INTRODUCTION

The Draft Environmental Impact Report (DEIR) has been prepared in accordance with the California Environmental Quality Act (CEQA Statutes) (Public Resources Code Section 21000, et seq.) and the State Guidelines for implementation of CEQA (CEQA Guidelines) (Title 14, Chapter 3 of the California Code of Regulations (CCR), Section 15000, et seq.). The DEIR will be used by the County of San Bernardino (County) in its consideration of the potential environmental impacts associated with the implementation of the proposed Amended White Knob–White Ridge Mine and Reclamation Plan. The County is the lead agency and has the primary responsibility for preparing this Draft EIR.

This Draft EIR evaluates the potential impacts of the project in relation to the following categories:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Paleontological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Utilities and Service Systems

ES.1 PURPOSE AND SCOPE OF THE DRAFT EIR

CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. The County has determined that the proposed White Knob/White Ridge Limestone Quarries Expansion is a project under CEQA based on CEQA Guidelines Section 15378(a)(3) as follows:

> (a) "Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following:
>
> (3) An activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

The County of San Bernardino has determined that preparation of an EIR is the appropriate CEQA-required documentation due to the potential for significant environmental impacts that could result from implementation of the proposed project. This Draft EIR evaluates the existing environmental resources in the vicinity of the project site, analyzes potential impacts on those resources due to implementation of the proposed project, and if necessary, identifies mitigation measures that could avoid or reduce the magnitude of those impacts. This Draft EIR also evaluates reasonable alternatives to the proposed project.

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

ES.4 PROJECT ALTERNATIVES SUMMARY

California Environmental Quality Act (CEQA) Guidelines Section 15126.6(a) states that an environmental impact report (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 considers the following alternatives:

- **Alternative 1 – No Project Alternative:** 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. This road is approximately 5.1 miles long; the first 4.4 miles of the haul road crosses land managed by the BLM. Use of the haul road on 67 acres was authorized under a Federal Land Policy Management Act (FLPMA) right-of-way (CACA 16644) approved by the BLM Barstow Resource Office in July 1988.

- **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 a total size of OB-1 as 31.9 acres and OB-3 of 3.0 acres. Assuming the overburden from OB-2 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. Additionally, changes to these overburden sites would also have to be incorporated in the proposed project, 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:** Alternative 3 would include the backfilling of the White Knob and Annex Quarries. This 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.

The height of the backfill at OB-2 would be reduced, leaving more of the drainage in a natural condition. However, additional drainage control structures would likely be needed to collect and control the additional runoff because the project's White Knob sedimentation basin would not be constructed and the Annex Quarry would no longer capture quarry rainfall. The drainage east of the White Ridge Quarry would not be filled with OB-3, and the need for drainage control structures in that area would be decreased or eliminated.

ES.5 ENVIRONMENTAL EFFECTS DETERMINED 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 EIR. The Initial Study (**EIR Appendix A**) indicated that the following resource areas would experience less than significant impacts or would experience no impact as a result of the proposed project. Section 3.9 of this Draft EIR includes all impact areas that were determined to have no impact or a less than significant impact in the Initial Study. The following subject areas will not be addressed further in this EIR:

- Agricultural and Forestry Resources
- Hazards and Hazardous Materials
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic

While the Draft EIR discusses impacts related to eight subject areas, the Initial Study also determined that some of the standards of significance for those areas resulted in no impact or a less than significant impact. These standards of significance will not be discussed further in this Draft EIR and are listed below:

Aesthetics: damage scenic resources within a state scenic highway; create light and glare

Air Quality: create objectionable odors affecting a substantial number of people

Geology and Soils: expansive soils; soils incapable of adequately supporting septic tanks or wastewater disposal systems

Hydrology and Water Quality: violate water quality standards or waste discharge requirements; deplete groundwater supplies and interfere with recharge; place housing within a flood hazard area or impede or redirect flood flows; create a public hazard related to flooding from dam or levee failure; create a public hazard related to inundation by seiche, tsunami, or mudflow

Utilities and Service Systems: exceed wastewater treatment requirements; require new or expanded water or wastewater treatment facilities; exceed capacity of wastewater treatment provider; exceed permitted capacity of landfill or conflict with solid waste regulations

ES.6 UNAVOIDABLE SIGNIFICANT IMPACTS AND CUMULATIVELY CONSIDERABLE IMPACTS

The Draft EIR addresses all potentially significant environmental impacts that the County identified during preparation of the NOP/IS and the scoping process. After further study and environmental review, as presented in the Draft EIR, the following environmental impacts were determined to be significant and unavoidable impacts and/or cumulatively considerable impacts:

Aesthetics: substantial adverse effect on a scenic vista and the existing visual character; cumulative impacts on aesthetics and visual resources

ES.7 ISSUES TO BE RESOLVED AND AREAS OF CONTROVERSY

Section 1.7 of Chapter 1.0, Introduction, provides a list of comments from agencies and/or persons responding to the Notice of Preparation. Comments received included requirements regarding Incidental Take Permits and Notification of Lake or Streambed Alternation as well as the EIR's responsibility in identifying biological resources on the project site. Other comments received included mitigation of recovered artifacts and the potential inadvertent boulder roll-down. The Draft EIR addresses these comments, as well as others, as a part of the individual section analysis. See Section 1.7 for a complete list of comments and commenters regarding the proposed project.

ES.8 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table ES-1 provides a summary of project impacts and mitigation measures identified in the Draft EIR.

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TABLE ES-1
EXECUTIVE SUMMARY

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Aesthetics			
Impact 3.1.1 Substantial Adverse Effect on a Scenic Vista and the Existing Visual Character	Significant and unavoidable	**MM 3.1.1** 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: • Implement measures to minimize boulder roll-down visual impacts including: o Precision drilling and buffer blasting when the outside edge is approached. o Drilling lifters on the edge to undercut the remaining slope and let it fall into the pit (like directional falling of a tree). o Excavator to pull down and pull in toward the pit blasted rock away from the edge. o Use of alternatives to blasting along the outside such as rock breakers, surface miners, cutting heads, and excavators. o Loader to pull back material from the edge. o Loader to dig at an angle to the edge or parallel to the edge when possible. o Manually scaling boulders from the high walls where they may be above a haulage road. • 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. • 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. • Design and phase mining of the White Ridge Quarry, which allows for concurrent reclamation and leaves an approximately	Significant and unavoidable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		300-foot-high ridge of undisturbed hillside facing Lucerne Valley to minimize visual impacts. • Implement reclamation and revegetation on completed equipment-accessible quarry benches and on overburden stockpiles concurrent with mining where feasible. • Utilize color-staining product to darken the visible quarry and roll-down slopes where not subject to raveling to reduce visual impacts. • Deposit darker waste rock on overburden sites where available to reduce color contrast. • 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. • Where feasible, construct catchment berms at the foot of stockpiles to reduce rock roll-down and sediment flow. • Limit surface disturbances to areas identified in the Amended Plan. • Implement appropriate dust controls to reduce visible dust.	
Impact 4.0.1 Cumulative Impacts on Aesthetics and Visual Resources	Cumulatively considerable and significant and unavoidable	None available	Cumulatively considerable and significant and unavoidable
Air Quality			
Impact 3.2.1 Emissions of Air Pollutants Resulting in Violation of Air Quality Standards or Contributing to Existing Violations	Potentially sigificant	**MM 3.2.1** 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. • Limit maximum speed on unpaved roads to 25 miles per hour. • 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. • Water all areas to be graded and areas where bulldozers operate at least twice per day, more if needed, to control dust emissions.	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.2.2 Conflict with MDAQMD Air Quality Management Plans	Less than significant	None required	Less than significant
Impact 3.2.3 Conflict with Federal Land Managers' Air Quality Related Values	Less than significant	None required	Less than significant
Impact 3.2.4 Exposure of Sensitive Receptors to Localized Criteria Pollutants	Potentially significant	Implement mitigation measure **MM 3.2.1.**	Less than significant
Impact 3.2.5 Exposure of Sensitive Receptors to Toxic Air Contaminant Pollutant Concentrations	Less than significant	None required	Less than significant
Impact 4.0.2 Cumulative Impacts on Air Quality	Less than cumulatively considerable	None required	Less than cumulatively considerable
Biological Resources			
Impact 3.3.1 through **Impact 3.3.10** Impacts on Candidate, Sensitive, or Special-Status Species	Potentially significant	**MM 3.3.1a** 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. **MM 3.3.1b** 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.	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		MM 3.3.1c 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. **MM 3.3.1d** Project-related vehicles shall be checked before moving for wildlife, as wildlife may seek shade and shelter under parked vehicles and construction equipment. **MM 3.3.1e** 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. **MM 3.3.1f** 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. **MM 3.3.1g** 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. **MM 3.3.1h** Fueling of vehicles and equipment shall be prohibited within 100 feet of riparian/riverine areas. **MM 3.3.1i** No rodenticides shall be used on the project site.	
Impact 3.3.2 Special-Status Plant Species	Potentially significant	**MM 3.3.2 Rare Plant Surveys.** Prior to initiating project-related activities in the 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. 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	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		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 possible 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 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. 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 25-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.	

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.3.3 Desert Tortoise	Potentially significant	**MM 3.3.3a Desert Tortoise Surveys**. 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 **MM 3.3.3b** shall be implemented. **MM 3.3.3b Desert Tortoise Avoidance, Minimization, and Mitigation.** Should occupied desert tortoise habitat be identified during the pre-project surveys, a biological mitigation and monitoring 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 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.	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		(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 Project* (Desert Tortoise Council 1994). (8) The mine operator shall mitigate for impacts on occupied desert tortoise habitat through the purchase of credits from a mitigation bank. The amount of credits purchased and the location of the mitigation bank used shall be established through consultation with and 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.	
Impact 3.3.4 Coast Horned Lizard	Potentially significant	**MM 3.3.4 Coast Horned Lizard Surveys.** 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.	Less than significant
Impact 3.3.5 Burrowing Owl	Potentially significant	**MM 3.3.5 Burrowing Owl Surveys.** 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 *Staff Report on Burrowing Owl Mitigation,* published March 7, 2012. Surveys shall be repeated if project activities are suspended or delayed for more than 15 days during	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		nesting season. 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 *Staff Report on Burrowing Owl Mitigation* prior to initiating project-related activities that may impact burrowing owls.	
Impact 3.3.6 Le Conte's Thrasher and other Migratory Birds	Potentially significant	**MM 3.3.6 Migratory Bird Surveys.** If clearing and/or construction activities will occur 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. 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). 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 access-related disturbances to migratory bird nesting activities. An LOP constitutes a period during which project-related activities (i.e., vegetation removal, earth moving, 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.	Less than significant
Impact 3.3.7 Golden Eagle and Other Raptors	Potentially significant	**MM 3.3.7 Raptor Conservation Strategy.** The applicant shall participate in and implement the Raptor Conservation Strategy.	Less than significant
Impact 3.3.8 Mule Deer and Bighorn Sheep	Less than significant	None required	Less than significant
Impact 3.3.9 Special-Status Bats	Potentially significant	**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	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		identified, a preconstruction survey by a qualified biologist shall be conducted prior to the end of April to determine the presence or absence of roosting bats. If the survey does not identify the present of occupied roosts, no further mitigation is required. If day roosts or maternity 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. 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 day/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.	
Impact 3.3.10 Pallid San Diego Pocket Mouse	Potentially significant	**MM 3.3.10 Pallid San Diego Pocket Mouse Surveys.** 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
Impact 3.3.11 Impacts on Riparian Habitat or Sensitive Natural Communities	Potentially significant	**MM 3.3.11 No Net Loss of Riparian Vegetation.** The mine operator shall ensure that 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 shall be applied to satisfy this measure. Evidence of compliance with this mitigation measure shall be	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		provided prior to construction and grading activities for the proposed project that will affect riparian habitat.	
Impact 3.3.12 Impacts on Federally Protected Wetlands	No impact	None required	No impact
Impact 3.3.13 Impacts on Wildlife Movement	Less than significant	None required	Less than significant
Impact 3.3.14 Conflict with Local Policies and Ordinances	No impact	None required	No impact
Impact 3.3.15 Conflict with Conservation Plans	Less than significant	None required	Less than significant
Impact 4.0.3 Cumulative Impacts on Biological Resources	Cumulatively considerable	Implement mitigation measures **MM 3.3.1a** through **MM 3.3.1i, MM 3.3.2, MM 3.3.3a** and **MM 3.3.3b, MM 3.3.4, MM 3.3.5, MM 3.3.6, MM 3.3.9,** and **MM 3.3.10**.	Less than cumulatively considerable
Cultural and Paleontological Resources			
Impact 3.4.1 Substantial Adverse Impact on an Archaeological or Historical Resource	Potentially significant	**MM 3.4.1** 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

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.4.2 Disturb Human Remains	Less than significant	None required	Less than sigificant
Impact 3.4.3 Destroy a Unique Paleontological Resource or Geologic Feature	Potentially significant	**MM 3.4.3** 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 Paleontology and shall include, but not be limited to, the following: • 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. • 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. • Any specimens shall be identified, curated, and placed into a repository with permanent retrievable storage. • 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.	Less than sigificant
Impact 4.0.4 Cumulative Impacts on Cultural Resources	Less than cumulatively considerable	None required	Less than cumulatively considerable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Geology and Soils			
Impact 3.5.1 Exposure of People or Structures to Potential Substantial Adverse Seismic Effects	Less than significant	None required	Less than significant
Impact 3.5.2 Slope Stability	Less than significant	None required	Less than significant
Impact 3.5.3 Rock and Soil Talus Erosion	Potentially significant	**MM 3.5.3** 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 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. 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.	Less than significant
Impact 3.5.4 Erosion and Soil Loss	Less than significant	None required	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 4.0.5 Cumulative Impacts on Geology and Soils	Less than cumulatively considerable	None required	Less than cumulatively considerable
Greenhouse Gas Emissions			
Impact 3.6.1 Impact on the Environment	Less than cumulatively considerable	None required	Less than significant
Impact 3.6.2 and **Impact 4.0.6** 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
Hydrology and Water Quality			
Impact 3.7.1 Substantially Alter Drainage Pattern	Potentially significant	**MM 3.7.1** 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. 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: o 2.3 Culvert Flow Calculations (EIR Appendix G, Stantec 2013, p.6); o 2.4 Culvert Riprap Calculations (EIR Appendix G, Stantec 2013, p. 7); o 3.1.2, Roadway Grading and Ditch Recommendations (EIR Appendix G, Stantec 2011, p. 3.3); o 3.2.2, Sediment Catchment Basins Recommendations(EIR Appendix G, Stantec 2011, p. 3.6); and	Less than significant

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		o 4.0, Right-of-Way Recommendations (EIR Appendix G, Stantec 2011, p. 4.1). Inclusion of these improvements would ensure that no flow increases to downstream flows during flood events. b. All quarry areas, overburden fills, and haul roads shall be maintained to minimize erosion and sedimentation. 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. d. Any sediment removed from basins shall be deposited on the overburden areas or into the White Knob Quarry sedimentation 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. e. Basin spillways shall remain in good working condition and repaired as necessary. f. Areas in haul roads that experience erosion shall be backfilled and rocked to minimize future erosion. 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. 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. i. Haul road culverts and Arizona crossings shall be inspected regularly at least once every 30 days during the rainy season,	

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		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. 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. 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 **MM 3.1.1**. Procedures shall be modified and/or additional measure put in place, as necessary, to achieve minimal boulder roll-down.	
Impact 4.0.7 Cumulative Impacts on Hydrology and Water Quality	Less than cumulatively considerable	None required	Less than cumulatively considerable
Utilities and Service Systems			
Impact 3.8.1.1 Construction of New Stormwater Drainage Infrastructure	Less than significant	None required	Less than significant
Impact 3.8.2.1 Adequate Water Supply	Less than significant	None required	Less than significant
Impact 4.0.8 Cumulative Impacts on Public Services and Utilities	Less than cumulatively considerable	None required	Less than cumulatively considerable

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