RECLAMATION PLAN

RECLAMATION PLAN 84M-009

CalPortland - Oro Grande Quarries CA Mine ID #91-36-0023

ORO GRANDE, SAN BERNARDINO COUNTY, CALIFORNIA

CALPORTLAND

Sheet 3 of 4

Scale: 1"=400'

Date: 10/2020 (TAG)

DGN: Sht3 CPCC Oro Grande Rec Plan2.dgn

SHEET INDEX

Sheet Number	Title
1	Existing and Planned Operations Summary
2	Mine Plan
3	Reclamation Plan
4	Cross Sections and Details

LEGEND

- Property Boundary
- Amended Reclamation Plan Area 2171 Acres (2019)
- Approved Reclamation Plan 940 Acres
- Reclaimed Quarries
- Reclaimed Overburden Backfill
- Roads to Remain
- Mine Development Buffer Zone Approximate
- USGS Township and Range
- 21 USGS Section
- D2/4 Detail 2 Located on Sheet4
- H/4 Cross Section H Located on Sheet 4

Scale: 1 inch = 400 feet

Map Prepared By: Lilburn Corporation (TAG)

Projection: CA SPCS, Zone 5, NAD83, US Feet

Existing Topography: 2017

Aerial: 06/2017

200 0 200 400

PROJECT SITE
Lat: 34.6119655°N
Lon: 117.3155544°W

No.	Date	By	Revision Description
1			
2			
3			
4			
5			

Prepared by

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CALPORTLAND COMPANY
ORO GRANDE QUARRIES
RECLAMATION PLAN NOTES

Mine: Oro Grande Quarries (84M-009)

CA Mine ID #: 91-36-0023

Mineral: Limestone and related minerals and aggregate material

Mine Operator: CalPortland Company
P.O. Box 158
Oro Grande, CA 92368
(626) 691-1966
dhoggard@calportland.com

Land Owner: CalPortland Company
2025 E. Financial Way
Glendora, CA 91714
(626) 691-1966

Applicant: Same as Operator

Owner of Mineral Rights: Same as Owner

Representative: Desirea Hoggard
CalPortland Company
2025 E. Financial Way
Glendora, CA 91714
(626) 691-1966 dhoggard@calportland.com

Civil Engineer: Same as Operator/Representative

Map Preparer: CalPortland Company & Lilburn Corporation

Geologist: CalPortland –Chad Warren &
John S. McKeown, E.G. Senior Geologist
Terracon Consultants
1355 E. Cooley Drive
Colton, CA 92324
(909) 824-7311

Date of Map: October 2020

Utilities
- Water: Private onsite pit de-watering wells and wells on plant site; planned use within CalPortland allocation with Mojave Water Agency
- Sewage disposal: Portable toilets
- Electric: Not proposed
- Gas: Not proposed
- Telephone: Mobile phones

Land Use Category / Zoning (Countywide Plan October 2020)

Project Site
Land Use Categories (LUC) – General Industrial (GI), Rural Living (RL) & Resource/Land Management (R/LM)
Zoning - Regional Industrial (IR), Resource Conservation (RC), & RL

Surrounding Uses (LUC / Zoning)
- North – RL/RS; Vacant, desert lands
- East – R/LM / RC; Vacant, desert lands. Hilly terrain with isolated mines.
- South – GI/IR, R/LM / RC, RL/RS-5; Vacant, desert lands. An aggregate mine operated by others is located adjacent to Shay Klondike Quarry to the southeast.
- West – RL/RS-5 (Community of Oro Grande); Vacant desert land. Oro Grande Cement Plant to southwest; rural housing in Community of Oro Grande and along National Trails Hwy; and Mojave River to west.

Legal Description

APNs: 468-141-05; 469-131-02, 04, 05, 06; 469-191-01, 03, 08, 10, 11, 12; 469-201-02, 07
Parcels Area: 2,791.46 acres
Mine/Reclamation Plan Area: Total Area = 1,652 ac ; Area developed = 1,165 ac

Portions of Sections 4, 5, 8, 9, 16, 17, 18; Township 6 North, Range 4 West, San Bernardino Base and Meridian, in the County of San Bernardino, State of California.

Area to be reclaimed: 1,165 acress

Reclaimed End Use: Open space/ desert habitat

Reclamation/Revegetation Plan

At the completion of mining activities, all equipment will be removed from the project site and all debris will be removed and disposed at a permitted facility. All quarry fencing and gates will remain in place to prevent unauthorized access onto CalPortland's private property and to restrict the public from reclaimed mine features.

Quarry slopes will be contoured to their designed slope angles as determined for each quarry by the Slope Stability Report to meet sufficient factors of safety. The finished benches will be ripped as feasible due to rock benches, covered with soil and alluvium, and revegetated. After revegetation, CalPortland will maintain erosion control and safety features; monitor revegetation progress; and conduct remediation as necessary until success criteria achieved. Ongoing maintenance of fencing, signs, and erosion control will be conducted.

Roads not needed for site and quarry access will have any road base material removed, surface ripped and covered with available soil or alluvium, and revegetated. Other onsite roads needed for quarry access will be reclaimed after reclamation of quarries and stockpiles to allow access to all reclamation areas.

Completed stockpile slopes will be reclaimed with 2H:1V slopes and 20-foot wide benches, benches ripped and covered with up to 1-foot of soil and alluvium and revegetated. The tops of stockpiles will be decimed with mound drainage with a 10-foot deep depression to catch precipitation which will percolate and evaporate and avoid runoff down the stockpile slopes or haul roads and reduce potential erosion. The top of the stockpiles will be covered with soil and alluvium and revegetated.

Revegetation activities will generally commence in late fall to early winter to correspond with the rainy season of the area. Seeding will be undertaken by imprinting or broadcast seeding with the recommended seed mix below.

Revegetation is summarized below:

1. Ripping the surface to a depth of 0.5 to 1-foot for moisture and wind-blown and sown seed collection;
2. Placement of available surface material and alluvium materials on horizontal surfaces and overburden slopes up to 0.5 to 1-foot thick;
3. Seeding with locally native species and revegetation per methods described in Plan;
4. Flagging reclaimed areas to eliminate additional disturbance; and
5. Monitoring, maintenance, and application of remedial activities, if necessary, including but not limited to additional seeding and planting, plant protection and change of seed mix.

Recommended Native Plant Seed Mix

SPECIES		POUNDS PER ACRE
SCIENTIFIC NAME	COMMON NAME	
Ambrosia dumosa	Burrobrush	2.50
Ambrosia salsola	Cheesebush	2.50
Amsinckia tessellata	Fiddleneck	0.25
Alyssum desertorum	Desert alyssum	0.25
Atriplex confertifolium	Shadscale	2.50
Caminsonia californica	Felice mustard; CA sun cup or evening primrose	0.25
Chorizanthe rigida	Rigid spineflower	0.25
Chaenactis fremontii	Desert pincushion	0.25
Ericameria nauseosa	Rabbitbrush	3.00
Ephedra nevadensis	Mormon tea	1.50
Ericameria linearifolia	Narrow leaf goldenbush	0.75
Eriogonum fasciculatum	Flat-topped buckwheat	2.00
Eriogonum thurberi	Thurber's buckwheat	0.50
Gilia spp.	Gila	0.25
Larrea tridentate	Creosote bush	3.00
Lycium cooperi	Peach thorn	7.00
Malacothrix glabrata	Desert dandelion	0.75
Montevila afinies	Blazingstar	0.50
Pectocarya linearis	Slender combseed	0.25
Phacelia distans	Phacelia	0.25
Salvia columbariae	Chia	0.25
Stephanomeria exigua	Small wirelettuce	0.25
Tetradymia spinosa	Cotton thorn	2.00
Xylorhiza tortifolia	Mojave aster	0.50
	TOTAL pounds per acre	25-30

Source: *Revegetation Plan*; ELMT Consulting, July 2019. See Appendix F. (typical depending on seed availability)

Recommended Revegetation Success Criteria[1]

Landform	Perennial Cover (%) (45% of Baseline)		Species Density (40% of Baseline)		Species Diversity (40% of Baseline)	
	Baseline	Success Criteria	Baseline	Success Criteria	Baseline	Success Criteria
Steep Areas	42	19	63	25	10	4
Level Areas	32	14	48	19	10	4
Wash Areas	14	6	21	8	6	3

1 - Native perennial shrubs from the 2019 baseline surveys per 50 m².
Source: *Revegetation Plan*; ELMT Consulting, July 2019. See Appendix F.

Land Survey and Parcels (Encumbrance Map – Appendix H)

California Professional Land Surveyor (PLS): The PLS, by signing/stamping the *Encumbrance Map of the Land of the CalPortland Company "Oro Grande Properties"* prepared by Psomas and attached in Appendix H, is accepting responsibility for information as stated on said Maps. Any alterations or changes from the original PDF file are excluded.

Cliff Simental – California Professional Land Surveyor, Psomas (see Appendix H for stamped maps)

Map Sheets (Map Sheets #1 to #4) – Quarry, Road and Overburden Designs

California Professional Geologist, CalPortland, by working with and reviewing and signing/stamping the Map Sheets #1 to #4, prepared by Paul L. Martin, CalPortland (PE, Mining, Nevada, BS Mining Engineering), Ed Harrison, CalPortland (BS Mining Engineering) and Adam Chapman, CalPortland (BS Mining Engineering)

Chad Warren – California Professional Geologist – CalPortland (See Maps #1 to #4 as attachments and figures).

PROFESSIONAL GEOLOGIST · CHAD WILLIAM WARREN · No. 2331 · CERTIFIED ENGINEERING GEOLOGIST · STATE OF CALIFORNIA

9/24/19