

CHAPTER 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

This section describes the affected environment and the potential environmental consequences of implementing the Proposed Action and Alternatives as described in Section 2.0. The following considerations were taken into account when designing the proposed South Quarry project (Project):

- Recovery of the high- to medium-grade limestone to blend with West Pit lower grades at a ratio of 50/50;
- Avoid jurisdictional drainages to the extent feasible;
- Avoid sensitive bighorn sheep areas to the extent feasible;
- Avoid the former Mohawk Mine and its access;
- Develop the smallest footprint to recover high-grade ore;
- Develop the quarry to deposit all overburden/waste rock permanently within the quarry itself to avoid additional land disturbance and additional visual impacts common to other mining methods; and
- Limit visual impacts from the Forest and from Lucerne Valley.

Three alternatives were selected to examine in detail in this EIR/EIS:

- Alternative 1 – Proposed Action: This is the alternative described in the Plan of Operations. This alternative would disturb 153.6 acres, including 128 acres for the quarry area and the remainder for the haul road, landscape berm, and temporary construction road. A total of approximately 174 million tons of high-grade limestone and waste rock would be mined in four phases over 120 years of operation. Reclamation would occur as mining is completed in each area/phase and final reclamation would take place in years 121 to 126, followed by monitoring until success criteria are met.
- Alternative 2 – Partial Implementation: This alternative was added after scoping, in response to public comments requesting an alternative of shorter duration and/or smaller footprint. This alternative would disturb 133.6 acres, including 108 acres for the quarry area and the remainder for the haul road, landscape berm, and temporary construction road. A total of approximately 58.2 million tons of high-grade limestone and waste rock would be mined in two phases over 40 years of operation. Reclamation would occur as mining is completed in each area/phase and final reclamation would take place in years 41 to 46, followed by monitoring until success criteria are met. From year 40 to year 120, high-grade limestone to blend with lower grade limestone from the West Pit would be trucked to the cement plant from elsewhere in the region. Three alternative locations for off-site sources of high-grade limestone have been identified. Approximately 52,000 haul truck trips per year would be required from year 40 to year 120, assuming import of 1.3 million tons per year of high-grade limestone using 25-ton on-road trucks (approximately 150 truck trips per day assuming deliveries 350 days per year).

- Alternative 3 – No Action/No Project: With this alternative, the limestone deposit in the South Quarry area would not be developed under the proposed Plan of Operations. The existing Cushenbury Cement Plant would continue to operate. The ore reserves in the West Pit, when blended with high grade ore, are sufficient to feed the cement plant for approximately 120 years. With this alternative, higher-grade limestone for blending would be trucked to the cement plant from elsewhere in the region during that 120-year period. Three alternative off-site sources of high-grade limestone have been identified. Approximately 52,000 haul truck trips per year would be required, assuming import of 1.3 million tons per year of high-grade limestone using 25-ton on-road trucks (approximately 150 truck trips per day assuming deliveries 350 days per year).

Mineral processing would continue to be conducted in the adjacent existing Cushenbury Cement Plant north of the existing East Pit with all alternatives. There would be no change in existing operations or production at the plant for any alternative, including Alternative 3 – No Action/No Project.

3.1.1 Issues Evaluated and Organization of Section

The environmental issues discussed in this section are those that were found to have the potential to be adversely affected by the Project during scoping, or which warranted further discussion to provide information to decision-makers and the public. These environmental resource areas include:

- Air Quality;
- Biological Resources;
- Cultural/Heritage Resources;
- Geology, Soils, and Mineral Resources;
- Greenhouse Gases;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Noise; and Scenic Resources.
- To assist the reader in comparing information about the various environmental issues, each section presents information under the following headings:
 - Affected Environment: the existing environment is described to provide an environmental setting for the resource;
 - Applicable Laws, Regulations, and Standards: a summary of laws, regulations, and standards applicable to the environmental resource;
 - Impact Analysis Approach: the approach used to assess the potential environmental impacts for this EIR/EIS;
 - Environmental Consequences: the nature and extent of impacts from each alternative are analyzed. The analyses address direct, indirect, and cumulative effects of the alternatives. Any required mitigation measures are also provided in this section.

3.1.2 Design Features and Mitigation Measures

As described in more detail in Section 2.3.2.14, both NEPA and CEQA encourage project planning and approvals to incorporate measures to mitigate the adverse environmental effects of a project. The NEPA and CEQA definitions of mitigation are very similar (see 40 CFR Section 1508.20 and 14 CCR Section 15370). Mitigation can take many forms, including avoiding the effects to a resource, minimizing impacts to a resource, or compensating for effects to a resource. Where the project applicant incorporates such measures into the project as proposed (or other action alternatives under consideration), these measure are often referred to as project design features. The SBNF Land Management Plan includes standard design features that provide guidance for designing actions and activities during Project planning and are intended to be incorporated into proposed projects as applicable. Early incorporation of and commitment to project design features is encouraged because it facilitates sound and collaborative project development, and efficient environmental review.

CEQA also requires a lead agency to consider project impacts with and without proposed mitigation measures to evaluate whether other measures might be more effective than the measures proposed. Thus, some of the project design features incorporated into the Project action alternatives are also classified as mitigation measures for purposes of analysis under CEQA. For purposes of this CEQA classification, this EIR/EIS uses the following distinctions:

For CEQA purposes, project design features are measures that are integrated into the design of the project or project components, including but not limited to selection of building materials, selection of equipment to be installed, location, and site layout. These choices are integral to and usually cannot be physically separated from project implementation. Often, these measures are completed upon completion of project construction, and cannot subsequently be undone. For CEQA purposes, mitigation measures are work practices affecting the manner in which the project would be carried out; other on-site or off-site actions to avoid, reduce or compensate for the significant adverse effects of a project; measures requiring continuous commitment to implementation over the life of the project; and/or measures that will be taken at a future time remote from project approval and construction.

Design features for purposes of NEPA are listed in Section 2.3.2.14. To assist the reader, these features are listed again in the relevant environmental resources subsections of Chapter 3. Additionally, in the relevant environmental resources subsections of Chapter 3, those features that are also CEQA mitigation measures are indicated as applicable.

3.1.3 Past, Present, and Reasonably Foreseeable Actions

Section 15130(a) of the California Environmental Quality Act (CEQA) Guidelines requires a discussion of cumulative impacts of a project *“when the project’s incremental effect is cumulatively considerable.”* The CEQA Guidelines Section 15355, defines a cumulative impact as *“two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.”* Cumulatively considerable impacts are defined in Section 15065(a) of the CEQA Guidelines as the *“incremental effects of an individual 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.”* Section 15130(b) of the CEQA Guidelines states, *“[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as*

is provided of the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness.”

Federal Regulations that guide the National Environmental Policy Act (NEPA) define a cumulative impact as the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 Code of Federal Regulations [CFR] 1508.7).

To analyze the cumulative impacts of all Project alternatives, an area of analysis was selected based on the resources that are found within the Project site. The area of analysis encompasses an area with similar resources as the Project site to evaluate how a particular resource would be affected by the collective impacts of the Project alternatives and past, present, and foreseeable actions in the analysis area. The area of analysis that was developed is composed of the San Bernardino National Forest’s (SBNF’s) Desert Rim Place and the non-urban areas of Lucerne Valley (Figure 3.1-1). Table 3.1-1 lists relevant past, present, and reasonably foreseeable actions within the area of analysis. A discussion is included in the environmental consequences section of each resources/issue area regarding cumulative impacts that would result from the implementation of Project alternatives and past, present, and foreseeable actions.

**Table 3.1-1
Past, Present, and Foreseeable Actions**

Map Label	Project Name	Type of Project	Project Size	Project Information	Location	Jurisdiction
1	Lucerne Valley Solar One	Solar Energy	190 Acre	20 megawatt solar energy facility.	Lucerne Valley	San Bernardino County
2	Camp Rock 20 Acre Solar Farm	Solar Energy	20 Acre	4 megawatt solar energy facility.	Joshua Tree	San Bernardino County
N/A	Omya Butterfield and Sentinel Quarries Expansion Plan of Operation.	Mining	50.8 acres	Plan of Operations and Reclamation Plan for an expansion of 28.8 acres for the Butterfield 3 Quarry and 22 acres for the Sentinel Quarry.	San Bernardino National Forest	Forest Service
N/A	Specialties Minerals Inc. Quarries Plan of Operation (2003)	Mining	--	Three limestone mines. Arctic Canyon and Cushenbury quarries are in operation. Marble Canyon is in reclamation.	San Bernardino National Forest	Forest Service
N/A	Baldwin Hard Rock Prospecting Permit	Mining	38,704 acres	Forest Service consent to the BLM issuing 29 permits for federal hardrock mineral prospecting will also propose to issue three special use permits needed for access and road construction.	San Bernardino National Forest	Forest Service
N/A	Baldwin Lake Hazardous Fuels Reduction	Hazardous Fuels Reduction	5,300 acres	Hazardous fuel reduction on 5,300 acres.	Baldwin Lake, Erwin Lake, and Lake William	Forest Service
N/A	North Big Bear Hazardous Fuels Reduction Project	Hazardous Fuels Reduction	2,271 acres (Defense Zone) 347 acres	Hazardous fuel reduction.	North side of Big Bear Lake from Big Bear	Forest Service

Map Label	Project Name	Type of Project	Project Size	Project Information	Location	Jurisdiction
			(Bertha Ridge Fuelbreak) 1,276 (Threat Zone)		Dam east to Baldwin Lake and over the ridge to Holcomb Valley.	
N/A	Chevron Energy Solutions Lucerne Valley Solar Project	Solar Energy	516 acres	Solar PV plant capable of generating 45 megawatts.	Lucerne Valley	BLM
N/A	Coolwater Lugo Transmission Project	Transmission Line and Substation Project	Various lengths of transmission line	Transmission and substation facilities upgrades.	Kramer Junction and Lucerne Valley areas of San Bernardino County	BLM and San Bernardino County

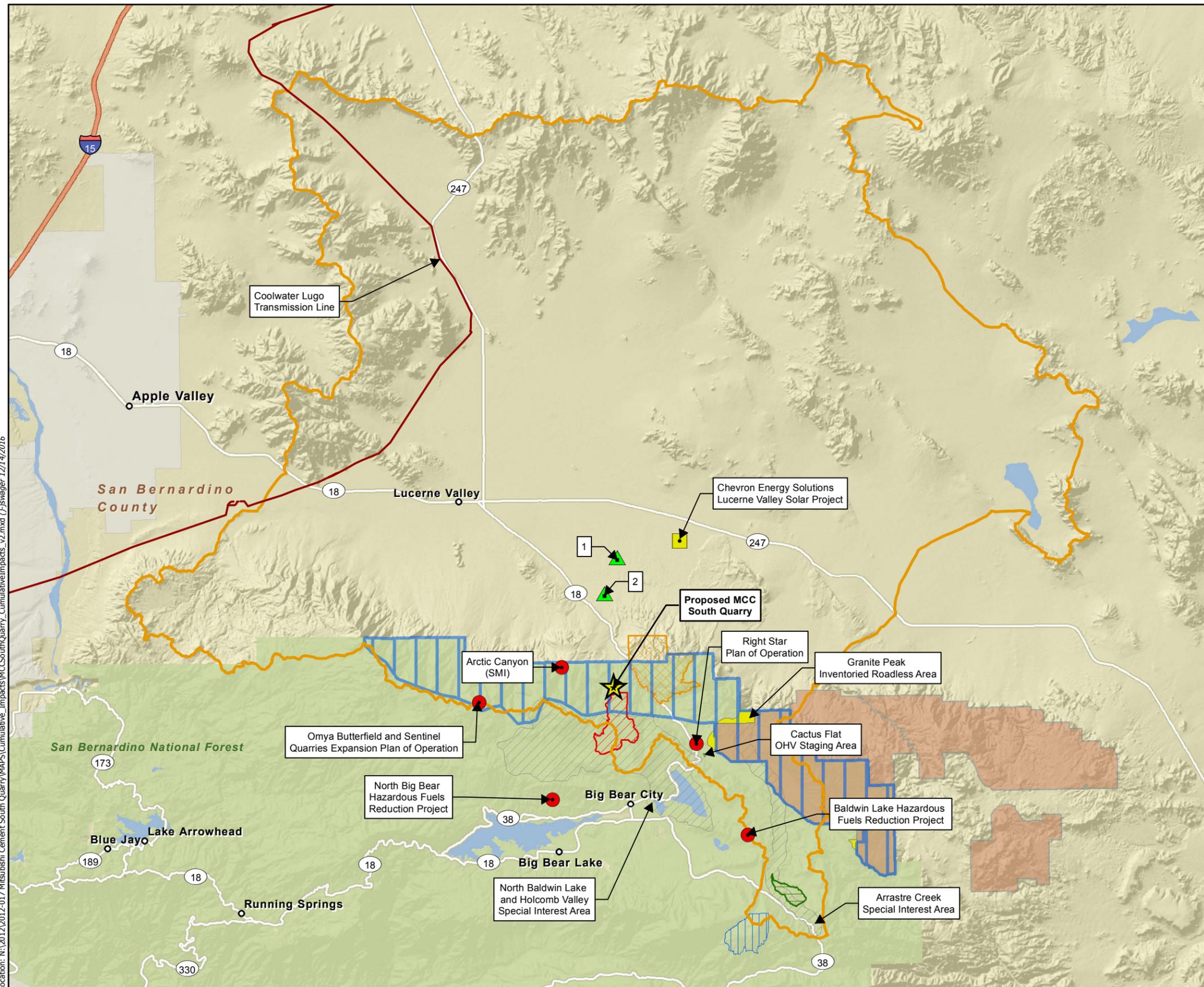
Figure 3.1-1. Past, Present, and Foreseeable Actions

Map Features

-  Proposed MCC South Quarry
-  Coolwater Lugo Transmission Line
-  San Bernardino County Projects
-  Forest Service Projects
-  BLM Projects
-  Past, Present, Foreseeable Actions Analysis Area
-  Desert Rim Place
-  Granite Peak Inventoried Roadless Area
-  Arrastre Flat Research Natural Area
-  Blackhawk Research Natural Area
-  Broom Flat Research Natural Area
-  Wildhorse Meadow Research Natural Area
-  Bighorn Mountain Wilderness
-  Special Interest Areas

San Bernardino County Projects

Label	Project Name
1	Lucerne Valley Solar One
2	Camp Rock Solar Farm LLC



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