Omya Sentinel and Butterfield Quarries Expansion Project

AGENCY:   Forest Service, USDA and San Bernardino County Land Use Services Department


SUMMARY: Omya California (Omya), a division of Omya Inc., has submitted the following applications:

- A Mining and Land Reclamation Plan Conditional Use Permit application submitted to the County of San Bernardino (County).

Combined, these applications propose the expansion of the existing Sentinel and Butterfield Quarries. The existing permitted Sentinel and Butterfield limestone quarries are located on mining claims within the San Bernardino National Forest. Known limestone ore resources, within the proposed quarry expansions, will add an additional 20 years life to the Sentinel Quarry, add an additional 40 years life to the Butterfield Quarry, and will allow mining at both quarries to be extended until 2055. Depending on market demand, the combined Sentinel and Butterfield Quarries average ore production rates will be approximately 680,000 tons per year compared to the 3-year average between 2004 – 2006 of approximately 378,000 tons per year. Reclamation will occur concurrently with mining. The proposed expansion includes 48.7 acres of disturbance at the Sentinel Quarry and 28.8 acres of disturbance at the Butterfield Quarry, for a total of 77.3 acres. Quarry development and expansion will be phased. Disturbance proposed for the Proposed Project includes expansion of existing Sentinel and Butterfield Quarries, expansion of associated overburden placement sites, additional internal access roads and ancillary facility areas, and minor adjustments to existing disturbance boundaries. There are no new quarries, new haul roads or new overburden sites in this plan, only the phased expanded development and reclamation of the existing Sentinel and Butterfield Quarries.

Implementation of the Proposed Project will require discretionary approvals from Federal, State, and local agencies and, therefore, this project is subject to the environmental review requirements of both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). To ensure coordination between the NEPA and CEQA processes, and to avoid duplication of effort, a joint Environmental Impact Statement (EIS) and Environmental Impact Report (EIR) has been prepared as recommended by CEQA Guidelines Section 15222 and 40 CFR 1506.25. The Forest Service is the NEPA Lead Agency and the County of San Bernardino will be the CEQA Lead Agency for the joint EIR/EIS. As Lead Agency for the NEPA process, the Forest Service will issue a Notice of Intent (NOI), as required
by NEPA, for the Project. The County will issue a separate Notice of Preparation (NOP), as required for CEQA for the Proposed Project.

Comments are being requested to help identify significant issues or concerns related to the proposed action, to determine the scope of the issues (including alternatives) that need to be analyzed and to eliminate from detailed study those issues that are not significant. Supporting documentation should be included with comments recommending that the EIR/EIS address specific environmental issues.

DATES: Comments concerning the scope of the analysis must be received by April 1, 2013. The draft EIR/EIS is expected October 2013 and the final EIR/EIS is expected February 2014.

ADDRESSES: Send written comments with the words “Sentinel and Butterfield Quarries Expansion Project” in the subject line to:

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Public scoping meetings will be held on March 11, 2013 at the Big Bear Discovery Center, 40971 North Shore Drive (Highway 38), Fawnskin, California 92333 beginning at 5:00 pm PST and on March 12, 2013 at the Lucerne Valley Community Center, 33187 Highway 247 East, Lucerne Valley, California 92356 beginning at 5:00 pm PST.

It is important that reviewers provide their comments at such times and in such a way that they are useful to the Agency’s preparation of the EIR/EIS. Therefore, comments should be provided prior to the close of the comment period and should clearly articulate the reviewer’s concerns and contentions.

Commenters are asked to include their name, telephone number, address, and e-mail address (if applicable) in the event it is necessary to further clarify the comments offered. Agencies submitting comments are asked to provide the name, telephone number, and e-mail address of the agency's contact person. Please write “Omya Butterfield and Sentinel Quarries Project” in the subject line. Due to CEQA-defined time limits, comments should be sent at the earliest possible date, but no later than April 1, 2013.

Comments received in response to this solicitation, including names and addresses of those who comment, will be part of the public record for this proposed action. However, comments submitted anonymously will be accepted and considered.

FOR FURTHER INFORMATION CONTACT:

Maya Rohr, Senior Project Manager, Sespe Consulting at (619) 894-8669 or mrohr@sespeconsulting.com.
Individuals who use telecommunication devices for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 8 p.m., Eastern Time, Monday through Friday.

SUPPLEMENTARY INFORMATION: Omya California submitted an Amended Plan of Operations and Reclamation Plan for the proposed expansion of the existing Butterfield Limestone Quarry to the San Bernardino National Forest, on November 1, 2010. The project was scoped as an Environmental Assessment (EA), and through the analysis of the comments received the Forest Service Responsible Official determined that an EIS would be prepared. At that time, the project was expanded to include additional expansion at the Sentinel Quarry as well.

Both quarries have been mined by Omya since 1977. The Sentinel Quarry is currently permitted to operate through the year 2035, and the Butterfield Quarry through 2015. Known limestone resources, with the proposed quarry expansions, will add an additional 40 years of operations for Butterfield (2016 through 2055) and a proposed additional 20 years for the Sentinel Quarry (2036 through 2055). Depending on market demand, average ore production rates to the processing plant in Lucerne Valley will increase to approximately 680,000 tons of ore to the plant per year compared to the 3-year average between 2004 – 2006 of approximately 378,000 tons per year.

The previously approved State Mining and Reclamation Act (SMARA) Reclamation Plans (2003) include a site specific approved 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.

Purpose and Need for Action

Omya submitted an amended Plan of Operations and Reclamation Plan to the Forest Service, and a Mining and Land Reclamation Plan Conditional Use Permit application to the County. These submittals describe the proposed expansion of the existing Sentinel and Butterfield Quarries. The Forest Service is analyzing the surface use of National Forest System lands in connection with operations authorized by the United States mining laws (30 U.S.C. 21-54). The United States mining laws confer a statutory right to enter upon the public lands to search for minerals, and require that these activities shall be conducted so as to minimize adverse environmental impacts on National Forest System surface resources (36 CFR 228.8). The responsibility for managing mineral resources is in the Secretary of the Interior.

Within the United States, productive deposits of white, high purity limestone are found in only a few areas. The Omya deposits are one of these sources of high calcium limestone that can be used as whiting. Whiting is used in the form of nontoxic fillers and extenders in a large number of products ranging from paper products to environmental cleanup, carpet backing, plastics, PVC, paint, paper and other building products. Limestone mining provides numerous environmental benefits including fewer trees harvested for paper making, less petroleum products utilized and less greenhouse gases produced. Limestone can also be used as a
substitute for other components in industrial processes and the manufacture of consumer products.

Proposed Action

Setting. 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 SBNF in San Bernardino County, California and is accessed by the vested Crystal Creek Haul Road. The project area is within portions of Sections 23, 24, and 25 Township 3 North, Range 1 West, SBBM. The Butterfield and Sentinel Quarries are located entirely within portions of approximately 954 acres of unpatented placer claims controlled by Omya located on public land administered by the Forest Service. These claims include Crystal Creek 1, 2, 4, 13 and 14, Slope North and King 3.

Introduction. The proposed expansion includes 48.7 acres of disturbance at the Sentinel Quarry and 28.8 acres of disturbance at the Butterfield Quarry for a total of 77.3 acres. Disturbance proposed for this project includes expansion of existing Sentinel and Butterfield Quarries, expansion of associated overburden placement sites, additional internal access roads and ancillary facility areas, and minor adjustments to existing disturbance boundaries. Reclamation for the inactive Cloudy and Claudia quarries and their associated overburden stockpiles, and haul roads on Forest Service lands, including reclamation of the Crystal Creek Haul Road, are covered in the 1994 approved Reclamation Plan and incorporated into the proposed 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. There are no new quarries, new haul roads or new overburden sites in this plan, only the phased expanded development and reclamation of existing Sentinel Quarry and Butterfield Quarry.

Both the Sentinel and Butterfield Quarries are multi-bench open pit mines where five grades of ore are selectively mined. The ore is drilled and blasted, loaded into haul trucks, and hauled to a crusher located near the Sentinel Quarry (Sentinel crusher). The Sentinel resources are mined in 30-foot cuts with a 30-35 foot safety bench approximately every 60 feet of depth and will have up to 11 benches. The Butterfield deposit is mined in 25 foot cuts with a safety bench approximately every 50 feet and will have up to 8 benches. Bench height has been determined as a result of detailed studies of the geologic structure. Face angles for both quarries average 70 degrees. The highest level of the pit at the Sentinel Quarry is at an elevation of 7,600 feet above mean sea level (amsl) and mining will ultimately reach 7,000 feet amsl. The highest level of the pit at the Butterfield Quarry is 7,900 feet and mining will ultimately reach 7,650 feet amsl.

Project Phasing. Although mining is more or less continuous, the development of the quarries will be phased. Included in the Amended Plan of Operations and Reclamation Plan phased expansion plan, is concurrent quarry development and reclamation of the mined portions of the quarries and completed portions of the overburden stockpiles. Once the final outer limit and bottom is reached, the quarries will be partially backfilled as the remainder of mining is completed. The proposed Amended Plan of Operations and Reclamation Plan would:

- Allow an increase in the placement of backfill within mined portions of the quarries;
• Minimize the disturbance of new ground through the phased incremental disturbance of new ground (as the phased mining progresses, overburden/waste rock can be placed in completed sections of the quarries, thus reducing the need to store overburden/waste rock on undisturbed ground or increase height of existing stockpiles.); and

• Implement concurrent reclamation of the quarry. To achieve this, specific overburden stockpiles will be completed during the 40-year operational period and revegetated as completed and the quarries will be partially backfilled as sections completed (see detail below).

The proposed expansion for the Butterfield Quarry includes four (4) 10-year mining phases starting in the year 2015. Phase 5 involves reclamation, which is anticipated to take place between year 2055 and 2064. The Butterfield Quarry will be mined during the first four phases from east to west on several levels within the quarry and will eventually deepen to reach a final depth of 7,700 (western portion) to 7,650 (eastern portion) feet amsl. During mining of the western half of the Butterfield Quarry, concurrent backfilling of the eastern quarry area will occur. Ultimately the eastern portion will be completely backfilled to approximate original contours. The overburden will be progressively placed in the eastern portion of the Butterfield Quarry, but only after those portions of the quarry have reached their final outer limit and the ore has been mined out.

The proposed expansion for the Sentinel Quarry includes four (4) additional mining phases starting in the year 2016 and described in 10-year intervals followed by a 10-year Phase 5 for final reclamation. The Sentinel Quarry will be progressively developed (pushed back) to the south, west, and east property lines, and eventually deepened to the footwall to reach the final depth of 7,000 feet amsl. Backfilling will start on the northern wall and gradually fill the quarry to approximately 7,300 feet on the quarry floor.

**Reclamation.** To minimize impacts to the surrounding environment, Omya proposes to reclaim the quarry sites in a manner that meets both Forest Service Minerals Regulations (36 CFR 228, Subpart A), under the jurisdiction of the Forest Service, and the California Surface Mining and Reclamation Act of 1975, as amended (SMARA), which is implemented by the County.

The Forest Service approved the previous Omya Umbrella Plan of Operations and Reclamation Plan in 1988. The SMARA Reclamation Plan (94M-02) was approved by the Forest Service and the County in 1994. The Forest Service approved the existing Plan of Operations and Reclamation Plan for Butterfield and Sentinel Quarries in 2002, following completion of an environmental assessment and evaluation of the Plan of Operations. The SMARA Reclamation Plan was amended and approved by the County in 2003.

No changes in the approved revegetation plans are proposed other than increased acres and timing changes. Timing schedules are revised for development and reclamation of the Sentinel and Butterfield quarries as detailed in the Amended Plan of Operations and Reclamation Plan. Reclamation will be monitored as required in the approved monitoring plan for 10 years, and the reclamation bond reviewed yearly and adjusted to reflect completed reclamation, new disturbance, and variations in the economy (inflation).
Concurrent reclamation starts with the initiation of mining and includes the following:

- Salvaging and stockpiling of grubbed organics, soils, growth media, seeds, and relocatable plants and cuttings for propagation and direct deposition and/or replanting to available reclamation areas during clearing of areas to be developed;
- Ongoing seed collection onsite and/or adjacent to the site and propagation of seeds, salvaged plants and cuttings at local nursery by a contracted revegetation contractor;
- Backfilling of the eastern half of the Butterfield Quarry and portions of the Sentinel Quarry, as feasible;
- Sloping and grading of completed quarry and stockpile slopes for safety, slope stability, and erosion control;
- Placement of darker materials, as available, on outside of more visible slopes and colorization, if shown successful for slopes not susceptible to raveling to reduce color contrast;
- Ripping of compacted areas prior to revegetation;
- Covering approximately 30% of equipment-accessible horizontal areas with salvaged soil, growth media and organics utilizing the island concept;
- Reclamation of onsite roads after reclamation of quarries and pads certified complete, as determined by the Forest Service, in order to allow access to all reclamation areas;
- Revegetation – hand seeding and direct seeding followed by imprinting, seedling planting, and hydroseeding will be utilized as deemed most effective;
- Irrigation may be conducted for two (2) years to maximize establishment; and
- Monitoring and remediation until success criteria achieved.

Final reclamation will take place within 10 years of terminating mining activities. All remaining equipment will be removed, stockpiles will either be removed or used during reclamation, and internal roads not needed for site access, reclamation, and revegetation and general site monitoring will be reclaimed. Final sloping of quarry walls, backfilled areas, and overburden stockpiles; erosion control; and revegetation of any unreclaimed areas and waste rock stockpiles will be conducted. Some roads may be left to provide access for revegetation and monitoring activities and for overall public safety. Ongoing maintenance of fencing, signs, and erosion control will be conducted. Roads not needed for site and quarry access will be ripped, covered with available growth media, and revegetated. Other onsite roads needed for quarry and pad access will be reclaimed after reclamation of quarries and pads are certified complete, as determined by the Forest Service, in order to allow access to all reclamation areas.

Avoidance/Minimization and Environmental Protection Measures. The Amended Plan of Operations and Reclamation Plan include avoidance/minimization and environmental protection measures, including:

1. Quit claim to the SBNF 300 acres of unpatented mining claims held within the SBNF which are known to have occupied endangered species habitat agreed upon by the Forest Service and consistent with the Carbonate Habitat Management Strategy (CHMS).

2. Design the mine plan to deposit future overburden into existing overburden areas and
completed quarries as much as feasible to avoid possible impacts to existing cushionbury oxytheca populations.

3. Submit additional reclamation bond to cover the new disturbance in the expansion areas prior to starting the development work.

4. Implement a Dust Management Plan (DMP) for the quarry expansion areas.

5. Implement an Employee Awareness Plan that will provide information, training, and protection measures on the following:
   A. Mining within Critical Habitat for listed plant species in cooperation with United States Fish and Wildlife Service (USFWS) and Forest Service.
   B. Mining in proximity to an area of SBNF land segregated from mineral entry and location in cooperation with BLM and Forest Service (CHMS designated refugia).
   C. Awareness and protection measures about bighorn sheep in cooperation with USFWS, California Department of Fish and Game (CDFG), and Forest Service.
   D. Benefits of preserving heritage resources in cooperation with the Forest Service.

6. Continue maintaining the water guzzler for bighorn sheep near the north end of the Sentinel Quarry.

7. Continue support of CDFG bighorn sheep studies during the mining project.

8. Dispose of sediment from runoff control basins to pre-approved sites rather than side cast down slopes.

9. As areas become available, implement concurrent reclamation/revegetation of completed quarries and overburden stockpiles to reduce visual impacts through backfilling, recontouring and slope reduction, growth media and habitat log placement, revegetation with native plant species, and colorization as applicable.

10. Any unexpected or unforeseen events will result in immediate notification to the Forest Service. If conditions are encountered that vary significantly from the assumptions used in the mine plan and environmental assessments, Omya will coordinate with the Forest Service to determine required actions.

11. Monitoring as described below is incorporated to be part of the approved Plan of Operations:

   Forest Mine Administrator, Certified Mineral Examiner or other qualified specialists will document and assure the avoidance/minimization and environmental protection measures incorporated into the Plan of Operations and the Decision Notice are being followed and that they are effective in protecting the environment. Inspections will occur during the life of the project at least once a year to document the site conditions and to assure the Plan of Operations is being followed. If it is determined that a particular environmental protection measure is not adequately protecting surface resources, the Plan of Operations
will be modified to correct the situation. Significant changes may require additional analysis and documentation in compliance with the National Environmental Policy Act.

Lead and Cooperating Agencies

The Forest Service, as lead agency under NEPA, and County of San Bernardino, as the lead state agency under CEQA, will prepare this joint EIR/EIS. The EIR/EIS will analyze and disclose the potential effects of the proposed limestone quarry expansion. The Mojave Desert Air Quality Management District has agreed to participate as a cooperating agency and to provide expertise regarding the proposed actions’ relationship to the relevant objectives of regional, State and local land use plans, policies and controls.

Nature of Decision To Be Made

The Forest Service Responsible Official will decide whether to approve the amended Plan of Operation following the environmental analysis under NEPA. The Forest Service does not have the authority to remove the proponent’s ability to mine their claim on National Forest System lands.

The County will decide whether to approve the Mining and Land Reclamation Plan Conditional Use Permit following the environmental analysis under CEQA.

Scoping Process

This joint NOP/NOI initiates the scoping process, which guides the development of the EIR/EIS.

The Initial Study and the complete Amended Plan of Operation and Reclamation Plan may be found at one or both of the following locations:

- San Bernardino National Forest website at:
  [http://www.fs.fed.us/nepa/fs-usda-pop.php/?project=32613](http://www.fs.fed.us/nepa/fs-usda-pop.php/?project=32613) and/or,
- County of San Bernardino website at:

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