays.

MM 3.3.3b Measures 1-8. The Department agrees a biological mitigation and monitoring plan should be developed, however, the Habitat Mitigation and Monitoring Plan will be discussed during the ITP process at which time the Department will have its recommendations.

C-4

### Fully Protect Species

Bighorn sheep (*Ovis Canadensis*) is a state fully protected species. Bighorn sheep is known to occur near the project site and will be impacted by loss of habitat and water resources. The Department has jurisdiction over fully protected species of birds, mammals, amphibians, reptiles, and fish pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Take of any fully protected species is prohibited and the Department cannot authorize their take for development. The Department recommends that the Draft EIR evaluate and address Project related impacts to fully protected species including bighorn sheep and include appropriate species specific avoidance measures.

C-5

### Nesting Birds

Please note that it is the Lead Agency's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 et seq.). In addition, sections 3503, 3503.5, and 3513 of the Fish and Game Code (FGC) stipulate the following: Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by FGC or any regulation made pursuant thereto; Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders FALCONIFORMES or STRIGIFORMES (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by FGC or any regulation adopted pursuant thereto; and Section 3513 states that it is unlawful to take or possess

C-6

## Letter C Continued

White Knob-White Ridge Limestone Quarries Expansion  
Draft Environmental Impact Report  
State Clearinghouse No. 2013061020  
Page 4 of 6

any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

The Department recommends that the Lead Agency consult with a qualified ornithologist for advice in developing specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur and that the Project complies with all applicable laws related to nesting birds and birds of prey, including Burrowing Owl. The Department recommends that Project-specific avoidance and minimization measures include, but not limited to: Project phasing and timing, monitoring of project-related noise (where applicable), sound walls, and buffers (where appropriate).

C-6  
cont.

### Other Species

Mule deer (*Odocoileus hemionus*) are known to occur throughout the project area and will be impacted by loss of habitat and water sources, bobcat (*Lynx rufus*), mountain lion (*Puma concolor*) (a Department biologist found lion scat during previous site visits, and presence of mountain lion in the area should be added to the Draft EIR) gray fox (*Urocyon cinereoargenteus*), ringtail (*Bassariscus astutus*), and likely other species exist in the area, none of which are acknowledged as affected by loss of water source and habitat. Mitigation for these species is essential, but is not described properly in the Draft EIR.

C-7

### Lake or Streambed Alteration Program

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream or use material from a streambed, the project applicant (or "entity") must provide written notification to the Department pursuant to Section 1602 of the Fish and Game Code. Based on this notification and other information, the Department then determines whether a Lake and Streambed Alteration (LSA) Agreement is required. The Department's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the environmental document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with the Department is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to <http://www.dfg.ca.gov/habcon/1600/forms.html>.

C-8

The Department's website has information regarding dryland streams in "A review of Stream Processes and Forms in Dryland Watersheds," available at this location: <http://www.dfg.ca.gov/habcon/1600/1600resources.html>.

## Letter C Continued

White Knob-White Ridge Limestone Quarries Expansion  
Draft Environmental Impact Report  
State Clearinghouse No. 2013061020  
Page 5 of 6

Additional information can also be found in "Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants, With the MESA Field Guide - Final Project Report" available here:  
<http://www.energy.ca.gov/2014publications/CEC-500-2014-013/index.html>.

The drainage affected is roughly centered east-west, and draining from the south (upper) edge of the project to the haul road to the north (denoted by letter "C" in figure 3.3.-2 Jurisdictional Delineation) contains 1) perennial water with signs of use by wildlife, 2) 0.5-1 hectore of mature oak, a valuable food source and habitat for terrestrial and avian wildlife. Neither of these features are acknowledged in the Draft EIR. Appropriate permits and measures should be completely addressed in the Draft EIR.

C-8  
cont.

The Department appreciates the opportunity to provide comments on the Draft EIR for White Knob-White Ridge Limestone Quarries Expansion (State Clearinghouse No. 2013061020). Please contact Heather Weiche with questions regarding this letter and further coordination on project permitting needs at (909) 980-8607 or [heather.weiche@wildlife.ca.gov](mailto:heather.weiche@wildlife.ca.gov).

Sincerely,

  
for Leslie S. MacNair  
Inland Deserts Region  
Acting Regional Manager

cc: State Clearinghouse  
CORR

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

LETTER C      LESLIE S. MACNAIR, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Response C-1:      The commenter provides an accurate summary of the project location and description. This comment is noted.

Response C-2:      The commenter describes the California Department of Fish and Wildlife's (CDFW's) responsibility under CEQA to comment on projects that could affect biological resources. This comment is noted.

Response C-3:      As stated on page 3.3-52 in the Draft EIR, project-related impacts on species on the California Endangered Species Act (CESA) endangered or threatened list would be considered significant. The Draft EIR also notes that State-listed species are fully protected under the mandates of the CESA, and "take" of protected species incidental to otherwise lawful management activities may be authorized under Fish and Game Code Section 206.591. Authorization from the CDFW would be in the form of an incidental take permit (Fish and Game Code Sections 2080 and 2081). The applicant would be required to comply with these requirements. The County will forward the comments to the applicant regarding the need for consultation with the CDFW and the potential need for obtain an incidental take permit prior to initiation of project activities.

Response C-4:      The Draft EIR evaluated impacts on desert tortoise (*Gopherus agassizii*) in Impact 3.3.3 in Section 3.3, Biological Resources, in the Draft EIR. Five biological assessments of the Project Study Area (PSA) have been conducted to date, including two focused surveys for desert tortoise. No individuals or their sign (e.g., scat, burrows, carcasses) were observed on or adjacent to the PSA during the previously conducted focused surveys. In addition, habitat suitability modeling conducted by the US Geologic Survey (USGS) (Nussear et al. 2009) classified the habitat within the PSA as having a low potential to support desert tortoise. Habitat suitability slightly increases along the haul road from the PSA to the processing plant. A new figure (Figure 3.3-7) has been added to the Draft EIR (see Section 3.0, Revisions to the Draft EIR) showing desert tortoise habitat suitability areas and maxent model scores indicating areas of low to high suitability. The project site is in an area with low suitability.

The County and the applicant understand that protocol-level surveys for desert tortoise are valid for one year. If surveys identify the presence of desert tortoise, a CESA incidental take permit may be warranted along with consultation with the U.S. Fish and Wildlife Service (USFWS) due to the potential for impacts on the species as a result of project-related activities.

To ensure that survey results are valid prior to implementation of project-related activities, in undisturbed portions of the site, the Draft EIR identified mitigation measure MM 3.3.3a, which requires protocol-level surveys. If desert tortoises are identified, mitigation measure MM 3.3.3b (avoidance, minimization, and mitigation), as amended herein (see Response 1-6), would be implemented.

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

The comment expresses agreement with mitigation measure MM 3.3.3b Measures 1 through 8, and clarifies that the Habitat Mitigation and Monitoring Plan will be discussed during the incidental take permit process.

It should be noted that these mitigation measures do not obviate the need to comply with Sections 2080 and 2081 of the Fish and Game Code regarding incidental take permits (see Response C-3). The County will forward the comments to the applicant regarding consultation with the CDFW and the potential need for obtain an incidental take permit prior to initiation of project activities.

Response C-5: The Draft EIR evaluated impacts on bighorn sheep. Information on bighorn sheep was provided in the Existing Setting subsection of Section 3.3, Biological Resources, on pages 3.3-3 (habitat), 3.3-12 (wildlife movement corridors), and 3.3-41 and 3.3-44 (special-status species). Impacts on bighorn sheep were evaluated in Impact 3.3.8 on pages 3.3-67 and -68.

As noted in the Draft EIR, the majority of the PSA has already been disturbed due to previous and ongoing mining activities, and the level of activity (e.g., traffic, equipment use) is not anticipated to increase. Reclamation would include typical slopes within the PSA and would be characterized by 45- to 50-foot vertical bench faces, at an angle averaging approximately 70 degrees, which is consistent with escape terrain requirements for bighorn sheep. Upland habitats would also be restored during reclamation activities. Furthermore, as stated on page 3.3-68, personal communication with Jeff Villepique, PhD, Acting Senior Environmental Scientist with the CDFW, indicated that the proposed project "falls outside the known home range of bighorn" and that "rare exploratory/breeding movements may occur, but it's not core habitat." These data result in the determination that impacts on bighorn sheep will be less than significant as a result of project-related activities, and no mitigation is required.

Response C-6: The Draft EIR evaluated impacts on nesting birds and birds of prey. The level of activity (e.g., traffic, equipment use, noise) is not anticipated to increase within the PSA as a result of project-related activities, and the majority of the PSA has already been disturbed by approved previous and ongoing mining operations. However, in order to ensure that the expansion of mining operations within the PSA does not result in significant impacts on migratory birds and raptors, several mitigation measures were included in the Draft EIR. These mitigation measures, which are described below, require surveys,

Impact 3.3.5 evaluated impacts on burrowing owl. Implementation of mitigation measure MM 3.3.5 would provide disturbance setback buffers and appropriate mitigation with regard to burrowing owl, in accordance with the CDFW's *Staff Report on Burrowing Owl Mitigation* (2012).

Impact 3.3.6 evaluated impacts on LeConte's thrasher and migratory birds. Mitigation measure MM 3.3.6 requires disturbance setback buffers for active nests of migratory birds and other special-status native birds, as

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

deemed appropriate by a qualified biologist through consultation with the CDFW and/or the County. Mitigation measure MM 3.3.6 has been revised as follows to address the commenter's concerns regarding impacts from project-related noise.

**MM 3.3.6 Migratory Bird Surveys.** If clearing and/or construction activities will occur in undisturbed portions of the site, or if blasting activities will occur in any portion of the project site, during the migratory bird nesting season (March 15–August 15), preconstruction surveys to identify active migratory bird nests shall be conducted by a qualified biologist within 14 days of ~~construction~~ initiation of project activities. Focused surveys must be performed by a qualified biologist for the purposes of determining the presence/absence of active nest sites within the proposed impact area and a 200-foot buffer (if feasible). Surveys shall be repeated if project activities are delayed or postponed for more than 30 days.

If active nest sites are identified within 200 feet of project activities, the mine operator shall impose a limited operating period (LOP) for all active nest sites prior to commencement of any project ~~construction~~ activities to avoid construction- or ~~project~~-related disturbances to migratory bird nesting activities. An LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, blasting, and construction) will not occur and will be imposed within 100 feet of any active nest sites until the nest is deemed inactive. Activities permitted within and the size (i.e., 100 feet) of LOPs may be adjusted through consultation with the CDFW and ~~or~~ the County.

When an active nest is located within 200 feet of project activities, monitoring shall be conducted weekly by a qualified biologist until the nest is deemed inactive. If nest monitoring detects changes in behavior of nesting birds associated with blasting activities, use of noise attenuation devices or techniques (e.g., blast mats, different blasting compounds) shall be used during the breeding season. When active nests are present, a monthly nest monitoring report shall be prepared by the qualified biologist and submitted to CDFW and the County until the nest(s) are deemed inactive.

*Timing/Implementation:* Ongoing during quarry and reclamation activities

*Enforcement/Monitoring:* San Bernardino County Land Use Services Department

Impact 3.3.7 evaluated impacts on golden eagle and other raptors, and the Draft EIR identified mitigation measure MM 3.3.7 to reduce impacts to less than significant. Mitigation measure MM 3.3.7 has been revised as follows to provide additional actions beyond the general design features

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

and protection measures in the Raptor Conservation Survey to ensure impacts would be less than significant.

**MM 3.3.7a Raptor Conservation Surveys.** The applicant shall participate in and implement the Raptor Conservation Strategy.

**MM 3.3.7b Raptor Surveys.** If clearing and/or construction activities would occur in undisturbed portions of the site, or if blasting activities will occur in any portion of the project site, during the raptor nesting season (January 15–August 15), preconstruction surveys to identify active raptor nests shall be conducted by a qualified biologist within 14 days of construction initiation. Focused surveys must be performed by a qualified biologist for the purposes of determining the presence/absence of active nest sites within the proposed impact area. If no active nests are found, no further mitigation is required. Surveys shall be repeated if project activities are delayed or postponed for more than 30 days.

If active golden eagle or other raptor nest sites are identified within a half mile of project activities, the applicant shall impose a limited operating period (LOP) for all active nest sites prior to commencement of any project activities to avoid construction- or project-related disturbances to nesting raptors. An LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, blasting, and construction) will not occur and shall be imposed within 500 feet of any active nest sites until the nest is deemed inactive. Activities permitted within LOPs and the size (i.e., 500 feet) of LOPs may be adjusted through consultation with the CDFW and the County.

When an active nest is located within a half mile of project activities, monitoring shall be conducted weekly by a qualified biologist until the nest is deemed inactive. If nest monitoring detects changes in behavior of nesting birds associated with blasting activities, use of noise attenuation devices or techniques (e.g., blast mats, different blasting compounds) shall be used during the breeding season. When active nests are present, a monthly nest monitoring report shall be prepared by the qualified biologist and submitted to CDFW and the County until the nest(s) are deemed inactive.

Timing/Implementation: Ongoing during quarry and reclamation activities

Enforcement/Monitoring: San Bernardino County Land Use Services Department

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

Impact 3.3.1 provided an overall analysis of impact on special-status species, and mitigation measures MM 3.3.1a through MM 3.3.1i identified various actions to be taken during day-to-day routine operations to ensure worker awareness about species, procedures to check for species and notification if species are found, keeping work areas free of items that could attract species or harm them, and removing species, if they are discovered.

These mitigation measures, as revised above, address the issues raised by the commenter. Implementation of mitigation measures 3.3.1a through MM 3.3.1i, MM 3.3.5, MM 3.3.6, and MM 3.3.7 will ensure that project-related impacts on burrowing owls, migratory birds, golden eagles, and raptors will be less than significant.

Response C-7:

The Draft EIR evaluated impacts on mule deer in Impact 3.3.8. Mule deer are associated with major river corridors in the Central Valley, in scattered desert mountain areas, and with early to intermediate successional stages of moist forest, woodland, and brush habitats. A mosaic of diverse successional stages that provides woody cover, meadow, shrubby openings, and free water is preferred (Zeiner et al. 1988–1990). Mule deer are listed as a big game animal by the CDFW and therefore would not meet the criteria for rare or endangered under CEQA (14 CCR Section 15380).

Bobcats are associated with intermediate successional stages of low and mid-elevation conifer, oak, riparian, and pinyon-juniper forests, as well as all stages of chaparral. Suitable habitats consist of large areas of broken, rough, rocky terrain supporting brushy deciduous and conifer forests or chaparral. No information on water needs was found, but availability of water may limit bobcat distribution (Zeiner et al. 1988–1990). Bobcats are listed as nongame animals; however, the CDFW issues hunting tags for this species, suggesting that population levels and threats to the species would not meet CEQA criteria for rare or endangered.

Gray foxes occur in shrublands, valley foothill riparian, montane riparian, and brush stages of deciduous and conifer forests, as well as in woodland habitats. This species requires a permanent water source near den sites (Zeiner et al. 1988–1990). Similar to bobcats, gray foxes are allowed to be taken by hunting activities with no bag limits, suggesting that this species would not meet CEQA criteria for rare or endangered.

Prime habitat for mountain lions occurs over more than half of California and is associated with the presence of deer; therefore, the foothill and mountain regions provide the most suitable habitat, while the valleys and deserts are considered unsuitable (CDFW 2014). Mountain lions are not listed as endangered, threatened, species of special concern, or fully protected by either the CDFW or the USFWS. In addition, the CDFW states that the mountain lion population is “relatively high” in California and that “their numbers appear to be stable (CDFW 2014). This data suggests that this species does not meet the CEQA definition of rare or endangered.

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

The ringtail cat was not returned in any database queries or previous agency correspondence; however, it is listed as fully protected by the CDFW and will be addressed herein. This species is associated with riparian, forest, and shrub habitats at low to middle elevations. In addition, this species is typically not found more than 0.6 mile (1 km) from a permanent water source (Zeiner et al. 1988–1990).

The proposed project would result in impacts on habitats that may be used by these species. **Table 2.0-1** provides a summary of the habitat coverages within 10 miles of the PSA, along with the total acreages that would be affected by the proposed project, and the percentage of habitat affected by the proposed project within a 10-mile radius of the PSA.

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

**TABLE 2.0-1  
SUMMARY OF AFFECTED HABITAT**

Vegetation Type	Acreage Within 10 Miles of PSA	Acreage Impacted Within PSA	Percentage of Habitat Impacted
Alkali Desert Scrub	8,003.0		
Annual Grassland	2,954.6		
Barren	4,485.7	104.8	0.023
Bitterbrush	1,324.8		
Coastal Scrub	131.6		
Deciduous Orchard/Vineyard	169.0		
Desert Riparian	344.8	0.2	0.001
Desert Scrub	69,432.3	63.3	0.001
Desert Scrub/Desert Wash	1,837.1		
Desert Succulent Shrub	601.4		
Desert Succulent Shrub/Desert Wash	220.4		
Desert Wash (Intermittent Riverine Wash)	159.7	1.4	0.008
Eastside Pine	10,470.0		
Fresh Emergent Wetland	0.4		
Irrigated Row and Field Crops	2,045.0		
Jeffrey Pine	2,135.1		
Joshua Tree	5,979.2		
Juniper	7,045.9		
Lacustrine	2,936.8		
Mixed Chaparral	6,592.5	5.6	0.001
Montane Chaparral	20,540.6	35.9	0.002
Montane Hardwood	5,375.3		
Montane Hardwood-Conifer	5,868.4		
Montane Riparian (Pinyon-Oak)	99.9	4.5	0.045
Pasture	11.9		
Pinyon-Juniper	10,716.0	87.6	0.008
Sagebrush	35,109.8		
Sierran Mixed Conifer	5,680.4		
Urban	11,649.4		
Valley Foothill Riparian	338.0		
Wet Meadow	221.2		
<b>Totals</b>	<b>222,480.2</b>	<b>303.3</b>	<b>0.001</b>

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

As demonstrated in **Table 2.0-1**, the amount of habitat affected by the proposed project is minor in relation to the regional landscape. Therefore, an adequate amount of habitat, including water sources, is available in the vicinity of the PSA to support these wildlife species if they are present in the area. The proposed project will result in impacts on 0.003 acre of desert riparian wetland seep habitat that may provide a permanent water source for these species; however, two desert riparian seeps (0.197 acre) within the PSA will not be impacted by project-related activities and could be utilized as alternative water sources within 0.6 mile (1 km) of the PSA.

Based on the available data on habitat utilization and population size for mule deer, bobcat, mountain lion, gray fox, and ringtail cat, project-related activities would have a less than significant impact on these species and other species common to the area, and no mitigation for these wildlife species is required.

Moreover, the majority of the PSA has already been disturbed by previous and ongoing mining operations, and the level of activity is not anticipated to increase as a result of the proposed project. Additionally, reclamation activities would result in the restoration of upland habitats within the PSA. Impacts on all riparian and riverine habitats would be offset through implementation of mitigation measure MM 3.3.11. Implementation of mitigation measures MM 3.3.1a through MM 3.3.1i would aid in avoidance and minimization of potential impacts to mule deer, bobcat, mountain lion, gray fox, and ringtail cat, and no additional mitigation would be necessary.

Response C-8:

The Draft EIR identified the requirements and permits associated with the Lake or Streambed Alteration Program under Fish and Game Code Section 1660 through 1607 on page 3.3-52.

Impact 3.3.11 in Draft EIR evaluated impacts on sensitive habitats, including drainages and riparian habitat. The jurisdictional delineation report provided by Tetra Tech (2013) identified 6,469 linear feet (1.355 acre) of CDFW jurisdictional drainages within the limits of planned disturbance (Figure 3.3-2). The entire length of drainage C (1,354 feet) is included in the total linear footage calculation of 6,469 feet. In addition, Tetra Tech (2013) identified 0.003 acre (131 square feet) of desert riparian habitat associated with drainage C (Figure 3.3-2), which was also evaluated in Impact 3.3.11 in the Draft EIR. The Section 1600 requirements were also noted in Impact 3.3.11 on page 3.3-70.

In order to offset these impacts, mitigation measure MM 3.3.11 was identified to ensure no net loss of riparian/riverine habitat. The proposed mitigation measures do not obviate the need to comply with Section 1602 of the Fish and Game Code; therefore, consultation with the CDFW regarding impacts on features subject to its jurisdiction will be required prior to initiation of project activities.

The oak woodlands (pinyon-oak) were not originally identified on the vegetation mapping provided in the Draft EIR; therefore, Figure 3.3-1a has

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

been revised to depict the extent of this community. Based on the preliminary mapping, approximately 4.5 acres (1.8 hectares) of pinyon oak are associated with drainage C. In order to reduce impacts on oak woodland habitat to a less than significant level, mitigation measure MM 3.3.11 has been revised as follows:

**MM 3.3.11a No Net Loss of Riparian Vegetation.** The mine operator shall ensure there is no net loss of riparian vegetation. Mitigation can include on-site restoration or purchase of mitigation credits at a USACE-approved mitigation bank, placing a conservation easement over a riparian area, or quit claiming mineral claims over a riparian area. Mitigation, as required in regulatory permits issued through the CDFW, the USACE, or the RWQCB, may be applied to satisfy this measure.

Evidence of compliance with this mitigation measure shall be provided prior to construction and grading activities for the proposed project.

*Timing/Implementation:* Ongoing during quarry and reclamation activities

*Enforcement/Monitoring:* San Bernardino County Land Use Services Department

**MM 3.3.11b Oak Woodlands.** The mine operator shall ensure there is no net loss of oak woodland habitat. Mitigation can include any one or a combination of the following:

- (1) Preservation of existing oak woodlands by recording a conservation easement(s) in favor of the County or an approved organization or agency.
- (2) Replacement or restoration of former oak woodlands. The County may require the planting and maintenance of replacement trees, including replacing dead or diseased trees. The replacement ratio and tree sizes shall be based on the recommendation of an Oak Reforestation Program prepared by a registered professional forester. The requirement to maintain trees in compliance with this paragraph shall terminate seven years after the trees are planted.
- (3) Contribution of in-lieu mitigation fees to the Oak Woodlands Conservation Fund, established under Fish and Game Code Section 1363 for the purpose of purchasing oak woodlands conservation easements. A project applicant who contributes funds in compliance with this subsection shall not receive or use a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project. The in-lieu fee for

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

replacement trees shall be calculated based on their equivalent value as established by the International Society of Arboriculture's current edition of the Guide for Plant Appraisal.

- (4) Performing other mitigation measures as may be required by the County (e.g., inch-for-inch off-site replacement planting, transfer of development rights, enrollment of project with offset provider for carbon credits in greenhouse gas emission registry, carbon reduction, and carbon trading system).

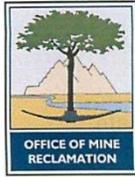
Timing/Implementation: Prior to impacting oak woodland habitat

Enforcement/Monitoring: San Bernardino County Land Use Services Department

Letter D

NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., GOVERNOR



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 • WEB SITE conservation.ca.gov

December 15, 2014

**VIA EMAIL: Carrie.Hyke@sdd.sbcounty.gov**  
**ORIGINAL SENT BY MAIL**

Ms. Carrie Hyke  
San Bernardino County Land Use Services Department  
385 N. Arrowhead Avenue, First Floor  
San Bernardino, CA 92415-0182

Dear Ms. Hyke:

WHITE KNOB WHITE/RIDGE LIMESTONE QUARRY EXPANSION PROJECT  
DRAFT ENVIRONMENTAL IMPACT REPORT  
CALIFORNIA ID # 91-36-0067, SCH# 2013061020

The Department of Conservation's Office of Mine Reclamation (OMR) has reviewed the Draft Environmental Impact Report (DEIR) for the White Knob/White Ridge Limestone Quarry dated October 2014. The applicant, OMYA Inc., is proposing to expand the existing mining operation by 190.1 acres onto a total 375.1-acre project site and extend the existing permit expiration date by 24 years with an additional 10 years for reclamation. The maximum amount of all material excavated annually also will increase to up to 1,950,000 tons.

The project site is along the north slope of the San Bernardino Mountains approximately six miles southwest of Lucerne Valley. The site will be reclaimed to open space and wildlife habitat.

OMR staff conducted a site visit on December 2, 2014 to inspect site conditions and discuss reclamation issues. OMR reviewed the amended reclamation plan for the project and wrote a comment letter dated August 6, 2013. The amended reclamation plan should be revised to incorporate the comments presented in that letter as well as the findings and mitigation measures resulting from the CEQA review. The revised amended reclamation plan should be submitted for review to OMR prior to final approval.

D-1

**3.3 Environmental Impact Analysis – Biological Resources**

Impacts to and mitigation measures for a range special status species and habitats are identified in the DEIR. Any mitigation measures that have an effect on the way mining and reclamation are carried out need to be incorporated into the revised version of the

D-2

*The Department of Conservation's mission is to balance today's needs with tomorrow's challenges and foster intelligent, sustainable, and efficient use of California's energy, land, and mineral resources.*

## Letter D Continued

Ms. Carrie Hyke  
December 15, 2014  
Page 2

amended reclamation plan. In particular, if there are requirements to plant carbonate endemic species, riparian vegetation, or other special status plants, these requirements, along with quantitative performance standards, should be included in the revegetation portion of the reclamation plan. During review of the Notice of Preparation (NOP), CDFW recommended that the revegetation plan within the SMARA reclamation plan should be updated and OMR concurs with this opinion.

D-2  
Cont.

### 3.5 Environmental Impact Analysis – Geology and Soils

The January 14, 2013 CHJ Consultants (CHJ) study entitled, "*Slope Stability Investigation, Proposed Amended Plan of Operations, White Knob Quarry Mining and Reclamation Plan, Lucerne Valley, California*" addresses the design and stability of final slopes. However, stability analyses on fill slopes do not consider the influence of water on slope stability in spite of the fact that Overburden Storage Site #2 (OB #2) will be constructed within a drainage with substantial drainage catchment above. This drainage likely will concentrate water into OB #2 and may affect the stability of the fill slopes. The CHJ study should be revised to account for the presence of water in the fill materials.

D-3

The August 24, 2013 CHJ study entitled, "*Update to Slope Stability Investigation, Proposed Amended Plan of Operations, White Knob Quarry Mining and Reclamation Plan, Lucerne Valley, California*" characterizes the stability and condition of the Northwest Slope, which contains unstable mining waste. The report concludes that continued mining of the White Knob quarry above the Northwest Slope and mining of the White Knob Annex is feasible, provided suitable conditions can be established to limit addition of material or access to the existing and proposed slopes. The report recommends signage warning of rock fall hazard be placed around the quarry and slope to preclude casual entry into the area. In addition, the report recommends monitoring of the slope and that the construction of debris basins downstream from the slope appear feasible. No mitigation measure is proposed for Impact 3.5.2., Slope Stability, and the approach in the DEIR to reclaim the unstable Northwest Slope is to allow the slope to self-stabilize while monitoring the downstream effects on the Northwest Drainage and Ruby Springs. The DEIR should include a mitigation measure to periodically monitor the Northwest Slope during mining to make sure that the approach of self-stabilization is working. Additionally, the mitigation measure should include a provision to complete a stability study and recommend measures to repair the slope if the slope is not stabilizing or is deteriorating. The reclamation plan should be revised to include the mitigation measure.

D-4

Mitigation Measure 3.5.3 proposed for Impact 3.5.3, Rock and Soil Talus Erosion, is to periodically monitor the effects of sediment from the erosion of the Northwest Slope on the Northwest Drainage and Ruby Springs, and if necessary, implement sediment control measures along the drainage and/or at the springs. The mitigation measure and requirements of any associated permit, such as a Streambed Alteration Agreement, that affect reclamation of the drainage should be incorporated in the reclamation plan.

D-5

Ms. Carrie Hyke  
December 15, 2014  
Page 3

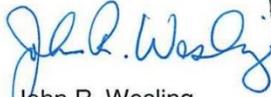
## Letter D Continued

If you have any questions on these comments or require any assistance with other mine reclamation issues, please contact Beth at (916) 445-6175.

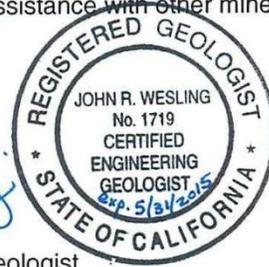
Sincerely,



Beth Hendrickson, Manager  
Environmental Services Unit



John R. Wesling  
Senior Engineering Geologist  
Engineering Geology Unit



cc: Alexandra Borack, OGER

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

LETTER D BETH HENDRICKSON, DEPARTMENT OF CONSERVATION, OFFICE OF MINE RECLAMATION

Response D-1: This comment is not specifically directed to the adequacy of the Draft EIR analysis, but addresses the Amended Reclamation Plan. OMR indicated that staff provided comments on the Amended Mine and Reclamation Plan on August 6, 2013. The County will require a revised Amended Mine and Reclamation Plan that will incorporate all mitigation measures identified in the Draft EIR. The revised amended reclamation plan will be submitted to OMR 30 days prior to final approval.

Response D-2: The Amended Mine and Reclamation Plan and conditions of approval will incorporate all mitigation measures identified in the Draft EIR. It is not currently anticipated that mitigation measures MM 3.3.1 through MM 3.3.11, which were identified in the Draft EIR to reduce impacts on biological resources, would affect mining or reclamation. The County is responsible for ensuring compliance with the mitigation measures, which it does through periodic and annual compliance reviews. If during its review the County subsequently determines there is an element of implementing a biological resources mitigation measure that may, for example, require changes in revegetation, the County will work with the mine operator to determine how the Amended Mine and Reclamation Plan should be revised. If changes are necessary, the County will require a revised Amended Mine and Reclamation Plan.

Response D-3: Slope stability at overburden storage site OB-2 was addressed in an August 23, 2013, letter responding to OMR's comments on the above-referenced January 14, 2013, report (included in Appendix A in this Final EIR). CHJ Consultants discussed slope stability calculations for OB-2, including saturation along the bedrock/fill contact CHJ stated (Appendix A #2, p. 2). These calculations indicate suitable factors for safety for static and seismic conditions. Further, a rock subdrain layer was recommended by PMC for OB-1 (#4, p. 2). In response, CHJ Consultants described potential rock subdrain layers that may be implemented for OB-1 and OB-3. OB-2 would be buttressed by OB-1 and become part of the same fill mass; therefore, a drainage blanket for OB-2 was not required. Based on this report, the Amended Mine and Reclamation Plan will be updated to include rock drains for OB-1 and OB-3.

Response D-4: Although the comment indicates the date of a report that evaluated the Northwest Slope as August 24, 2013, the study was performed in 2012 and the transmittal letter for the report (August 21, 2013) indicates the report date as November 21, 2012. There is no *Update to Slope Stability Investigation, Proposed Amended Reclamation Plan of Operations, White Knob Quarry Mining and Reclamation Plan, Lucerne Valley, California* dated August 24, 2013. This study, along with the January 14, 2013, report referenced in Comment D-3 (*Slope Stability Investigation, Proposed Amended Reclamation Plan of Operations, White Knob Quarry Mining and Reclamation Plan, Lucerne Valley, California*, prepared by CHJ Consultants) were incorporated in the analysis in Draft EIR Section 3.5, Geology and Soils, and the reports were included in Appendix F in the

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

Draft EIR. This response assumes the comment is in reference to the November 2012 report, which addressed the Northwest Slope.

As noted on page 16 of this study, the Northwest Slope is considered stable and no mitigation is required. However, it is acknowledged that there is potential for continued rock fall and debris slides on the Northwest Slope from continued mining and reclamation activities. Based on the CHJ Consultants' analysis, the Amended Mine and Reclamation Plan includes measures to minimize this impact. These measures are identified on Draft EIR pages 2.0-45 and -48 and consist of the following:

- 1) Precision drilling and buffer blasting when the outside edge is approached.
- 2) Drilling lifters on the edge to undercut the remaining slope and let it fall into the pit (like directional falling of a tree).
- 3) Excavator to pull down and pull in toward the pit blasted rock away from the edge.
- 4) Use of alternatives to blasting along the outside such as rock breakers, surface miners, cutting heads, and excavators.
- 5) Loader to pull back material from the edge.
- 6) Loader to dig at an angle to the edge or parallel to the edge when possible.
- 7) Manually scaling boulders from the highwalls where they may be above a haulage road.

There is no existing or proposed public access to the Northwest Slope that would expose people to potential hazards from rock fall. In addition, this slope and its stability will be annually inspected in compliance with County Code and SMARA.

Response D-5:

This comment summarizes the actions in mitigation measure MM 3.5.3 and does not address the adequacy of the Draft EIR analysis. Mitigation measure 3.5.3 and any associated permits, such as the Streambed Alteration Agreement, would be incorporated into the Amended Mine and Reclamation Plan. See Response D-2.

# Letter E



EDMUND G. BROWN JR.  
GOVERNOR

STATE OF CALIFORNIA  
GOVERNOR'S OFFICE OF PLANNING AND RESEARCH  
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX  
DIRECTOR

December 17, 2014

Carrie Hyke  
San Bernardino County  
385 N. Arrowhead Avenue, 1st Floor  
San Bernardino, CA 92415-0184

RECEIVED  
Dec 22, 2014

Subject: White Knob-White Ridge Limestone Quarries Expansion  
SCH#: 2013061020

Dear Carrie Hyke:

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 December 15, 2014, 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."

E-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.

E-2

Sincerely,

Scott Morgan  
Director, State Clearinghouse

Enclosures  
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044  
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

Document Details Report  
State Clearinghouse Data Base

# Letter E Continued

**SCH#** 2013061020  
**Project Title** White Knob-White Ridge Limestone Quarries Expansion  
**Lead Agency** San Bernardino County

**Type** EIR Draft EIR

**Description** The Amended Plan would expand operations at the White Knob/White Ridge Limestone Quarries. The Amended Plan includes expansion of the three existing quarries and the existing overburden (OB) site, the creation of two new OB sites, and the expansion of the ancillary disturbance limits, which include haul and access roads, sediment basins and other erosion control features, storage pads, crusher location, west slope impacts, and incidental impacts from boulder roll-down. In addition, the proposed project would increase operational years of the quarries by 24 years from the existing permit expiration date of 2031 to the year 2055. The total existing permitted operational area is 145 acres. The Amended Plan would add 190.1 acres, for a total permitted operational area of approximately 375.1 acres. The amendment does not propose any new quarries.

**Lead Agency Contact**

**Name** Carrie Hyke  
**Agency** San Bernardino County  
**Phone** 909 387 5530 **Fax**  
**email**  
**Address** 385 N. Arrowhead Avenue, 1st Floor  
**City** San Bernardino **State** CA **Zip** 92415-0184

**Project Location**

**County** San Bernardino  
**City**  
**Region**  
**Lat / Long** 34° 21' 50.2" N / 117° 0' 52" W  
**Cross Streets** Crystal Creek Road and Gateway Road  
**Parcel No.** 446-011-04/05/06, 446-021-11/35  
**Township** 3N **Range** 1W **Section** 5-8 **Base** SBB&M

**Proximity to:**

**Highways** Hwy 18  
**Airports**  
**Railways**  
**Waterways**  
**Schools**  
**Land Use** Surface Mining / Resource Conservation / Resource Conservation

**Project Issues** Air Quality; Biological Resources; Drainage/Absorption; Geologic/Seismic; Soil Erosion/Compaction/Grading; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Cumulative Effects; Aesthetic/Visual

**Reviewing Agencies** Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 6; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; Resources, Recycling and Recovery; California Highway Patrol; Caltrans, District 8; Air Resources Board, Major Industrial Projects; Regional Water Quality Control Board, Region 7; Department of Toxic Substances Control; Native American Heritage Commission; State Lands Commission

**Date Received** 10/30/2014 **Start of Review** 10/30/2014 **End of Review** 12/15/2014

Letter E Enclosure



State of California -- Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Inland Deserts Region  
3602 Inland Empire Blvd Suite C-220  
Ontario, CA 91764  
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor  
CHARLTON H. BONHAM, Director



Clear  
12/15/14  
e

December 15, 2014

Carrie Hyke, District Planner  
San Bernardino County  
385 N. Arrowhead Avenue, 1st Floor  
San Bernardino, CA 92415-0184

Subject: White Knob-White Ridge Limestone Quarries Expansion Project  
Draft Environmental Impact Report  
State Clearinghouse No. 2013061020

Dear Mr. Hyke,

The Department of Fish and Wildlife (Department) appreciates the opportunity to comment on the Draft Environmental Impact Report (EIR) for White Knob-White Ridge Limestone Quarries Project (Project) prepared by San Bernardino County (Lead Agency) State Clearinghouse No. 2013061020. The Department is responding to the Draft EIR as a Trustee Agency for fish and wildlife resources (California Fish and Game Code Sections 711.7 and 1802, and the California Environmental Quality Act (CEQA) Guidelines Section 15386), and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines Section 15381), such as the issuance of a Lake or Streambed Alteration Agreement (California Fish and Game Code Sections 1600 et seq.) and/or a California Endangered Species Act (CESA) Permit for Incidental Take of Endangered, Threatened, and/or Candidate species (California Fish and Game Code Sections 2080 and 2080.1).

Project Location

The Project is located in the San Bernardino Mountains southwest of Lucerne Valley in southwestern San Bernardino County. The Project is located approximately 6 miles southwest of the community of Lucerne Valley and 8 miles northwest of Big Bear Lake just north of the San Bernardino National Forest (Sections 5, 6, 7, and 8 of Township 3 North, Range 1 West).

Project Description

The proposed Project will expand the existing White Knob-White Ridge Limestone Quarries from an existing 145 acres to 335.1 acres, an increase of a 190.1 acres. The Project will also increase the operational years of the quarry by 24 years from the existing Mine and Reclamation Plan permit with an expiration date of 2031 to the year 2055. Another 40 acres of Bureau of Land Management (BLM) haul road Right-Of-Way (ROW) on federal public land will be reclaimed as part of this Project as well. The total amount of disturbed acreage analyzed in this draft EIR is 375.1.

*Conserving California's Wildlife Since 1870*

### Letter E Enclosure

White Knob-White Ridge Limestone Quarries Expansion  
Draft Environmental Impact Report  
State Clearinghouse No. 2013061020  
Page 2 of 6

#### Project Specific Comments and Recommendations

Following review of the Biological Resources section of the Draft EIR, the Department offers the comments and recommendations listed below to assist the Lead Agency (i.e., San Bernardino County) in adequately identifying and/or mitigating the project's significant, or potentially significant, impacts on biological resources. The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species (i.e., biological resources). The Department is a Trustee Agency with responsibility under CEQA for commenting on projects that could affect biological resources. As a Trustee Agency, the Department is responsible for providing, as available, biological expertise to review and comment upon environmental documents and impacts arising from project activities (CEQA Guidelines, § 15386; Fish and Game Code, § 1802). The comments and recommendations listed below are based on the requirement for the environmental document to include the following information:

- A description of feasible mitigation measures to avoid potentially significant impacts, and/or mitigate significant impacts, of the proposed project on the environment (CEQA Guidelines, §§ 15021, 15063, 15071, 15126.2, 15126.4 & 15370).

#### State Threatened, Endangered, and Candidate Species

The Department has discretionary authority over activities that could result in the "take" of any species listed as candidate, threatened, or endangered, pursuant to the California Endangered Species Act (CESA; Fish and Game Code, § 2050 et seq.). The Department considers adverse impacts to CESA-listed species, for the purposes of CEQA, to be significant without mitigation. Take of any CESA-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). Consequently, if a project, including project construction or any project-related activity during the life of the project, results in take of CESA-listed species, the Department recommends that the project proponent seek appropriate authorization prior to project implementation. This includes submitting an incidental take permit (ITP) to the Department (Fish and Game Code, §§ 2080.1 & 2081).

Please note that the Department must comply with CEQA prior to issuance of an ITP for a project. As such, the Department may consider the lead agency's CEQA documentation for the project. To minimize additional requirements by the Department and/or under CEQA, the CEQA avoidance, minimization, mitigation, monitoring and reporting measures for issuance of the ITP.

### Letter E Enclosure

White Knob-White Ridge Limestone Quarries Expansion  
Draft Environmental Impact Report  
State Clearinghouse No. 2013061020  
Page 3 of 6

#### Desert Tortoise

MM 3.3.3b. Desert Tortoise Avoidance, Minimization, and Mitigation.

The Draft EIR identifies the potential for Project-related impacts to desert tortoise (*Gopherus agassizii*). Protocol level survey results are valid for one year during the calendar year they were conducted. If the surveys indicate the onsite presence of desert tortoise a California Endanger Species Act (CESA) Incidental Take Permit (ITP) may be warranted along with consultation with the United States Fish and Wildlife Service.

The Department recommends that the applicant apply for a CESA ITP for incidental take of desert tortoise prior to commencing Project activities. An ITP will provide for greater flexibility during project construction, and minimize Project delays.

MM 3.3.3b Measures 1-8. The Department agrees a biological mitigation and monitoring plan should be developed, however, the Habitat Mitigation and Monitoring Plan will be discussed during the ITP process at which time the Department will have its recommendations.

#### Fully Protect Species

Bighorn sheep (*Ovis Canadensis*) is a state fully protected species. Bighorn sheep is known to occur near the project site and will be impacted by loss of habitat and water resources. The Department has jurisdiction over fully protected species of birds, mammals, amphibians, reptiles, and fish pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Take of any fully protected species is prohibited and the Department cannot authorize their take for development. The Department recommends that the Draft EIR evaluate and address Project related impacts to fully protected species including bighorn sheep and include appropriate species specific avoidance measures.

#### Nesting Birds

Please note that it is the Lead Agency's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 et seq.). In addition, sections 3503, 3503.5, and 3513 of the Fish and Game Code (FGC) stipulate the following: Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by FGC or any regulation made pursuant thereto; Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders FALCONIFORMES or STRIGIFORMES (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by FGC or any regulation adopted pursuant thereto; and Section 3513 states that it is unlawful to take or possess

### Letter E Enclosure

White Knob-White Ridge Limestone Quarries Expansion  
Draft Environmental Impact Report  
State Clearinghouse No. 2013061020  
Page 4 of 6

any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

The Department recommends that the Lead Agency consult with a qualified ornithologist for advice in developing specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur and that the Project complies with all applicable laws related to nesting birds and birds of prey, including Burrowing Owl. The Department recommends that Project-specific avoidance and minimization measures include, but not limited to: Project phasing and timing, monitoring of project-related noise (where applicable), sound walls, and buffers (where appropriate).

#### Other Species

Mule deer (*Odocoileus hemionus*) are known to occur throughout the project area and will be impacted by loss of habitat and water sources, bobcat (*Lynx rufus*), mountain lion (*Puma concolor*) (a Department biologist found lion scat during previous site visits, and presence of mountain lion in the area should be added to the Draft EIR) gray fox (*Urocyon cinereoargenteus*), ringtail (*Bassariscus astutus*), and likely other species exist in the area, none of which are acknowledged as affected by loss of water source and habitat. Mitigation for these species is essential, but is not described properly in the Draft EIR.

#### Lake or Streambed Alteration Program

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream or use material from a streambed, the project applicant (or "entity") must provide written notification to the Department pursuant to Section 1602 of the Fish and Game Code. Based on this notification and other information, the Department then determines whether a Lake and Streambed Alteration (LSA) Agreement is required. The Department's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the environmental document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with the Department is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to <http://www.dfg.ca.gov/habcon/1600/forms.html>.

The Department's website has information regarding dryland streams in "A review of Stream Processes and Forms in Dryland Watersheds," available at this location: <http://www.dfg.ca.gov/habcon/1600/1600resources.html>.

**Letter E Enclosure**

White Knob-White Ridge Limestone Quarries Expansion  
Draft Environmental Impact Report  
State Clearinghouse No. 2013061020  
Page 5 of 6

Additional information can also be found in "Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants, With the MESA Field Guide - Final Project Report" available here:  
<http://www.energy.ca.gov/2014publications/CEC-500-2014-013/index.html>.

The drainage affected is roughly centered east-west, and draining from the south (upper) edge of the project to the haul road to the north (denoted by letter "C" in figure 3.3.-2 Jurisdictional Delineation) contains 1) perennial water with signs of use by wildlife, 2) 0.5-1 hector of mature oak, a valuable food source and habitat for terrestrial and avian wildlife. Neither of these features are acknowledged in the Draft EIR. Appropriate permits and measures should be completely addressed in the Draft EIR.

The Department appreciates the opportunity to provide comments on the Draft EIR for White Knob-White Ridge Limestone Quarries Expansion (State Clearinghouse No. 2013061020). Please contact Heather Weiche with questions regarding this letter and further coordination on project permitting needs at (909) 980-8607 or [heather.weiche@wildlife.ca.gov](mailto:heather.weiche@wildlife.ca.gov).

Sincerely,

  
for Leslie S. MacNair  
Inland Deserts Region  
Acting Regional Manager

cc: State Clearinghouse  
CORR

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

LETTER E      SCOTT MORGAN, GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

Response E-1:      The commenter states that the State Clearinghouse submitted the Draft EIR to selected state agencies for review. The State Clearinghouse received one letter, from the California Department of Fish and Wildlife (CDFW). This letter is included as Letter C, and responses to CDFW comments are provided in Responses C-1 through C-8.

Response E-2:      The commenter states that the letter acknowledges that the County has complied with the State Clearinghouse review requirements for draft environmental documents. This comment is noted.

# Letter 1



CENTER for BIOLOGICAL DIVERSITY

*Because life is good.*

*protecting and restoring natural ecosystems and imperiled species through  
science, education, policy, and environmental law*

December 15, 2014

Carrie Hyke, District Planner,  
Land Use Services Department,  
Planning Division,  
385 North Arrowhead Avenue,  
San Bernardino, CA 92415-0187  
[Carrie.Hyke@sdd.sbcounty.gov](mailto:Carrie.Hyke@sdd.sbcounty.gov)

RE: Comments on the Draft Environmental Impact Report for OMYA Inc. White Knob/White Ridge Limestone Quarry Expansion Project (State Clearinghouse Number 2013061020)

SUBMITTED DECEMBER 15, 2014 BY EMAIL TO [Carrie.Hyke@sdd.sbcounty.gov](mailto:Carrie.Hyke@sdd.sbcounty.gov) AND BY MAIL

Dear Ms. Hyke,

Please accept the following comments on the Draft Environmental Impact Report for OMYA Inc. White Knob/White Ridge Limestone Quarry Expansion Project (State Clearinghouse Number 2013061020) on behalf of the Center for Biological Diversity (the “Center”).

The Center for Biological Diversity is a nonprofit, public interest environmental organization dedicated to the protection of endangered species and wild places through science, policy, and environmental law. The Center represents the interest of its 50,822 members and over 800,000 online activists throughout the country and 31,862 members and 111,877 California online activists.

The Center is concerned about the impact this project will have on the area’s biodiverse lands and numerous species status species including plant species protected under the Endangered Species Act - Cushenbury buckwheat (*Eriogonum ovalifolium* var. *vineum*), Cushenbury oxytheca (*Acanthoscyphus parishii* var. *goodmaniana*), and Parish's daisy (*Erigeron parishii*) - and a wide variety of protected wildlife species.

1-1

The DEIR fails to comply with the California Environmental Quality Act (“CEQA”) in that it does not adequately propose mitigation of substantial impacts and has not provided adequate information or analysis for a variety of protected wildlife species. The DEIR also fails to sufficiently address impacts to water resources and air quality, and does not provide a sufficient cumulative impacts analysis. The DEIR need to be redrafted to address these issue and recirculated for public comment.

1-2

Arizona • California • Nevada • New Mexico • Alaska • Oregon • Washington • Illinois • Minnesota • Vermont • Washington, DC

[www.BiologicalDiversity.org](http://www.BiologicalDiversity.org)

## Letter 1 Continued

### *The DEIR Has Not Proposed Legally Sufficient Mitigation for Significant Impacts to Endangered Plant Species*

The DEIR does not comply with CEQA in regards to substantial impacts to rare and protected species of plants. CEQA requires that mitigation measures adopted by a public agency must be “fully enforceable through permit conditions, agreements, or other measures.” (Cal Pub. Resources Code, § 21081.6, subd. (b)); *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261. California Code of Regulation, Title 14, § 15126.4 further directs that “[a]n EIR shall describe feasible measures which could minimize significant adverse impacts.” Here, while acknowledging substantial impacts to numerous plant species, the DEIR proposes mitigation that is not shown to be fully enforceable or feasible. The DEIR needs to be redrafted to fully address impacts to protected plant species. As this will be a significant change to the draft, the new draft must be recirculated for public comment.

The DEIR documents the presence of the threatened Parish’s daisy (*Erigeron parishii*) (DEIR at 3.3-36), the endangered Cushenbury buckwheat (*Eriogonum ovalifolium* var. *vineum*) (DEIR at 3.3-37) and Cushenbury oxytheca (*Acanthoscyphus parishii* var. *goodmaniana*) (DEIR at 3.3-15) on the proposed project site. The County acknowledges that “In addition, previous focused surveys have identified Cushenbury buckwheat, Cushenbury oxytheca, and Parish’s daisy within the PSA” but claims that “Implementation of the CHMS will ensure that impacts on these species are mitigated to a less than significant level.” (DEIR at p. 3.3-59.)

The DEIR does not specify how impacts to these federally protected species will be mitigated. The County has mischaracterized the CHMS – it is a guidance document that offers a number of strategies by which impacts to the identified Cushenbury buckwheat, Cushenbury oxytheca, and Parish’s daisy *may* be mitigated. It is not a means by which incorporation by reference operates to automatically mitigate substantial impacts. The County’s attempt to so invoke the CHMS is in violation of CEQA.

1-3

The DEIR does provide an accurate description of the facility of the CHMS:

The CHMS is a collaborative strategy to facilitate the preservation and recovery of carbonate plant species, while providing a method for mining projects to obtain Endangered Species Act compliance. The CHMS proposes multiple methods of permanent habitat conservation, including federal land use designations, federal purchases of private property, land exchanges, relinquishment of unpatented mining claims, and/or execution of a conservation easement or surface use restrictions coupled with a mineral withdrawal.

(DEIR at p 3.3-72.)

But, the DEIR does not specify how the CHMS will be implemented in this case to mitigate for the loss of the endangered plants. For example, will this be accomplished by Omya conservation banking or land exchanges or successful revegetation efforts, etc? If a CHMS strategy will be utilized as mitigation, the DEIR needs to specify exactly how the mitigation will be

## Letter 1 Continued

accomplished. Without such detail, the proposed mitigation is neither legally enforceable nor feasible.

1-3  
cont.

Furthermore, it is unclear if the County has fulfilled its duties under the MOU. The MOU requires the County to do the following:

Adopt standardized conditions of approval for addressing impacts to Carbonate Plants by proposed mining and reclamation projects in a manner that is consistent with the CHMS. Such conditions of approval shall apply under SMARA, the County land use ordinances, and CEQA, subject to the approval of the Board of Supervisors on a project-by-project basis. (DEIR at Appendix D.)

1-4

The DEIR does not state what these standardized conditions of approval are (or if they even exist) and does not state whether or not the Board of Supervisors has so approved this project. Again, without such information, the DEIR has failed, in violation of CEQA, to provide legally enforceable mitigation for a significant impact.

The DEIR also acknowledges that suitable habitat for 33 listed plants, in addition to those that might be addressed by a CHMS mitigation strategy, occur with the PSA. (DEIR 3.3-59.) The DEIR fails to establish a baseline condition for these 33 protected species and failed to propose any concrete mitigation measures for the significant impacts that will occur for species in the PSA.

The DEIR entirely defers analysis of impacts on these species until preconstruction surveys have been conducted. For the species that will be found, the DEIR proposes:

Possible mitigation for impacts on special-status plant species can include implementation of a program to transplant, salvage, cultivate, or re-establish the species at suitable sites (*if feasible*) or through the purchase of credits from an approved mitigation bank, *if available*. (emphasis added)  
(DEIR at p. 3.3-60.)

1-5

First, the plant surveys need to be conducted and the results analyses in the DEIR – the County cannot simply defer CEQA analysis to a future date. Second, as the above statement itself acknowledges, these “possible” mitigation measures may not be feasible and, as such, are not CEQA compliant mitigation measures. Per CEQA, the plant surveys need to be conducted, significant impacts identified, and complaint mitigation measures need to be proposed *in* the DEIR.

Avoidance of the rare plants located within the proposed expansion area is preferable because of the general lack of success in transplanting rare plants<sup>1</sup>. If transplantation is to be a part of the mitigation strategy, a detailed plan must be included *as part of the EIR* on the methodology for determination of appropriate conservation areas where plants may be transplanted, when/how plant are to be transplanted and identification of success criteria for transplantation. Monitoring of the transplanted plants needs to occur for a time period that is realistic to evaluate long-term success of the transplantation effort.

<sup>1</sup> Fiedler 1991

## Letter 1 Continued

### *The DEIR Does not Fully Address Protected Animal Species*

#### Desert Tortoise

While the Omya expansion area appears to be in desert tortoise habitat, the Center is concerned about indirect, down slope impacts to this species which continues to decline throughout its range despite being under federal and state Endangered Species Acts protection for decades as threatened<sup>2</sup>. A revised and recirculated DEIR must look at ways to avoid impacts to the desert tortoise, for example, by identifying culvert locations along the access road that will keep animals out of harms' way and maintain the integrity of the hydrological processes of the down slope bajada. The DEIR must also look at ways to minimize any impacts that it finds are unavoidable, for example, limiting access roads to the project. Acquisition of lands that will be managed in perpetuity for conservation must be included as part of the strategy to mitigate impacts to all sensitive species, and mitigation lands should be high-quality habitat and, at minimum 5:1 mitigation should be provided of all acres of desert tortoise habitat impacted.

1-6

An aggressive raven prevention plan also needs to be developed as part of the EIR, and be made available for public review as part of the EIR and followed during project development and implementation.

#### Bats

The DEIR recognizes that numerous bat species could be present within the proposed expansion area, yet bat surveys were not done, eliminating the capacity to actually evaluate impacts to these sensitive mammals in the DEIR. The DEIR inappropriately defers surveys to pre-construction where bat encounters could impact the animals, cause delay work or require significant project realignment.

The DEIR has not established a sufficient baseline and has not sufficiently analyzed regulation of or impacts to the Townsend's big-eared bat (*Corynorhinus townsendii*). The DEIR fails to acknowledge that the Townsend's big-eared bat is protected under the California Endangered Species Act as a candidate species. The California Fish and Game Commission recognizes the perilous status of the Townsend's big-eared bat populations and bestowed that protection to the animal in June 2013<sup>3</sup>. The bats are severely threatened by a combination of habitat destruction and disturbance of roost sites<sup>4</sup>.

1-7

A revised and recirculated DEIR must include surveys for bats in the expansion areas, and if bats are encountered, a bat protection plan needs to be developed to avoid and minimize impacts to these declining species that provide so many benefits to humans through their voracious feeding on insects.

<sup>2</sup> [http://www.fws.gov/nevada/desert\\_tortoise/dt\\_reports.html](http://www.fws.gov/nevada/desert_tortoise/dt_reports.html)

<sup>3</sup> <http://www.kcet.org/news/redo/revisit/commentary/the-hidden-desert/help-on-the-way-for-big-eared-bats.html>

<sup>4</sup> <http://www.iucnredlist.org/details/17598/0>

## Letter 1 Continued

### Other Rare Species

The diversity of rare species found in the vicinity of the proposed project site is impressive (DEIR at Table 3.3-1 at pg. 3.3-21 through 3.3-32) and suggests that the site has great ecological value. Yet the DEIR downplays the uniqueness of the area and fails to clearly address avoidance, minimization and mitigation of the very significant impacts to all of the rare species that utilize the site for part or all of their lifecycle.

For example, the proposed expansion area is likely a foraging areas for a suite of rare species including but not limited to the desert bighorn sheep and golden eagles. Golden eagles have been documented to successfully nest in the adjacent mountains. Unfortunately, golden eagles in the western United States are declining. Other industrial development in the deserts of California and elsewhere are impacting foraging habitat for this iconic species. The EIR relies on the *North Slope Conservation Strategy* (DEIR at Appendix D), but this is only an unapproved draft. Indeed, as with so many of the rare species, surveys for eagles and other sensitive raptors were not done as part of the environmental documentation (DEIR at 3.3-42). Surveys to determine the eagle territories are requisite in order to evaluate the impact of the expansion on eagle survival. It must also incorporate all guidance on golden eagles, evaluate impacts to them as requirements by the U.S. Fish and Wildlife Service<sup>5</sup>, and evaluate the need for a “take” permit under the Bald and Golden Eagle Act.

1-8

Of the nine special status wildlife species with potential to occur on the proposed project site, no species specific surveys were done for six of them and it is unclear if surveys were done for the other three. As with the 33 special status plants described above, these surveys need to be conducted and the results analyzed *in the DEIR*.

Even if avoidance to sensitive species is done, habitat impacts will require acquisition of lands that will be managed in perpetuity for conservation. Identification of those lands and the disposition of them including a management plan must be included as part of the revised and recirculated DEIR.

### *The DEIR fails to Address Impacts to Water Resources, Air Quality, or Cumulative Impacts*

The project appears to impact on-site drainages. The revised and recirculated EIR must clarify the impacts to the jurisdictional Waters of U.S. and the Water of the State of California, and avoid, minimize and mitigate any impacts.

1-9

Activities associated with mining often create dust and PM10 emissions that are harmful to human and wildlife health. The Mojave Air Quality Management region is already out of compliance for ozone and PM10 and 2.5 levels set by the Clean Air Act. The revised and recirculated DEIR needs to propose additional strategies to decrease these harmful pollutants other than watering roads and graded areas or using dust palliative, such as paving the roads to decrease emissions. The effects of watering roads or using palliatives is not analyzed for its potential impacts on adjacent wildlands and wildlife.

1-10

<sup>5</sup> <http://www.fws.gov/migratorybirds/baldeagle.htm>

## Letter 1 Continued

Numerous industrial projects are being built and proposed in the project vicinity, along with a significant military base expansion to the northeast of the proposed Omya mine expansion. The update to the BLM's West Mojave plan and the Desert Renewable Energy Conservation Plan both also cover the proposed expansion area. A thorough analysis of the cumulative impacts from all of these projects on the resources, as required by CEQA, needs to be included.

1-11

Thank you for your consideration of these comments. Please add us to the distribution list for all documents or notices associated with this project.

Sincerely,



Heene Anderson  
Biologist/Public Lands Desert Director  
8033 Sunset Blvd., #447  
Los Angeles, CA 90046  
[ianderson@biologicaldiversity.org](mailto:ianderson@biologicaldiversity.org)  
323-654-5943



April Rose Sommer  
Staff Attorney  
351 California St, Suite 600,  
San Francisco, CA 94104-2404  
[asommer@biologicaldiversity.org](mailto:asommer@biologicaldiversity.org)  
[415.436.9682 ext. 315](tel:415.436.9682)

cc: via email

Thomas Hall, FS, [thall@fs.fed.us](mailto:thall@fs.fed.us)  
Brian Croft, USFWS, [brian\\_croft@fws.gov](mailto:brian_croft@fws.gov)  
Kevin Hunting, CDFG, [khunting@dfg.ca.gov](mailto:khunting@dfg.ca.gov)  
Kathleen Goforth, EPA, [goforth.kathleen@epa.gov](mailto:goforth.kathleen@epa.gov)

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

LETTER 1 ILEENE ANDERSON, CENTER FOR BIOLOGICAL DIVERSITY

Response 1-1: The County agrees with the commenter that the area is a land of biodiversity. This is illustrated in the Draft EIR through the comprehensive description of habitats and the number of special-status species that may be present in the area in subsection 3.3.1, Existing Setting, in Section 3.3, Biological Resources, pp. 3.3-1 through -48. Project impacts on special-status plant species referenced by the commenter (Cushenbury buckwheat [*Eriogonum ovalifolium* var. *vineum*], Cushenbury oxytheca [*Acanthoscyphus parishii* var. *goodmaniana*], and Parish's daisy [*Erigeron parishii*]) were evaluated in the Draft EIR in Impact 3.3.2 in Section 3.3, Biological Resources. Project impacts on protected wildlife species were evaluated in Impacts 3.3.3 through 3.3.10. Additional information regarding impacts, avoidance, minimization, and mitigation are provided in the responses to this letter and a letter submitted by the CDFW (Letter C).

Response 1-2: This is a general comment and does not specifically state how the Draft EIR fails to meet the impact analysis requirements for the impact areas identified in the comment (wildlife species, water resources, air quality, and cumulative analysis). Responses 1-6 through 1-11 address the topics identified in this comment.

In response to this comment letter and others, portions of the Draft EIR have been revised (see Section 3.0, Revisions to the Draft EIR) to incorporate minor additions and clarifications. The addition of this information clarifies or amplifies or makes insignificant modifications to the Draft EIR, but it is not "significant new information" and has not resulted in a new or more severe significant impact than previously disclosed (CEQA Guidelines Section 15088.5). As such, it is not necessary to recirculate a revised Draft EIR, as suggested by the commenter.

Response 1-3: The Draft EIR evaluated impacts on Parish's daisy, Cushenbury buckwheat, and Cushenbury buckwheat. Information about these species was presented on Draft EIR pages 3.3-15, 3.3-16, and 3.3-36 and in Table 3.3-1, and project impacts were evaluated in Impact 3.3.2. The Draft EIR included mitigation (mitigation measure MM 3.3.2) to reduce the potentially significant impacts on these species to a less than significant level. The following provides additional information about these species and the process for mitigating impacts, including how the Carbonate Habitat Management Strategy (CHMS) would be implemented.

Previous focused botanical surveys covering part, but not all, of the PSA identified three listed species—Cushenbury buckwheat, Cushenbury oxytheca, and Parish's daisy (e.g., carbonate-endemic species)—within the PSA. No designated critical habitat for listed species is found within the PSA. A preliminary geographic information system (GIS) analysis by San Bernardino National Forest (SBNF) staff estimates that a total of 4.26 acres occupied by one or more listed carbonate-endemic species and 137.10 acres of suitable habitat for listed carbonate-endemic species would be affected by the proposed project (Scott Eliason, SBNF, personal communication). These estimates are based on preliminary survey data and project area boundaries, and may not reflect all potential project

impacts on the listed species. The actual project impacts may be somewhat greater, but the existing data provides a suitable estimate for the purpose of the impact assessment.

Cushenbury buckwheat, Cushenbury oxytheca, and Parish's daisy (the three listed plant species on-site) and one other listed plant (Cushenbury milk-vetch) are endemic to carbonate soils, including soils developed from limestone and dolomite parent materials, in the northern San Bernardino Mountains. Mining impacts on these plants and their habitat are mitigated through the CHMS (Olson 2003), which was developed collaboratively by the mining industry, claimholders, land management and planning agencies (US Forest Service, Bureau of Land Management, San Bernardino County), and state and federal resource agencies (USFWS, CDFW). In 2003, Omya entered into a Memorandum of Understanding (MOU) with the agencies and other private parties, whereby all parties agreed to implement the terms of the CHMS in regard to future mining proposals. Under the CHMS, mining impacts on listed threatened or endangered carbonate-endemic plants are offset by the permanent set-aside of comparable habitat through land dedication or mining claim relinquishment at a 3:1 ratio. The CHMS specifies a process to evaluate "conservation value" of habitat proposed for mining. Conservation value is calculated in "conservation units" (CUs), based on the number of acres of suitable or occupied habitat and other factors such as proximity to disturbed areas or conservation lands.

SBNF staff used the estimated acreages and habitat suitability (above) to calculate total conservation value of the proposed quarry expansion project as approximately 114 CUs. To mitigate impacts on listed plants and for consistency with the CHMS, Omya would set aside land or mining claims with conservation value totaling approximately 342 CUs. This number is based on the acreage and conservation value estimates, and would be refined through additional field surveys prior to beginning ground-disturbing activities for the proposed project. Mitigation measure MM 3.3.2 describes a process to implement the CHMS, including (1) field surveys to determine final conservation value of proposed disturbance areas; (2) comparable field surveys to verify conservation value on mitigation sites (land to be dedicated or mining claims to be relinquished); and (3) administrative requirements to complete the conservation set-aside transactions. In addition to the 3:1 ratio for CUs, the mitigation lands would be required to conserve occupied habitat for each listed species at roughly a 3:1 ratio to the habitat acreage affected by the project. This component of the mitigation measure will ensure that impacts on each listed plant species are mitigated in kind by protecting each species proportionally. The two requirements are complementary rather than additive; both requirements may be satisfied on the same conservation acreage by selecting lands with comparable abundance of the listed species.

In response to this comment, mitigation measure MM 3.3.2 has been revised. By implementing mitigation measure MM 3.3.2, as revised below, the project's impacts on listed plant species would be mitigated to less than significant by permanently setting aside and protecting listed plants

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

and their habitat. This mitigation measure is feasible and is fully enforceable by the County.

**MM 3.3.2 ~~Rare Plant Surveys~~ Carbonate Habitat Management Strategy (CHMS) Consistency.** ~~Prior to initiating project-related activities in undisturbed portions of the site, the mine operator shall retain a qualified biologist to perform focused surveys to determine the presence/absence of special-status plant species with potential to occur in and adjacent to (within 25 feet, where appropriate) the proposed impact area. Species intended to be addressed by this mitigation measure include all species not covered by the CHMS and for which a "may affect" determination was made in Table 3.3-1. complete land dedication or claim relinquishments to offset project impacts on listed threatened or endangered plants at a 3:1 ratio, consistent with the requirements of the CHMS, and provide documentation of the completed transaction to the County. The 3:1 ratio will apply to the total number of conservation units (CUs) (calculated by San Bernardino National Forest [SBNF] staff according to the provisions of the CHMS) and total occupied habitat, in acres or fractions of acres, for each listed species. This mitigation measure consists of four parts: (1) field surveys to determine conservation value of proposed disturbance areas; (2) comparable field surveys to verify conservation value of mining claims to be relinquished; (3) administrative requirements to complete the land dedication or claim relinquishments (which may include mineral withdrawal); and (4) protection measures for special-status plants located adjacent to project disturbance areas that are not proposed to be removed.~~

(1) Project Area Field Surveys and Conservation Value Calculation. The mine operator shall retain a qualified biologist to perform focused surveys to determine the presence ~~or~~ absence of special-status plant species identified in Table 3.3-1 and within 100 feet of the proposed impact area. For listed threatened or endangered plants, the extent of occupied habitat shall be mapped and quantified. For any other special-status plants located in the project area, the biologist shall collect global positioning system (GPS) coordinates of occurrences and qualitative estimates of their abundance.

These surveys shall be conducted in accordance with the CDFW (2009) *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. These guidelines require that rare plant surveys be "floristic in nature," conducted by field botanists familiar with the regional flora, and

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

conducted at the proper time of year when rare or endangered species are both evident and identifiable. Field surveys shall be scheduled to coincide with known flowering periods and/or during appropriate developmental periods that are necessary to identify the plant species of concern.

Field survey results and mapping data shall be provided to the County and the SBNF for inclusion in the CHMS GIS data and calculation of total CHMS conservation value of the proposed project area.

- (2) Mitigation Lands Field Surveys and Conservation Value Calculation. The mine operator shall identify one or more parcels of land or mining claims suitable for relinquishment and shall retain a qualified biologist to perform focused botanical surveys of those lands. Survey methods and data collection shall be as described above for project site field surveys. Field survey results and mapping data shall be provided to the San Bernardino National Forest for inclusion in the CHMS GIS data and calculation of total CHMS conservation value of the proposed project area.
- (3) Land Dedication or Claim Relinquishment. The mining operator shall specify lands or mining claims whose conservation values and habitat area occupied by listed species total no less than three times the total conservation value of the project area and roughly three times the occupied habitat for each affected listed species. The mining operator shall dedicate the lands or relinquish those claims according to the terms of the CHMS and the MOU. The operator shall provide written documentation of the land dedication or claim relinquishment to the County upon completion.
- (4) Protect Special-Status Plant Locations Adjacent to Project Site. Any special-status plant species that are identified within 100 feet of the proposed impact area, but not proposed to be disturbed by the project, shall be protected by barrier fencing to ensure construction activities and material stockpiles do not impact any special-status plant species. These avoidance areas shall be identified on project plans.

~~These surveys shall be conducted in accordance with the CDFW Guidelines for Assessing Effects of Proposed Developments on Rare Plants and Plant Communities (Nelson 1994). These guidelines require that rare plant surveys be conducted at the proper time of year when rare or endangered species are both evident and identifiable. Field surveys shall be scheduled to coincide~~

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

~~with known flowering periods and/or during appropriate developmental periods that are necessary to identify the plant species of concern.~~

~~If any state or federally listed, CNPS List 1, or CNPS List 2 plant species are found in or adjacent to (within 25 feet) the proposed impact area during the surveys, these plant species shall be avoided to the extent feasible and the following mitigation measures shall be implemented:~~

~~(1) In some cases involving state-listed plants, it may be necessary to obtain an incidental take permit under Section 2081 of the Fish and Game Code (2081 permit). The mine operator shall consult with the CDFW to determine whether a 2081 permit is required and obtain all required authorizations prior to initiation of ground-breaking activities.~~

~~(2) Before the approval of grading plans or any ground-breaking activity within the PSA, the mine operator shall submit a mitigation plan concurrently to the CDFW and the USFWS (if appropriate) for review and comment. The plan shall include mitigation measures for the population(s) to be directly affected. Possible mitigation for impacts to special status plant species can include implementation of a program to transplant, salvage, cultivate, or re-establish the species at suitable sites (if feasible) or through the purchase of credits from an approved mitigation bank, if available. The actual level of mitigation may vary depending on the sensitivity of the species, its prevalence in the area, and the current state of knowledge about overall population trends and threats to its survival. The final mitigation strategy for directly impacted plant species shall be determined by the CDFW and the USFWS (if appropriate) through the mitigation plan approval process.~~

~~(3) Any special status plant species that are identified adjacent to the PSA, but not proposed to be disturbed by the project, shall be protected by barrier fencing to ensure that construction activities and material stockpiles do not impact any special status plant species. These avoidance areas shall be identified on project plans.~~

*Timing/Implementation:* Ongoing during quarry and reclamation activities

*Enforcement/Monitoring:* San Bernardino County Land Use Services Department

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

Response 1-4: This comment is not directed to the adequacy of the analysis in the Draft EIR and does not provide any information or evidence contradicting the conclusions of the Draft EIR. However, the following description of the Memorandum of Understanding (MOU) for the CHMS and standard conditions of approval is provided to inform the decision-making process. This information does not affect the significance conclusions in the Draft EIR.

The purpose of the CHMS MOU is to provide a framework for cooperation between the Bureau of Land Management (BLM), the U.S. Forest Service (USFS), the San Bernardino National Forest, the County of San Bernardino, the California Native Plant Society, and various private parties to implement the CHMS. The MOU is included in the Draft EIR in Appendix D.

The following are examples of standard conditions of approval established by the County for mining and reclamation projects that have been authorized to date.

- To minimize the loss of genetic material present in the "carbonate species" on-site, efforts shall be made to salvage this plant material for nursery stock or a seed source for nursery stock to maintain existing genetic diversity.
- The applicant shall submit a research program and a plant nursery design to the Advance Planning Division within six months of project approval. The applicant shall establish a plant nursery and revegetation research program within one year of project approval. The plant nursery shall provide stock for outplanting in revegetation of the site. The research program shall be designed to provide reliable propagation of all plants to be used in revegetation including the carbonate endemics. Nursery services may be contracted for subject to demonstrated experience working with native plant species.
- As directed by the Advance Planning Division, the applicant shall update baseline vegetation data, including cover, density and diversity measures, prior to clearing and grubbing for quarry or waste dump expansion. These surveys shall be conducted during the peak flowering period of the carbonate endemic plants, typically mid-April to mid-June, and submit the report to the Advance Planning Division.
- The project proponent may choose to participate in the Carbonate Habitat Management Strategies (CHMS) developed by the USFS, BLM, County, and USFWS.

Response 1-5: The Draft EIR described baseline conditions for 37 special-status plant species and habitat suitability within the PSA and evaluated impacts in Impact 3.3.2. Five biological assessments of the PSA have been conducted to date, including three focused surveys for rare plants. These reconnaissance-level and focused surveys are sufficient for evaluating impacts and developing mitigation measures.

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

Information from the following reports, which documented surveys and assessments, was used to prepare the Draft EIR:

- Scott White Biological Consulting (SWBC). 2007. *Proposed Omya (California) White Knob Quarry: General Biological Resources Assessment and Focused Rare Plant Survey*.
- Lilburn Corporation. 2012. *Focus Plant Survey for the Direct Land Sale Area Adjacent to the OMYA White Knob Quarry*.
- Lilburn Corporation. 2012. *Plants Report for the OMYA White Knob Quarry Haul Road Improvement Project*.
- Lilburn Corporation. 2012. *Biological Resources Assessment for the Omya White Knob Quarry Haul Road Improvement Project*.
- Lilburn Corporation. 2013. *Biological Resources Assessment for the Direct Land Sale Omya White Knob Quarry*.

The data in the above-referenced reports was combined with occurrence data from the following sources to identify special-status plant species with the potential to be adversely affected by the proposed project:

- The CDFW's California Natural Diversity Database
- The California Native Plant Society's Inventory of Rare, Threatened, and Endangered Plants of California
- The USFWS's Information Planning and Conservation System

All of this data was synthesized and presented in the Draft EIR. A summary of habitats within the PSA was provided on pages 3.3-2 through -10. Table 3.3-1 in the Draft EIR provided a summary of all special-status species identified in the database results, along with a description of the habitat requirements for each species and conclusions regarding the potential for each species to be impacted by project components (Draft EIR pages 3.3-21 through -33). Furthermore, a discussion of all special-status plants with the potential to be affected by the proposed project was provided on pages 3.3-15 through -43. All of the information presented on the above-referenced pages in the Draft EIR adequately establishes a baseline condition for the 33 special-status plant species identified as having the potential to occur within the PSA.

The Draft EIR also analyzed impacts on special-status plant species in Impact 3.3.2 on page 3.3-59; however, additional analysis is provided here for clarification. Project implementation could directly affect occurrences of special-status plants that may occur in the PSA (Draft EIR Table 3.3-1). Impacts on any of these species may be considered "substantial" according to the "Standards of Significance 1" on Draft EIR page 3.3-56. Without mitigation, this impact is considered potentially significant. However, all of these additional special-status species are found on limestone soils more widely throughout the northern San Bernardino

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

Mountains. Due to the comprehensive region-wide nature of the CHMS, adequate conservation measures for these species will be implemented through the CHMS. Omya's participation in the CHMS for this project as described in mitigation measure MM 3.3.2, as amended above, will mitigate its contribution to habitat loss for these plants below a level of significance.

In addition to loss of plants and their habitat for mining, the proposed project could indirectly affect special-status plants, including listed species, located adjacent to the limits of planned disturbance. Potential effects include dust, runoff, or inadvertent soil disturbance. Mitigation measure MM 3.3.2, as amended above, includes a condition to protect special-status plant occurrences adjacent to the PSA. By implementing this measure, likely adverse effects to these plants, if any, would be minimized and impacts would be less than significant.

Transplanting has been removed as an option in mitigation measure MM 3.3.2, as amended above.

The Draft EIR does not defer analysis or mitigation. As indicated above, evaluation of the studies prepared to date concluded that there could be impacts on rare plants, and those impacts could be significant. Mitigation measure MM 3.3.2, as amended above, requires (1) field surveys to determine conservation value of proposed disturbance areas; (2) comparable field surveys to verify conservation value of mining claims to be relinquished; (3) administrative requirements to complete the land dedication or claim relinquishments (which may include mineral withdrawal); and (4) protection measures for special-status plants located adjacent to project disturbance areas. This is a feasible and County-enforceable mitigation measure that complies with the standards set forth in CEQA Guidelines Section 15126.4.

Response 1-6:

The Draft EIR evaluated impacts on desert tortoise in Impact 3.3.3. Each dry wash depicted on Figure 3.3-1b in the Draft EIR has a culvert associated with its crossing of the haul (access) road to maintain in-stream hydrology. No culverts are proposed for removal; therefore, no impacts on down slope bajada processes will occur as a result of project-related activities, and no further or alternative mitigation is required to address downslope processes.

There is only one haul (access) road from the processing plant to the mine. No additional haul roads to the plant are proposed.

Per the criteria set forth in the *Compensation for the Desert Tortoise* (Desert Tortoise Oversight Management Group 1991), the PSA would meet the criteria for Category III (least valuable) lands, which are given a compensation rate of one regardless of all other factors. Only lands within Desert Wildlife Management Areas and/or critical habitat units, or other areas with very high habitat values (Category I lands), are subject to 5:1 compensation ratios. The classification of the PSA as Category III lands is further supported by habitat suitability modeling conducted by the USGS (Nussear et al. 2009), which classifies the habitat suitability within the PSA

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

as low, with habitat values increasing slightly along the haul road from the PSA to the processing plant (see Figure 3.3-7 in Section 3.0 of this Final EIR). Mitigation measure MM 3.3.3b has been revised (see below) to incorporate compensation ratios for impacts on desert tortoise habitat, should this species be identified during the pre-project surveys required under mitigation measure MM 3.3.3a.

The proposed project is not anticipated to attract more ravens to the area. No new structures that typically attract ravens are proposed, such as buildings, fences, or transmission lines. In addition, mitigation measure MM 3.3.1g will be implemented to ensure that all food-related trash is removed from the project site regularly, which will minimize attraction of ravens to the project site. However, mitigation measure MM 3.3.3b has been revised to include development of a raven control plan, if occupied desert tortoise habitat is found during pre-project surveys (mitigation measure MM 3.3.3a), which will be developed in consultation with the USFWS and the CDFW. Implementation of mitigation measures MM 3.3.3a and MM 3.3.3b (as amended) will reduce impacts to desert tortoise to a less than significant level; therefore, no further or alternative mitigation is proposed.

Mitigation measure MM 3.3.3b has been revised as follows to ensure project-related impacts on desert tortoise are less than significant.

**MM 3.3.3b Desert Tortoise Avoidance, Minimization, and Mitigation.** Should occupied desert tortoise habitat be identified during the pre-project surveys, a ~~habitat biological~~ mitigation and monitoring plan and raven control plan shall be developed in consultation with the USFWS and the CDFW. This plan shall describe all measures to be implemented prior to, during, and after construction, including, but not limited to, the following:

- (1) All tortoise burrows shall be avoided to the greatest extent feasible, and temporary exclusionary tortoise fencing (1x2-inch mesh hardware cloth) shall be installed at the limits of disturbance prior to initiation of construction activities. Fence installation and ongoing oversight of the need for maintenance shall be monitored by a USFWS-authorized desert tortoise biologist.
- (2) Upon completion of fence installation, the authorized biologist shall conduct a clearance survey of the fenced area prior to declaring the construction area free of tortoises.
- (3) If it is necessary to excavate a desert tortoise from its burrow to move it out of harm's way, excavation shall be done with hand tools, either by or under the direct supervision of the authorized biologist.
- (4) Desert tortoises removed from burrows shall be placed in an unoccupied burrow of approximately the same size as

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

the one from which they were removed. If an existing burrow is not available, the authorized biologist shall construct one.

- (5) Desert tortoises moved during inactive periods will be monitored for at least two days after relocation or the end of construction, whichever occurs first.
- (6) If desert tortoises need to be moved at a time of day when ambient temperatures could harm them (less than 40 degrees and over 90 degrees Fahrenheit), they shall be held overnight in a clean cardboard box and released the following day during more favorable temperatures. Cardboard boxes used to hold tortoises shall only be used once.
- (7) All handling of desert tortoises shall be performed consistent with the *Guidelines for Handling Desert Tortoises During Construction Projects* (Desert Tortoise Council 1994).
- (8) The mine operator shall mitigate for impacts on occupied desert tortoise habitat at a 1:1 minimum ratio through the purchase of credits from an approved desert tortoise mitigation bank. The amount of credits purchased and the location of the mitigation bank used ~~shall be established through consultation with and are subject to~~ approval by the USFWS and the CDFW. The mine operator shall provide the County with evidence that the permit and/or other requirements established by either agency have been satisfactorily met.

*Timing/Implementation:* Ongoing during quarry and reclamation activities

*Enforcement/Monitoring:* San Bernardino County Land Use Services Department

The information and recommendations provided by the commenter concerning desert tortoise do not alter the conclusions of the Draft EIR. Revisions to mitigation measure MM 3.3.3b clarify the mitigation actions, but are not "significant new information," and no new or more severe desert tortoise impacts have been identified that would require recirculating the Draft EIR (see Response 1-2 regarding recirculation).

Response 1-7:

The Draft EIR described baseline conditions for special-status bat species within the PSA and evaluated impacts in Impact 3.3.9. Three biological assessments of the PSA have been conducted to date evaluating impacts on special-status bats. These reconnaissance-level surveys are sufficient for evaluating impacts and developing mitigation measures.

Information from the following reports, which documented surveys and assessments, was used to prepare the Draft EIR:

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

- Scott White Biological Consulting (SWBC). 2007. *Proposed Omya (California) White Knob Quarry: General Biological Resources Assessment and Focused Rare Plant Survey*.
- Lilburn Corporation. 2012. *Biological Resources Assessment for the Omya White Knob Quarry Haul Road Improvement Project*
- Lilburn Corporation. 2013. *Biological Resources Assessment for the Direct Land Sale Omya White Knob Quarry*.

The data from the above-referenced reports was combined with occurrence data from the following sources to identify special-status bat species with the potential to be adversely affected by the proposed project:

- The CDFW's California Natural Diversity Database
- The California Native Plant Society's Inventory of Rare, Threatened, and Endangered Plants of California
- The USFWS's Information Planning and Conservation System

All of this data was synthesized and presented in the Draft EIR. A summary of habitats within the PSA was provided on Draft EIR pages 3.3-2 through -10. Table 3.3-1 provided a summary of all special-status species identified in the database results, along with a description of the habitat requirements for each species and conclusions regarding the potential for each species to be impacted by project components (Draft EIR pages 3.3-21 through -33). Furthermore, a discussion of the Townsend's big-eared bat and western mastiff bat was provided on pages 3.3-43 and -44. All of the information presented on the above-referenced pages of the Draft EIR adequately establishes a baseline condition for the special-status bat species identified as having the potential to occur within the PSA. The Draft EIR also analyzed impacts on special-status bat species in Impact 3.3.9 on page 3.3-68; however, additional analysis is provided herein for clarification.

Acoustic monitoring and mist net surveys were conducted by Brown & Rainey in September 2014. This survey identified eleven bat species, of which one, the Townsend's big-eared bat, is listed as a species of special concern (SSC) by the CDFW and is also a candidate for listing as a threatened species under the CESA. The following species of bats were identified on or in the immediate vicinity of the PSA during the 2014 survey period.

- California myotis
- Small-footed myotis
- Long-legged myotis
- Mexican free-tailed bat

- Canyon bat
- Hoary bat
- Long-eared myotis
- Western mastiff bat (SSC)
- Townsend's big-eared bat (CT/SSC)
- Fringed myotis
- Spotted bat (SSC)

Brown & Rainey (2014) also identified the following species as not detected but having the potential to occur on or in the vicinity of the PSA.

- Big brown bat
- Red bat (SSC)
- Pallid bat (SSC)
- Pocketed free-tailed bat (SSC)
- Silver-haired bat
- Yuma myotis

The documented occurrences of several special-status bat species result in the potential for project implementation to directly or indirectly affect special-status bats on or in the vicinity of the PSA. The three species of bats that were found to be more closely associated with tree-covered areas for foraging (Townsend's big-eared bats, long-eared myotis, and fringed myotis) could be impacted by removal of riparian, rocky canyon habitat. Direct mortality of bats (especially canyon bats, spotted bats, and western mastiff bats) that may roost in quarry walls or those that roost in trees (most myotis, hoary bats, and big brown bats) could occur during site preparation and construction activities. There are no water-like surfaces (e.g., open sumps of process waters potentially containing injurious chemicals) associated with the proposed project operations that would attract and/or harm these species.

Radiotelemetry studies of a number of bat species suggest that bats can have home ranges greater than 12 miles (20 km) (H. T. Harvey & Associates 2004). An extensive amount of suitable roosting and foraging habitat exists in the vicinity of the PSA that could support bats; therefore, mitigation for loss of habitat is not proposed. However, in order offset potential direct and indirect impacts on roosting bats, mitigation measure MM 3.3.9 will be amended as follows.

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

**MM 3.3.9 Bat Surveys.** Prior to implementation of project-related activities in undisturbed portions of the site, the mine operator shall retain a qualified biologist to determine whether potential roosting sites for special-status bats may be affected. If potential roost sites are identified, a preconstruction survey by a qualified biologist shall be conducted ~~prior to the end of April~~ between March 1 and July 31 to determine the presence or absence of roosting bats. If the survey does not identify the presence of occupied roosts, no further mitigation is required.

~~If day roosts or maternity roosts~~ non-breeding roosts occupied by special-status bat species are documented within construction areas, the bats shall be safely flushed from the sites where roosting habitat is planned to be removed prior to May of each construction phase ~~(maternity roosts are generally occupied from May to August)~~ and prior to the onset of construction activities. The removal of the roosting sites shall occur during the time of day when the roost is unoccupied.

If a maternity colony is detected, a 100-foot construction-free buffer shall be established around the roost site and remain in place until it has been determined by a qualified biologist that the nursery is no longer active. Removal of maternity roosts shall be restricted to between March 1 and April 15 or August 15 and October 15 to avoid interfering with an active nursery.

The loss of each roost will be compensated for by the construction and installation of two bat boxes suitable to the bat species and colony size excluded from the original roosting site. The bat boxes shall be installed in the vicinity prior to removal of the original non-breeding/maternity roost sites. A detailed program for bat flushing, roosting site removal, and installation of bat boxes shall be developed in consultation with a qualified biologist.

*Timing/Implementation:* Ongoing during quarry and reclamation activities

*Enforcement/Monitoring:* San Bernardino County Land Use Services Department

Implementation of mitigation measure MM 3.3.9, as amended above, will reduce impacts on special-status bat species to a less than significant level.

The Draft EIR does not defer analysis or mitigation. As indicated above, evaluation of the studies prepared to date concluded there could be impacts on special-status bat species, and those impacts could be significant. Mitigation measure MM 3.3.9, as amended above, outlines the process for surveying for bats during the appropriate time relative to mining or reclamation operations and for protecting roosting bats and maternity colonies that may be present during active operations.

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

The information and recommendations provided by the commenter concerning special-status bat species do not alter the conclusions of the Draft EIR. Revisions to mitigation measure MM 3.3.9 clarify the mitigation actions but are not “significant new information,” as no new or more severe special-status bats impacts have been identified that would require recirculating the Draft EIR (see Response 1-2 regarding recirculation).

Response 1-8:

While a significant number of special-status species are known to occur in the vicinity of the PSA, the majority of the PSA has already been disturbed by previous and ongoing mining operations; therefore, the ecological value provided by the site is marginal at best. Furthermore, the proposed expansion activities are anticipated to have a less than significant impact of habitats regionally (see **Table 2.0-1** provided under Response C-7).

The Draft EIR analyzed impacts on 37 special-status plant species (see Response 1-3) and eight special-status wildlife species, as well as mule deer and bighorn sheep, and provided mitigation as appropriate to offset any potentially significant impacts on these species. Potential impacts on four additional species—mountain lion, gray fox, bobcat, and ringtail cat—are provided under Response C-7; please refer to that response for additional analyses for impacts to these species. As a result, the Draft EIR together with the responses provided in this Final EIR adequately address impacts on rare species and provide fully enforceable and feasible avoidance, minimization, and mitigation.

Impacts on desert bighorn sheep are adequately addressed in the Draft EIR on pages 3.3-46, 3.3-70, and 3.3-71. Additional analysis for this species is also provided in Response C-5.

The Draft EIR acknowledged the potential for golden eagles to be impacted by project-related activities and analyzed impacts on this species. Additionally, reconnaissance-level surveys are sufficient for evaluating impacts and developing mitigation measures. Mitigation measure MM 3.3.7b provided under Response C-6 will ensure that project-related activities do not result in adverse impacts on nesting golden eagles or other raptor species. The requirement for surveys under MM 3.3.7b will result in the identification of active nest sites and the avoidance of these sites; therefore, take of golden eagles is not anticipated and a permit would not be required. Implementation of mitigation measure MM 3.3.7b does not eliminate the need to comply with the Bald and Golden Eagle Protection Act in the event take is anticipated.

As stated previously, multiple reconnaissance-level biological surveys have been conducted in the PSA to date. The data obtained from these surveys is sufficient to analyze impacts on special-status species and to develop mitigation measures.

Habitat acquisition is not proposed as a compensatory mitigation measure.

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

The information, general observations, and recommendations provided by the commenter concerning other rare species noted in this comment do not alter the conclusions of the Draft EIR. See Response 1-2 regarding recirculation.

Response 1-9:

Impacts on waters of the State were evaluated in the Draft EIR in Impact 3.3.11 (pages 3.3-73 and -74). Mitigation measure MM 3.3.11 provides a no-net-loss mitigation strategy for the on-site drainages/wetlands. As discussed on pages 3.3-11 and 3.3-74 in the Draft EIR, the drainages located within the PSA are in a closed watershed and are therefore not considered waters of the United States.

Waters of the United States or of the State of California are described starting on page 3.3-11 in the Draft EIR. As discussed on this page, a jurisdictional delineation was performed by Tetra Tech (2013) within the proposed White Knob quarry boundary. Based on the data presented in this report, approximately 7,200 linear feet of ephemeral dry wash and 0.2 acre of desert riparian habitats occur within the PSA. The amount and location of jurisdictional features that have the potential to be affected by the proposed haul road improvements have not been formally delineated to date; however, data obtained from the CDFW indicates that at least 10 ephemeral dry washes intersect the haul road. Under Section 401 of the Clean Water Act (CWA) and the Porter-Cologne Water Quality Act, the Colorado River Regional Water Quality Control Board (RWQCB) asserts jurisdiction over jurisdictional wetlands and those non-isolated waters associated with traditional navigable waters. Because the on-site drainages do not connect to the Mojave River, they are not subject to regulatory authority by the Colorado River RWQCB under Clean Water Act Section 401. The desert riparian wetland associated with Drainage C meets the three-point federal criteria as a wetland and therefore may be subject to regulatory authority by the Colorado River RWQCB under the Porter-Cologne Act.

Page 3.3-53 in the Draft EIR describes the Colorado River RWQCB's responsibility for enforcing water quality criteria and protecting water resources in the project area. In addition, the RWQCB is responsible for controlling discharges to surface waters of the state by issuing waste discharge requirements (WDR) or commonly by issuing conditional waivers to WDRs. The RWQCB requires that a project proponent obtain a CWA Section 401 water quality certification for CWA Section 404 permits issued by the U.S. Army Corps of Engineers (USACE). A request for water quality certification (including WDRs) by the RWQCB and an application for a General Permit for Storm Water Discharges Associated with Construction Activities are prepared and submitted following completion of the CEQA environmental document and submittal of the wetland delineation to the USACE.

Impact 3.2.11 discusses impacts on riparian habitat. Implementation of project activities may result in adverse impacts on riparian and aquatic communities should they be present in areas proposed for disturbance. Based on the data provided in the jurisdictional delineation report provided by Tetra Tech (2013), 0.003 acre of wetland and 6,469 linear feet

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

(1.355 acre) of jurisdictional drainage occur within the limits of planned disturbance and therefore have the potential to be impacted by project-related activities. In addition, 10 ephemeral dry washes were identified on the CDFW California Streams data layer as intersecting the haul road; however, this number may increase once a formal field delineation is completed. In any event, the repairs and remediation to control runoff and sedimentation along the haul road required in the BLM/CDFW 2011 Settlement Agreement have the potential to impact riparian habitat. The Draft EIR provides mitigation measure MM 3.3.11, which requires no net loss of riparian vegetation.

Finally, Impact 3.3.12 discusses the potential impacts on federally protected wetlands. The biological analysis determined that the approved jurisdictional determination (AJD) for the Marathon Solar Project concluded that the on-site drainages are isolated and are not subject to USACE regulation under Clean Water Act Section 404. The Marathon Solar Project AJD indicates that Rabbit Lake and Lucerne Lake are part of the same depositional environment and are both located in the Lucerne Valley Groundwater Basin Este Subarea. Based on the approved jurisdictional determination issued for the solar project that shares the same watershed as the PSA drainages, it is likely that jurisdictional drainages within the PSA are isolated and not subject to USACE jurisdiction. As a result, the project is anticipated to have no impact on federally protected wetlands.

Based on the information provided in the Draft EIR and discussed above, impacts on the waters of the United States and of the State are adequately discussed in the Draft EIR. No further revision to the EIR regarding impacts on the waters of the United States and of the State are necessary. See Response 1-2 regarding recirculation.

Response 1-10

The Draft EIR evaluated air quality emissions impacts in Impact 3.2.1, and Impact 3.2.3 addressed consistency with the Federal Land Managers' Air Quality Related Values. These impacts considered ozone, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions.

Ozone (O<sub>3</sub>), or smog, is one of a number of substances called photochemical oxidants that are formed when reactive organic gases (ROG) and nitrogen oxides (NO<sub>x</sub>) react with sunlight. Particulate matter (PM) is a mixture of pollutants in liquid and solid forms. Primary particulates are emitted directly by emission sources, whereas secondary particulates are formed through atmospheric reaction of gases. As stated in Impact 3.2.1 in the Draft EIR, the only air emission threshold that was surpassed by the proposed project was PM<sub>10</sub>. As such, mitigation measures were provided in the Draft EIR to reduce this impact to a less than significant level as required. Project ROG, NO<sub>x</sub>, nor PM<sub>2.5</sub> emissions do not exceed the significance thresholds. Mitigation of air emissions that do not surpass the significance thresholds is not required. Therefore, no strategies to reduce ozone or PM<sub>2.5</sub> emissions are required for the proposed project.

Watering the unpaved road and graded areas and the use of dust palliatives is a commonly used practice to reduce PM<sub>10</sub> emissions and is

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

considered acceptable by the Mojave Desert Air Quality Management District, as stated in their comment letter (Response A-2). Further, the project currently waters the road and uses palliatives to control the dust coming from the project site, and has done so for many years. Water quality control features are already incorporated into the project drainage system.

The County has considered the commenter's suggestion to pave the haul road. The road currently exists, so there would be no construction-related air emissions; however, this would not be the case with paving the road. Paving roads would add additional emissions during construction, require more intensive reclamation (pavement would have to be removed) which would also increase the amount of air emissions, and would be in constant need of repair given the size of trucks and equipment used at the quarry.

While the Draft EIR does consider existing conditions for the purpose of determining whether impacts would be significant, the Draft EIR is not required to evaluate the environmental impacts of existing dust control measures for purposes of determining whether mitigation is needed. Further, it should be noted that the Draft EIR evaluated potential impacts of changes in drainage patterns resulting from project implementation (including possible runoff from dust control activities such as watering or use of dust palliatives) in Impact 3.7.1 in Section 3.7, Hydrology and Water Quality. Mitigation measures were identified to ensure mining and reclamation would not result in substantial erosion, siltation, or other water quality impacts. This would reduce the likelihood for project impacts on adjacent wildlands and wildlife. Impact 3.3.11 in Section 3.3, Biological Resources, evaluated project impacts (expansion and operation including dust control) on riparian and aquatic communities, and identified mitigation to reduce impacts to less than significant levels.

Response 1-11:

CEQA Guidelines Section 15130 requires that EIRs include an analysis of the cumulative impacts of a project when the project's effect is considered cumulatively considerable. Each technical section in the Draft EIR considers whether the project's effect on anticipated cumulative setting conditions is cumulatively considerable (i.e., a significant effect). "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (CEQA Guidelines Section 15065(a)(3)).

Section 4.0 in the Draft EIR includes a description of the cumulative setting's geographic extent based on the characteristics of the environmental issue under consideration as set forth in Section 15130(b) of the CEQA Guidelines. The geographic scope of area and time horizon considered for each cumulative impact evaluated in the EIR is dictated by the specific type and nature of the impact being considered. In addition, Section 15130(b) identifies the following elements as necessary for an adequate cumulative impact analysis:

1) *Either:*

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

(A) *A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or,*

(B) *A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.*

Both of these elements were used in the Draft EIR. The general cumulative setting conditions are based on:

- General Plans. These are the existing land use plans that provide general growth patterns in the region, consisting of unincorporated San Bernardino County and the cities of San Bernardino, Victorville, Apple Valley, Hesperia, Big Bear Lake, Lake Arrowhead, Crestline, and Running Springs.
- Large-Scale Surface Mining Projects. This includes current large-scale proposed and approved surface mining projects in San Bernardino County Supervisorial District 1, which encompasses the project site. The Draft EIR includes a list of 30 projects similar to the proposed project in the area in Table 3.0-1.

The commenter does not identify which specific industrial projects or military expansion projects should be included as a part of the cumulative analysis. The BLM's Desert Renewable Energy Conservation Plan (draft available September 2014) has not yet been adopted. The project site is not located within the BLM's West Mojave Plan, as this plan only applies to public lands. At this time, the Carbonate Habitat Management Strategy (CHMS) is the only adopted conservation plan to which the proposed project would be subject. This plan was described in Draft EIR Section 3.3, Biological Resources.

As previously stated, the Draft EIR included a list of 30 projects similar to the proposed project in the area as well as area general plans. As such, the projects are considered adequate for the Draft EIR's cumulative analysis. No revision to the EIR is necessary regarding this comment.

## 2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

---

### REFERENCES

- Brown & Rainey. 2014. *Bat Habitat Assessment for Omya White Knob Quarry*.
- CDFW (California Department of Fish and Wildlife). 2014. Commonly Asked Questions About Mountain Lions. [http://www.dfg.ca.gov/wildlife/lion/lion\\_faq.html](http://www.dfg.ca.gov/wildlife/lion/lion_faq.html).
- Desert Tortoise Oversight Management Group. 1991. *Compensation for the Desert Tortoise*. A report prepared for the Desert Tortoise Management Oversight Group by the Desert Tortoise Compensation Team.
- H. T. Harvey & Associates. 2004. *California Bat Mitigation Techniques, Solutions, and Effectiveness*.
- Nussear, K. E., T. C. Esque, R. D. Inman, Leila Gass, K. A. Thomas, C. S. A. Wallace, J. B. Blainey, D. M. Miller, and R. H. Webb. 2009. *Modeling Habitat of the Desert Tortoise (Gopherus agassizii) in the Mojave and Parts of the Sonoran Deserts of California, Nevada, Utah, and Arizona*. US Geological Survey Open-File Report 2009-1102p.
- Olson, Todd G. 2003. *Carbonate Habitat Management Strategy*. Prepared for San Bernardino National Forest Association.
- Tetra Tech. 2013. *Jurisdictional Delineation of Wetlands/Waters Subject to Regulatory Authority: White Knob–White Ridge Quarry, Lucerne Valley, CA*.
- Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White, eds. 1988–1990. *California's Wildlife*. Volumes I–III. Sacramento: California Department of Fish and Game.

---

## **3.0 REVISIONS TO THE DRAFT EIR**

---



3.1 INTRODUCTION

This section identifies revisions to the Draft EIR. These modifications are minor and are the result of response to comments received during the Draft EIR public review period as well as staff-initiated changes.

Revisions herein do not result in new significant environmental impacts and do not constitute significant new information, nor do they alter the conclusions of the environmental analysis. Changes are provided in revision marks (underline for new text and ~~strikeout~~ for deleted text).

3.2 CHANGES AND EDITS TO THE DRAFT EIR

EXECUTIVE SUMMARY

Table ES-1 is revised as follows:

<p>Impact 3.3.2 Special-Status Plant Species</p>	<p>Potentially significant</p>	<p><del>MM 3.3.2 Rare Plant Surveys</del> <u>Carbonate Habitat Management Strategy (CHMS)</u>  <u>Consistency.</u> Prior to initiating project-related activities in undisturbed portions of the site, the mine operator shall <del>retain a qualified biologist to perform focused surveys to determine the presence/absence of special status plant species with potential to occur in and adjacent to (within 25 feet, where appropriate) the proposed impact area.</del> <u>Species intended to be addressed by this mitigation measure include all species not covered by the CHMS and for which a “may affect” determination was made in Table 3.3.1.</u> <u>complete land dedication or claim relinquishments to offset project impacts on listed threatened or endangered plants at a 3:1 ratio, consistent with the requirements of the CHMS, and provide documentation of the completed transaction to the County. The 3:1 ratio will apply to total number of conservation units (CUs) (calculated by San Bernardino County National Forest [SBNF] staff according to the provisions of the CHMS) and total occupied habitat, in acres or fractions of acres, for each listed species. This mitigation measure consists of four parts: (1) field surveys to determine conservation value of proposed disturbance areas; (2) comparable field surveys to verify conservation value of mining claims to be relinquished; (3) administrative requirements to complete the land dedication or claim relinquishments (which may include mineral withdrawal); and (4) protection measures for special-status plants located adjacent to project disturbance areas that are not planned to be removed.</u>  <u>(1) Project Area Field Surveys and Conservation Value Calculation.</u> The mine operator shall retain a qualified biologist to perform focused surveys to determine the</p>	<p>Less than significant</p>
--	--------------------------------	--	------------------------------

**3.0 REVISIONS TO THE DRAFT EIR**

		<p>presence/ or absence of special-status plant species <u>identified in Table 3.3-1 and within 100 feet of the proposed impact area. For listed threatened or endangered plants, the extent of occupied habitat shall be mapped and quantified. For any other special-status plants located in the project area, the biologist shall collect global positioning system (GPS) coordinates of occurrences and qualitative estimates of their abundance.</u></p> <p><u>These surveys shall be conducted in accordance with the CDFW (2009) <i>Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.</i> These guidelines require that rare plant surveys be “floristic in nature,” conducted by field botanists familiar with the regional flora, and conducted at the proper time of year when rare or endangered species are both evident and identifiable. Field surveys shall be scheduled to coincide with known flowering periods and/or during appropriate developmental periods that are necessary to identify the plant species of concern.</u></p> <p><u>Field survey results and mapping data shall be provided to the County and the SBNF for inclusion in the CHMS GIS data and calculation of total CHMS conservation value of the proposed project area.</u></p> <p>(2) <u>Mitigation Lands Field Surveys and Conservation Value Calculation. The mine operator shall identify one or more parcels of land or mining claims suitable for relinquishment and shall retain a qualified biologist to perform focused botanical surveys of those lands. Survey methods and data collection shall be as described above for project site field surveys. Field survey results and mapping data shall be provided to the San Bernardino National Forest for inclusion in the CHMS GIS data and calculation of total CHMS conservation value of the proposed project area.</u></p> <p>(3) <u>Land Dedication or Claim Relinquishment. The mining operator shall specify lands or mining claims whose conservation values and habitat area occupied by listed species total no less than three times the total conservation value of the project area and roughly three times the occupied habitat for each affected listed species. The mining operator shall dedicate the lands or relinquish those claims according to the terms of the CHMS and the MOU. The</u></p>	
--	--	---	--

		<p><del>operator shall provide written documentation of the land dedication or claim relinquishment to the County upon completion.</del></p> <p>(4) <del>Protect Special-Status Plant Locations Adjacent to Project Site. Any special-status plant species that are identified within 100 feet of the proposed impact area, but not proposed to be disturbed by the project, shall be protected by barrier fencing to ensure that construction activities and material stockpiles do not impact any special-status plant species. These avoidance areas shall be identified on project plans.</del></p> <p><del>These surveys shall be conducted in accordance with the CDFW Guidelines for Assessing Effects of Proposed Developments on Rare Plants and Plant Communities (Nelson 1994). These guidelines require that rare plant surveys be conducted at the proper time of year when rare or endangered species are both evident and identifiable. Field surveys shall be scheduled to coincide with known flowering periods and/or during appropriate developmental periods that are necessary to identify the plant species of concern.</del></p> <p><del>If any state or federally listed, CNPS List 1, or CNPS List 2 plant species are found in or adjacent to (within 25 feet) the proposed impact area during the surveys, these plant species shall be avoided to the extent feasible and the following mitigation measures shall be implemented:</del></p> <p><del>(1) In some cases involving state listed plants, it may be necessary to obtain an incidental take permit under Section 2081 of the Fish and Game Code (2081 permit). The mine operator shall consult with the CDFW to determine whether a 2081 permit is required and obtain all required authorizations prior to initiation of ground-breaking activities.</del></p> <p><del>(2) Before the approval of grading plans or any ground breaking activity within the PSA, the mine operator shall submit a mitigation plan concurrently to the CDFW and the USFWS (if appropriate) for review and comment. The plan shall include mitigation measures for the population(s) to be directly affected. Possible mitigation for impacts to special status plant species can include implementation of a program to transplant, salvage, cultivate, or re-establish the species at suitable sites (if feasible) or through the purchase of credits from an approved mitigation bank, if available. The actual level of mitigation may vary depending on</del></p>	
--	--	--	--

### 3.0 REVISIONS TO THE DRAFT EIR

		<p><del>the sensitivity of the species, its prevalence in the area, and the current state of knowledge about overall population trends and threats to its survival. The final mitigation strategy for directly impacted plant species shall be determined by the CDFW and the USFWS (if appropriate) through the mitigation plan approval process.</del></p> <p><del>(3) Any special status plant species that are identified adjacent to the PSA, but not proposed to be disturbed by the project, shall be protected by barrier fencing to ensure that construction activities and material stockpiles do not impact any special status plant species. These avoidance areas shall be identified on project plans.</del></p>	
<p><b>Impact 3.3.3</b> Desert Tortoise</p>	<p>Potentially significant</p>	<p><b>MM 3.3.3b Desert Tortoise Avoidance, Minimization, and Mitigation.</b> Should occupied desert tortoise habitat be identified during the pre-project surveys, a <u>habitat biological mitigation and monitoring plan and raven control plan</u> shall be developed in consultation with the USFWS and the CDFW. This plan shall describe all measures to be implemented prior to, during, and after construction, including, but not limited to, the following:</p> <ol style="list-style-type: none"> <li>(1) All tortoise burrows shall be avoided to the greatest extent feasible, and temporary exclusionary tortoise fencing (1x2-inch mesh hardware cloth) shall be installed at the limits of disturbance prior to initiation of construction activities. Fence installation and ongoing oversight of the need for maintenance shall be monitored by a USFWS-authorized desert tortoise biologist.</li> <li>(2) Upon completion of fence installation, the authorized biologist shall conduct a clearance survey of the fenced area prior to declaring the construction area free of tortoises.</li> <li>(3) If it is necessary to excavate a desert tortoise from its burrow to move it out of harm's way, excavation shall be done with hand tools, either by or under the direct supervision of the authorized biologist.</li> <li>(4) Desert tortoises removed from burrows shall be placed in an unoccupied burrow of approximately the same size as the one from which they were removed. If an existing burrow is not available, the authorized biologist shall construct one.</li> <li>(5) Desert tortoises moved during inactive periods will be monitored for at least two days after relocation or the end of</li> </ol>	<p>Less than significant</p>

		<p>construction, whichever occurs first.</p> <p>(6) If desert tortoises need to be moved at a time of day when ambient temperatures could harm them (less than 40 degrees and over 90 degrees Fahrenheit), they shall be held overnight in a clean cardboard box and released the following day during more favorable temperatures. Cardboard boxes used to hold tortoises shall only be used once.</p> <p>(7) All handling of desert tortoises shall be performed consistent with the <i>Guidelines for Handling Desert Tortoises During Construction Projects</i> (Desert Tortoise Council 1994).</p> <p>(8) The mine operator shall mitigate for impacts on occupied desert tortoise habitat <u>at a 1:1 ratio</u> through the purchase of credits from an <u>approved desert tortoise mitigation bank</u>. The amount of credits purchased and the location of the mitigation bank used <del>shall be established through consultation with and</del> <u>are subject to approval by the USFWS and the CDFW</u>. The mine operator shall provide the County with evidence that the permit and/or other requirements established by either agency have been satisfactorily met.</p>	
<p><b>Impact 3.3.6</b> Le Conte’s Thrasher and other Migratory Birds</p>	<p>Potentially significant</p>	<p><b>MM 3.3.6 Migratory Bird Surveys.</b> If clearing and/or construction activities will occur in undisturbed portions of the site, <u>or blasting activities will occur in any portion of the project site,</u> during the migratory bird nesting season (March 15–August 15), preconstruction surveys to identify active migratory bird nests shall be conducted by a qualified biologist within 14 days of <del>construction</del> <u>initiation of project activities</u>. Focused surveys must be performed by a qualified biologist for the purposes of determining the presence/absence of active nest sites within the proposed impact area and a 200-foot buffer (if feasible). <u>Surveys shall be repeated if project activities are delayed or postponed for more than 30 days.</u></p> <p>If active nest sites are identified within 200 feet of project activities, the mine operator shall impose a limited operating period (LOP) for all active nest sites prior to commencement of any project <del>construction</del> activities to avoid construction or <u>project-related</u> disturbances to migratory bird nesting activities. An LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, <u>blasting,</u> and construction) will not occur and will be imposed within 100 feet of any active nest sites until the nest is deemed inactive. Activities permitted within and the size</p>	<p>Less than significant</p>

### 3.0 REVISIONS TO THE DRAFT EIR

		<p>(i.e., 100 feet) of LOPs may be adjusted through consultation with the CDFW and <del>for</del> the County.</p> <p><u>When an active nest is located within 200 feet of project activities, monitoring shall be conducted weekly by a qualified biologist until the nest is deemed inactive. If nest monitoring detects changes in behavior of nesting birds associated with blasting activities, use of noise attenuation devices or techniques (e.g., blast mats, different blasting compounds) shall be used during the breeding season. When active nests are present, a monthly nest monitoring report shall be prepared by the qualified biologist and submitted to the CDWF and County until the nest(s) are deemed inactive.</u></p>	
<p><b>Impact 3.3.7</b> Golden Eagle and Other Raptors</p>	<p>Potentially significant</p>	<p><b>MM 3.3.7a Raptor Conservation Strategy.</b> The applicant shall participate in and implement the Raptor Conservation Strategy.</p> <p><b>MM 3.3.7b Raptor Surveys.</b> <u>If clearing and/or construction activities would occur in undisturbed portions of the site, or blasting activities will occur in any portion of the project site, during the raptor nesting season (January 15–August 15), preconstruction surveys to identify active raptor nests shall be conducted by a qualified biologist within 14 days of construction initiation. Focused surveys must be performed by a qualified biologist for the purposes of determining presence/absence of active nest sites within the proposed impact area. If no active nests are found, no further mitigation is required. Surveys shall be repeated if project activities are delayed or postponed for more than 30 days.</u></p> <p><u>If active golden eagle or other raptor nest sites are identified within a half mile of project activities, the applicant shall impose a limited operating period (LOP) for all active nest sites prior to commencement of any project activities to avoid construction- or project-related disturbances to nesting raptors. An LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, blasting, and construction) will not occur and shall be imposed within 500 feet of any active nest sites until the nest is deemed inactive. Activities permitted within LOPs and the size (i.e., 500 feet) of LOPs may be adjusted through consultation with the CDFW and the County.</u></p> <p><u>When an active nest is located within a half mile of project activities, monitoring shall be conducted weekly by a qualified biologist until the nest is deemed inactive. If nest monitoring detects changes in behavior of nesting birds associated with blasting activities, use of noise attenuation devices or techniques (e.g., blast</u></p>	<p>Less than significant</p>

		<p><u>mats, different blasting compounds) shall be used during the breeding season. When active nests are present, a monthly nest monitoring report shall be prepared by the qualified biologist and submitted to CDFW and the County until the nest(s) are deemed inactive.</u></p>	
<p><b>Impact 3.3.9</b> Special-Status Bats</p>	<p>Potentially significant</p>	<p><b>MM 3.3.9 Bat Surveys.</b> Prior to implementation of project-related activities in undisturbed portions of the site, the mine operator shall retain a qualified biologist to determine whether potential roosting sites for special-status bats may be affected. If potential roost sites are identified, a preconstruction survey by a qualified biologist shall be conducted <del>prior to the end of April</del> between March 1 and July 31 to determine the presence or absence of roosting bats. If the survey does not identify the presence of occupied roosts, no further mitigation is required.</p> <p><del>If day roosts or maternity roosts</del> <u>non-breeding roosts</u> occupied by special-status bat species are documented within construction areas, the bats shall be safely flushed from the sites where roosting habitat is planned to be removed prior to May of each construction phase (<del>maternity roosts are generally occupied from May to August</del>) and prior to the onset of construction activities. The removal of the roosting sites shall occur during the time of day when the roost is unoccupied.</p> <p><u>If a maternity colony is detected, a 100-foot construction-free buffer shall be established around the roost site and remain in place until it has been determined by a qualified biologist that the nursery is no longer active. Removal of maternity roosts shall be restricted to between March 1 and April 15 or August 15 and October 15 to avoid interfering with an active nursery.</u></p> <p>The loss of each roost will be compensated for by the construction and installation of two bat boxes suitable to the bat species and colony size excluded from the original roosting site. The bat boxes shall be installed in the vicinity prior to removal of the original non-breeding/maternity roost sites. A detailed program for bat flushing, roosting site removal, and installation of bat boxes shall be developed in consultation with a qualified biologist.</p>	<p>Less than significant</p>
<p><b>Impact 3.3.11</b> Impacts on Riparian Habitat or Sensitive Natural Communities</p>	<p>Potentially significant</p>	<p><b>MM 3.3.11a No Net Loss of Riparian Vegetation.</b> The mine operator shall ensure there is no net loss of riparian vegetation. Mitigation can include on-site restoration or purchase of mitigation credits at a USACE-approved mitigation bank, placing a conservation easement over a riparian area, or quit claiming mineral claims over a riparian area. Mitigation, as required in regulatory</p>	<p>Less than significant</p>

		<p>permits issued through the CDFW, the USACE, or the RWQCB, may be applied to satisfy this measure.</p> <p>Evidence of compliance with this mitigation measure shall be provided prior to construction and grading activities for the proposed project.</p> <p><b>MM 3.3.11b Oak Woodlands.</b> The mine operator shall ensure there is no net loss of oak woodland habitat. Mitigation can include any one or combination of the following:</p> <ol style="list-style-type: none"> <li>(1) <u>Preservation of existing oak woodlands by recording a conservation easement(s) in favor of the County or an approved organization or agency.</u></li> <li>(2) <u>Replacement or restoration of former oak woodlands. The County may require the planting and maintenance of replacement trees, including replacing dead or diseased trees. The replacement ratio and tree sizes shall be based on the recommendation of an Oak Reforestation Program prepared by a registered professional forester. The requirement to maintain trees in compliance with this paragraph shall terminate seven years after the trees are planted.</u></li> <li>(3) <u>Contribution of in-lieu mitigation fees to the Oak Woodlands Conservation Fund, established under Fish and Game Code Section 1363 for the purpose of purchasing oak woodlands conservation easements. A project applicant who contributes funds in compliance with this subsection shall not receive or use a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project. The in-lieu fee for replacement trees shall be calculated based on their equivalent value as established by the International Society of Arboriculture's current edition of the <i>Guide for Plant Appraisal</i>.</u></li> <li>(4) <u>Performing other mitigation measures as may be required by the County (e.g., inch-for-inch off-site replacement planting, transfer of development rights, enrollment of project with offset provider for carbon credits in greenhouse gas emission registry, carbon reduction, and carbon trading system).</u></li> </ol>	
--	--	---	--

SECTION 2.0 PROJECT DESCRIPTION

**Page 2.0-16 is revised as follows:**

Figures 2.0-4a, 2.0-4b and 2.0-4c illustrate a change in the Amended Mine Plan map. These changes increase the bench width and somewhat the locations of the benches. The also increased the height of the cut slopes. However, these changes do not affect the environmental analysis.

(See Figures 2.0-4a, 2.0-4b, and 2.0-4c located on pages 3.0-19 through -23 of this FEIR for the figure additions.)

SECTION 3.4 BIOLOGICAL RESOURCES

**Page 3.3-59 is revised as follows:**

**MM 3.3.2** ~~Rare Plant Surveys~~ **Carbonate Habitat Management Strategy (CHMS) Consistency.** Prior to initiating project-related activities in undisturbed portions of the site, the mine operator shall retain a qualified biologist to perform focused surveys to determine the presence/absence of special status plant species with potential to occur in and adjacent to (within 25 feet, where appropriate) the proposed impact area. Species intended to be addressed by this mitigation measure include all species not covered by the CHMS and for which a "may affect" determination was made in Table 3.3-1. complete land dedication or claim relinquishments to offset project impacts on listed threatened or endangered plants at a 3:1 ratio, consistent with the requirements of the CHMS, and provide documentation of the completed transaction to the County. The 3:1 ratio will apply to the total number of conservation units (CUs) (calculated by San Bernardino National Forest [SBNF] staff according to the provisions of the CHMS) and total occupied habitat, in acres or fractions of acres, for each listed species. This mitigation measure consists of four parts: (1) field surveys to determine conservation value of proposed disturbance areas; (2) comparable field surveys to verify conservation value of mining claims to be relinquished; (3) administrative requirements to complete the land dedication or claim relinquishments (which may include mineral withdrawal); and (4) protection measures for special-status plants located adjacent to project disturbance areas that are not planned to be removed.

- (1) Project Area Field Surveys and Conservation Value Calculation. The mine operator shall retain a qualified biologist to perform focused surveys to determine the presence/ or absence of special-status plant species identified in Table 3.3-1 and within 100 feet of the proposed impact area. For listed threatened or endangered plants, the extent of occupied habitat shall be mapped and quantified. For any other special-status plants located in the project area, the biologist shall collect global positioning system (GPS) coordinates of occurrences and qualitative estimates of their abundance.

These surveys shall be conducted in accordance with the CDFW (2009) *Protocols for Surveying and Evaluating Impacts to Special Status Native*

### 3.0 REVISIONS TO THE DRAFT EIR

---

Plant Populations and Natural Communities. These guidelines require that rare plant surveys be “floristic in nature,” conducted by field botanists familiar with the regional flora, and conducted at the proper time of year when rare or endangered species are both evident and identifiable. Field surveys shall be scheduled to coincide with known flowering periods and/or during appropriate developmental periods that are necessary to identify the plant species of concern.

Field survey results and mapping data shall be provided to the County and the SBNF for inclusion in the CHMS GIS data and calculation of total CHMS conservation value of the proposed project area.

- (2) Mitigation Lands Field Surveys and Conservation Value Calculation. The mine operator shall identify one or more parcels of land or mining claims suitable for relinquishment and shall retain a qualified biologist to perform focused botanical surveys of those lands. Survey methods and data collection shall be as described above for project site field surveys. Field survey results and mapping data shall be provided to the San Bernardino National Forest for inclusion in the CHMS GIS data and calculation of total CHMS conservation value of the proposed project area.
- (3) Land Dedication or Claim Relinquishment. The mining operator shall specify lands or mining claims whose conservation values and habitat area occupied by listed species total no less than three times the total conservation value of the project area and roughly three times the occupied habitat for each affected listed species. The mining operator shall dedicate the lands or relinquish those claims according to the terms of the CHMS and the MOU. The operator shall provide written documentation of the land dedication or claim relinquishment to the County upon completion.
- (4) Protect Special-Status Plant Locations Adjacent to Project Site. Any special-status plant species that are identified within 100 feet of the proposed impact area, but not proposed to be disturbed by the project, shall be protected by barrier fencing to ensure that construction activities and material stockpiles do not impact any special-status plant species. These avoidance areas shall be identified on project plans.

~~These surveys shall be conducted in accordance with the CDFW Guidelines for Assessing Effects of Proposed Developments on Rare Plants and Plant Communities (Nelson 1994). These guidelines require that rare plant surveys be conducted at the proper time of year when rare or endangered species are both evident and identifiable. Field surveys shall be scheduled to coincide with known flowering periods and/or during appropriate developmental periods that are necessary to identify the plant species of concern.~~

~~If any state or federally listed, CNPS List 1, or CNPS List 2 plant species are found in or adjacent to (within 25 feet) the proposed impact area during the surveys, these plant species shall be avoided to the extent feasible and the following mitigation measures shall be implemented:~~

- ~~(1) In some cases involving state-listed plants, it may be necessary to obtain an incidental take permit under Section 2081 of the Fish and Game Code (2081 permit). The mine operator shall consult with the CDFW to determine whether a 2081 permit is required and obtain all required authorizations prior to initiation of ground-breaking activities.~~
- ~~(2) Before the approval of grading plans or any ground-breaking activity within the PSA, the mine operator shall submit a mitigation plan concurrently to the CDFW and the USFWS (if appropriate) for review and comment. The plan shall include mitigation measures for the population(s) to be directly affected. Possible mitigation for impacts to special-status plant species can include implementation of a program to transplant, salvage, cultivate, or re-establish the species at suitable sites (if feasible) or through the purchase of credits from an approved mitigation bank, if available. The actual level of mitigation may vary depending on the sensitivity of the species, its prevalence in the area, and the current state of knowledge about overall population trends and threats to its survival. The final mitigation strategy for directly impacted plant species shall be determined by the CDFW and the USFWS (if appropriate) through the mitigation plan approval process.~~
- ~~(3) Any special-status plant species that are identified adjacent to the PSA, but not proposed to be disturbed by the project, shall be protected by barrier fencing to ensure that construction activities and material stockpiles do not impact any special-status plant species. These avoidance areas shall be identified on project plans.~~

*Timing/Implementation:* Ongoing during quarry and reclamation activities

*Enforcement/Monitoring:* San Bernardino County Land Use Services Department

**Page 3.3-60 is revised as follows:**

Previous surveys did not detect desert tortoises or tortoise sign (burrows, scat, carcasses, etc.) on or adjacent to the PSA. In addition, the closest documented occurrence in the region is approximately 7 miles north of the PSA. Figure 3.3-7 shows desert tortoise habitat suitability areas and maxent model scores indicating areas of low to high suitability. The project site is in an area with low suitability. Nonetheless, suitable habitat exists for this species within the PSA; therefore, this species could potentially inhabit the site, which would result in adverse impacts on desert tortoises should they be present in areas proposed for disturbance. The impact is considered potentially significant.

**MM 3.3.3b Desert Tortoise Avoidance, Minimization, and Mitigation.** Should occupied desert tortoise habitat be identified during the pre-project surveys, a habitat biological mitigation and monitoring plan and raven control plan shall be developed in consultation with the USFWS and the CDFW. This plan shall describe all measures to be implemented prior to, during, and after construction, including, but not limited to, the following:

### 3.0 REVISIONS TO THE DRAFT EIR

---

- (1) All tortoise burrows shall be avoided to the greatest extent feasible, and temporary exclusionary tortoise fencing (1x2-inch mesh hardware cloth) shall be installed at the limits of disturbance prior to initiation of construction activities. Fence installation and ongoing oversight of the need for maintenance shall be monitored by a USFWS-authorized desert tortoise biologist.
- (2) Upon completion of fence installation, the authorized biologist shall conduct a clearance survey of the fenced area prior to declaring the construction area free of tortoises.
- (3) If it is necessary to excavate a desert tortoise from its burrow to move it out of harm's way, excavation shall be done with hand tools, either by or under the direct supervision of the authorized biologist.
- (4) Desert tortoises removed from burrows shall be placed in an unoccupied burrow of approximately the same size as the one from which they were removed. If an existing burrow is not available, the authorized biologist shall construct one.
- (5) Desert tortoises moved during inactive periods will be monitored for at least two days after relocation or the end of construction, whichever occurs first.
- (6) If desert tortoises need to be moved at a time of day when ambient temperatures could harm them (less than 40 degrees and over 90 degrees Fahrenheit), they shall be held overnight in a clean cardboard box and released the following day during more favorable temperatures. Cardboard boxes used to hold tortoises shall only be used once.
- (7) All handling of desert tortoises shall be performed consistent with the *Guidelines for Handling Desert Tortoises During Construction Projects* (Desert Tortoise Council 1994).
- (8) The mine operator shall mitigate for impacts on occupied desert tortoise habitat at a 1:1 minimum ratio through the purchase of credits from an approved desert tortoise mitigation bank. The amount of credits purchased and the location of the mitigation bank used ~~shall be established through consultation with and are subject to~~ approval by the USFWS and the CDFW. The mine operator shall provide the County with evidence that the permit and/or other requirements established by either agency have been satisfactorily met.

*Timing/Implementation:* Ongoing during quarry and reclamation activities

*Enforcement/Monitoring:* San Bernardino County Land Use Services Department

A new figure (Figure 3.3-7, Desert Tortoise Habitat Suitability) has been added to the Draft EIR following page 3.3-60. Figure 3.3-7 is provided at the end of this section.

**Page 3.3-64 is revised as follows:**

**MM 3.3.6** **Migratory Bird Surveys.** If clearing and/or construction activities will occur in undisturbed portions of the site, or blasting activities will occur in any portion of the project site, during the migratory bird nesting season (March 15–August 15), preconstruction surveys to identify active migratory bird nests shall be conducted by a qualified biologist within 14 days of construction initiation of project activities. Focused surveys must be performed by a qualified biologist for the purposes of determining the presence/absence of active nest sites within the proposed impact area and a 200-foot buffer (if feasible). Surveys shall be repeated if project activities are delayed or postponed for more than 30 days.

If active nest sites are identified within 200 feet of project activities, the mine operator shall impose a limited operating period (LOP) for all active nest sites prior to commencement of any project ~~construction~~ activities to avoid construction or project-related disturbances to migratory bird nesting activities. An LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, blasting, and construction) will not occur and will be imposed within 100 feet of any active nest sites until the nest is deemed inactive. Activities permitted within and the size (i.e., 100 feet) of LOPs may be adjusted through consultation with the CDFW and ~~for~~ the County.

When an active nest is located within 200 feet of project activities, monitoring shall be conducted weekly by a qualified biologist until the nest is deemed inactive. If nest monitoring detects changes in behavior of nesting birds associated with blasting activities, use of noise attenuation devices or techniques (e.g., blast mats, different blasting compounds) shall be used during the breeding season. When active nests are present, a monthly nest monitoring report shall be prepared by the qualified biologist and submitted to CDFW and the County until the nest(s) are deemed inactive.

Timing/Implementation: Ongoing during quarry and reclamation activities

Enforcement/Monitoring: San Bernardino County Land Use Services Department

**Page 3.3-66 is revised as follows:**

**MM 3.3.7a** **Raptor Conservation Strategy.** The applicant shall participate in and implement the Raptor Conservation Strategy.

**MM 3.3.7b** **Raptor Surveys.** If clearing and/or construction activities would occur in undisturbed portions of the site, or blasting activities will occur in any portion of the project site, during the raptor nesting season (January 15–August 15), preconstruction surveys to identify active raptor nests shall be conducted by a qualified biologist within 14 days of construction initiation. Focused surveys must be performed by a qualified biologist for the purposes of determining the presence/absence of active nest sites within the proposed impact area. If no active nests are found, no further mitigation is required. Surveys shall be

### 3.0 REVISIONS TO THE DRAFT EIR

---

repeated if project activities are delayed or postponed for more than 30 days.

If active golden eagle or other raptor nest sites are identified within a half mile of project activities, the applicant shall impose a limited operating period (LOP) for all active nest sites prior to commencement of any project activities to avoid construction- or project-related disturbances to nesting raptors. An LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, blasting, and construction) will not occur and shall be imposed within 500 feet of any active nest sites until the nest is deemed inactive. Activities permitted within LOPs and the size (i.e., 500 feet) of LOPs may be adjusted through consultation with the CDFW and the County.

When an active nest is located within a half mile of project activities, monitoring shall be conducted weekly by a qualified biologist until the nest is deemed inactive. If nest monitoring detects changes in behavior of nesting birds associated with blasting activities, use of noise attenuation devices or techniques (e.g., blast mats, different blasting compounds) shall be used during the breeding season. When active nests are present, a monthly nest monitoring report shall be prepared by the qualified biologist and submitted to CDWF and the County until the nest(s) are deemed inactive.

Timing/Implementation: Ongoing during quarry and reclamation activities

Enforcement/Monitoring: San Bernardino County Land Use Services Department

**Page 3.3-68 is revised as follows:**

#### **MM 3.3.9**

**Bat Surveys.** Prior to implementation of project-related activities in undisturbed portions of the site, the mine operator shall retain a qualified biologist to determine whether potential roosting sites for special-status bats may be affected. If potential roost sites are identified, a preconstruction survey by a qualified biologist shall be conducted ~~prior to the end of April between March 1 and July 31~~ to determine the presence or absence of roosting bats. If the survey does not identify the presence of occupied roosts, no further mitigation is required.

If ~~day roosts or maternity roosts~~ non-breeding roosts occupied by special-status bat species are documented within construction areas, the bats shall be safely flushed from the sites where roosting habitat is planned to be removed prior to May of each construction phase ~~(maternity roosts are generally occupied from May to August)~~ and prior to the onset of construction activities. The removal of the roosting sites shall occur during the time of day when the roost is unoccupied.

If a maternity colony is detected, a 100-foot construction-free buffer shall be established around the roost site and remain in place until it has been determined by a qualified biologist that the nursery is no longer active.

Removal of maternity roosts shall be restricted to between March 1 and April 15 or August 15 and October 15 to avoid interfering with an active nursery.

The loss of each roost will be compensated for by the construction and installation of two bat boxes suitable to the bat species and colony size excluded from the original roosting site. The bat boxes shall be installed in the vicinity prior to removal of the original non-breeding/maternity roost sites. A detailed program for bat flushing, roosting site removal, and installation of bat boxes shall be developed in consultation with a qualified biologist.

*Timing/Implementation:* Ongoing during quarry and reclamation activities

*Enforcement/Monitoring:* San Bernardino County Land Use Services Department

**Page 3.3-70 is revised as follows:**

**MM 3.3.11a** **No Net Loss of Riparian Vegetation.** The mine operator shall ensure there is no net loss of riparian vegetation. Mitigation can include on-site restoration or purchase of mitigation credits at a USACE-approved mitigation bank, placing a conservation easement over a riparian area, or quit claiming mineral claims over a riparian area. Mitigation, as required in regulatory permits issued through the CDFW, the USACE, or the RWQCB, may be applied to satisfy this measure.

Evidence of compliance with this mitigation measure shall be provided prior to construction and grading activities for the proposed project.

*Timing/Implementation:* Ongoing during quarry and reclamation activities

*Enforcement/Monitoring:* San Bernardino County Land Use Services Department

**MM 3.3.11b** **Oak Woodlands.** The mine operator shall ensure there is no net loss of oak woodland habitat. Mitigation can include any one or combination of the following:

- (1) Preservation of existing oak woodlands by recording a conservation easement(s) in favor of the County or an approved organization or agency.
- (2) Replacement or restoration of former oak woodlands. The County may require the planting and maintenance of replacement trees, including replacing dead or diseased trees. The replacement ratio and tree sizes shall be based on the recommendation of an Oak Reforestation Program prepared by a registered professional forester. The requirement to maintain trees in compliance with this paragraph shall terminate seven years after the trees are planted.

### 3.0 REVISIONS TO THE DRAFT EIR

---

- (3) Contribution of in-lieu mitigation fees to the Oak Woodlands Conservation Fund, established under Fish and Game Code Section 1363 for the purpose of purchasing oak woodlands conservation easements. A project applicant who contributes funds in compliance with this subsection shall not receive or use a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project. The in-lieu fee for replacement trees shall be calculated based on their equivalent value as established by the International Society of Arboriculture's current edition of the *Guide for Plant Appraisal*.
- (4) Performing other mitigation measures as may be required by the County (e.g., inch-for-inch off-site replacement planting, transfer of development rights, enrollment of project with offset provider for carbon credits in greenhouse gas emission registry, carbon reduction, and carbon trading system).

Timing/Implementation: Prior to impacting oak woodland habitat

Enforcement/Monitoring: San Bernardino County Land Use Services Department

### 6.0 REFERENCES

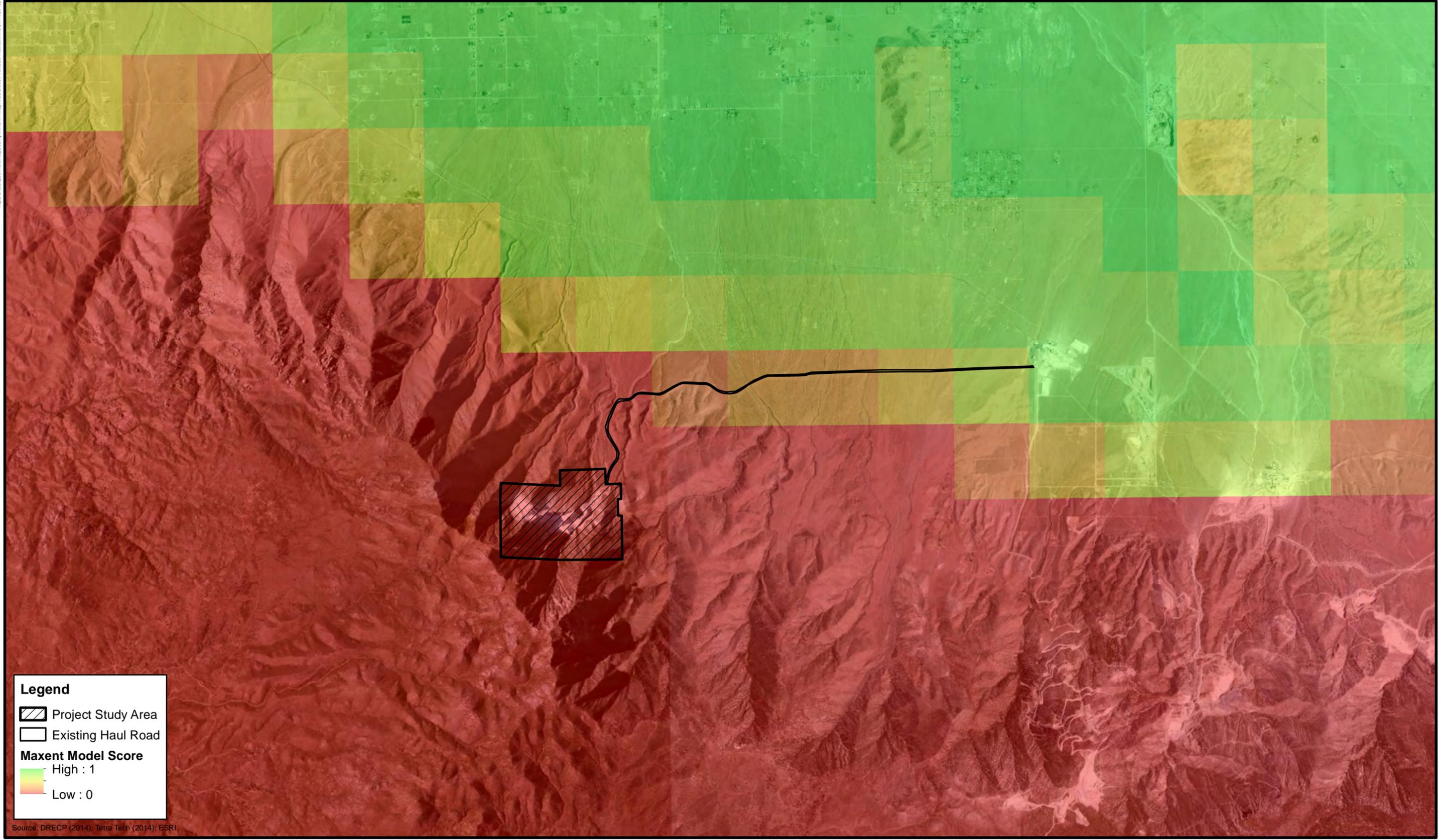
**Page 6.0-3 under Section 3.3, Biological Resources, is revised as follows:**

Lilburn Corporation. 2012a. *Biological Resources Assessment for the Omya White Knob Quarry Haul Road Improvement Project*. San Bernardino, CA.

———. 2012b. *Focus Plant Survey for the Direct Land Sale Area Adjacent to the OMYA White Knob Quarry*. San Bernardino, CA.

———. 2012c. *Plants Report for the OMYA White Knob Quarry Haul Road Improvement Project*. San Bernardino, CA.

T:\GIS\San\_Bernardino\_County\KCD\White\_Krop\Desert\_Tortoise\_Habitat.mxd (1/14/2015)



**Legend**

- Project Study Area
- Existing Haul Road

**Maxent Model Score**

High : 1

Low : 0

Source: DRECP (2014); Tetra Tech (2014); ESRI.

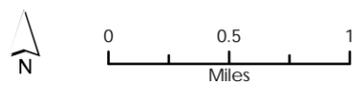
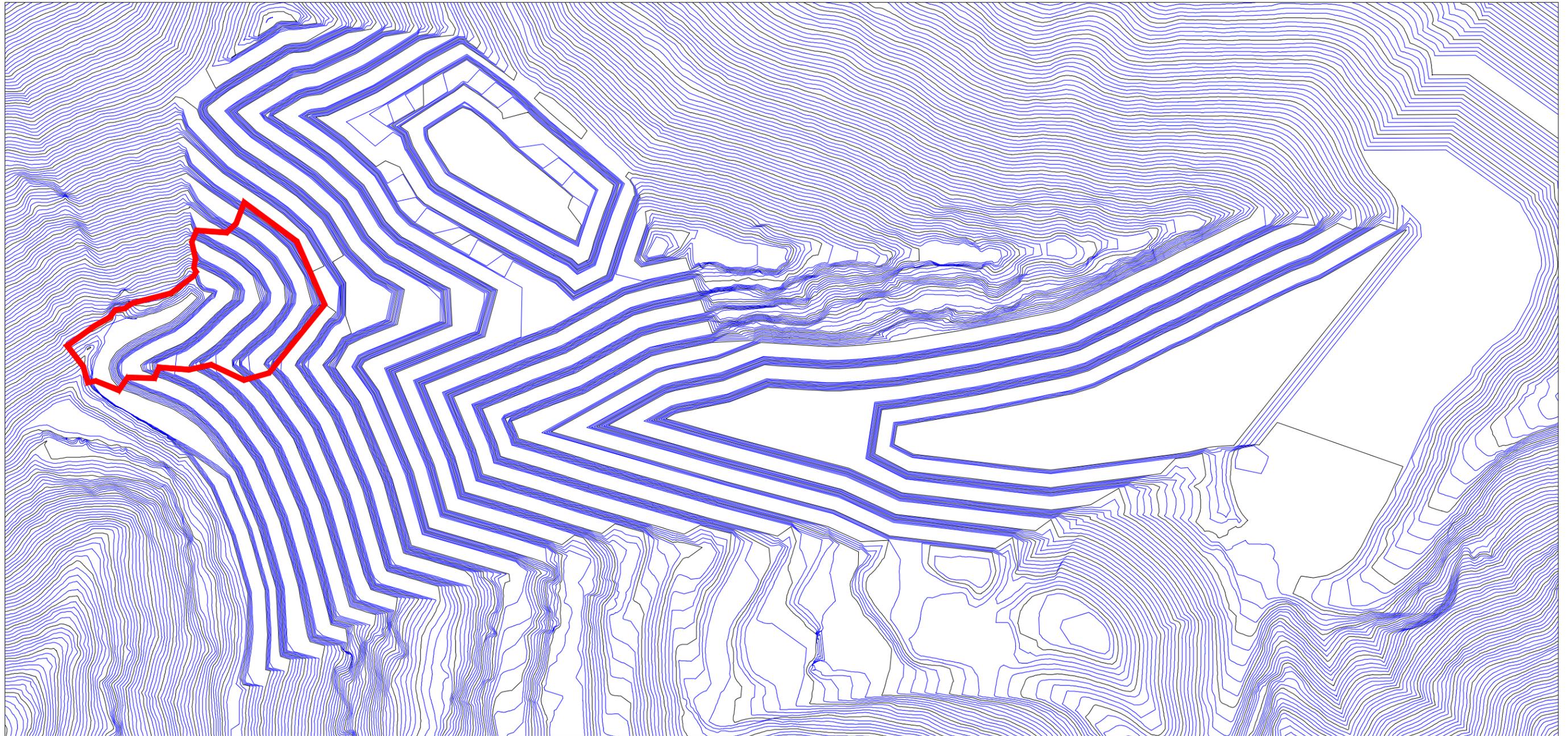


Figure 3.3-7  
Desert Tortoise Habitat Suitability





Mine Plan showing topography proposed in 2013 red outline indicates area where changes are needed.



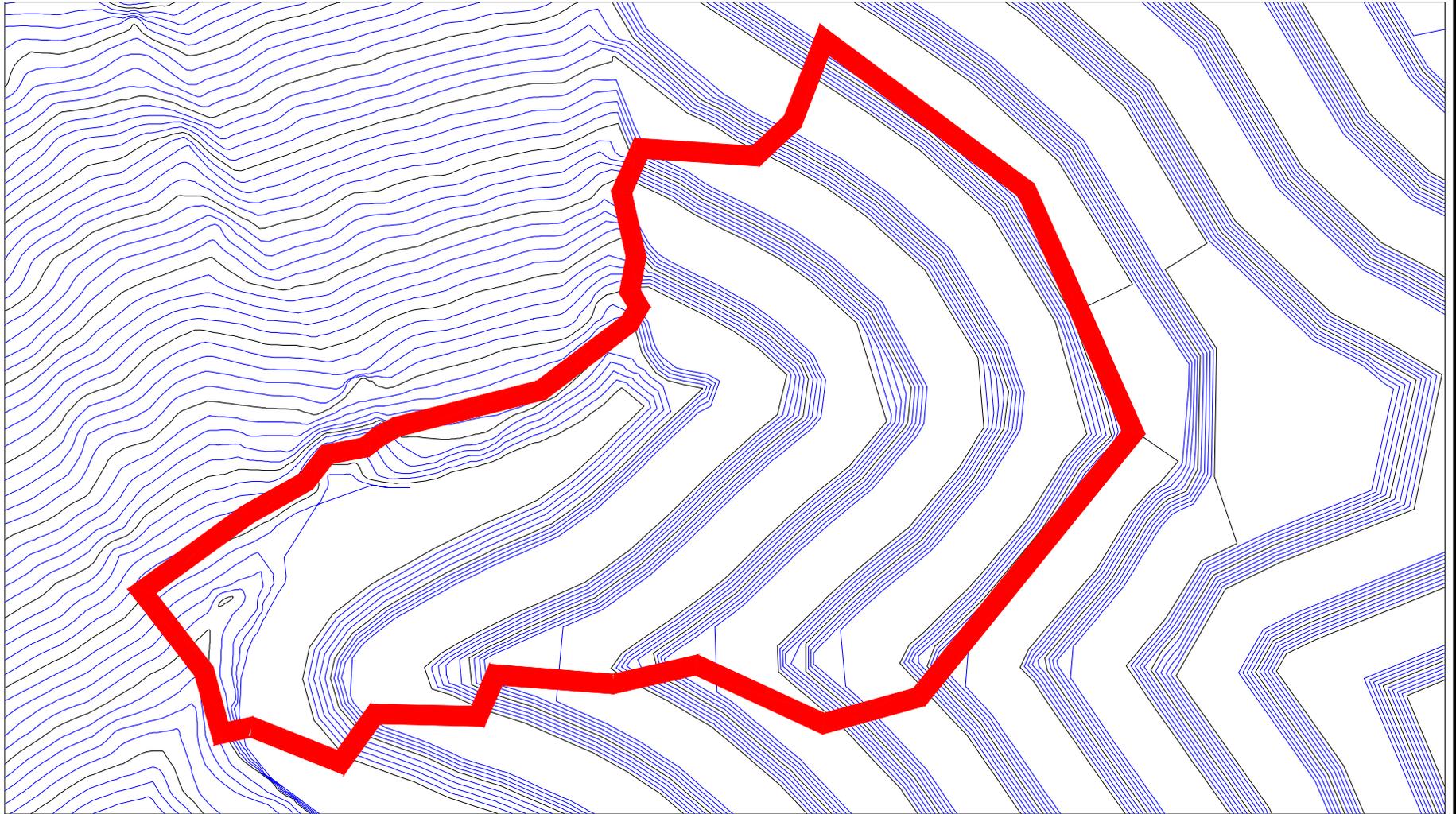
Source: Omya

Not to scale



T:\\_CS\Work\San Bernardino\_County\N\White Knob\ER\Figures

Mine Plan showing topography proposed in 2013 red outline indicates area where changes are needed.



Source: Omya

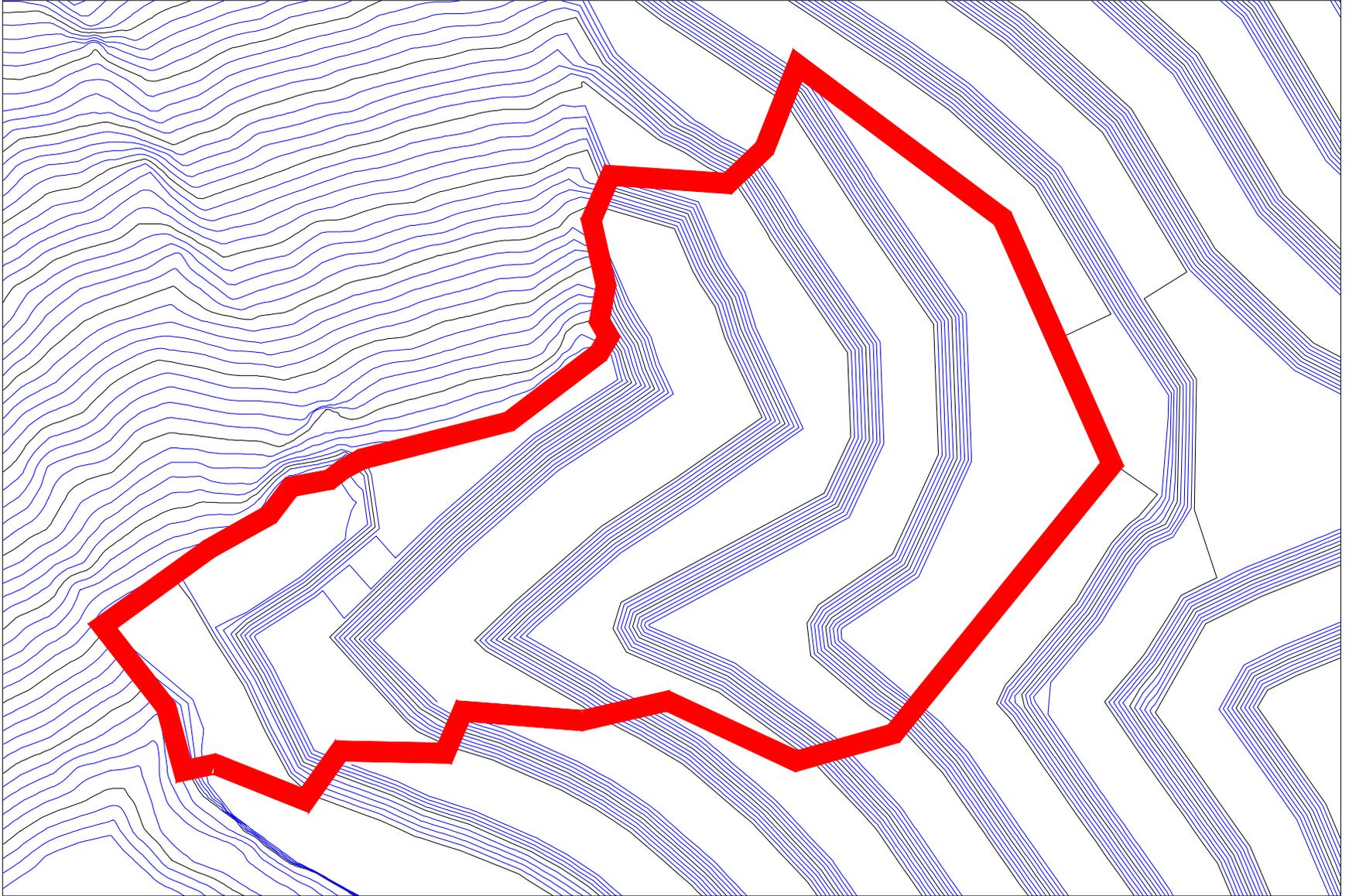
Not to scale

**Figure 2.0-4b**  
2013 Original Site Area Configuration





Mine Plan showing topography proposed in 2013 outside red line and changes proposed July 2014 inside the red line.



Source: Omya

Not to scale

**Figure 2.0-4c**  
2014 Site Area Change





---

# **APPENDIX A**

---





# CHJ Consultants

1355 E. Cooley Drive, Suite C, Colton, CA 92324 ♦ Phone (909) 824-7311 ♦ Fax (909) 503-1136  
15345 Anacapa Road, Suite D, Victorville, CA 92392 ♦ Phone (760) 243-0506 ♦ Fax (760) 243-1225  
77-564A Country Club Drive, Suite 122, Palm Desert, CA 92211 ♦ Phone (760) 772-8234 ♦ Fax (909) 503-1136

August 23, 2013

Omya California

Job No. 13502-8

A Division of Omya, Incorporated

7225 Crystal Creek Road

Lucerne Valley, California 92356

Attention: Mr. James Rogers

Subject: Response to Comments  
Slope Stability Investigation, Proposed Amended Plan of Operations  
White Knob Quarry Mining and Reclamation Plan  
Lucerne Valley, California  
CHJ Consultants, Dated January 14, 2012

Dear Mr. Rogers:

In accordance with your request, we have prepared this response to comments by PMC, Incorporated and the State of California Office of Mine Reclamation (OMR) regarding our slope stability investigation report for White Knob/White Ridge quarries in Lucerne Valley, California. The slope stability report was prepared to address proposed amendments to reclamation plan slopes and quarry configurations. We appreciate the opportunity to receive comments and suggestions from reviewers.

This letter addresses the review comments provided in electronic mail attachments. The comments by PMC and OMR are presented in italics below, followed by our response.

## **Comments by PMC**

*The slope stability analysis was done for deep-seated landsliding and quarry slope rockwall planar and wedge failures. The mine plan calls for creation of three overburden storage areas (OB-1, OB-2, and OB-3) that will have final slopes with grades ranging from 1.5H:1V to 2H:1V. A fourth overburden storage area is at the bottom of the White Knob Quarry pit.*



*1 The report doesn't discuss the condition of the northwestern slope that in the past received overcast material or an analysis of that slope's long-term stability. It is recommended that additional discussion and analysis of the slope stability in this area be included. In addition, recommendations for minimizing future rockfalls and slope slips should be provided, as necessary.*

The condition of the northwest slope, slope stability and rockfall calculations, and recommendations for minimizing rockfall and providing for long-term stability of the northwest slope area are discussed under separate cover in a report by CHJ dated November 21, 2012.

*2 Stability analysis for the overburden fills assumed a maximum slope of 2H:1V. However, OB-2 shows slopes at 1.5H:1V. Additional stability analysis for this fill slope is needed.*

Slope stability calculations along Section D-D' constructed through the OB-2 area and including saturation along the bedrock/fill contact are attached. The results are presented in Figures A-1.1 through A-1.3 and indicate suitable factors of safety for static and seismic conditions. The slope model is presented on A-1.4.

*3 As noted in the comments on the Stantec August 2011 drainage report, the overburden fill slopes need additional details regarding the locations and design of runoff conveyance structures on the overburden fill slopes and along benches. The geotechnical engineer should evaluate these structures to ensure they don't cause any slope instability.*

We can review the design of surface drainage improvements and provide an evaluation with regard to slope stability at such time as plans are available.

*4 It is recommended that the project geotechnical engineer consider placing a rock subdrain for several hundred feet upslope from the toe of the overburden fills to prevent buildup of seepage pressures from infiltrating water. This may be particularly important for OB-1 because the mine quarry will be backfilled and at final reclamation is intended to function as a sedimentation and infiltration basin. Infiltration in this basin may flow as groundwater out through the OB-1 fill. Design drawings and construction details for any recommended rock subdrains should be provided.*

A rock subdrain layer may be placed along the (topographic low) axis of valley areas to receive overburden stockpile material prior to backfill with overburden. In the case of OB-1, the rock layer may extend from the toe of the existing overburden stockpile to the area of the anticipated final toe of the OB-1 stockpile. For OB-3, the drain may extend 250 feet upgradient from the toe. OB-2 will be



buttressed by OB-1 and become part of the same fill mass; therefore, a drainage blanket is not required for OB-2. The following guidelines are provided for placement, rock size and drain dimensions.

- Install along the natural drainage system (path).
- Extend from the toe up gradient as recommended.
- Rock blanket to consist of non-degradable limestone or other durable rock that will not slake in water and will be free of clay.
- Not more than 20 percent of the rock may be less than 4 inches in size and no single rock may be larger than 20 percent of the width of the drain. The minimum size of the main underdrain may be:

Total Amount of Fill Material	Minimum Size of Drain, in Feet	
	Width	Height
Less than 1,000,000 yards	10	2
More than 1,000,000 yards	16	4

#### 5 Kinematic analysis

*Enclosure B-4.0 – This analysis is only for planar failures. The figure also appears to show two wedge failure intersections within the critical zone. One intersection comes from a joint and a foliation and the other for two joints. A discussion is needed on why these intersections were not included in the analysis.*

Figures B-1.1 and B-1.2 provide an alternate depiction of the discontinuity data for the White Ridge quarry as a wedge sliding analysis with a greater statistical emphasis. The plot indicates a significant potential for wedge geometry in south-facing cuts. Current mining practice includes scaling of loose blocks during excavation of final bench faces and inclusion of catch benches in the mining plan. These mitigation measures have resulted in stable wall configurations in the existing White Knob



quarry and are anticipated to mitigate potential instabilities in the future White Ridge quarry. In addition, observation of slope conditions by mining personnel, including Omya geologists, and annual inspection by geologic consultants is included in current operations to identify and mitigate instabilities during mining.

*Enclosure B-5.0 – This analysis is for one wedge failure. The figure appears to show a second wedge failure caused by the intersections of a foliation and a fault within the critical zone. A discussion is needed on why this intersection wasn't included in the analysis.*

Figures B-2.1 and B-2.2 provide an alternate depiction of the discontinuity data for the White Ridge quarry as a wedge sliding analysis with a greater statistical emphasis. Based on the percentage of "critical" features versus the total intersections, the potential for wedge failure in west-facing slopes is low. Current mining practice includes scaling of loose blocks during excavation of final bench faces and inclusion of catch benches in the mining plan. These mitigation measures have resulted in stable wall configurations in the existing White Knob quarry and are anticipated to mitigate potential instabilities in the future White Ridge quarry. In addition, observation of slope conditions by mining personnel and annual inspection by geologic consultants are included in current operations to identify and mitigate instabilities during mining.

*Enclosure B-9.0 – The plane 2 dip value and dip direction values used in the wedge failure analysis do not appear to be listed in the tables in Enclosure B-1.1 or B-1.2. The failure plane may be an average of several that appear to intersect where plane 2 is shown on the figure. Additional discussion is needed as to why this dip and directional information is provided for the wedge analysis of plane 2.*

The data point referenced in the above comment is Discontinuity No. 18 on Table B-1.1; dip = 60, dip direction = 175, representing a small joint. Figures B-3.1 and B-3.2 provide an alternate depiction of the discontinuity data with No. 18 labeled. According to this depiction, the potential for wedge geometries in southwest-facing slopes of the White Knob quarry is moderate. Empirical data (observation of the existing quarry walls) does not indicate that wedge failure is an issue for the quarry. This observation supports the conclusion that ongoing mining practices produce suitably stable quarry walls with sufficient bench width and spacing to result in a stable reclamation



condition. It should be noted that a majority of discontinuities plotted in Figures B-3.1 and B-3.2 are discontinuous joints so that the volume of any individual feature is small.

*The coefficient of friction and cohesive strength used in the kinematic analysis were 50 degrees and 800 pounds per square foot, respectively. The report does not discuss how these values were determined. Additional discussion is needed on how these rock slope material strength values were determined.*

A cohesion value of 800 psi and a friction angle of 50 degrees were estimated for use in the wedge and plane analyses based on a moderate to high degree of cementation along joint surfaces and the moderately rough to rough surface conditions exhibited in the site bedrock. The presence of jointed and very steep to vertical rock faces in excavations and natural outcrops provides empirical support for selection of these values.

*The existing CHJ geotechnical report, dated January 14, 2013, doesn't discuss the Alquist-Priolo Earthquake Fault Study Zones that run across the northern portion of the project. The County's Geohazards Maps also show two large landslide areas near the mine site. These landslides look like they are northwest of the project but the County maps are difficult to locate precisely.*

The entire mine site is located within the Bulter Peak 7.5-minute quadrangle, which does not include any Alquist-Priolo Earthquake Fault Zones (AP). Therefore, no portion of the mine boundary is located in an AP zone. For this reason, page 10 of the CHJ report (January 14, 2013) states that "ground rupture due active faulting in the quarry is not anticipated within the quarry area." The closest AP zone to the mining boundary is approximately one-half mile to the north. The seismic hazard from nearby fault zones is addressed by use of a seismic coefficient of 0.2 for the stability analyses. Landslides depicted on San Bernardino County geologic hazard overlay map nos. FH08 C and FH16C are located outside of the mining boundary. Mapped landslides are not located within the mining project boundary.

### **Comments by OMR**

*The January 14, 2013 CHJ Consultants (CHJ) study entitled, "Slope Stability Investigation, Proposed Amended Plan of Operations, White Knob Quarry Mining and Reclamation Plan, Lucerne Valley, California" addresses the design and stability of final cut slopes. The study concludes that final cut slopes will have suitable factors of safety against failure of the overall slope (referred to as "global"*



*stability) for both static and pseudostatic results. Additionally, kinematic analyses completed indicate that block, wedge and topple failures may be possible for certain quarry wall orientations. The following Items should be addressed and the report revised, as appropriate, prior to approval:*

*The study by CHJ includes no engineering geologic cross sections of the final slopes. Engineering geologic cross sections of final slopes should be included in the study, and those sections should form the basis for stability models.*

The major geologic contacts are depicted in the slope stability sections presented in Appendix C of the January 14, 2013 report. The rock (slope-forming) material was modeled using the criteria of Hoek-Brown that consider the unconfined compressive strength, geologic strength index, intact rock constant and disturbance factor of the rock mass. Individual joints and shear zones, as observed in existing quarry and natural exposures, do not exhibit significant continuity at the cross-section scale. Use of the Hoek-Brown criteria addresses the engineering geologic condition of the rock mass. Future excavations may reveal structures or trends that differ from those currently observable. This potential is addressed by period mine inspections and annual reporting.

*Stability analyses on fill slopes do not consider the presence of groundwater. However, Overburden Storage Site #2 (OB #2) will be constructed within a drainage with substantial drainage area above. This drainage likely will concentrate water on OB #2 and likely affect the stability of the fill slopes. The CHJ study should be revised to account for the presence of water in the fill materials.*

*Stereonet analyses indicate that planar, wedge, and topple failures are kinematically possible, and the analyses by CHJ only note factors of safety of less than 1.0 for some planar joints. CHJ indicates that the joints with geometries suitably oriented for planar failures have a limited extent and concludes that the potential for large planar failures is low. However, there appears to be a potential for smaller, bench-scale failures. Slope inspection measures to identify potentially unstable areas should be included in the reclamation plan, and mitigation measures for stabilizing these areas should be proposed and evaluated in the CEQA analyses.*

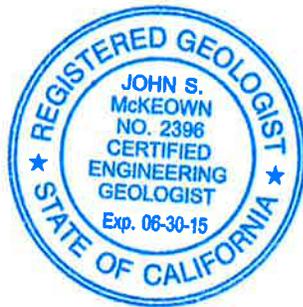
Slope inspection by the mine operator and annual geologic inspections by consultants for compliance to the reclamation plan are part of the ongoing quarry operation plan. Current mining practice includes scaling of loose blocks during excavation of final bench faces and inclusion of catch benches in the mining plan. These mitigation measures have resulted in stable wall configurations in the existing White Knob quarry and are anticipated to mitigate potential instabilities in the future White Ridge quarry. In addition, observation of slope conditions by mining personnel and annual



inspection by geologic consultants are included in current operations to identify and mitigate instabilities during mining.

**CLOSURE**

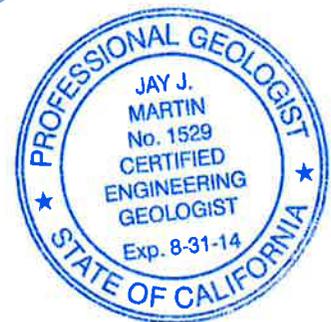
We trust this information is sufficient for your needs at this time. If you should have questions, please contact this firm at your convenience.



Respectfully submitted,  
CHJ CONSULTANTS

  
John S. McKeown, E.G. 2396  
Project Geologist

  
Jay J. Martin, E.G. 1529  
Vice President



JMc/JJM/lb

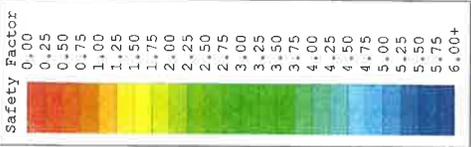
Enclosures: "A-1.1" - "A-1.4" - Slope Stability Calculations - Section D-D'  
"A-1.5" - Location of Section D-D'  
"B-1.1" - "B-3.2" - Kinematic Diagrams

Distribution: Omya California (2)  
James Rogers (electronic)  
K. Shapiro (electronic)



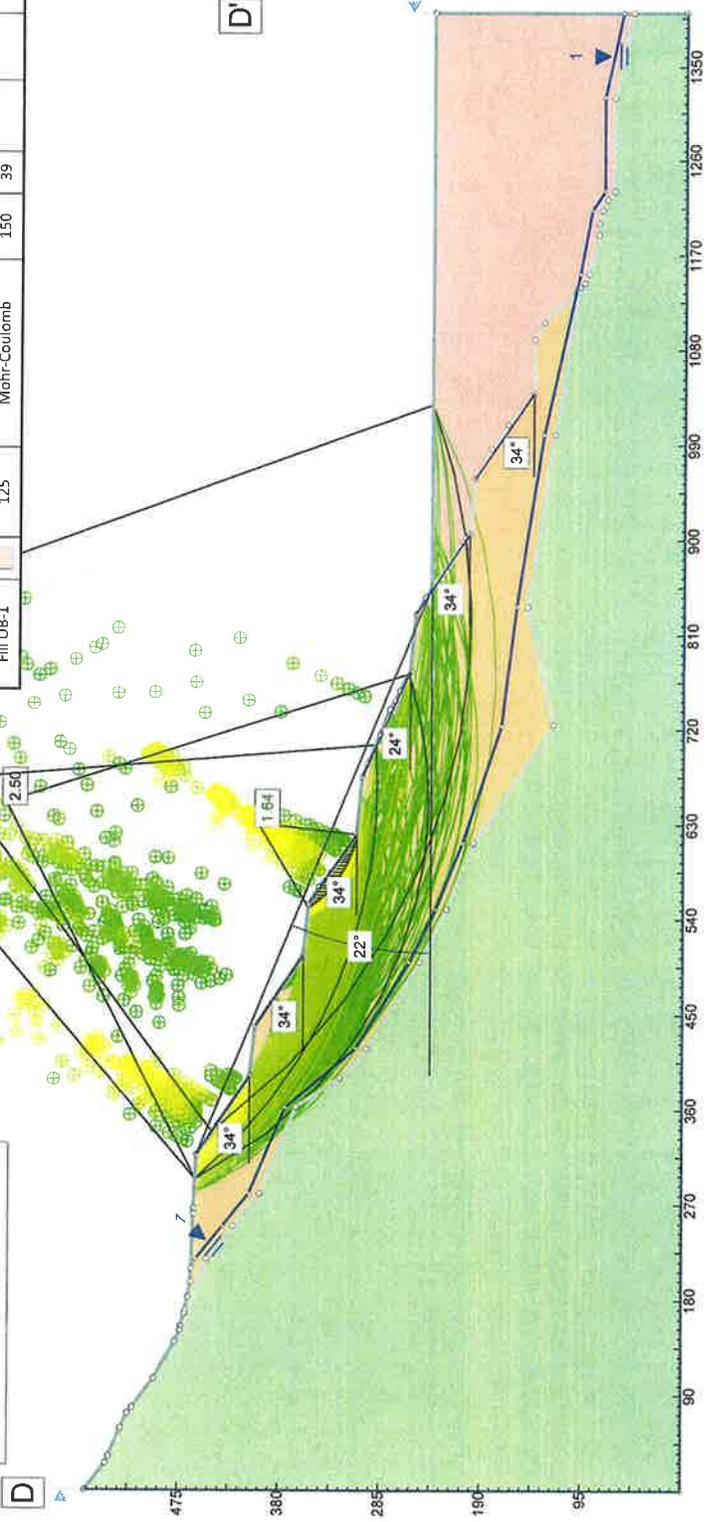
## **REFERENCES**

CHJ Consultants, January 14, 2012, Slope Stability Investigation, Proposed Amended Plan of Operations, White Knob Quarry Mining and Reclamation Plan, Lucerne Valley, California, Prepared for Omya California, a Division of Omya Incorporated, CHJ Job Number 12715-8.

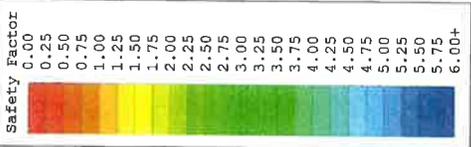


Global Minimums  
 Method: spencer  
 FS: 1.636640  
 Center: 640.332, 415.001  
 Radius: 108.753  
 Left Slip Surface Endpoint: 550.768, 353.311  
 Right Slip Surface Endpoint: 621.272, 307.931  
 Resisting Moment=6.89603e+006 lb-ft  
 Driving Moment=4.21276e+006 lb-ft  
 Resisting Horizontal Force=52943.2 lb  
 Driving Horizontal Force=32342.8 lb  
 Total Slice Area=579.52 ft<sup>2</sup>

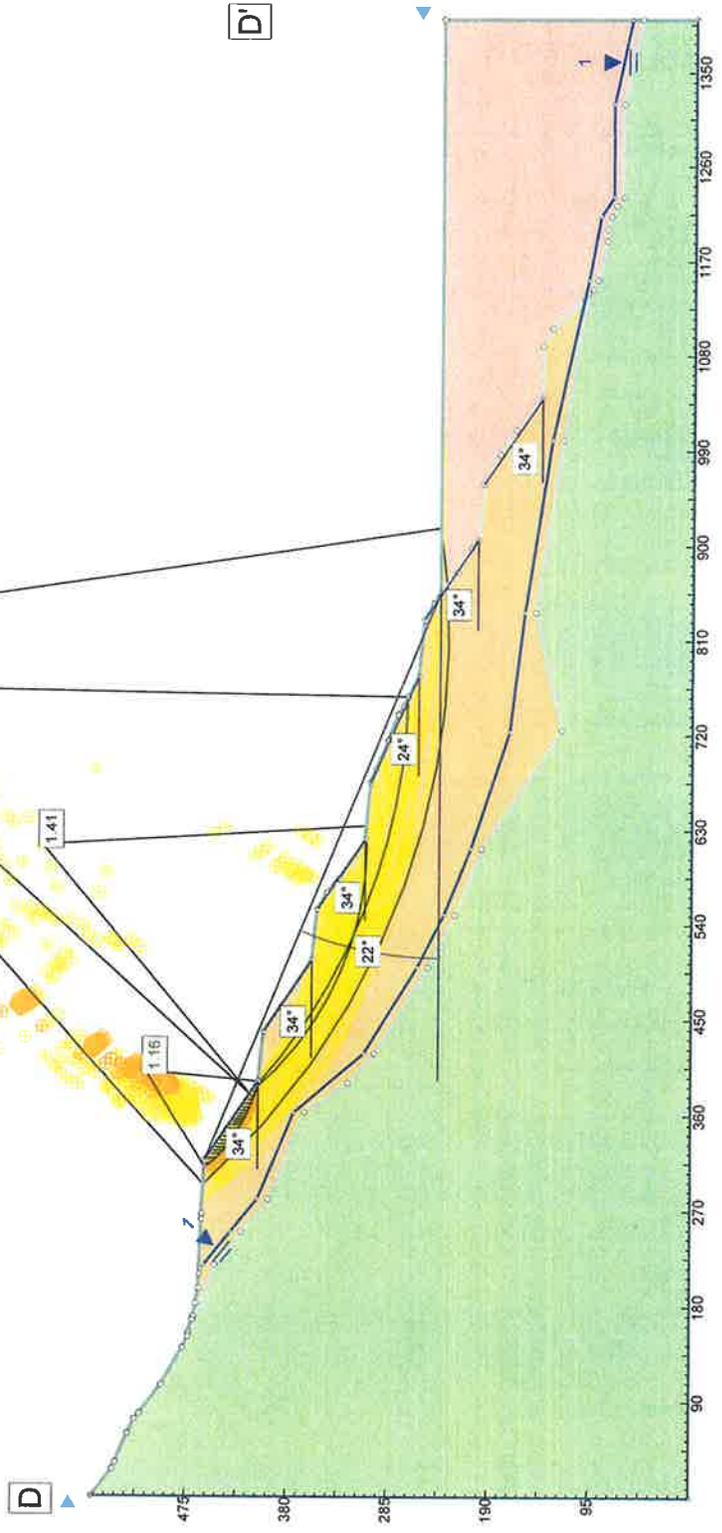
Material Name	Color	Unit Weight (lbs/ft <sup>3</sup> )	Strength Type	Cohesion (psf)	Phi (deg)	UCS (psf)	m	s	a	Ru
Granite	[Green]	155	Generalised Hoek-Brown			1.5e+006	0.000553084	0.504048		Water Surface
Fill OB-2	[Yellow]	125	Mohr-Coulomb	150	39					Piezometric Line 1
Fill OB-1	[Orange]	125	Mohr-Coulomb	150	39					Piezometric Line 1



		Project: White Knob Quarry OB-2 Section D-D'	
Analyst Description	Author	Scale	1:1400
Drawn By	Date	Enclosure	A-1.1
File Name			
CHU Slide.Lslim		JMC	8/15/2013

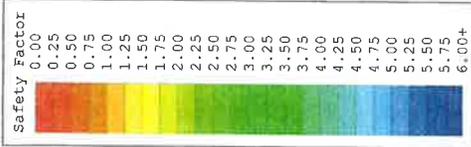


Global Minimums  
 Method: Spencer  
 FS: 1.155680  
 Axis Location: 402.463, 513.748  
 Left Slip Surface Endpoint: 311.744, 458.134  
 Right Slip Surface Endpoint: 392.523, 407.805  
 Resisting Moment=7.4791e+006 lb-ft  
 Driving Moment=6.47162e+006 lb-ft  
 Resisting Horizontal Force=60948.9 lb  
 Driving Horizontal Force=52738.7 lb  
 Total Slice Area=728.255 ft2



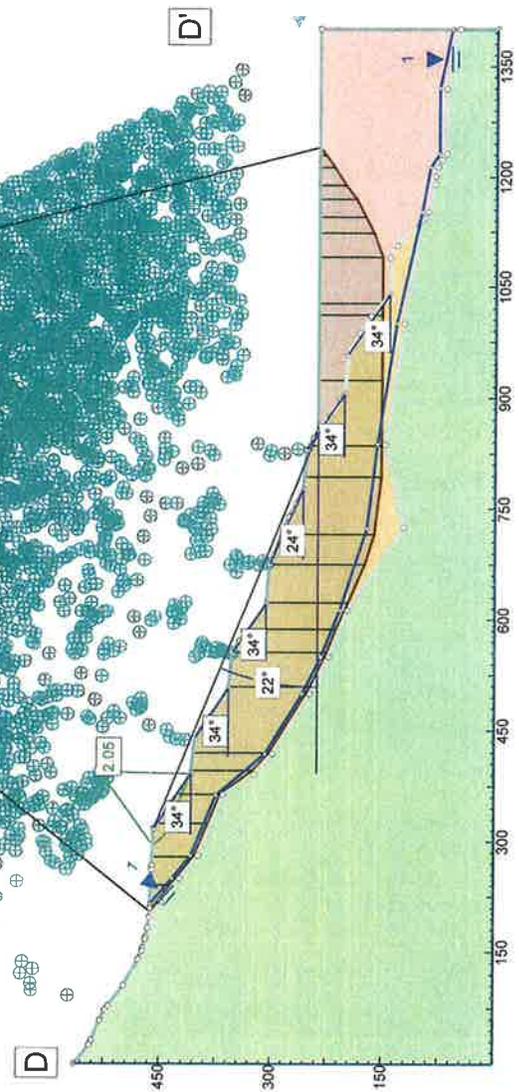
Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)	UCS (psf)	m	s	a	Water Surface	Ru
Granite	[Yellow]	155	Generalised Hoek-Brown			1.5e+006	1.28589	0.000553084	0.504048	Piezometric Line 1	
Fill OB-2	[Light Green]	125	Mohr-Coulomb	150	39					Piezometric Line 1	
Fill OB-1	[Light Blue]	125	Mohr-Coulomb	150	39					Piezometric Line 1	

		Project: White Knob Quarry OB-2	
Analysis Description: Section D-D'		Author: JMC	
Drawn By: CHJ		Date: 8/15/2013	
File Name: Slide1 seis.slim		Scale: 1:1400	
		Plot: A-1.2	

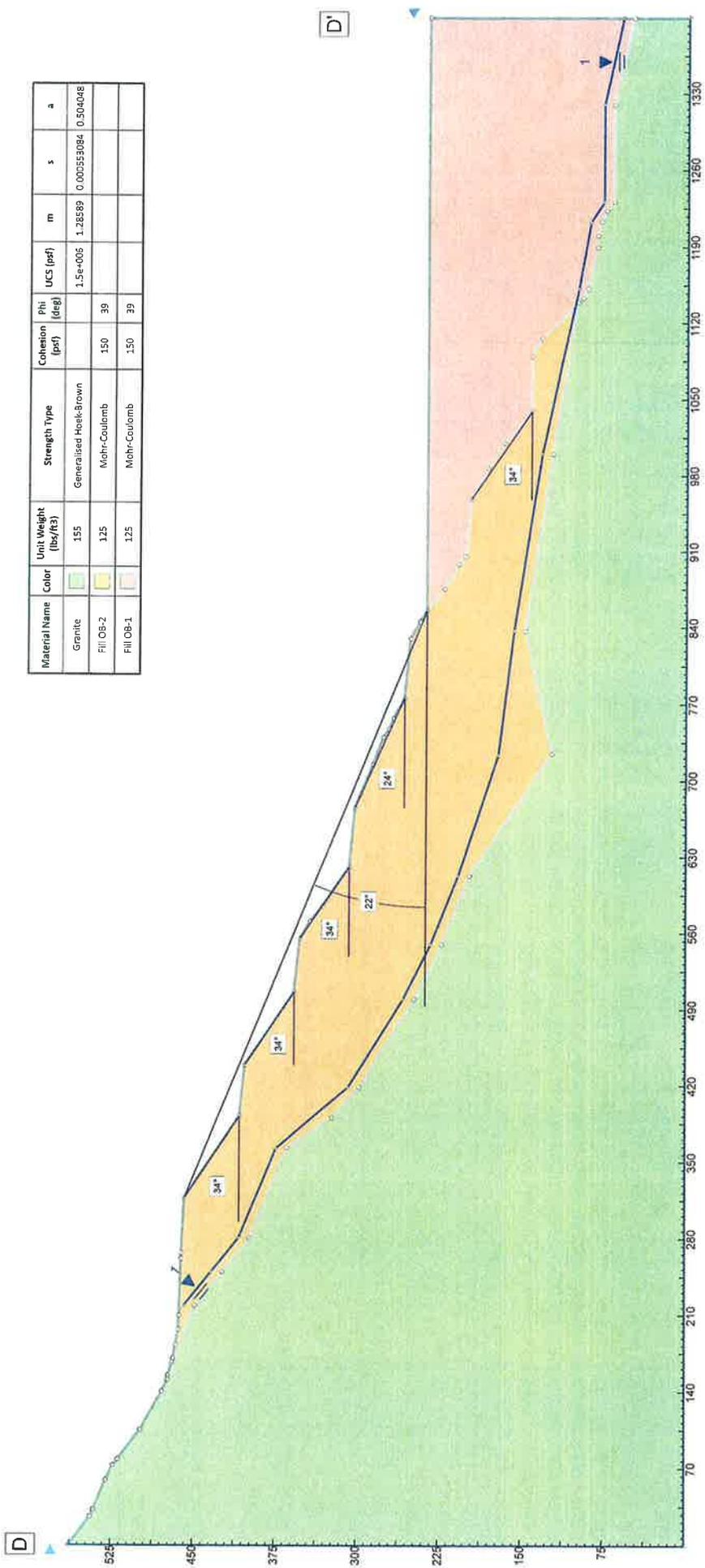


Global Minimums  
 Method: Spencer  
 FS: 1.636940  
 Center: 640.332, 415.001  
 Radius: 108.753  
 Left Slip Surface Endpoint: 621.272, 307.931  
 Right Slip Surface Endpoint: 550.768, 353.311  
 Resisting Moment=6.89603e+006 lb-ft  
 Driving Moment=4.21276e+006 lb-ft  
 Resisting Horizontal Force=52943.2 lb  
 Driving Horizontal Force=32342.8 lb  
 Total Slice Area=579.52 ft2

Material Name	Color	Unit Weight (lb./ft. <sup>3</sup> )	Strength Type	Cohesion (psf)	Phi (deg)	UCS (psf)	m	s	a	Water Surface	Ru
Granite	Light Green	155	Generalised Hoek-Brown			1.5e+006	1.28589		0.504048	Piezometric Line	
Fill OB-2	Yellow	125	Mohr-Coulomb	150	39					Piezometric Line	
Fill OB-1	Light Orange	125	Mohr-Coulomb	150	39					Piezometric Line	

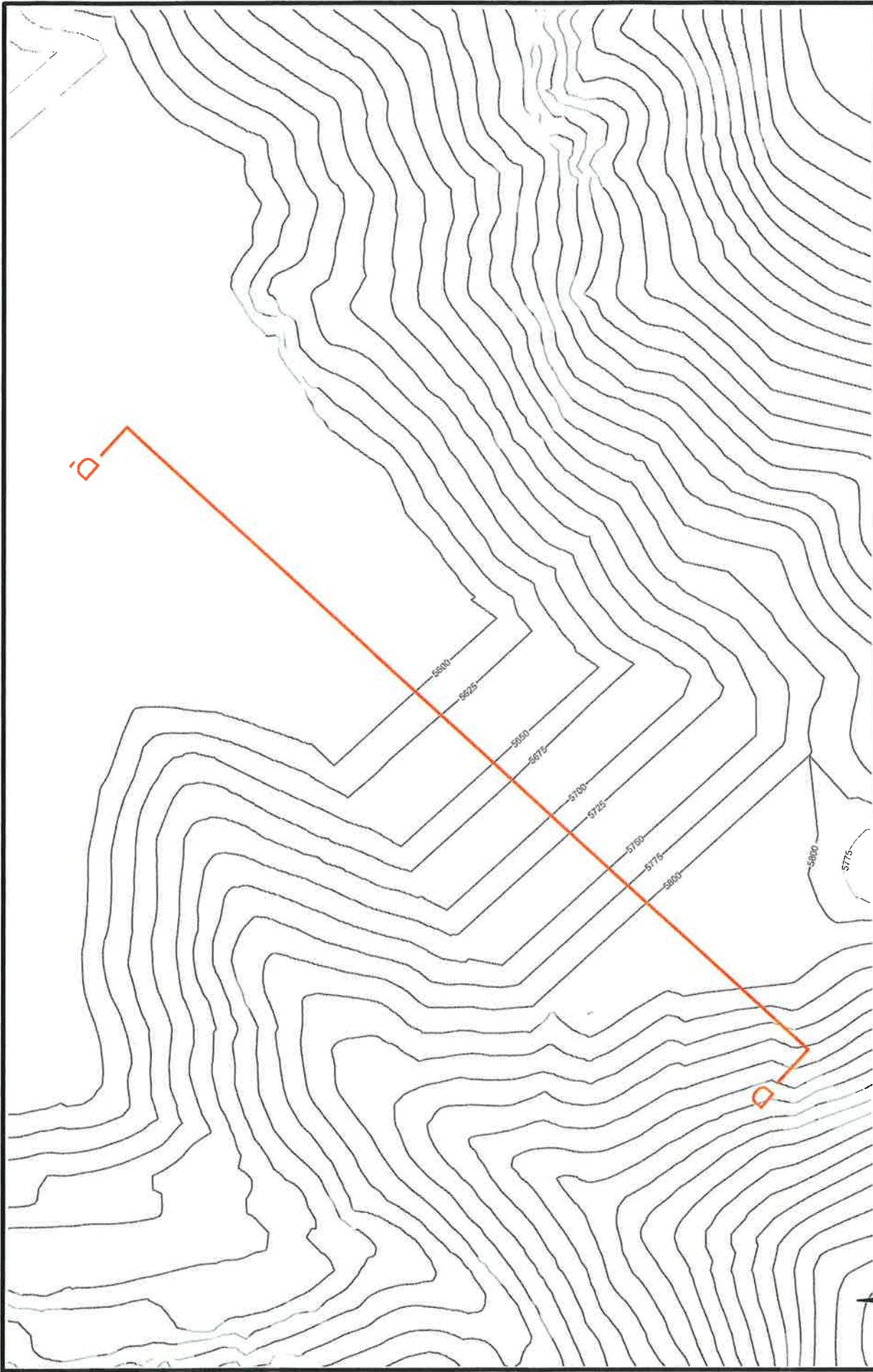


		Project: White Knob Quarry OB-2	
Analyst: Description		Section D-D' Fill/Rock Contact Evaluation	
Drawn By: CHJ		Author: JMC	
File Name: Sect D OB-2_limits.slm		Date: 8/15/2013	
Scale: 1:2000		Enclosure: A-1.3	



Material Name	Color	Unit Weight (lbs/ft <sup>3</sup> )	Strength Type	Cohesion (psf)	Phi (deg)	UCS (psf)	m	s	a
Granite	Green	155	Generalised Hoek-Brown			1.5e+006	1.28589	0.000553084	0.504048
Fill OB-2	Yellow	125	Mohr-Coulomb	150	39				
Fill OB-1	Red	125	Mohr-Coulomb	150	39				

		<b>White Knob/White Ridge</b>	
Project:		Section D-D' - OB-2	
Analysis Description:		JMC	
Drawn By:		8/16/2013	
File Name:		Scale:	
Slide1.slm		Enclosure:	
CHU		1:1100	
A-1.4			

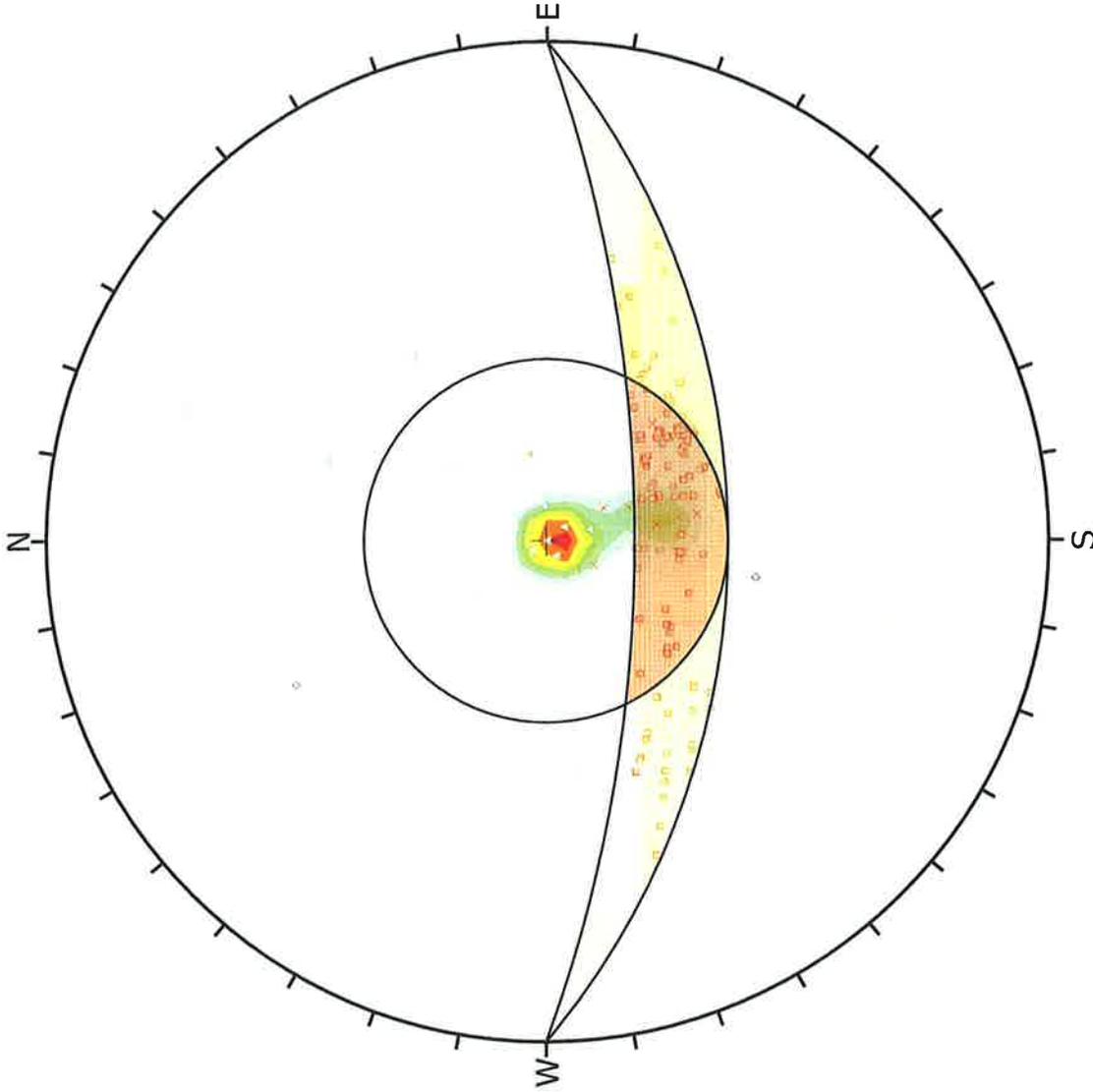


**LOCATION OF SECTION D-D'**

FOR:	OMYA CALIFORNIA	SLOPE STABILITY INVESTIGATION PROPOSED AMENDED PLAN OF OPERATIONS	ENCLOSURE "A-1.5"
DATE:	AUGUST 2013	WHITE KNOB QUARRY MINING AND RECLAMATION PLAN LUCERNE VALLEY, CALIFORNIA	JOB NUMBER 13502-8



SCALE: 1" = 200'



Symbol	TYPE	Quantity
◇	dike	2
×	foliation	10
○	joint	17
□	shear	4
Symbol Feature		
○	Critical Intersection	

Color	Density Concentrations
	0.00 - 2.80
	2.80 - 5.60
	5.60 - 8.40
	8.40 - 11.20
	11.20 - 14.00
	14.00 - 16.80
	16.80 - 19.60
	19.60 - 22.40
	22.40 - 25.20
	25.20 - 28.00

<b>Maximum Density</b>	27.36%
<b>Contour Data</b>	Dip Vectors
<b>Contour Distribution</b>	Fisher
<b>Counting Circle Size</b>	1.0%

<b>Kinematic Analysis</b>	Wedge Sliding
<b>Slope Dip</b>	70
<b>Slope Dip Direction</b>	180
<b>Friction Angle</b>	50°

	Critical	Total	%
Wedge Sliding	130	528	24.62%

<b>Plot Mode</b>	Dip Vectors
<b>Vector Count</b>	33 (33 Entries)
<b>Intersection Mode</b>	Grid Data Planes
<b>Intersections Count</b>	528
<b>Hemisphere</b>	Lower
<b>Projection</b>	Equal Angle



Project

White Ridge Quarry

Analysis Description

Azimuth 180/Slope Angle 70/Dip Vector Plot/Wedge Sliding Evaluation

Drawn By

CHJ

Author

JMC

File Name

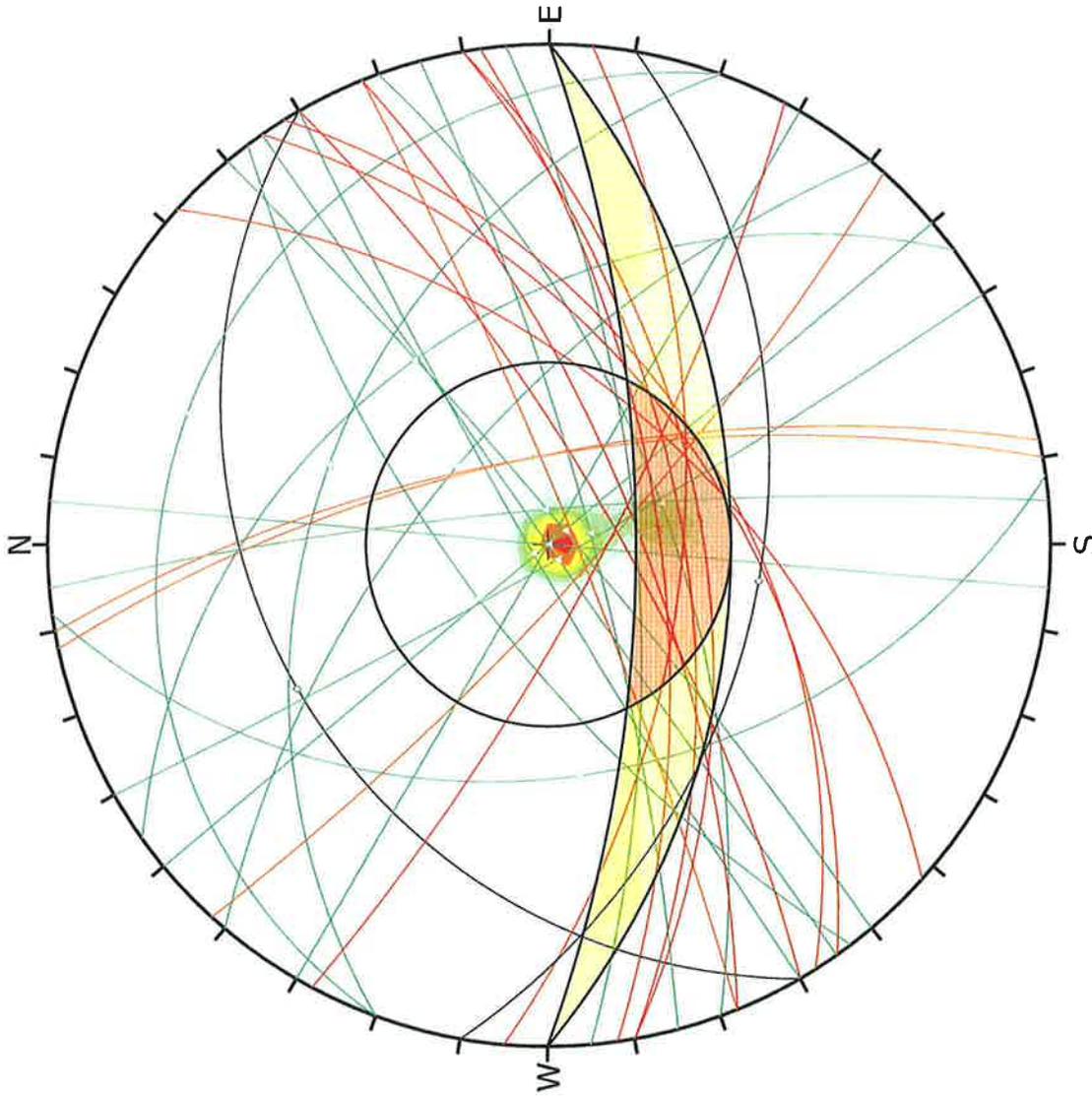
White Ridge Set.dips6

Date

8/15/2013

Enclosure

B-1.1



Symbol	TYPE	Quantity
◇	dike	2
✕	foliation	10
-	joint	17
-	shear	4

Color	Density Concentrations
	0.00 - 2.80
	2.80 - 5.60
	5.60 - 8.40
	8.40 - 11.20
	11.20 - 14.00
	14.00 - 16.80
	16.80 - 19.60
	19.60 - 22.40
	22.40 - 25.20
	25.20 - 28.00

<b>Maximum Density</b>	27.36%
<b>Contour Data</b>	Dip Vectors
<b>Contour Distribution</b>	Fisher
<b>Counting Circle Size</b>	1.0%

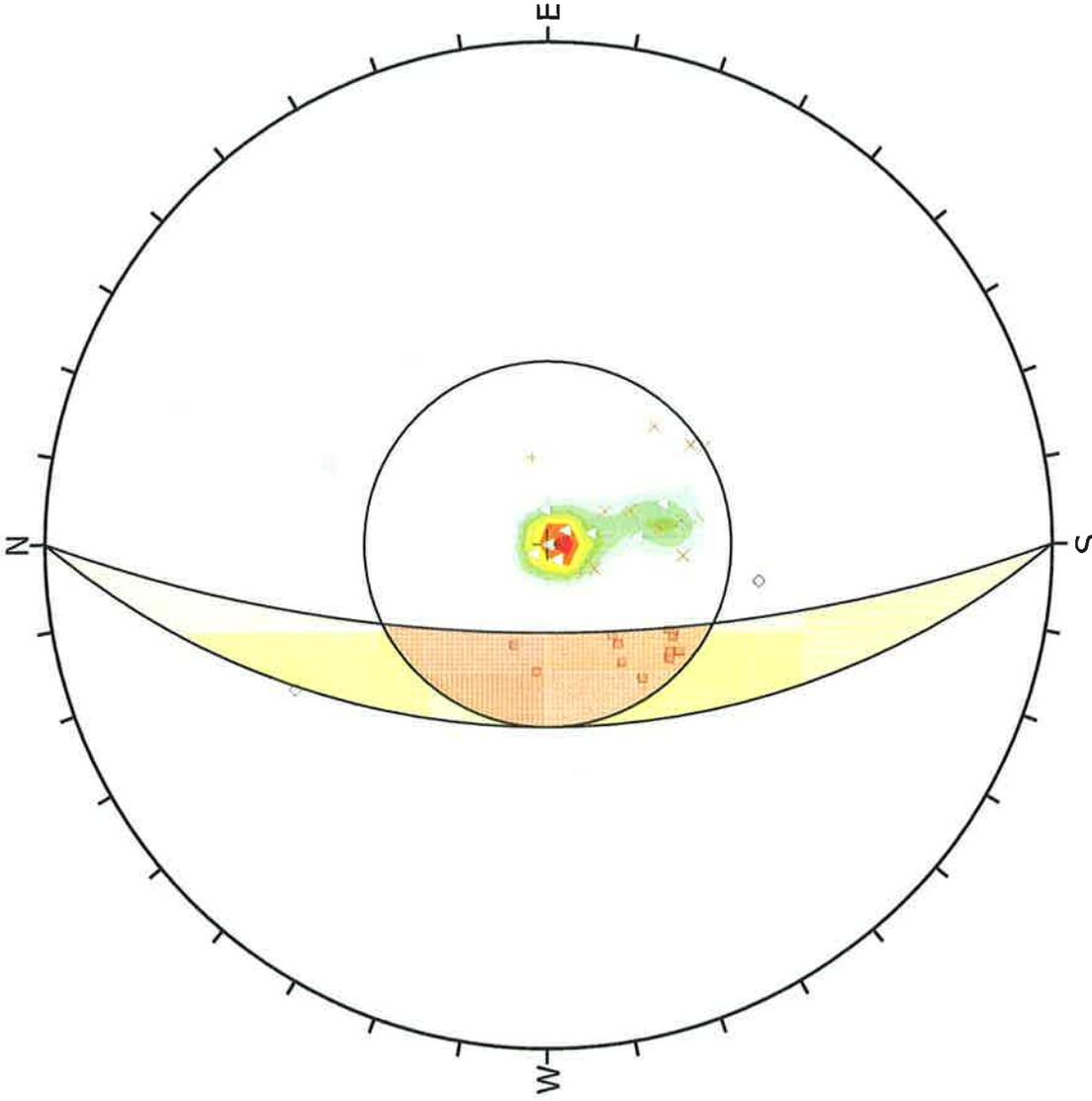
<b>Kinematic Analysis</b>	Wedge Sliding
<b>Slope Dip</b>	70
<b>Slope Dip Direction</b>	180
<b>Friction Angle</b>	50°

	Critical	Total	%
Wedge Sliding	130	528	24.62%

<b>Plot Mode</b>	Dip Vectors
<b>Vector Count</b>	33 (33 Entries)
<b>Hemisphere</b>	Lower
<b>Projection</b>	Equal Angle



<b>Project</b>		White Ridge Quarry	
<b>Analysis Description</b>		Azimuth 180/Slope Angle 70/Dip Vector Plot/Wedge Sliding Evaluation	
<b>Drawn By</b>	CHJ	<b>Author</b>	JMC
<b>File Name</b>	White Ridge Set.dips6	<b>Date</b>	8/15/2013
			<b>Enclosure</b> B-1.2



Symbol	TYPE	Quantity
◇	dike	2
□	foliation	10
×	joint	17
○	shear	4

Symbol	Feature
○	Critical Intersection

Color	Density Concentrations
	0.00 - 2.80
	2.80 - 5.60
	5.60 - 8.40
	8.40 - 11.20
	11.20 - 14.00
	14.00 - 16.80
	16.80 - 19.60
	19.60 - 22.40
	22.40 - 25.20
	25.20 - 28.00

<b>Maximum Density</b>	27.36%
<b>Contour Data</b>	Dip Vectors
<b>Contour Distribution</b>	Fisher
<b>Counting Circle Size</b>	1.0%

<b>Kinematic Analysis</b>	Wedge Sliding
<b>Slope Dip</b>	70
<b>Slope Dip Direction</b>	270
<b>Friction Angle</b>	50°

	Critical	Total	%
Wedge Sliding	13	528	2.46%

<b>Plot Mode</b>	Dip Vectors
<b>Vector Count</b>	33 (33 Entries)
<b>Intersection Mode</b>	Grid Data Planes
<b>Intersections Count</b>	528
<b>Hemisphere</b>	Lower
<b>Projection</b>	Equal Angle



Project

White Ridge Quarry

Analysis Description

Azimuth 270/Slope Angle 70/Dip Vector Plot/Wedge Sliding Evaluation

Drawn By

CHJ

Author

JMC

File Name

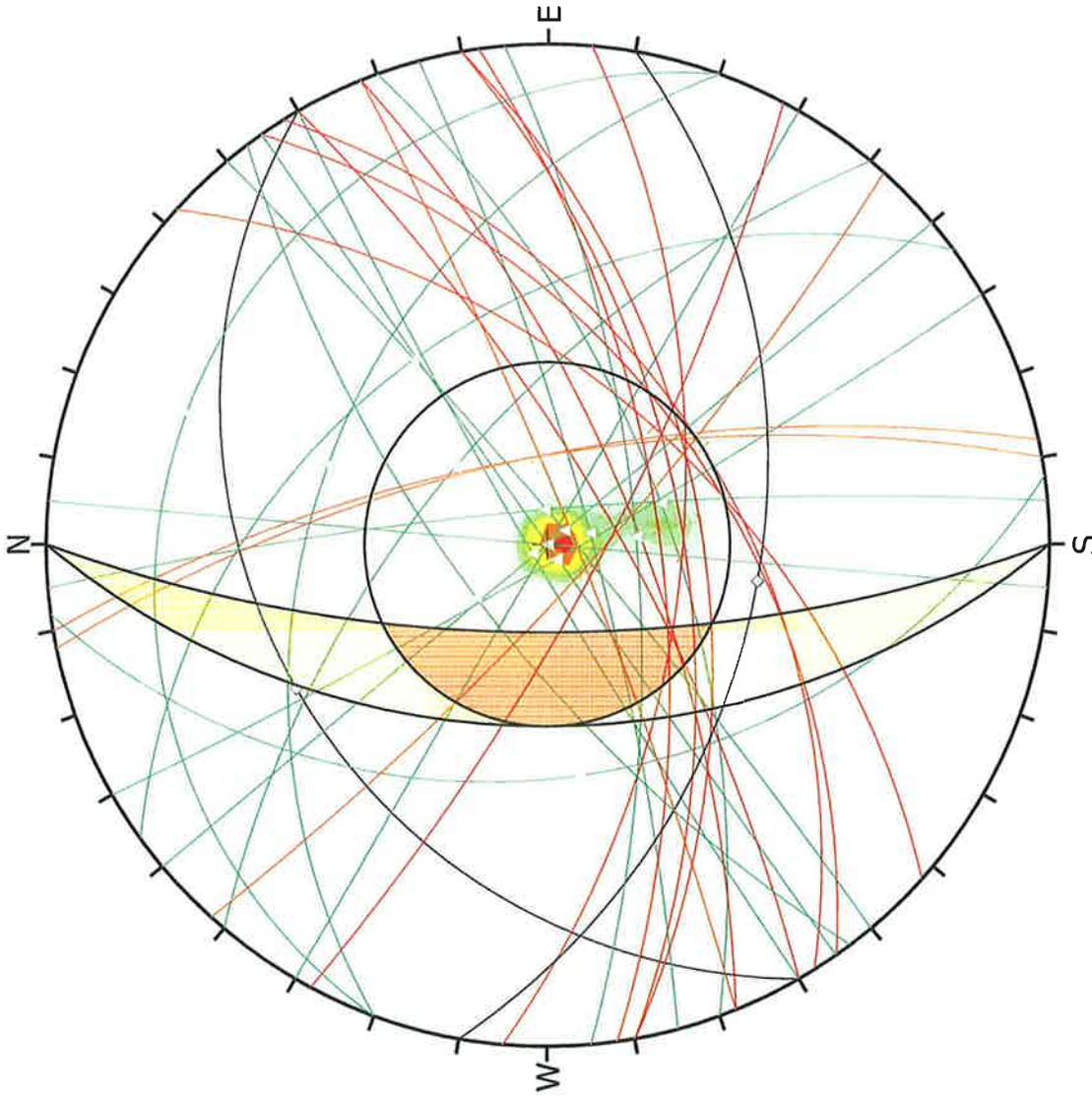
White Ridge Set.dips6

Date

8/15/2013

Enclosure

B-2.1



Symbol	TYPE	Quantity
◇	dike	2
□	foliation	10
□	joint	17
□	shear	4

Color	Density Concentrations
	0.00 - 2.80
	2.80 - 5.60
	5.60 - 8.40
	8.40 - 11.20
	11.20 - 14.00
	14.00 - 16.80
	16.80 - 19.60
	19.60 - 22.40
	22.40 - 25.20
	25.20 - 28.00

<b>Maximum Density</b>	27.36%
<b>Contour Data</b>	Dip Vectors
<b>Contour Distribution</b>	Fisher
<b>Counting Circle Size</b>	1.0%

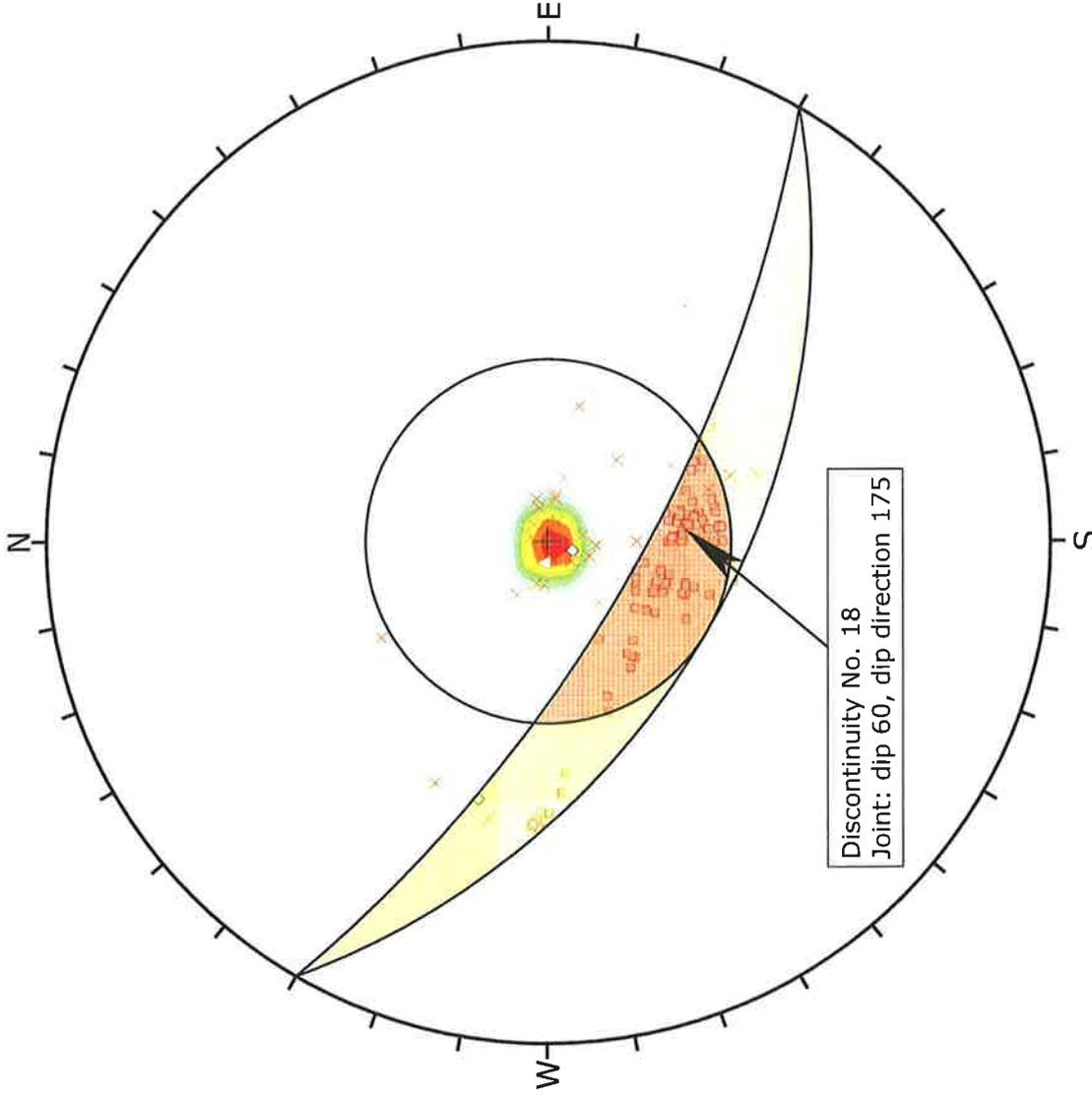
<b>Kinematic Analysis</b>	Wedge Sliding
<b>Slope Dip</b>	70
<b>Slope Dip Direction</b>	270
<b>Friction Angle</b>	50°

	Critical	Total	%
Wedge Sliding	13	528	2.46%

<b>Plot Mode</b>	Dip Vectors
<b>Vector Count</b>	33 (33 Entries)
<b>Hemisphere</b>	Lower
<b>Projection</b>	Equal Angle



<b>Project</b>		White Ridge Quarry	
<b>Analysis Description</b>	Azimuth 270/Slope Angle 70/Dip Vector Plot/Wedge Sliding Evaluation		
<b>Drawn By</b>	CHJ	<b>Author</b>	JMC
<b>File Name</b>	White Ridge Set.dips6	<b>Date</b>	8/15/2013
		<b>Enclosure</b>	B-2.2



Symbol	TYPE	Quantity
◇	dike	2
□	joint	41
▬	shear	2
Symbol Feature		
⊗	Critical Intersection	

Color	Density Concentrations
	0.00 - 4.20
	4.20 - 8.40
	8.40 - 12.60
	12.60 - 16.80
	16.80 - 21.00
	21.00 - 25.20
	25.20 - 29.40
	29.40 - 33.60
	33.60 - 37.80
	37.80 - 42.00

<b>Maximum Density</b>	41.43%
<b>Contour Data</b>	Dip Vectors
<b>Contour Distribution</b>	Fisher
<b>Counting Circle Size</b>	1.0%

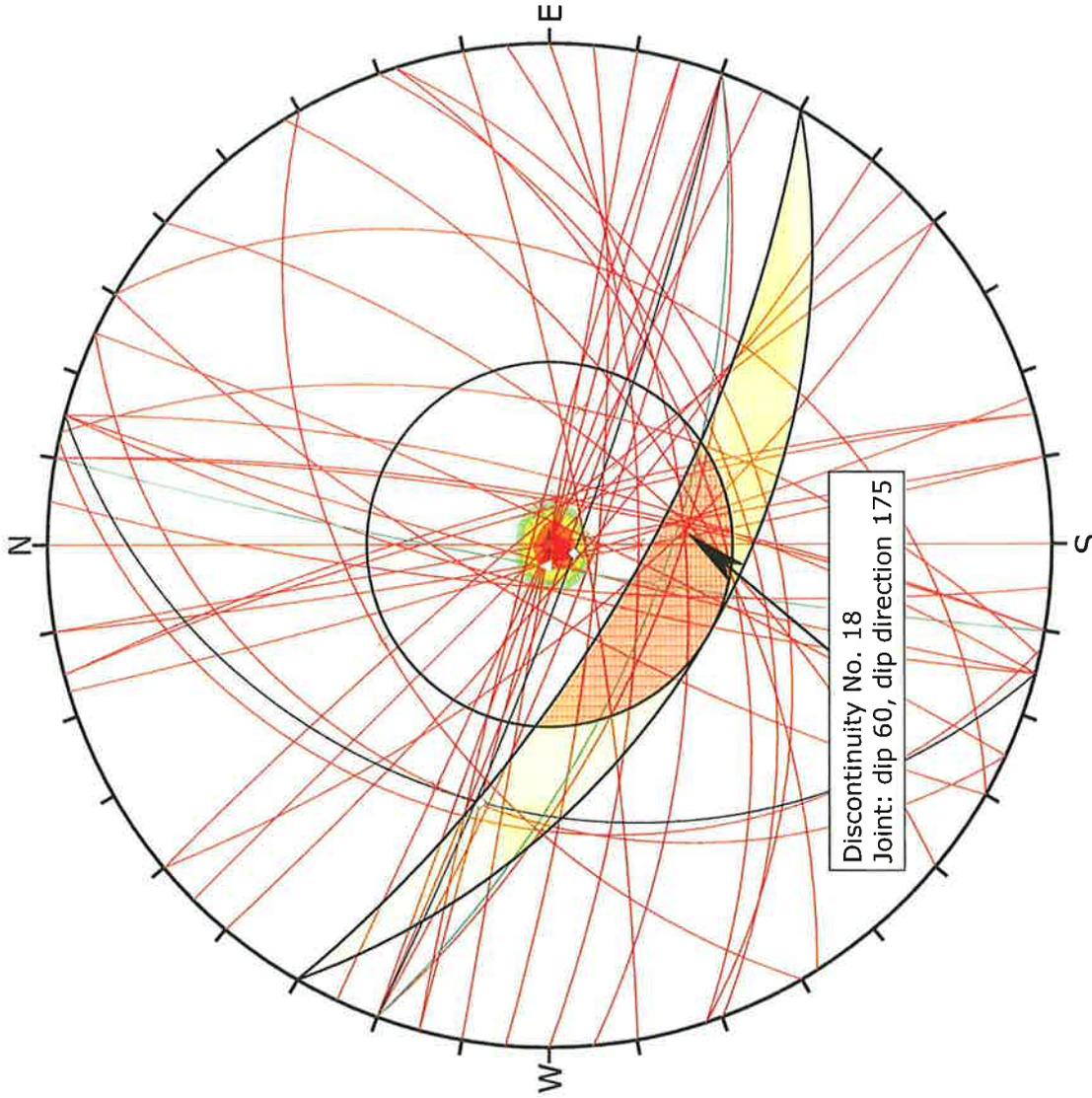
<b>Kinematic Analysis</b>	Wedge Sliding
<b>Slope Dip</b>	70
<b>Slope Dip Direction</b>	210
<b>Friction Angle</b>	50°

	Critical	Total	%
Wedge Sliding	128	989	12.94%

<b>Plot Mode</b>	Dip Vectors
<b>Vector Count</b>	45 (45 Entries)
<b>Intersection Mode</b>	Grid Data Planes
<b>Intersections Count</b>	989
<b>Hemisphere</b>	Lower
<b>Projection</b>	Equal Angle



<b>Project</b>	White Knob Quarry		
<b>Analysis Description</b>	Azimuth 210/Slope Angle 70/Dip Vector Plot		
<b>Drawn By</b>	CHJ	<b>Author</b>	JMC
<b>File Name</b>	White Knob Set.dips6	<b>Date</b>	8/15/2013
		<b>Enclosure</b>	B-3.1



Symbol	TYPE	Quantity
◇	dike	2
□	joint	41
—	shear	2

Color	Density Concentrations
	0.00 - 4.20
	4.20 - 8.40
	8.40 - 12.60
	12.60 - 16.80
	16.80 - 21.00
	21.00 - 25.20
	25.20 - 29.40
	29.40 - 33.60
	33.60 - 37.80
	37.80 - 42.00

<b>Maximum Density</b>	41.43%
<b>Contour Data</b>	Dip Vectors
<b>Contour Distribution</b>	Fisher
<b>Counting Circle Size</b>	1.0%

<b>Kinematic Analysis</b>	Wedge Sliding				
<b>Slope Dip</b>	70				
<b>Slope Dip Direction</b>	210				
<b>Friction Angle</b>	50°				
	Wedge Sliding	128	<b>Critical</b>	<b>Total</b>	<b>%</b>
				989	12.94%

<b>Plot Mode</b>	Dip Vectors
<b>Vector Count</b>	45 (45 Entries)
<b>Hemisphere</b>	Lower
<b>Projection</b>	Equal Angle



<b>Project</b>		White Knob Quarry	
<b>Analysis Description</b>		Azimuth 210/Slope Angle 70/Dip Vector Plot	
<b>Drawn By</b>	CHJ	<b>Author</b>	JMC
<b>File Name</b>	White Knob Set.dips6	<b>Date</b>	8/15/2013
			<b>Enclosure</b> B-3.2

