



United States Department of the Interior
Fish and Wildlife Service
Ecological Services
Carlsbad Fish and Wildlife Office
2730 Loker Avenue West
Carlsbad, California 92008



SEP 14 2000

Gene Zimmerman
Forest Supervisor
San Bernardino National Forest
1824 S. Commercenter Circle
San Bernardino, California 92408

Attn: Devere Volgarino, Robin Butler

Re: Informal Section 7 Consultation for Sentinel Quarry Expansion, San Bernardino County,
California

Dear Mr. Zimmerman:

This responds to your letter of June 5, 2000, requesting our concurrence with your determination that the proposed action, to permit expansion of Sentinel quarry, is not likely to adversely affect federally listed species or any designated critical habitat. At issue are indirect effects to two carbonate endemic plants, the federally endangered Cushenbury oxytheca (*Oxytheca parishii* var. *goodmaniana*) and Cushenbury buckwheat (*Eriogonum ovalifolium* var. *vineum*), and to the federally threatened desert tortoise (*Gopherus agassizii*).

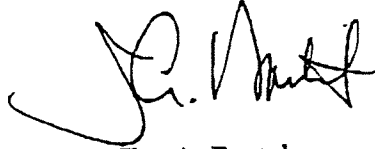
After reviewing the biological assessment with the additional data provided on June 26, July 31, and August 18, 2000, we concur with your determination. We recommend that future surveys be conducted to determine the status of the four carbonate plant occurrences along the Crystal Creek haul road. These occurrences were considered "lost and/or degraded" on page 8 of the biological assessment. If located, these occurrences should be monitored to better evaluate whether indirect effects of haul road use over time are measurably adverse.

While the incremental effect of this quarry expansion on the desert tortoise appears discountable per our *Endangered Species Consultation Handbook*, ongoing quarrying activities on the San Bernardino National Forest should be included in a programmatic consultation (1-6-00-F-61) now underway for your Land and Resources Management Plan.

Gene Zimmerman

We appreciate your coordination in this matter. If you have any questions regarding this letter, please contact Doug McPherson of my staff at (760) 431-9440.

Sincerely,



Jim A. Bartel
Assistant Field Supervisor

1-6-00-1-67

cc: George Walker, Senior Fish and Wildlife Biologist, Barstow Field Sub-Office



United States
Department of
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Forest
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1824 S Commercenter Circle
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File Code: 2670
Date: July 31, 2000

Ken Berg, Field Supervisor
Attn: John Stephenson
U.S. Fish and Wildlife Service
2730 Loker Avenue West
Carlsbad, CA 92008

RE: Informal Consultation For Sentinel Quarry Expansion That May Affect But Is Not Likely To Adversely Affect Federally Listed Carbonate Endemic Plant Species and Desert Tortoise.

Dear Mr. Berg:

Please use the information included in this letter to amend and clarify the Biological Assessment the San Bernardino National Forest dated June 5, 2000.

Officials from Omya, Inc. have clarified the future use of the Crystal Creek haul road and how their Sentinel expansion plans would affect the planned reclamation of the haul road. Please see the attached documents for details including the reclamation schedule. Essentially, the proposed Sentinel expansion, while extending the life of the quarry 15 years, would not extend the haul road use and reclamation schedule 15 years. So, the final reclamation is still expected to be completed by 2046.

In reference to the discussion of impacts to desert tortoise (pages 16 and 22 of the Biological Assessment), please note the following corrections and clarifications.

- "Meridian Road" should be "Crystal Creek road".
- Areas along Crystal Creek road are within Category 3 desert tortoise habitat. This road is a public road and use of it would continue if/when Omya's operations no longer exist. Thus, there is a baseline low level of potential impact to desert tortoise from the existence of the public Crystal Creek road. Omya's transport trucks and personal vehicle traffic increase the risk of collisions with desert tortoise slightly.
- Areas of Omya's operation within the SBNF boundary are above the elevation generally considered the cutoff of desert tortoise habitat in this area (4400').
- The "Determination of Effects" (page 23 of the Biological Assessment) remains the same for desert tortoise.



Caring for the Land and Serving People



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I apologize for the confusion and hope this helps to clarify the project proposal and expected effects. Should you have any questions about the desert tortoise issues in this informal consultation, please contact Robin Butler (909-866-3437 X3225). Questions about the analysis of effects to carbonate plants should be directed to Deveree Volgarino (909-866-3437 X3236).

Sincerely,

Robin Butler
District Wildlife Biologist

cc: Howard Brown, Omya, Inc.



Caring for the Land and Serving People



ISO-9002 CERTIFIED

OMYA (California), Inc.

PO Box-825
Lucerne Valley, CA 92356

Tel: (760) 248-7306
Fax: (760) 248-6249

Date: July 26, 2000

ROBIN BUTLER
San Bernardino National Forest
Big Bear Ranger District
P.O. Box 290
Fawnskin CA 92333

RE: SENTINEL QUARRY EXPANSION AND USE OF CRYSTAL CREEK HAUL ROAD

Dear Robin:

As a follow up to our meeting of July 25, 2000 which was attended by representatives from the Forest Service, Fish and wildlife Service and Omya, I am providing documentation which clarifies the proposed Sentinel quarry expansion and long term use of the Crystal Creek haul road. One reason the USFWS has not completed evaluation of the BA is the misconception that the Sentinel quarry expansion will increase the length of time of use of the Crystal Creek haul road, and thus may result in increased potential impacts to carbonate plant occurrences which may have been present adjacent to the road. This is incorrect. Although the life of the Sentinel quarry is extended, the use of the haul road is not extended beyond the existing approved Plan.

The documentation comes from the Plan of Operations for the Sentinel Quarry expansion which was submitted to the Forest Service on October 10, 1998 (page 71-74), and from the existing approved Plan of Operations (page 73) which was approved in June 1994.

The documentation demonstrates that although the life of the Sentinel quarry is extended, the use of Crystal Creek haul road is not extended beyond the existing currently approved plan. As can be seen in the documentation, reclamation of the extended Sentinel quarry and facilities would be completed in 2046 (page 71-74 Sentinel POO), and reclamation of the Crystal Creek haul road is scheduled to be completed in 2056 (page 73 approved POO).

Thus, clearly there is no conflict, or issue regarding use of the haul road and potential additional impacts to carbonate endemic plant populations which may have existed adjacent to the haul road. The submitted and approved plans demonstrate that there would be no extended use of the road beyond the already approved Plan, with the Sentinel quarry expansion.

Sincerely,

Omya (California) Inc.


Howard Brown

cc; Doug McPherson (USFWS)
enclosure

**FROM PLAN OF OPERATIONS SENTINEL QUARRY EXPANSION REVISED VERSION
SUBMITTED OCTOBER 10,1998 (PAGE 71-74)**

2.7.1 RECLAMATION SCHEDULE SENTINEL QUARRY

Sentinel Quarry includes the existing active quarry and planned 7.7 acre (currently undisturbed) expansion over the next 37 years.

Concurrent reclamation of the Sentinel Quarry will include backfilling and revegetation of the backfilled portion of the pit. Final reclamation of Sentinel Quarry will occur after 2035 when currently known reserves are exhausted. Reclamation will include measures for public safety, extensive backfilling concurrent with mining will occur. Colorization will be tested to reduce color contrasts. Ripping and placement of growth media and organics and reseeded and revegetation of accessible quarry benches and roads will also occur. Growth media will be placed on 30% of the accessible surface area averaging 2 feet thick, Placement will maximize revegetation success and visual enhancement utilizing the island concept. Irrigation may occur for 2 years and will be followed by monitoring for 10 years or less if requirements are met sooner.

The haul road from Turn 15 to Turn 19 will be reclaimed after 2037 as access is necessary to monitor other sites. Reclamation will include pulling in berms, ripping the road and reseeded. For details of scheduling see Table 18 and various sections of the plan for more detailed discussions of various aspects of Sentinel reclamation.

Table 19. Sentinel quarry reclamation schedule

SENTINEL QUARRY		
<i>ACTIVITY</i>	<i>YEAR BEGIN</i>	<i>YEAR COMPLETE</i>
Active Mining	In Progress	2035
Backfilling	2003	2035
Public Safety	2036	2036
Growth media placement	2008	2036
Revegetation	2009	2036
Irrigation	2010	2037
Monitor	2037	2046

Items completed or in progress shown in **bold** type

2.7.2 RECLAMATION SCHEDULE BUTTERFIELD 5 PAD OVERBURDEN SITE

Reclamation of the Butterfield 5 pad overburden placement area began in 1989 and included ripping, placement of growth media, organics (logs) and reseeded and revegetation. The site was irrigated for two years. Monitoring began in 1990 and will continue for another year.

The overburden site will be reactivated. The surface of the expanded pad will be concurrently reclaimed when possible as the pad is built outward. Final reclamation will include slope reduction to 2/1. Therefore reclamation of the site will be ongoing and concurrent during the life of the active pad building activity.

The second incremental expansion of the overburden site expansion would cover road 3N87, and would occur in 2014. The road will be reclaimed after 2014 during the second incremental expansion as the existing road would be impacted by the overburden site. OMYA will reclaim 3N87. The road will be ripped, and revegetated. Drainages will be reestablished where disrupted by the existing road.

Table 20. Butterfield 5 Pad overburden site reclamation schedule

BUTTERFIELD 5 PAD OVERBURDEN PLACEMENT SITE		
<i>ACTIVITY</i>	<i>YEAR BEGIN</i>	<i>YEAR COMPLETE</i>
Growth Media placement	1988	1988
Organics placement	1988	1988
Revegetation	1988	1988
Irrigation	1989	1990
Monitor	1989	1999
Reactivate dump pad and continue intermittent overburden placement	1999	2035
Concurrent growth media placement	2005	2035
Concurrent organics placement	2005	2035
Concurrent and final Revegetation	2005	2036

Irrigation	2005	2037
Reclaim 3N87	2013	2013
Final recontouring reduce slope to 2/1	2036	2036
Final Monitoring	2037	2046

Items completed or in progress shown in **bold type**.

Table 21. Phased reclamation of the overburden site.

RECLAMATION PHASE	ACTIVITY AREA	YEAR(S)
Phase 1	Complete backfilling Butterfield 5 pit area, south to rerouted B-3 road. After backfilling completed growth media and revegetate former pit	1998-2006
Phase 2	Butterfield 5 Pad. Concurrent with mining and site development, phased expansion to the south, building the pad to highest elevation. Reclamation of the pad will include growth media and revegetation.	2007-2035
Phase 3	After completion of mining phase. Slope reduction, recontouring, growth media placement and revegetation	2036-2037
Phase 4	Final monitoring	2037-2046

2.7.3 RECLAMATION SCHEDULE CRUSHER SITE

The existing crusher site will be utilized for another 15 years. The crusher will then be moved to the Black hole Overburden site. The old crusher site will be incorporated into the Sentinel Quarry Pit. This schedule therefore pertains to the future Black hole crusher site

The crusher site will be active until all currently minable ore is exhausted, about 2035. At that time the site will be reclaimed. Reclamation will include site cleanup and removal of any buildings or equipment. Reclamation will also include recontouring as necessary, maintenance of drainage controls, ripping, placement of growth media, organics (logs), and revegetation during fall planting season. The island concept will be utilized and will cover 30% of the surface in a manner which will allow maximum visual enhancement and revegetation success. Irrigation for 2 years and monitoring for 10 years is proposed. For details of scheduling see Table 21 and various sections of the plan for more detailed discussions of various aspects of crusher site reclamation.

Table 22. Crusher site reclamation schedule

BLACK HOLE CRUSHER SITE

<i>ACTIVITY</i>	<i>YEAR BEGIN</i>	<i>YEAR COMPLETE</i>
Active crushing	2015	2035
Dismantle/site cleanup	2036	2036
Recontour	2036	2036
Growth Media placement	2036	2036
Revegetation	2036	2036
Irrigation	2036	2038
Monitor	2037	2046

Items in progress or completed are shown in **bold** type.

FROM EXISTING APPROVED PLAN OF OPERATIONS (APPROVED JUNE 1994)

PAGE 73 SECTION 5J CRYSTAL CREEK HAUL ROAD RECLAMATION SCHEDULE

(Note schedule is modified to reflect the new Sentinel Expansion Plan reclamation schedule, but the **ending date for completion of Crystal Creek haul road reclamation is not changed from existing approved plan.**)

CRYSTAL CREEK HAUL ROAD

<i>ACTIVITY</i>	<i>YEAR BEGIN</i>	<i>YEAR COMPLETE</i>
Active Hauling	IN PROGRESS	2035
Reclamation Access for other sites	2036	2046
Haul road reclamation Pull in berms, drainages, rip roadway and seed	2046	2046
Monitor	2047	2056

Items completed or in progress shown in **BOLD** type.

Howard Brown
07/31/2000 11:20 AM

To: Robin Butler, Dev Volgarino
cc:
Subject: Omya Sentinel Quarry Expansion/Desert Tortoise

SENTINEL EXPANSION PROJECT NOTE ON TORTOISE HABITAT

The existing public road (Crystal Creek Road) from the Omya plant in Lucerne Valley to the Forest Service Boundary crosses both public (BLM) and private land and allows access to a number of private homes in the area, and Omya is but one user of the road. The public road to the Forest Service boundary has been in existence for at least 100 years, and is part of the San Bernardino County road system.

The portion of the road on Forest Service land to the quarries is a restricted use road (no public access to the quarries). Reclamation of the haul road would include the portion of the road on Forest Service land. The portion of the road below (north of the Forest Service boundary) is a public road and is not included reclamation plans.

The BLM West Mojave Plan maps of tortoise habitat show that the area immediately below (north) the Forest Service Boundary is considered Non Tortoise Emphasis. Desert Tortoise habitat extends to about 4200 feet, and the Forest Service boundary at the road is at 5120 feet and is thus outside the range of habitat. Omya use of the portion of the road on Forest Service land is outside the habitat range of the Desert tortoise. The public road portion of the road does include low tortoise emphasis and non tortoise emphasis.

Use of the public portion of the road by public users up to the Forest boundary, would continue after Omya reclamation requirements are completed. Use of the public portion of the road by Omya as a result of the Sentinel quarry expansion would NOT extend beyond the already approved permitted reclamation plan.