Appendix B: Initial Study

(February 2013)

SAN BERNARDINO COUNTY
INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

This form and the descriptive information in the application package constitute the contents of Initial Study pursuant to County Guidelines under Ordinance 3040 and Section 15063 of the State CEQA Guidelines.

PROJECT LABEL:

APN:	446-121-004, 006, and 017		
Applicant:	Omya California, a division of Omya Inc. 7225 Crystal Creek Road Lucerne Valley, CA 92356	***USGS Quad:***	Fawnskin, California
Community:	Lucerne Valley/S3	***T, R, Section:***	**T3N R1W, Secs. 23, 24, 25**
Location:	6 miles south of Lucerne Valley on west side of Hwy 18	***Thomas Bros.:***	2005, p. 4660
Project No:	AP20120022	***Planning Area:***	Lucerne Valley
Staff:	Jeremy C. Krout		
Rep:	Lilburn Corporation	***LUSD:***	Federal Land Non-County Jurisdictional RC (Resource Conservation)
Proposal:	Amended Plan of Operations & Reclamation Plan on total of 214.8 acres for the Butterfield – Sentinel Quarries	***Overlays:***	Open Space – Limestone Deposits

PROJECT CONTACT INFORMATION:

Lead agency: County of San Bernardino
Land Use Services Department
385 N. Arrowhead Avenue
San Bernardino, CA 92415-0184

Contact person: Jeremy C. Krout or Channary Leng
Phone No: (949) 450-0171 Fax No: (949)450-0182

E-mail: jkrout@rgpcorp.com or channary@rgpcorp.com

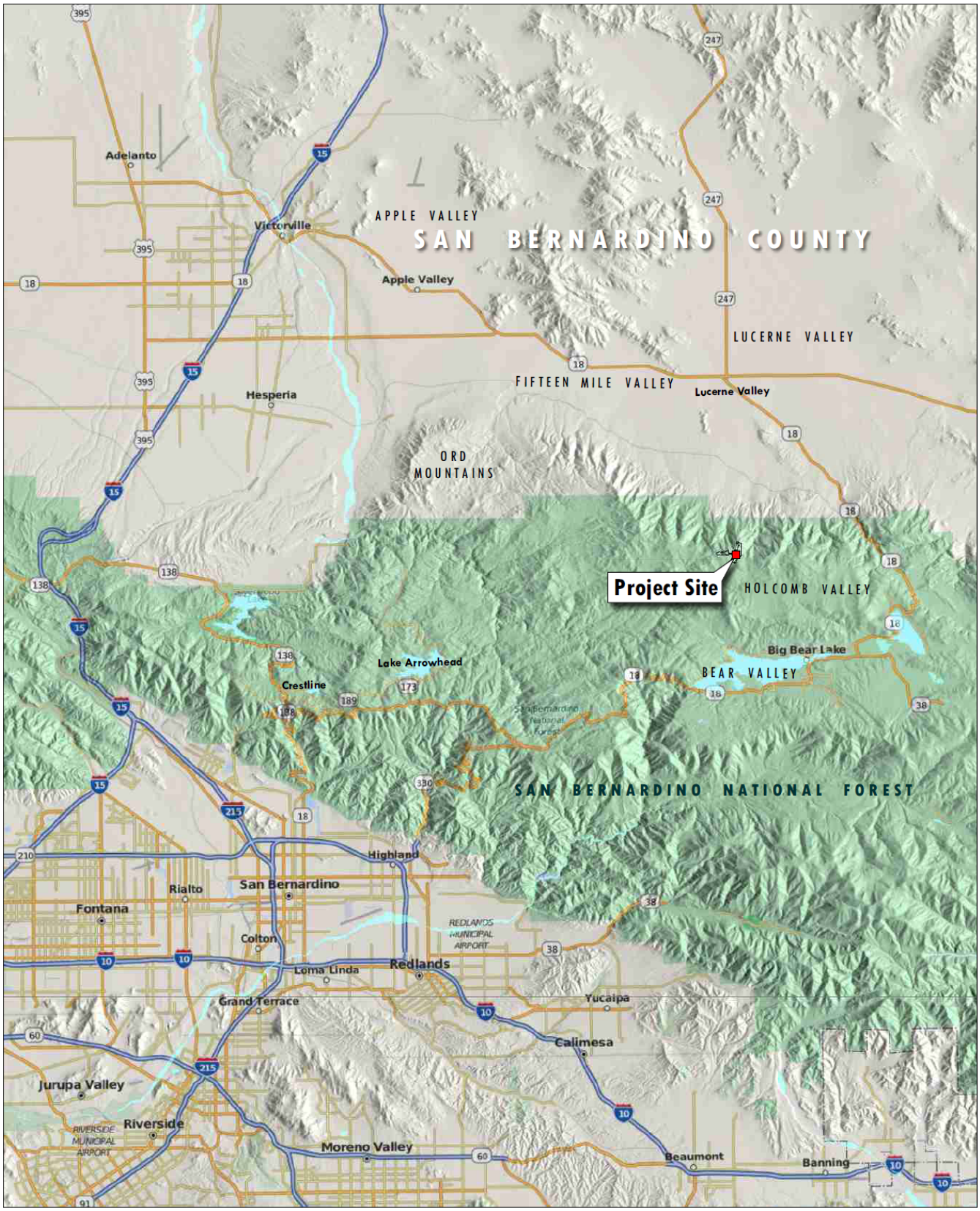
Project Sponsor: Omya California, a division of Omya Inc.
7225 Crystal Creek Road
Lucerne Valley, CA 92356

Preparer: Jeremy C. Krout

PROJECT DESCRIPTION:

Omya California (Omya), a division of Omya Inc., is proposing an Amended Plan of Operations and Reclamation Plan (Amended Plan) for the proposed expansion of the existing Butterfield and Sentinel Limestone Quarries. Omya has submitted the Amended Plan to the United States Forest Service (USFS) and the County of San Bernardino (County) for review and approval.

The project site is located approximately 7.5 miles south of the community of Lucerne Valley and 5 miles north of Big Bear Lake within the San Bernardino National Forest (SBNF) in San Bernardino County, California (see Figures 1 and 2). The project area is within portions of Sections 23, 24, and 25, Township 3 North, Range 1 West, SBBM. This Amended Plan combines the existing and permitted mining activities with the proposed project expansion. Because these two quarries are adjacent to each other, utilize the same crushing plant, , share overburden stockpiles, and travel the same haul and access roads, the operations and reclamation for these two sites are being combined into one Amended Plan. The Proposed Project includes quarry and overburden stockpile expansions, increased operational years and production, additional internal access roads,and minor adjustments to existing disturbance and permitted boundaries, The total existing permitted operational area is approximately 137.5 acres. This Amended Plan will add approximately 77.3 acres, for a total project area of approximately 214.8 acres. There are no new quarries, haul roads or overburden sites in this Amended Plan.



N

0 5.25
Mile
Source: World Topo Map, 2012

LILBURN CORPORATION

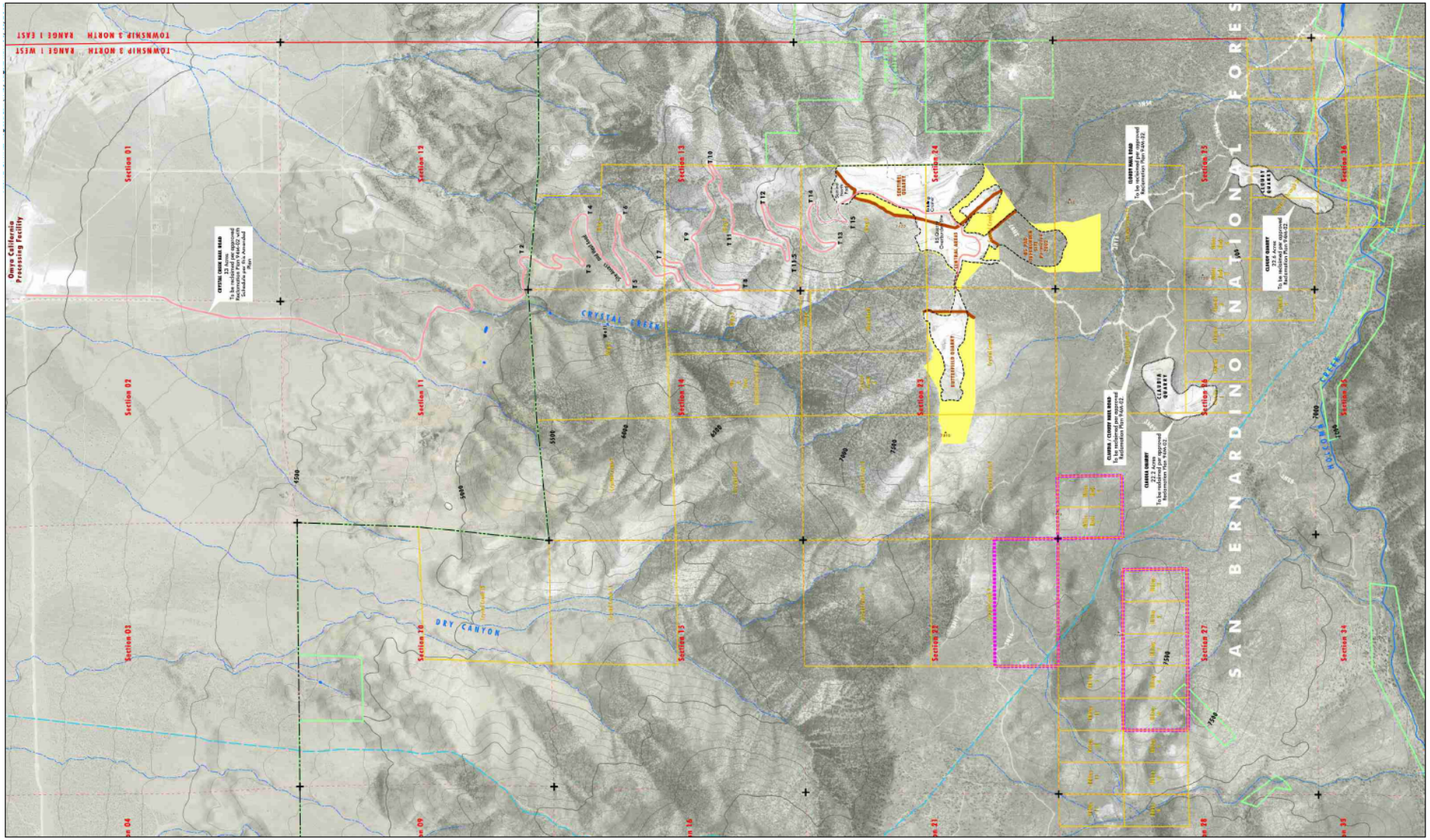
LEGEND

- **Project Site Location** (Geographic Location)
  California Zone 5 (FIPS 405): 6881064.78 1943854.58
  Lat/Lon: 34° 19' 45.0165" N, 116° 56' 31.3945" W

REGIONAL LOCATION

BUTTERFIELD and SENTINEL QUARRIES
Amended Plan of Operations and Reclamation Plan
Omya California, San Bernardino National Forest, California

OMYA **FIGURE 1**


TOWNSHIP 3 NORTH RANGE 1 WEST
TOWNSHIP 3 NORTH RANGE 1 EAST
Omya California Processing Facility
Section 01
Section 02
Section 03
Section 04
Section 12
Section 11
Section 10
Section 09
Section 13
Section 14
Section 15
Section 16
Section 24
Section 23
Section 22
Section 21
Section 25
Section 26
Section 27
Section 28
Section 36
Section 35
Section 34
Section 33
CRYSTAL CREEK
DRY CANYON
HOLCOMB CREEK
SAN BERNARDINO NATIONAL FOREST
CLAIMS QUARRY
BUTTERFIELD QUARRY
CRYSTAL CREEK ROAD
CLAIMS QUARRY ROAD
CLAIMS / CLAIMS QUARRY ROAD
CLAIMS QUARRY
22.2 Acres
To be reclaimed per approved Reclamation Plan 94-04-02
7500
7400
7300
7200
7100
7000
6900
6800
6700
6600
6500
6400
6300
6200
6100
6000
5900
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400
300
200
100
0
1800
FEET
Source: LILBURN CORP., 2012
LILBURN CORPORATION
LEGEND
Existing Operating Area
Amended Operations
Claims
T 12 Crystal Creek Turn-out
Proposed Carbonate Mitigation
Patented land Owned by Others
Major Contour
Minor Contour
Peak or Ridgeline Elevation
SBNFS Boundary
USGS Township
USGS Section
Streams
Drainage
Water Body
Pipeline (not a part of project)
PROJECT VICINITY
BUTTERFIELD and SENTINEL QUARRIES
Amended Plan of Operations and Reclamation Plan
Omya California, San Bernardino National Forest, California
FIGURE 2

The Butterfield – Sentinel Quarries are located entirely within 954 acres of unpatented placer claims controlled by Omya Inc. These acres are located on public land administered by USFS and include the Crystal Creek 1, 2, 4, 13 and 14, Slope North, and King 3 claims (see Figure 3). Permitting will require compliance with both USFS Minerals Regulations, under the jurisdiction of the USFS (36 CFR 228, Subpart A), and the California Surface Mining and Reclamation Act (SMARA), implemented by the County (Development Code, Chapter 88.03). Therefore, in consultation with both the USFS and the County, Omya submitted an Amended Plan of Operations for Mining Activities on National Forest System Lands, and an Amended Reclamation Plan per the County's Mine and Reclamation Plan Conditional Use Permit Application, Information Sheet and Application. Both of these forms and applications are combined in the Amended Plan with four attached 30-inch by 40-inch, 200 scale mine and reclamation plan sheets and cross-sections on file with the San Bernardino County Land Use Services Department. In addition, a Conditional Use Permit (CUP) application was submitted to the County.

Obtaining the necessary USFS and County approvals will require compliance with both the National Environmental Policy Act (NEPA) and the California Environmental Impact Report (CEQA) and a joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS) will be prepared.

Existing Approved Plan of Operations and Reclamation Plan

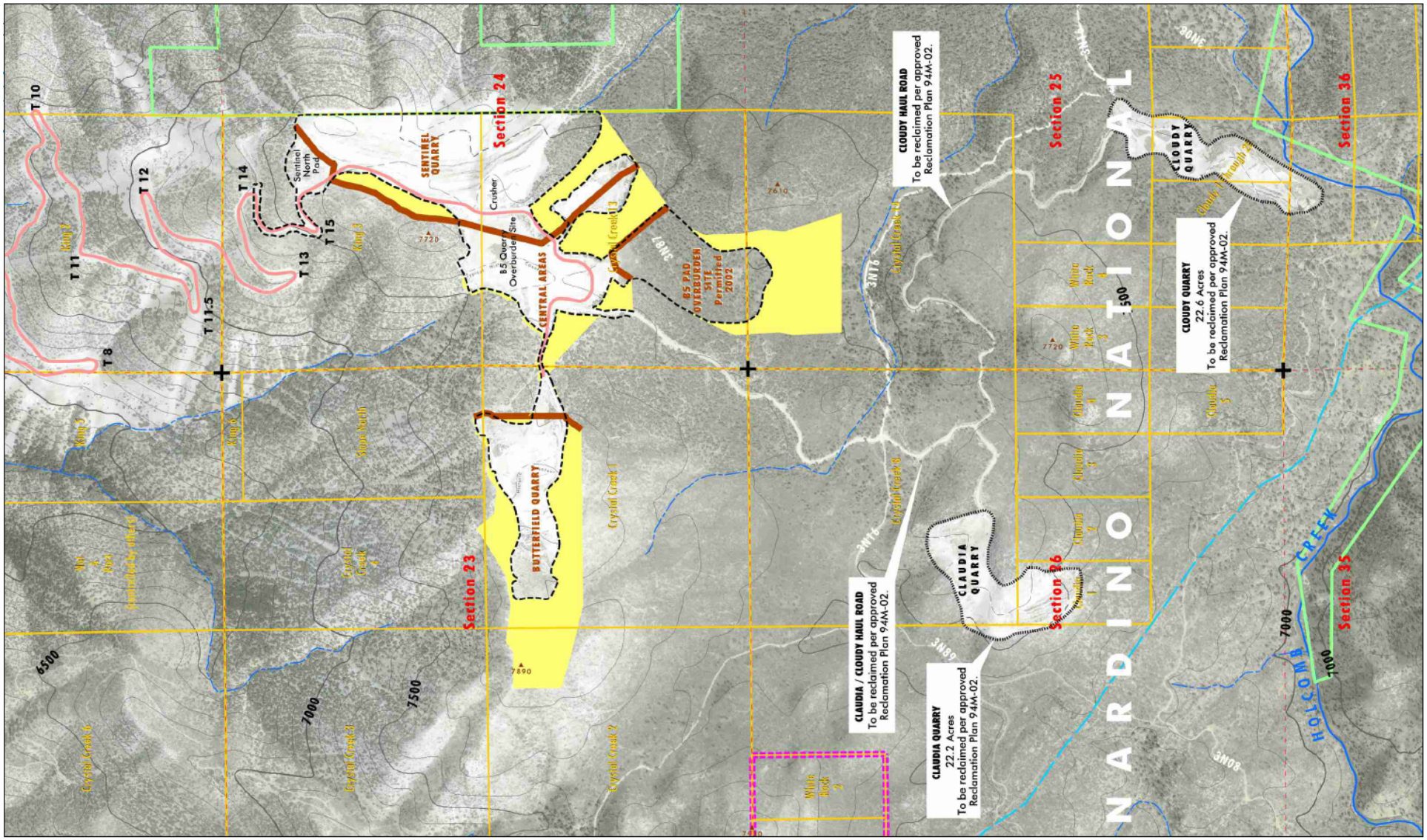
The USFS approved the previous Omya Umbrella Plan of Operations and Reclamation Plan on January 11, 1988, which included the Sentinel, Butterfield, Cloudy, and Claudia quarries, and associated haul roads. The existing SMARA approved Plan of Operations and Reclamation Plan was approved in 1994 by the USFS and by the SMARA lead agency, San Bernardino County. The site is designated with CA Mine ID# 91-36-0052.

In 2002-3, Omya received approval from the USFS and County to expand the Sentinel and Butterfield Quarries (Sentinel Quarry Area Expansion Plan of Operations and Reclamation Plan). This existing approved Plan of Operations and Reclamation Plan includes mining and reclamation of the current Sentinel and Butterfield Quarries. Reclamation for the inactive Cloudy and Claudia quarries, overburden stockpiles, and haul roads on USFS lands, including reclamation of the Crystal Creek Haul Road, are covered in the 1994 approved plan and incorporated into the current Amended Plan. There are no changes to these sites with the exception of extending the years of use of the Crystal Creek Haul Road by 10 years, from years 2046 to 2055, followed by 10 years of reclamation. All other aspects of the existing operation and reclamation (including the processing plant in Lucerne Valley) are covered in approved plans and are unchanged.

Proposed Amended Plan of Operations and Reclamation Plan (refer to Figure 4)

The Sentinel Quarry is currently permitted to operate through the year 2035, and the Butterfield Quarry through 2015. Known limestone resources will accommodate an increase of approximately 27 million tons of ore to the Lucerne Valley processing plant for a proposed additional 40 years of operations for Butterfield (2016 through 2055) and 20 additional years for the Sentinel Quarry (2036 through 2055). Depending on market demand, the combined Butterfield/Sentinel Quarries average ore production rates will increase to approximately 680,000 tons per year compared to the 3-year average between 2004 and 2006 of approximately 378,200 tons per year of ore.

The Butterfield Quarry expansion consists of 28.6 acres and includes expansion of the existing quarry approximately 900 feet to the west and about 200 feet south and north. This will serve to incorporate those areas previously defined as Butterfield 2, Butterfield 3, the previously mined and reclaimed Butterfield 4, and the partial filling of the quarry with overburden. These areas will all be incorporated into the overall Butterfield Quarry footprint for a total disturbance area of approximately 50.4 acres.



EXISTING QUARRIES and PLANNED OPERATIONS

BUTTERFIELD and SENTINEL QUARRIES
Amended Plan of Operations and Reclamation Plan
Omya California, San Bernardino National Forest, California

FIGURE 3

The Sentinel Quarry expansion consist of an additional 48.7 acres of disturbance and include expansion of the quarry (10.8 acres); the Butterfield 5 overburden pad (22.7 acres); and the Central Area with overburden fill pads, growth media storage, and additional haul road areas (15.2 acres). These areas will all be incorporated into the overall Sentinel Quarry footprint for a total disturbance area of approximately 164.4 acres. These changes allow for optimization of the quarry's operational activities. The Amended Plan will add approximately 77.3 acres for a total project area of approximately 214.8 acres (see Table 1).

Quarry and overburden stockpile development and expansion will be phased. Included in the phased expansion and reclamation is concurrent quarry development and reclamation of equipment-accessible mined out portions of the quarries. Therefore, the project includes both expanded mining operations beyond what is currently permitted, and reclamation of the disturbed areas.

Table 1
Existing and Planned Operational Areas
Butterfield and Sentinel Quarries

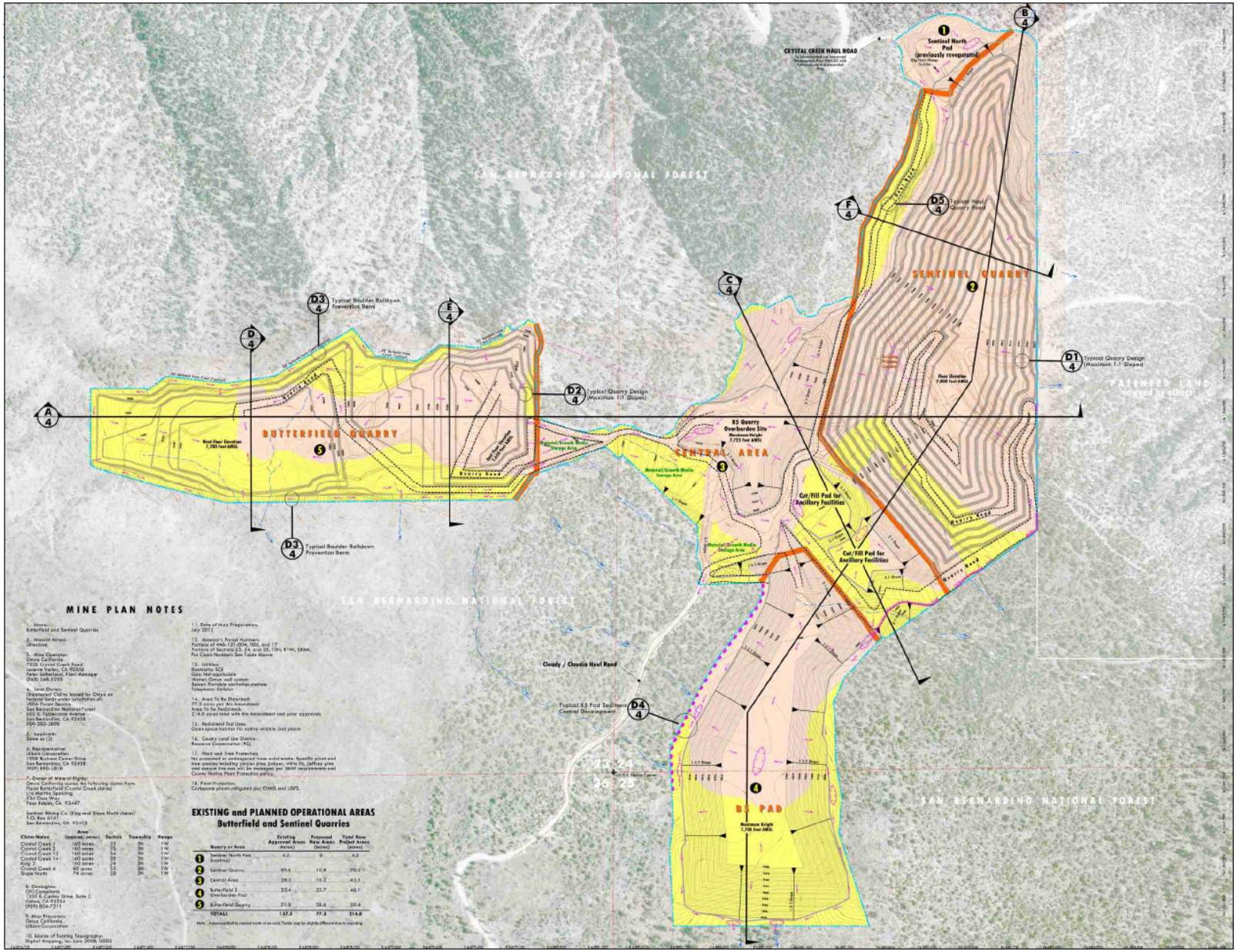
Quarry or Area	Existing Approved Areas (acres)	Proposed New Areas (acres)	Total New Project Areas (acres)
Butterfield Quarry	21.8	28.6	50.4
Sentinel Quarry	59.6	10.8	70.3
Butterfield 5 Overburden Pad	23.4	22.7	46.1
Central Area	28.3	15.2	43.5
Sentinel North Pad (reclaimed)	4.5	0	4.5
Totals	**137.5**	**77.3**	**214.8**

Note: Areas rounded to nearest tenth of an acre. Totals may be slightly different due to rounding.

The quarries are multi-bench open pit mines. Several working levels are operated at any one time within both quarries to supply the quota of ore needed to meet production demands. The multi-working level concept allows for greater selectivity and blending of rock qualities to meet stringent quality standards of customers, and allow maximum utilization of the resource. Five grades of ore are selectively mined. The ore is drilled and blasted, loaded into haul trucks and hauled to the crusher currently located just southwest of the Sentinel Quarry. Crushed ore is loaded into off-road haul trucks and transported eight miles on the vested Crystal Creek Haul Road to the existing processing plant in Lucerne Valley.

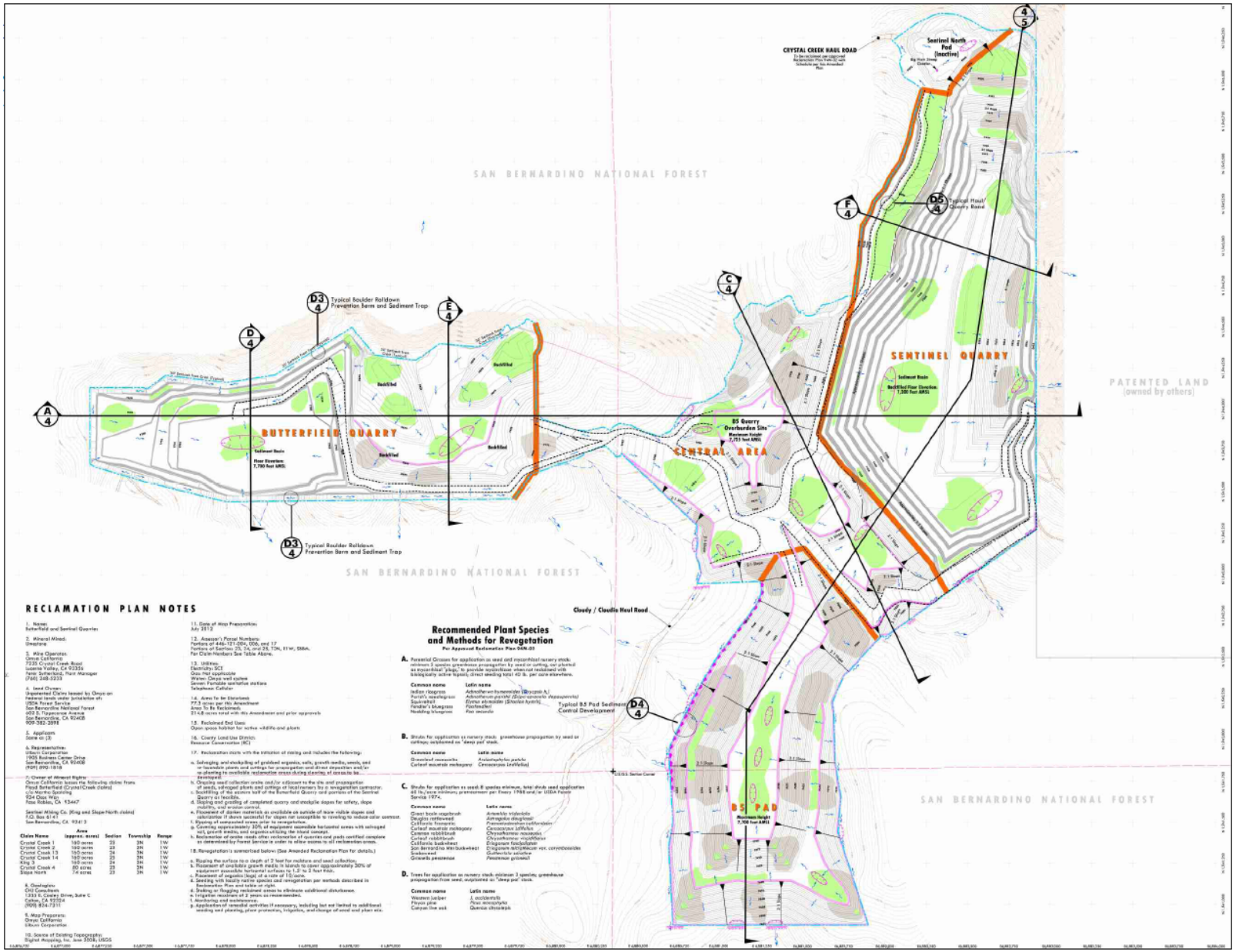
The Amended Plan proposes excavations to be developed in the Butterfield Quarry to a maximum depth of 7,650 feet above mean sea level (amsl) or approximately 200 feet below the quarry rim on the north and 75 feet deeper than currently permitted. The Sentinel Quarry will be excavated to a maximum depth of 7,000 feet amsl, or approximately 600 feet below the quarry rim, on the north and west, and approximately 150 deeper than currently permitted.

Once the final outer limit and bottom of the ore is reached, the quarries will be partly backfilled as the remainder of the quarries are mined out. The Amended Plan allows for as much backfill as feasible to be placed in the mined out portions of the quarries, providing for an efficient mining plan, minimum disturbance of new ground, phased incremental disturbance of new ground as necessary, and concurrent reclamation of the quarries and overburden stockpiles (see Figure 5).



AMENDED MINE PLAN
BUTTERFIELD and SENTINEL QUARRIES
Amended Plan of Operations and Reclamation Plan
Omya California, San Bernardino National Forest, California

FIGURE 4



AMENDED RECLAMATION PLAN

BUTTERFIELD and SENTINEL QUARRIES

Amended Plan of Operations and Reclamation Plan

Omya California, San Bernardino National Forest, California

FIGURE 5

The previously approved SMARA reclamation plan (2003) provides a site specific approved reclamation and revegetation plan, including growth media salvage; organics placement; seeding and revegetation; seed collection and propagation; irrigation; site cleanup; public safety; rock and fill slope stability; drainage and erosion controls; monitoring and maintenance plan; and bond release criteria. At the conclusion of excavations, 10 years of active reclamation and revegetation will be implemented, followed by monitoring and remediation, until revegetation goals are achieved. No changes in the approved revegetation plan are proposed other than increased acres and timing.

Project Objectives

The Amended Plan was developed with the following objectives:

- To continue the mining and recovery of a unique high calcium limestone resource to supply the Lucerne Valley Plant for the production of a wide range of calcium carbonate products;
- To minimize additional land disturbance through the expansion of contiguous existing quarries and usage of existing overburden stockpiles and haul roads;
- To develop internal waste rock stockpiles within completed portions of the quarries to limit the area of disturbance outside the quarries to reduce impacts to sensitive plant habitat and viewshed;
- To meet the USFS regulations to cause no undue and unnecessary degradation;
- To meet the State and County surface mining requirements;
- To relinquish unpatented mining claims to mitigate take of carbonate plants consistent with the Carbonate Habitat Management Strategy (CHMS);
- To minimize impacts to sensitive plants and wildlife including bighorn sheep through quarry design and ongoing bighorn sheep programs;
- To reclaim the site for post-mining uses which will include open space habitat;
- To contour mining features and revegetate disturbed areas to minimize aesthetic and erosion impacts; and
- To reclaim and maintain the site as necessary to eliminate hazards to public safety.

Carbonate Plants

The carbonate soils, including limestone, in the northern San Bernardino Mountains, provide a unique habitat and there are five federally listed threatened or endangered plant species endemic to carbonate soils. An intensive collaborative effort led to the development of the Carbonate Habitat Management Strategy in 2003. The strategy is designed to provide long-term protection for the carbonate endemic plants and also provide for long-term continued mining in the San Bernardino Mountains. Portions of the carbonate habitat are protected from mining impacts in perpetuity within the carbonate habitat reserves dedicated and managed as described in the CHMS. A Memorandum of Understandings and Agreement (MOUA) was signed in 2003 by Omya, the USFS, Bureau of Land Management (BLM), San Bernardino County, Specialty Minerals, Mitsubishi Cement Company, California Native Plant Society, and the Cushenbury Mine Trust. The MOUA stipulates that the signatories will implement the CHMS for the dual purpose of conserving threatened and endangered carbonate plants and streamlining the permitting of mining operations.

The listed carbonate-endemic plants are managed by the USFS, San Bernardino County, and other public agencies under the CHMS. “Take” of listed carbonate-endemic plants is permitted under the strategy, and mitigated by: 1) permanently relinquishing unpatented mining claims or transferring private property into the public domain, and 2) management of off-site plant occurrences as outlined in the CHMS.

Botanical surveys by both USFS and Omya-contracted botanists have been conducted in the mine expansion area during the past 30 years and have identified onsite populations of Cushenbury oxytheca, one of the five federally listed endangered plant onsite. No occurrences of the other four listed carbonate endemic plant species have been recorded on the site. In consultation with the USFS, Omya has provided the USFS a mitigation land proposal consistent with the CHMS that would relinquish 300 acres of unpatented claims in the adjacent areas for carbonate plant mitigation (see Figure 3).

Project Need

Omya's Lucerne Valley Plant operations require high-brightness, high purity limestone ore (calcium carbonate) of specific quantities and qualities to produce fine ground calcium carbonate for numerous consumer and industrial products discussed below. To meet current and future product demand, Omya requires reliable and economic resources of high quality limestone ore. This has been achieved through the development of three unique limestone deposits, the White Knob Quarry to the west of the plant, and the Butterfield – Sentinel quarries, the subject of this Amended Plan, to the south. This Amended Plan will assure Omya that its Lucerne Valley Plant will have greater flexibility and access from the three quarries. This will provide Omya the raw limestone resources needed to not only continue producing existing products, but also to be able to respond to future product demand and to invest in future expansion of its processing plant as necessary to meet this future demand.

Economic Benefits

Long-term cumulative economic benefits of limestone mining along the north range front have added to the County economy for decades including tax payments and jobs. The limestone mining industry provides stable high paying jobs and professional careers for many people. The proposed Butterfield - Sentinel expansion project will allow long-term (up to 40 years) mining of the resource and provide employment for many career workers.

Omya helps support Federal, State and local governments and schools through payment of property taxes, excise, fuel and other taxes for the long-term. Omya supports local economies through direct purchases of equipment, materials, supplies, and services, and indirect turnover of these expenditures in the economy. Omya also supports local communities through charitable contributions, and employee involvement in various community affairs.

ENVIRONMENTAL/EXISTING SITE CONDITIONS:

AREA	EXISTING LAND USE	OFFICIAL COUNTY LAND USE DISTRICT
Site	Quarries, overburden stockpiles, haul roads, processing plant and open space on federal lands under jurisdiction of the USFS	Resource Conservation (RC) (non-County jurisdictional)
North	Haul road, open space/SBNF	RC
South	Open space/SBNF	RC
East	Open space, mine operated by others on patented land	RC
West	Open space/SBNF	RC

Surrounding Land Use

The site is located in the San Bernardino Mountains south of Lucerne Valley in southwestern San Bernardino County. The Butterfield – Sentinel Quarries are located entirely within portions of 954 acres of unpatented placer claims controlled by Omya on public land administered by the USFS (refer to Figure 3). The existing mine and planned expansions are bounded on the south, west, and north by vacant, mountainous open space forestry lands and to the east by patented open space with a mine called Furnace Canyon located about 0.75 to 1 mile to the northeast. Other than mining, which has historically been active in the area since the 19th century, land use in the rugged mountainous area has been limited to occasional use by hikers and hunters. OHV use and fuel wood cutting have increased as more access roads were built.

OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (E.G., PERMITS, FINANCING APPROVAL, OR PARTICIPATION AGREEMENT):

- United States Department of Agriculture, Forest Service, San Bernardino National Forest – Record of Decision on the Amended Plan of Operations

- U.S. Fish and Wildlife Service – Section 7 Consultation with Forest Service through the Carbonate Habitat Management Strategy Plan

EVALUATION FORMAT

This Initial Study is prepared in compliance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations Title 14 Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based upon its effect on seventeen (17) major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the overall factor. The Initial Study Checklist provides a formatted analysis that provides a determination of the effect of the Proposed Project on the factor and its elements. The effect of the Proposed Project is categorized into one of the following four categories of possible determinations:

Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant	No Impact

"Substantiation" is provided to explain each determination. One of the four following conclusions is provided as a summary of the analysis for each of the major environmental factors.

1. **No Impact**: No impacts are identified or anticipated. Therefore, no mitigation measures are required and analysis in an Environmental Impact Report (EIR) is not required.

2. **Less than Significant Impact**: No significant adverse impacts are identified or anticipated. Therefore, no mitigation measures are required, and analysis in an EIR is not required.

3. **Less than Significant Impact with Mitigation Incorporated**: Possible significant adverse impacts have been identified or anticipated, but mitigation measures have been identified that will reduce these impacts to a level below significant. The required mitigation measures are: (List mitigation measures). Provided the mitigation is required as a condition of project approval, no further analysis in an EIR is required.

4. **Potentially Significant Impact**: Potentially significant adverse impacts have been identified or anticipated. An EIR is required to evaluate these impacts, which are (Listing the impacts requiring analysis within the EIR).

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☐ Cultural Resources	☒ Geology / Soils
☒ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☒ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation / Traffic	☐ Utilities / Service Systems	☒ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Jeremy C. Krout — 02/22/13

Signature: Jeremy C. Krout, Consultant to County of San Bernardino — Date

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
I. AESTHETICS - Would the project				
a) Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

SUBSTANTIATION: *(Check ☒ if project is located within the view-shed of any Scenic Route listed in the General Plan):*

a-c) **Potentially Significant Impact.** The Proposed Project area is and will be visible from elevated areas to the south through southeast within the SBNF based on U.S. Geological Surveys mapping. The forest use areas that would be able to view the site include potions of Holcomb Valley and the Pacific Crest Trail, Castle Rocks and the top of Snow Summit. Note that the distances from the project site to the latter two viewpoints are over 7 miles and at these distances, the Proposed Project starts to become a minimal alteration to the overall view. From more distant ridgelines such as Onyx Summit, one may be able to see the site, but when placed into the context of a panoramic viewshed from these various distant viewpoints, the existing and future mine occupies a very small portion of the view shed with respect to the overall view and becomes nearly indiscernible.

The Proposed Project will not be visible from any developed/ populated areas surrounding Big Bear Lake (and from the lake itself) including Fawnskin, the City of Big Bear Lake, and Big Bear City due to the intervening ridges located north of the lake and the relatively lower elevations around the lake. The existing and proposed mine expansion is located on the south side of the range crest and is not visible from Lucerne Valley.

Potential long-term visual impacts of the proposed amended Plan of Operations and Reclamation Plan will be analyzed within the EIR/EIS.

b) **No Impact.** The Proposed Project would not be visible from SR 18 or other highways designated by the State of California as a Scenic Route. This impact will not need to be evaluated further in the EIR/EIS.

d) **No Impact.** The Proposed Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. No new light sources are proposed and therefore no impacts would occur. This impact will not need to be evaluated further in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
II. AGRICULTURE AND FORESTRY RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☒	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

SUBSTANTIATION: *(Check ☐ if project is located in the Important Farmlands Overlay):*

a) **No Impact.** The California Resources Agency defines Prime Farmland, Unique Farmland, or Farmland of Statewide Importance for San Bernardino County as farmlands which include dryland grains of wheat, barley, oats, and dryland pasture. The Project Site does not meet these characteristics.

The proposed project site is located on the steep northern slopes of the San Bernardino Mountains, where both the topography and the soils are unsuitable for agriculture. The Proposed Project does not Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, no impact is anticipated, and this impact will not need to be analyzed further in the EIR/EIS.

b) **No Impact.** The proposed project site is not designated as agricultural land use or Williamson Act land. The Proposed Project is consistent with existing on-site uses and would not conflict with current zoning or uses at the site. No impacts would result, and this impact will not need to be analyzed further in the EIR/EIS.

c-e) **Less Than Significant Impact.** The Butterfield – Sentinel Quarries are located on approximately 214 acres entirely within 954 acres of unpatented placer claims controlled by Omya located on public land administered by USFS.

Omya is required to comply with both Forest Service Minerals Regulations (36 CFR 228, Subpart A) under the jurisdiction of the USFS and State of California SMARA implemented by the County (Development Code, Chapter 88.03). Therefore, in consultation with both the USFS and the County, Omya submitted an Amended Plan of Operations for Mining Activities on National Forest System Lands (FS-2800-5) and a CUP and an Amended Reclamation Plan per the County's Mine and Reclamation Plan, Information Sheet and Application.

The "Land Management Plan, Part 2 San Bernardino National Forest Strategy" (USDA September 2005) defines the Proposed Project area as the "Desert Rim." The Desert Rim is described as "a high desert, remote, rugged landscape formed by complex geological faulting. Today, the majority of the land is valued in the production of large quantities of high quality, limestone mineral deposits used in the production of pharmaceuticals and cement. These carbonate deposits are also valuable habitat supporting four species of threatened and endangered plants found nowhere else in the world." An intensive collaborative effort led to the development of the Carbonate Habitat Management Strategy (CHMS) in 2003. The strategy is designed to provide long-term protection for the carbonate endemic plants and also provide for continued mining. Carbonate habitats are protected from mining impacts in perpetuity within the carbonate habitat reserves dedicated and managed as described in the CHMS.

The Desert Rim is maintained as a modified to natural appearing landscape that functions as a sanctuary for several federally listed native plants and a highly valued area for limestone production. SBNF management is expected to center on implementation of the CHMS and to continue mining while preserving and managing habitat for the four federally listed plants.

Although the Proposed Project would result in the conversion of forest land to traditional non-forest use, the mining land use has been included in the SBNF Land Management Plan and in the Carbonate Habitat Management Plan Strategy and is therefore contemplated for the project site. Therefore, a potentially less than significant impact related to the conversion of forest lands would result. These impacts will be evaluated in the EIR/EIS due to expected agency and public interest.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
III. AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

SUBSTANTIATION: *(Discuss conformity with the South Coast Air Quality Management Plan, if applicable):*

a-c) **Potentially Significant Impact**. An air quality study will be prepared for the EIR/EIS for the Proposed Project. Criteria pollutant emission calculations and air quality modeling will be performed for the existing baseline and proposed mine activities. Results will be compared with Federal and State ambient air quality standards and the Mojave Desert Air Quality Management District (MDAQMD) CEQA emissions significance thresholds to determine potential significant impacts. Conflict with implementation of the MDAQMD air quality plans and cumulative impacts will be assessed. Findings of the air quality study will be evaluated in the EIR/EIS and mitigation recommended as applicable.

d) **Potentially Significant Impact.** Toxic air contaminant (TAC) emission calculations and a project health risk assessment will be prepared for the proposed operational increase and compared with the applicable Federal, State, and MDAQMD CEQA health risk significance thresholds. Potential impacts will be evaluated in the EIR/EIS.

e) **No Impact.** The Proposed Project would not produce any objectionable odors. No impacts would result, and this impact will not need to be analyzed further in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
IV. BIOLOGICAL RESOURCES - Would the project:				
a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☒	☐	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc…) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☒	☐	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	☐	☐	☒	☐

SUBSTANTIATION: *(Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database ☒):*

a-b) **Potentially Significant Impact.** The carbonate soils, including limestone, in the northern San Bernardino Mountains, provide a unique habitat and there are five federally listed threatened or endangered plant species endemic to carbonate soils. An intensive collaborative effort led to the development of the CHMS in 2003. The strategy is designed to provide long-term protection for the carbonate endemic plants and also provide for continued mining. Carbonate habitats are protected from mining impacts in perpetuity within the carbonate habitat reserves dedicated and managed as described in the CHMS.

These listed carbonate-endemic plants are managed by the USFS, the County, and other public agencies under the CHMS. “Take” of listed carbonate-endemic plants is permitted under the strategy, and mitigated by permanent relinquishing unpatented mining claims or transferring private property into the public domain and management of off-site plant occurrences as outlined in the CHMS.

The project site occurs within the area of the CHMS. Botanical surveys by both USFS and Omya-contracted botanists have been conducted in the mine expansion area during the past 30 years and have identified onsite populations of Cushenbury oxytheca, one of the five federally listed endangered plant onsite. No occurrences of the other four listed carbonate endemic plant species have been recorded on or adjacent to the site. In consultation with the USFS, Omya has provided the USFS a mitigation land proposal consistent with the CHMS that would relinquish 300 acres of unpatented claims in the adjacent areas for carbonate plant mitigation.

The expansion areas can be characterized as variations of pinyon-juniper-mountain mahogany-rabbit brush woodland. Phased development will result in disturbance of approximately 77 acres of pinyon juniper woodland including white fir and Jeffrey pine. There is no riparian vegetation onsite. Most of the western areas were burned in recent fires (Willow Fire and Butler Fire in 2007).

Wildlife surveys completed during the last 30 years in the project area have not noted any animals which are listed or proposed for listing as threatened or endangered by either Federal or State agencies. Special status species including Nelsons Bighorn sheep, Golden eagle, California spotted owl, and Grey vireo are known to occur in the general area. Omya has cooperated with and participated in several projects which yield additional information or are believed to enhance the habitat of the Bighorn sheep.

The EIR/EIS will assess potential plant and wildlife impacts from the amended Plan and recommend mitigation measures as needed in the EIR/EIS.

c) **No Impact.** Previous biological resource assessments referenced above did not find any federally protected wetlands as defined by Section 404 of the Clean Water Act.

d) **Potentially Significant Impact.** The project site is in an area that has been partially fragmented by previous and ongoing mining. The Proposed Project would contribute to the existing cumulative effects of these alterations to regional wildlife movement, including north-south movement by terrestrial species between desert to the north and forests to the south including Nelson’s bighorn sheep. Potential impacts will be evaluated in the EIR/EIS.

e) **Potentially Significant Impact.** The San Bernardino County Native Plant Protection policy (1989) regulates removal of trees greater than 6 inches diameter at breast height (dbh), smoke trees, mesquite, creosote rings, and all plants in the agave family, including Joshua trees. Due to elevation and habitat, no smoke trees, mesquite, or creosote rings would be expected on the site. Pinyon pines greater than 6 inches dbh are expected to occur throughout the pinyon woodland onsite. The County policy applies legally on private lands, but not on Federal public lands. However, these plant species serve similar ecological function on SBNF lands and impacts of removing them would be similar to removing them from private lands. Potential impacts will be evaluated in the EIR/EIS and mitigation measures recommended.

f) **Less than Significant Impact.** In consultation with the USFS, Omya has provided the USFS a mitigation land proposal consistent with the CHMS that would relinquish 300 acres of unpatented claims in the adjacent areas for carbonate plant mitigation. The impacts to carbonate plants and consistency with the CHMS will be evaluated in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
V. CULTURAL RESOURCES - Would the project				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

SUBSTANTIATION: *(Check if the project is located in the Cultural ☐ or Paleontologic ☐ Resources overlays or cite results of cultural resource review):*

a-d) **No Impact.** No cultural sites have been identified within or adjacent to the proposed Butterfield or Sentinel expansion areas. Cultural resource surveys were conducted by the USFS and the EIR/EIS will assess potential impacts and recommend mitigation measures. The EIR/EIS will include a condition for the possibility that subsurface human remains are discovered even if it is highly unlikely that such remains will be discovered (CEQA Guidelines 15064.5(e).

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
VI. GEOLOGY AND SOILS - Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☒	☐	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?	☒	☐	☐	☐
d) Be located on expansive soil, as defined in Table 181-B of the California Building Code (2001) creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

SUBSTANTIATION: *(Check ☐ if project is located in the Geologic Hazards Overlay District):*

a) **Less than Significant Impact.** (i-iv) A Slope Stability Investigation was prepared by CHJ Consultants in July 2012. CHJ concluded that the proposed mine excavation and reclamation (backfilling) of the quarries are suitably stable against gross failure for the anticipated long–term conditions including the effects of seismic shaking and meet the factor of safety criteria for static and seismic conditions. The Proposed Project would not increase the exposure of people to potential adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction or landslides, beyond what currently exists at the site. Earthquakes, due to their ground acceleration and shifting, can cause major damage to buildings and create dangerous hazards to people through

injury or death, but no buildings are proposed as part of the Proposed Project. While these impacts are not expected to be significant, nonetheless the slope stability assessment will be further discussed in the EIR/EIS.

b) **Potentially Significant Impact.** Numerous erosion and sedimentation controls currently exist in the mining and stockpile areas to control, minimize and prevent off site sedimentation. Runoff is directed into quarry pits, and many culverts, dips, or drains direct water off roads. A large number of energy dissipaters, rip rap, hay bales, and/or silt fences trap sediment and prevent it from traveling off site. Operations also limit surface disturbance to minimum areas and concurrent reclamation and revegetation will stabilize disturbed pads and slopes.

Omya has continuously worked with the Forest Service in the design and implementation of drainage controls along roads and other facilities. Existing erosion and sedimentation controls are inspected and approved by both Forest Service and Omya personnel. The site will be visually inspected after major precipitation events to determine if any substantial erosion is evident such as sheet, rill or gully erosion or any surficial instability. Appropriate erosion control measures will be maintained as necessary and additional controls implemented where new erosion is observed. Erosion control impacts and measures for the Proposed Project will be further evaluated in the EIR/EIS.

c) **Potentially Significant Impact:** A Slope Stability Investigation was prepared by CHJ Consultants in July 2012. CHJ concluded that the proposed mine excavation and reclamation (backfilling) of the quarries are suitably stable against gross failure for the anticipated long–term conditions including the effects of seismic shaking and meet the factor of safety criteria for static and seismic conditions. CHJ recommended measures to be implemented during mining and these are listed below.

- Overall final cut slopes in the rock materials shall be no steeper than approximately 1(H):1(V) up to a maximum height of approximately 625 feet.
- Large, unstable boulders and loose rock on mine slopes will be removed or stabilized prior to the end of reclamation.
- Geotechnical evaluation and design, management of mine bench geometry based on encountered conditions, or use of mechanical support systems shall be implemented.
- Continued inspection and monitoring of mine benches and slope conditions for indications of potential instability and failure warming signs shall be implemented.
- Final reclaimed fill slopes composed of overburden materials should be no steeper than 2(H):1(V) to the maximum proposed heights.
- Slopes should be protected with berms and/or levees as necessary to prevent slope erosion in the areas where natural slopes drain onto the reclaimed slopes.

The project site is not located within an area known for land subsidence or liquefaction. A final slope stability assessment report will be prepared for the USFS and County to assess the final reclaimed slopes as part of the site closure. Slope stability issues will be assessed in the EIR/EIS.

d) **No Impact**. The Project site is not located in an area which has been identified by the County Building and Safety Geologist as having the potential for expansive soils. No impacts would result, and this impact will not need to be analyzed further in the EIR/EIS.

e) **No Impact.** Septic tanks and/or alternative water supply systems are not proposed as part of the project. Therefore, no impacts would result, and this impact will not need to be analyzed further in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
VII. GREENHOUSE GAS EMISSIONS - Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

SUBSTANTIATION:

a-b) **Potentially Significant Impact.** The State of California has determined that global climate change is a threat to the environmental and that human activity generating greenhouse gases influences global climate change. Global climate change refers to changes in average climatic conditions on earth as a whole, including temperature, wind patterns, precipitation, and storms.

Global climate change regulation is continuing to evolve. As part of the County's General Plan, the County prepared a "GHG Emission Reduction Plan" in September 2011. This GHG Reduction Plan is based on the premise that the County and the community it represents are uniquely capable of addressing emissions associated with sources under the County's jurisdiction and that the County's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to reduce emissions in an efficient and cost-effective manner. This GHG Plan presents a comprehensive set of actions to reduce the County's internal and external GHG emissions to 15% below current levels by 2020, consistent with the AB 32 Scoping Plan

An analysis will be prepared as part of the Air Quality Study that will quantify the operational emissions of GHG that will result from the Project and determine the project's GHG impact and recommend mitigation as appropriate. Findings of the analysis will be evaluated in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
VIII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

SUBSTANTIATION:

a, b) **Less Than Significant Impact.** The Proposed Project involves the use of materials common to the mining industry and includes the transport, storage and use of fuels, lubricants and explosives. The operator would continue to comply with all applicable Federal and State safety rules and regulations

regarding hazardous materials. Potential impacts from the transport, use, and disposal of hazardous materials are considered less than significant.

Existing and proposed mining operations would require one blast per week. Therefore, the overall current levels of blasting would remain the same. However, blasting will occur for the extended life of the project through 2055. Blasting operations would continue to be conducted by licensed individuals in such a manner as to meet or exceed Cal-OSHA requirements.

Blasting operations will involve drilling, placement of charges, and detonation of the charges by a blaster with all required licenses and permits for handling explosives. All explosives and detonators shall be transported, handled, and stored in accordance with all Federal, State, and local regulations.

The blasting agent ammonium nitrate and fuel oil (ANFO) explosives used at the quarries are currently stored separately in magazines located at designated locations at Omya's Lucerne Valley operations per all Federal, State, and local regulations. The explosives are only transported to the quarry site by a licensed contractor as necessary.

Blasts in the Omya quarries are relatively small to maximize selectivity. The active quarries are located near the Range Crest in the central portion of the mountain range. There are no residences for over 2 miles in any direction from the quarry, and one or more major mountain ridges are present in between quarries and residences. Blasting has occurred in these quarries for over 35 years with no adverse impact on people, structures, or wildlife. The blasts cannot be seen, heard or felt in any residential areas

Blasting operations would continue to involve drilling along the mining face, placement of charges, and detonation of the charges by a blaster licensed through the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATF&E) for handling explosives. All explosives and detonators shall be transported, handled, and stored in accordance with all Federal, State, and local regulations and permitted under the San Bernardino County Sheriff's Department and San Bernardino County Fire Department pursuant to Uniform Fire Code adopted by the Department. In compliance with County regulations, blasting shall only be conducted by a licensed blaster upon issuance of a blasting permit and a site-specific blasting permit. Since the Proposed Project will not an increase to the frequency of blasting, less than significant impacts would result. Nonetheless, additional discussion related to the blasting and potential risk to the public will be included in the EIR/EIS, due to the expected agency and public interest.

c) **No Impact.** The Proposed Project involves the use of materials common to the mining industry and includes the transport, storage and use of fuels, lubricants and explosives. The operator would continue to comply with all applicable Federal and State safety rules and regulations regarding hazardous materials. During operations, diesel exhaust would be generated by heavy construction-type equipment; however, no existing school facilities or proposed school facilities are located within one-quarter mile radius of the project site. The nearest schools include North Shore Elementary located approximately 6 miles southeast of the Project Site in Big Bear Lake, and the Lucerne Valley Middle School located approximately 6.5 miles northeast of the Project Site. No impacts to nearby schools are anticipated.

d) **No Impact.** The project site is not identified on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. (http://www.envirostor.dtsc.ca.gov/public/search.asp).

e) **No Impact.** As shown on San Bernardino County General Plan, Hazards Overlay Map FI09B, the Project Site occurs within Airport Safety Review Area 4 (AR4). According to San Bernardino County Development Code Section 82.09.030 Airport Safety, AR4 includes the low-altitude/high speed corridors designated for military aircraft use. The nearest public/private airports include Big Bear City Airport located approximately 4.5 miles southeast of the site, and Rabbit Ranch Airport in Lucerne Valley approximately 5 miles north of the site. Since no human occupied structures exist or are proposed, potentially significant impacts are not anticipated. In addition, existing and proposed operations do not exceed height limits which could potentially impact military aircraft flight patterns. Therefore, the Proposed Project would not result in safety hazard impacts from aircraft-related uses. No additional discussion is warranted in the EIR/EIS.

f) **No Impact.** The project site is not within the vicinity or approach/departure flight path of a private airstrip. No impacts related to a private airstrip would occur, and this impact will not need to be analyzed further in the EIR/EIS.

g) **No Impact.** Activities associated with the Proposed Project would not impede existing emergency response plans for the project site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. Therefore, implementation of the Proposed Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan, and this impact will not need to be analyzed further in the EIR/EIS.

h) **Less than Significant Impact.** According to San Bernardino County General Plan Map FI09B, the Project Site is located in Fire Safety Review Area (FS-1), which includes areas within the mountains and valley foothills. It also includes all the land generally within the San Bernardino National Forest boundary and is characterized by areas with moderate and steep terrain and moderate to heavy fuel loading contributing to high fire hazard conditions. The project site includes internal haul roads to allow for emergency egress and safe zones in the event of a wildfire. The Proposed Project would not contribute to or be impacted by surrounding fuel loads and a fuel modification zone would not be required. No human-occupied structures are proposed as part of the project. Potential impacts will be evaluated in the EIR/EIS due to expected agency and public interest.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
IX.	**HYDROLOGY AND WATER QUALITY -** Would the project:				
a)	Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☒	☐	☐	☐
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☒	☐	☐	☐
e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☒	☐	☐	☐
f)	Otherwise substantially degrade water quality?	☒	☐	☐	☐
g)	Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structure which would impede or redirect flood flows?	☐	☐	☐	☒
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

SUBSTANTIATION:

a, f) **Potentially Significant Impact.** Numerous erosion and sedimentation controls have been implemented as needed in the mining and stockpile areas to control, minimize and prevent off site sedimentation. Runoff is directed into quarry pits, and many culverts, dips, or drains direct water off roads. A large number of energy dissipaters, rip rap, hay bales, and/or silt fences trap sediment and prevent it from traveling off site. Operations also limit surface disturbance to minimum areas and concurrent reclamation and revegetation will stabilize disturbed pads and slopes.

All operations on-site would comply with a NPDES General Permit for Storm Water Discharges associated with industrial activities and employ storm water BMPs. NPDES goals are to eliminate unauthorized non-storm water discharges and to monitor storm water discharges requirements. Water applied to roads and active mining areas to reduce fugitive will evaporate and, therefore, the Proposed Project will not produce any run-off during normal operations. Impacts related to water quality and erosion control will be evaluated in an EIR/EIS.

b) **Less Than Significant Impact**. A relatively small amount of water is used in the Butterfield – Sentinel quarries operation. Approximately one acre-foot of water is used annually for dust suppression in the quarry, overburden placement areas, haul roads, and at the crusher. Some water (approximately 0.4 acre-feet) is also used for watering at reclamation sites. With the increase in production, water usage is expected to double to approximately three acre-feet per year. No substantial changes are proposed other than that adequate dust control will be maintained. Note that the use of magnesium chloride on roads and other active mine areas, a baghouse on the crusher/screens, and the typically wet winter weather reduce the amount of water needed to control dust.

Water used to control dust is obtained from two previously permitted sources, a well located at the plant site in Lucerne Valley, and a well located in Crystal Creek Canyon near Turnout 5 on the Crystal Creek Haul Road. These water sources will be used to meet water demands of the proposed operations. No substantial changes in overall water use are proposed. Both existing wells have been proven to be pumping ground water and are permitted by the State of California Water Resources Control Board, and County of San Bernardino Department of Environmental Health Services permit #06259026. The plant well has been assigned recordation number 36011 by the California State Water Resources Control Board. Bottled drinking water for employees at the mining area is brought to the site as necessary. No surface water is used in the operation. There will be no added diversions or storage for water supply.

The project site is not within the service area of a public water supplier, but is within the boundaries of the Mojave Water Agency (MWA). MWA is a State Water Project contractor, a regional groundwater management agency, and serves as Watermaster for the adjudicated Mojave Basin. The MWA published it “Eighteenth Annual Report for the 2010-11 Water Year” on May 1, 2012. The Annual Report summarizes information required by the Judgment and includes a summary of the Watermaster's activities and water supply conditions for the Water Year. Omya has a verified base annual production allocation of 23 acre-feet (af)/year for its two wells and water usage over the past 5 years (2007 through 2011) has been 19, 14, 14, and 14 af/year, respectively (18th annual Report, MWA 2101). The expected increase of water usage for the proposed project of 1.5 af/year will not exceed Omya’s base allocation even during its higher usage amount in 2007 of 19 af/year.

Accordingly, the Proposed Project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Note that CEQA requires a Water Supply Assessment to be conducted for the project and its findings on water supply will be evaluated in the EIR/EIS.

c-e) **Potentially Significant Impact.** Numerous erosion and sedimentation controls have been implemented as needed in the mining and stockpile areas to control, minimize and prevent off site sedimentation. Runoff is directed into quarry pits, and many culverts, dips, or drains direct water off roads. A large number of energy dissipaters, rip rap, hay bales, and/or silt fences trap sediment and prevent it from traveling off site. Operations also limit surface disturbance to minimum areas and concurrent reclamation and revegetation will stabilize disturbed pads and slopes. Potential impacts will be evaluated in the EIR/EIS due to expected agency and public interest.

g, h) **No Impact.** The project site does not occur within a 100-year flood hazard area, does not include the construction of housing, and would not place housing within a flood plain. No impacts would occur, and no further analysis is required in the EIR/EIS.

i) **No Impact.** The project site and surrounding area is located outside of any designated dam inundation area. The Proposed Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding, as a result of the failure of a levee or dam, because no levee or dam is proposed as part of this project. No impacts would result, and this impact will not need to be analyzed further in the EIR/EIS.

j) **No Impact.** A seiche is an oscillating surface wave in a restricted or enclosed body of water generated by ground motion, usually during an earthquake. Inundation from a seiche can occur if the wave overflows a containment wall or the banks of a water body. Since the project site is not located adjacent to any body of water that has the potential of seiche or tsunami, no impacts are anticipated, and this impact will not need to be analyzed further in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
X. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☒	☐

SUBSTANTIATION:

a) **No Impact.** The project site is currently vacant and surrounded by open space/forest lands. The Proposed Project is consistent with the County General Plan and would not physically divide an established community. No impacts would result.

b) **No Impact**. The Proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project because the project is consistent with all applicable land use policies and regulations of the County of San Bernardino General Plan. No impacts would result.

c) **Less than Significant Impact.** The project site occurs within the Carbonate Habitat Management Strategy (Olson 2003), a Habitat Conservation Plan for carbonate soil types. Implementation of the Proposed Project has been designed to be consistent with the provisions of the adopted plan. Nonetheless, these impacts will be evaluated in the Biological Resources Section of the EIR/EIS, as described in Section IV of this Initial Study.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XI. MINERAL RESOURCES - Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

SUBSTANTIATION: *(Check ☒ if project is located within the Mineral Resource Zone Overlay): MRZ-3a*

a-b) **No Impact.** Once mined, a measurement of this resource will be depleted; however, the proposed project is consistent with the County's policy that protects the current and future availability of mineral resources. The primary goal in evaluating a land use that does not include mineral extraction activities is to ensure that the mineral potential of land is recognized and that decision-makers do not preclude the conservation, potential for development and use of the valuable mineral resources including water. Regulation and reclamation of the proposed Project Site as required by SMARA will permit the continued availability of the mineral resources and provide for the protection and subsequent beneficial use of those mineral resources while minimizing impacts on the public and the environment.

The State's Guidelines for Classification and Designation of Mineral Lands coincides with SMARA by providing the State Geologist with direction in carrying out mineral resource classification of lands in California that are threatened by uses that will be incompatible with, or will preclude development or conservation of mineral resources. Classification is the process of identifying lands containing significant mineral deposits. Designation is the formal recognition by the SMGB, after consultation with lead agencies and other interested parties, of areas containing mineral deposits of regional or statewide significance. The objective of classification and designation processes is to ensure, through appropriate lead agency policies and procedures, that mineral deposits of statewide or of regional significance are available when needed.

Omya has petitioned and received from the California Division of Mines and Geology (CDMG) Mineral Resource Zone 2 status (MRZ-2) for the limestone deposits on the Omya claims. Core drilling, detailed geologic mapping and assay data prove the deposits are significant mineral resources (MRZ-2) and easily exceeded the criteria established by the CDMG (Joseph, 1984). No impact to mineral resources is expected and this impact will not need to be analyzed further in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XII. NOISE - Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

SUBSTANTIATION: *(Check if the project is located in the Noise Hazard Overlay District ☐ or is subject to severe noise levels according to the General Plan Noise Element ☐):*

a.c,d **Less than Significant Impact.** Operations are required to conform with all applicable County noise control regulations. The active quarries are located near the Range Crest in the central portion of the mountain range. There are no residences for over 2 miles in any direction from the quarry, and one or more major mountain ridges are present in between quarries and residences. Operations and blasting has occurred in these quarries for over 35 years with no adverse impact on people, structures, or wildlife. However, although it is unlikely noise from an increase in production could expose persons to a substantial permanent increases in ambient noise levels above existing noise levels, potential noise impacts will be evaluated in an EIR/EIS.

b) **Less than Significant Impact.** Blasting operations would continue to be conducted by licensed individuals in such a manner as to meet or exceed Cal-OSHA requirements. Mining activities vary through the year, and may occur 24 hours/day, 7 days/week depending on operational requirements. Blasting is restricted to daylight hours. These operational hours are not changing with the Proposed Project.

Blasting operations would involve drilling along the mining face, placement of charges, and detonation of the charges by a blaster licensed through the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATF&E) for handling explosives. In compliance with County regulations, blasting shall only be conducted by a licensed blaster upon issuance of a blasting permit and a site-specific blasting permit.

Blasts in the Omya quarries are relatively small to maximize selectivity. The active quarries are located near the Range Crest in the central portion of the mountain range. There are no residences or sensitive receptors for over 2 miles in any direction from the quarry, and one or more major mountain ridges are present in between quarries and residences. Blasting has occurred in these quarries for over 35 years with no adverse impact on people, structures, or wildlife. The blasts cannot be seen, heard or felt in any residential areas or by any sensitive receptors. No changes are proposed from the existing permitted arrangements. A discussion of the potential effects of blasting noise and vibration on wildlife will be addressed in the Biological Resources Section of the EIR/EIS.

e, f) **No Impact.** As shown on San Bernardino County General Plan, Hazards Overlay Map FI09B, the Project Site occurs within Airport Safety Review Area 4 (AR4). According to San Bernardino County Development Code Section 82.09.030 Airport Safety, AR4 includes the low-altitude/high speed corridors designated for military aircraft use. The nearest public/private airports include Big Bear City Airport located approximately 4.5 miles southeast of the site, and Rabbit Ranch Airport in Lucerne Valley approximately 5 miles north of the site. Since no human occupied structures exist or are proposed, potentially significant impacts are not anticipated. In addition, existing and proposed operations do not exceed height limits which could potentially impact military aircraft flight patterns. No impacts from airport-related noise would result, and this impact will not need to be analyzed further in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XIII. POPULATION AND HOUSING - Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

SUBSTANTIATION:

a) **No Impact.** The Proposed Project would not directly stimulate population growth (e.g., it will not add housing or create a new business) nor would it indirectly stimulate growth through (e.g., through the construction of new infrastructure). No impacts would result, and this impact will not need to be analyzed further in the EIR/EIS.

b) **No Impact.** The proposed use would not displace substantial numbers of existing housing units, or require the construction of replacement housing, because no housing units are proposed to be demolished as a result of this project. No impacts would result, and this impact will not need to be analyzed further in the EIR/EIS.

c) **No Impact.** Implementation of the amended Plan of Operations and Reclamation Plan would not displace substantial numbers of people necessitating the construction of replacement housing elsewhere, because the no housing exists at the project site, and this impact will not need to be analyzed further in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XIV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire Protection?	☐	☐	☐	☒
Police Protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other Public Facilities?	☐	☐	☐	☒

SUBSTANTIATION:

a) **No Impact.** The Proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services, including fire and police protection, schools, parks or other public facilities. Although the Proposed Project would result in a change in mine production levels, proposed operations would not require a substantial change in employment, and therefore demands for services would not increase significantly. No impacts would result, and this impact will not need to be analyzed further in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

SUBSTANTIATION:

a-b) **No Impact.** The Project does not include housing which would induce population growth in adjacent areas, and ultimately increase the use of park facilities or other recreational facilities in the region. No impacts are anticipated, and this impact will not need to be analyzed further in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XVI. TRANSPORTATION/TRAFFIC - Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety facilities?	☐	☐	☐	☒

SUBSTANTIATION:

a-b) **Less than Significant .** Existing and proposed operations include transporting crushed ore in off-road haul trucks eight miles on the vested Crystal Creek Haul Road which is not open to the public to the existing processing plant in Lucerne Valley. The Project will not result in a significant increase in products transported on public roads as the increased production will supply the existing production capacity of the Lucerne Valley processing plant. In addition, the Proposed Project would not result in a substantial number of new jobs. No significant changes in the current levels of truck transportation on public roads would result. The Project will not affect mass transit, freeways, pedestrian and bike paths because there are none in the vicinity. Therefore, less than significant impacts are anticipated, and these impacts will not need to be analyzed further in the EIR/EIS.

c) **No Impact.** Approval of the Proposed Project would not affect air traffic patterns at any airport or airstrip because there are none in the immediate vicinity, and because the project does not involve

the construction of any tall structures or other obstacles to air traffic and navigation. No impacts would result, and this impact will not need to be analyzed further in the EIR/EIS.

d) **No Impact**. Existing and proposed operations at the project site would not affect public streets. The Proposed Project does not involve any road development or design features that could substantially increase hazards on public roads, or changes in the transportation of rock or other materials on public roads. Therefore, no impacts would result, and this impact will not need to be analyzed further in the EIR/EIS.

e-g) **No Impact**. Activities associated with the Proposed Project would not impede existing emergency response plans for the Project site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. In addition, no road closures would be required. The Proposed Project would not involve any long-term increase in traffic that would conflict with adopted policies, plans, or programs supporting alternative transportation. No impacts would result, and this impact will not need to be analyzed further in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XVII. UTILITIES AND SERVICE SYSTEMS - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded, entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with Federal, State, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

SUBSTANTIATION:

a) **Less than Significant Impact.** No wastewater is or will be discharged from the onsite operations. Control of surface drainage, erosion, and sedimentation of operations and the haul road are included in Omya's Storm Water Pollution Prevention Plan (SWPPP) which has been filed with the California State Water Resources Control Board. The SWPPP will continue to be updated until mining and reclamation activities end. The SWPPP includes: specific prohibitions, effluent limitations, storm water pollution prevention plans, including source identification, practice to reduce pollutants, assessment of pollutant sources, materials inventory, preventative maintenance program, spill prevention and response procedures, general storm water management practices, training, record keeping, sampling procedures and monitoring program.

Water used to control dust is obtained from two previously permitted sources, a well located at the plant site in Lucerne Valley, and a well located in Crystal Creek Canyon near Turn 5 on the Crystal Creek Haul Road. No surface water is used in the operation. There are no planned additional diversions or storage for water supply. No treatment facilities will be needed. Water will be hauled in

a water truck and sprayed on the haul roads and active mining and overburden areas to minimize fugitive dust. The water truck will work during active quarry operations as needed to control visible dust. This water will evaporate and therefore, the project will not produce any wastewater or run-off.

All operations on-site would comply with a NPDES General Permit for Storm Water Discharges associated with industrial activities and employ storm water BMPs. NPDES goals are to eliminate unauthorized non-storm water discharges and to monitor storm water discharges requirements. Water applied to roads and active mining areas to reduce fugitive will evaporate and, therefore, the Proposed Project will not produce any run-off during normal operations. Impacts related to water quality and wastewater will be evaluated in an EIR/EIS.

b) **No Impact**. The Proposed Project's water demands would be met with the use of groundwater pumped from two existing wells that serve the existing mine operations. No expansion of a water system would be required. In addition, the project would not generate wastewater. The only water use will be water applied to roads and active mining areas to control fugitive dust. This water is expected to evaporate, and so will not produce wastewater that needs to be treated, or runoff. No impacts to water or wastewater treatment systems would occur and these impacts will not need to be analyzed further in the EIR/EIS.

c) **Less Than Significant Impact**. All operations on-site would comply with a NPDES General Permit for Storm Water Discharges associated with industrial activities and employ storm water Best Management Practices. Except to the extent stormwater management is addressed in the Hydrology and Water Quality Section, this impact will not need to be analyzed further in the EIR/EIS.

d) **Less Than Significant Impact.** The project site is not within the service area of a public water supplier, but is within the boundaries of the MWA. MWA is a State Water Project contractor, a regional groundwater management agency, and serves as Watermaster for the adjudicated Mojave Basin. The MWA published its "Eighteenth Annual Report for the 2010-11 Water Year" on May 1, 2012. The Annual Report summarizes information required by the Judgment and includes a summary of the Watermaster's activities and water supply conditions for the Water Year. Omya has a verified base annual production allocation of 23 af/year for its two wells and water usage over the past 5 years (2007 through 2011) has been 19, 14, 14, and 14 af/year, respectively (18th annual Report, MWA 2101). The expected increase of water usage for the proposed project of 1.5 af/year will not exceed Omya's base allocation even during its higher usage amount in 2007 of 19 af/year.

The Proposed Project will not substantially deplete water supplies or require new entitlements. Note that CEQA requires a Water Supply Assessment to be conducted for the project and its findings on water supply will be evaluated in the Hydrology and Water Quality Section of the EIR/EIS.

e) **No Impact.** The existing Omya Butterfield-Sentinel Quarries operations are not served by a public sewer system and the Proposed Project would not require sewer collection or treatment services and therefore no off-site discharge of treated wastewater would occur. No impacts related to wastewater treatment would occur.

f, g) **No Impact.** The Proposed Project would not require any additional solid waste services. Office operations would not increase over existing levels associated with an increase in production levels and therefore solid waste generated on-site would not increase. Waste rock would be stockpiled within the quarry footprint to eliminate the need for off-site waste rock stockpiles. No impacts would result, and so this impact will not need to be analyzed further in the EIR/EIS.

Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

SUBSTANTIATION:

a) **Potentially Significant Impact.** The Proposed Project may potentially affect biological resources including listed carbonate plants by removal of soils, vegetation, and habitat throughout the site; and the indirect or off-site effects of dust and other disturbances to adjacent vegetation and wildlife habitat. Potential impacts to biological resources shall be evaluated in an EIR/EIS.

b) **Potentially Significant Impact.** This Initial Study has identified potentially significant impacts to aesthetics, air quality, biological resources, geology/soils, GHGs, and hydrology/water quality. Impacts to these identified resources could also be cumulative. Potentially significant cumulative effects will be discussed in the EIR/EIS.

c) **Potentially Significant Impact.** An air quality study will be prepared as part of the EIR/EIS assessment for the Proposed Project. Criteria pollutant emission calculations will be performed for the baseline and mine activities, and the Proposed Project operational emissions increases will be compared with Federal and State ambient air quality standards and MDAQMD CEQA emissions significance thresholds. Toxic air contaminant (TAC) emission calculations will be estimated and a Project health risk assessment will be prepared.

GHG emissions will also be inventoried for the Proposed Project and GHG emissions will be assessed per the County's GHG Emission Reduction Plan. Potential impacts and mitigation measures will be evaluated in the EIR/EIS.

GENERAL REFERENCES

"Annual Reclamation Report 2011 Omya California", JJ Restoration Service, 2012.

"Carbonate Habitat Management Strategy (CHMS)", San Bernardino National Forest Association, April 2003.

"Land Management Plan, Part 2 San Bernardino National Forest Strategy" (USDA September 2005)

"Omya Umbrella Plan of Operations and Reclamation Plan", Omya 1987 (which includes the Sentinel, Butterfield, Cloudy, and Claudia quarries and associated haul roads). *Approved by the Forest Service, January 1988 and by San Bernardino County in 1994.*

"Plan of Operations and Reclamation Plan Sentinel Quarry Expansion", Omya (California) Inc., September 15, 2002. *Approved by San Bernardino National Forest, April 2002 and by San Bernardino County, July 2003.*

"Revegetation Plan Omya California Mining Operations on USDA Forest Service Land San Bernardino National Forest, San Bernardino County California", Tierra Madre Consultants 1996. *Approved by San Bernardino National Forest and San Bernardino County in 1996.*

"Rules and Regulations," Mojave Desert Air Quality Management District, 2012.

"San Bernardino County General Plan," San Bernardino County (with updates).

"Slope Stability Investigation Proposed Sentinel and Butterfield Quarries", C.H.J. Consultants, July 2012.

"Surface Mining and Reclamation Act (SMARA)," California Department of Conservation, Office of Mine Reclamation, 2012.

CEQA Guidelines, Appendix G. as updated through 2011

County of San Bernardino Identified Hazardous Materials Waste Sites List, April 1998.

"Amended Plan of Operations and Reclamation Plan for Omya California Butterfield & Sentinel Quarries," Omya California and Lilburn Corporation, September 2012.

"San Bernardino County General Plan," San Bernardino County (with updates).