

3.7 Hazards and Hazardous Materials

3.7.1 Introduction

A Hazardous Material Technical Study (HMTS) was completed for the Proposed Action (Ninyo & Moore 2013b, Appendix G). The purpose of this HMTS is to document potential environmental concerns within the Project area related to hazardous materials or wastes. This section summarizes that report, which is included in this EIR/EIS as Appendix G.

3.7.2 Applicable Laws, Regulations, and Standards

3.7.2.1 Federal

Hazardous Materials and Waste

Federal regulatory agencies include the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Nuclear Regulatory Commission (NRC), the Department of Transportation (DOT) and the National Institute of Health (NIH). The following federal laws regulate hazardous substances. Please note that not all of the following laws will apply to the Project.

- Pollution Prevention Act (42 US Code Section 13101, et seq./40 CFR).
- Clean Water Act (33 US Code Section 1251, et seq./40 CFR).
- Oil Pollution Act (33 US Code Sections 2701-2761/30, 33, 40, 46, 49 CFR).
- Clean Air Act (42 US Code Section 7401, et seq./40 CFR).
- Occupational Safety and Health Act (29 US Code Sections 651, et seq./29 CFR).
- Federal Insecticide, Fungicide, and Rodenticide Act 7 US Code Section 136, et seq./40 CFR).
- Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (42 US Code Section 9601, et seq./29, 40 CFR).
- Superfund Amendments and Reauthorization Act Title III (42 US Code Section 9601, et seq./29, 40 CFR).
- Resource Conservation and Recovery Act (RCRA) (42 US Code Section 6901, et seq./40 CFR).
- Safe Drinking Water Act (42 US Code Section 300f, et seq./40 CFR).
- Toxic Substances Control Act (15 US Code Section 2601, et seq./40 CFR).

The EPA is the principal federal agency regulating the generation, transport, and disposal of hazardous substances through RCRA. RCRA establishes a federal hazardous substance regulatory program; however, individual states may implement their own program as long as it remains consistent with the federal program. California has its own programs for managing transport, use, storage, and disposal of hazardous materials. In addition, the EPA has authorized

the California Department of Toxic Substances Control (DTSC) to carry out the program in California.

Explosives

The Federal explosives regulations at 27 CFR, Part 555, Subpart K, provide specific construction requirements for explosives magazines. All explosive materials must be kept in locked magazines meeting the standards in Subpart K unless they are:

- In the process of manufacture;
- Being physically handled in the operating process of a licensee or user;
- Being used; or
- Being transported to a place of storage or use by a licensee or permittee or by a person who has lawfully acquired explosive materials under Sec. 555.106.

The Bureau of Alcohol, Tobacco, Firearms and Explosives (BATF&E) has a licensing program to provide required licenses to individuals for handling explosives under 18 USC 843.

3.7.2.2 State

Hazardous Materials and Waste

The California Environmental Protection Agency (Cal/EPA) and the Office of Emergency Services (OES) of the State of California are the state regulatory agencies that establish the rules governing the use of hazardous substances. The State Water Resources Control Board (SWRCB) is the governing agency in charge of protecting water quality and supply. As mentioned above, the DTSC regulates the hazardous substance regulatory program under the authority of RCRA and the California Health and Safety Code. State laws that regulate hazardous substances are listed below. Please note that not all of the following laws will apply to the Project.

- Porter Cologne Water Quality Control Act (California Water Code Section 13000-14076/23 CCR);
- California Accidental Release Prevention Law (California Health and Safety Code Section 25531, et seq./19 CCR);
- California Building Code (California Health and Safety Code Section 18901, et seq./24 CCR);
- California Fire Code (California Health and Safety Code Section 13000, et seq./19 CCR);
- California Occupational Safety and Health Act (California Labor Code Section 6300-6718/8 CCR);
- Hazardous Materials Handling and Emergency Response “Waters Bill” (California Health and Safety Code Section 25500, et seq./19 CCR);
- Hazardous Waste Control Law (California Health and Safety Code Section 25100, et seq./22 CCR);
- Carpenter-Presley-Tanner Hazardous Substance Account Act “State Superfund” (California Health and Safety Code Section 25300, et seq./California Revenue and Tax Code Section 43001, et seq.);

- Hazardous Substances Act (California Health and Safety Code Section 108100, et seq.);
- Safe Drinking Water and Toxic Enforcement Act “Proposition 65” (California Health and Safety Code Sections 25180.7, 25189.5, 25192, 25249.5-25249.13/8, 22 CCR);
- California Air Quality Laws (California Health and Safety Code Section 39000, et seq./17 CCR);
- Aboveground Petroleum Storage Act (California Health and Safety Code Section 25270, et seq.);
- Pesticide Contamination Prevention Act (California Food and Agriculture Code Section 13141, et seq./3 CCR); and
- Underground Storage Tank Law (California Health and Safety Code Section 25280, et seq./23 CCR).

Explosives

The California Department of Occupational Safety and Health (Cal-OSHA) regulations Title 8, Division 1, Chapter 4, Subchapter 17 regulates mine safety, including the storage, transport, handling, and use of explosives.

3.7.2.3 Local

Wildland Fire Safety

A Fire Safety (FS) Overlay has been established in Sections 82.01.020 (Land Use Plan and Land Use Zoning Districts) and 82.01.030 (Overlays) of the County’s development code to provide greater public safety in areas prone to wildland brush fires. The County has established additional development standards for areas in the FS Overlay. The FS Overlay is divided into three fire safety areas to correspond to distinct geographic areas and the associated wildland fire hazard. The requirements applicable to each fire safety area are found in Section 82.13.050 (General Development Standards), Section 82.13.060 (FS1, FS2, and FS3 Development Standards), and 82.13.070 (FS1 Additional Development Standards). The Project site is located in FS1, which includes areas within the mountains and valley foothills. It 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.

Hazardous Materials and Waste

The Hazardous Materials Division (HMD) of the San Bernardino County Fire Department enforces state and federal regulations locally. The HMD is designated by the State Secretary for Environmental Protection as the Certified Unified Program Agency (CUPA) for the County of San Bernardino in order to regulate specific environmental programs at the local level (SBFD 2013). As a CUPA, the HMD manages six hazardous material and hazardous waste programs:

- Hazardous Materials Release Response Plans and Inventory (Business Plan)
- California Accidental Release Program (CalARP)
- Underground Storage Tanks (UST)

- Aboveground Petroleum Storage Act (APSA)/Spill Prevention, Control, and Countermeasure Plan (SPCC Plan)
- Hazardous Waste Generation and Onsite Treatment
- Hazardous Materials Management Plans and Inventory Statements under Uniform Fire Code Article 80

3.7.3 Affected Environment

3.7.3.1 Topographic Conditions

Based on a review of the United States Geological Survey (USGS), 2012, Big Bear City, 7.5-minute Quadrangle map, the Project area is located on a northwest to southeast trending ridge at a maximum elevation of approximately elevation 6,650 feet msl. Elevation ranges from about 5,000 feet above msl at the lower end of the proposed new haul road to about 6,650 feet above msl at the southeast corner of the proposed South Quarry. The topography generally slopes northerly toward Lucerne Valley. Marble Canyon Creek is located approximately 1,500 feet west of the Project area (Ninyo & Moore 2013b).

3.7.3.2 Geologic Conditions

According to the USGS Preliminary Geologic Map of the Big Bear City 7.5' Quadrangle, the Project area is primarily underlain by the Bird Spring Formation, Monte Cristo Limestone (Mississippian), and Sultan Limestone (Devonian). The Bird Spring Formation consists of the Middle and Lower Members. Monte Cristo Limestone consists of three members, Yellowpine, Bullion and Lower. Sultan Limestone consists of the Crystal Pass Member, which is described as thin- to thick-bedded, white calcite marble having intermittent thin intervals of dark-gray calcite and dolomite marble. Other units within the Project area include landside deposits (Ninyo & Moore 2013b).

3.7.3.3 Hydrogeologic Conditions

According to the Regional Water Quality Control Board (RWQCB) Water Quality Control Plan for the Colorado River Basin, the Project area is situated within the Lucerne Lake Hydrologic Unit (HU). Groundwater within the Lucerne Lake HU has existing beneficial uses for municipal, domestic, industrial service, and agricultural supplies (Ninyo & Moore 2013b).

In 2009 and 2010, MCC drilled nine borings to a maximum depth of 850 feet below ground surface (bgs). Groundwater was not encountered in any of the borings. Groundwater measured from the Cushenbury Mine, approximately 0.75 mile north of the Project area, was reported as 4,652 feet msl, which corresponds to 723 feet below the lowest point (5,365 feet msl) of the proposed South Quarry floor (Ninyo & Moore 2013b). Groundwater levels can fluctuate due to seasonal variations, groundwater withdrawal or injection, and other factors.

3.7.3.4 Existing Environmental Concerns

Map and Photo Review

Historical topographic maps for the following years: 1902, 1947, 1949, 1971, and 1996 were reviewed. According to the 1902 map, the Project area and vicinity were depicted as undeveloped. Marble Canyon Creek was depicted west of the site, and a northwest to southeast trending road was depicted approximately 1.5 miles east of the Project area. In the 1947 and 1949 topographic maps, Mohawk Mine (now abandoned) was depicted approximately 1,000 feet southeast of the Project area. In the 1971 and 1996 topographic maps, the Cushenbury and Marble Canyon Pits are depicted north and west of the Project area, respectively. A southwest to northeast trending intermittent stream is depicted approximately 500 feet east of the Project area.

Database Searches

Off-site properties on databases reporting unauthorized releases of hazardous materials or wastes (i.e., the LUST, SLIC, VCP databases) were evaluated to determine if they represented a potential environmental concern to the Project area based on the distance from the Project area and nature of the release. One property, Mitsubishi Cement Plant Cushenbury landfill, located at 5808 State Highway 18, approximately 0.75 mile north-northeast of the Project area, was listed in the Emissions Management Inventory (EMI), Facility Index System (FINDS), LUST, Statewide Environmental Evaluation and Planning System (SWEEPS UST), and Waste Discharge System (WDS) databases. According to the LUST database, the facility has a closed unauthorized release case involving removal of underground tanks that contained fuels and motor oil (Ninyo & Moore 2013b).

Site Reconnaissance

Hazardous materials, wastes, structures, dumps, mines/prospects, or other man-made features were not observed at the Project area during the site reconnaissance (Ninyo & Moore 2013b).

3.7.3.5 Existing Blasting Operations

Controlled blasting is currently conducted in the existing East Pit to break the rock into smaller pieces for removal. MCC has three individuals licensed through the BATF&E for explosives handling on staff. Blasting materials are secured in an appropriate magazine located at the existing cement plant facilities.

3.7.4 Environmental Consequences

3.7.4.1 Impact Analysis Approach

CEQA Significance Criteria

Appendix G of the State CEQA Guidelines suggest that lead agencies evaluate the potential significance of hazards and hazardous materials impacts of a project by considering whether the project would have an effect related to eight criteria. Of the eight criteria provided in the guidelines, only three are applicable to the South Quarry Project:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

- 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.
- 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.

The following criteria are not discussed further in this EIR/EIS because they are not applicable to the Project for the reasons summarized after each criterion, and further explained in the Initial Study prepared during Project scoping (Appendix A-2):

- Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? This criterion is not applicable because the nearest school, Lucerne Valley Alternate Education Center, is located approximately 5 miles northwest of the site.
- Is the project located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment? This criterion is not applicable because the site is not located on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.
- 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, result in a safety hazard for people residing or working in the project area. This criterion is not applicable because the project site is not located within an airport land use plan or within two miles of an airport.
- For projects within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area. This criterion is not applicable because the project site is not within the vicinity of an approach/departure flight path of a private airstrip.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. This criterion is not applicable because the development of the project would not impede existing emergency response plans. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes.

NEPA Analysis Approach

The NEPA analysis determines whether direct or indirect effects from hazards or hazardous materials would result from the Proposed Action. The analysis provides a comparison of effects by alternative. As defined by the Council on Environmental Quality, significance of an effect is determined by the context and intensity of the resulting change relative to the existing environment (40 CFR 1508.27). As applicable, impacts are discussed in terms of spatial extent, duration and intensity. The analysis is primarily concerned with potential adverse effects to public health and safety from the release of hazardous materials and the creation of public hazards from mine construction and operation.

3.7.4.2 Alternative 1 – Proposed Action

Direct and Indirect Impacts

Alternative 1 – Proposed Action is not anticipated to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or wastes. Hazardous materials to be used during mining activities include diesel fuel and lubricants for mine equipment. Refueling and maintenance of the mine equipment would be conducted by mobile fuel and maintenance vehicles. BMPs would be applied during refueling and maintenance of the mine equipment. The equipment would be moved to the existing Cushenbury Cement Plant area shops for major maintenance or repairs (Ninyo & Moore 2013b). With BMPs required by existing regulations, hazardous materials or wastes associated with transportation, refueling and maintenance of mine equipment are not reasonably anticipated to result in a significant hazard to the public or environment and a less than significant impact would occur.

With Alternative 1 – Proposed Action, proposed mining operations would require two blasts per week, reducing the number of blasts from the existing mining operations by a similar number. Therefore, the overall current levels of blasting would remain the same. Blasting operations would continue to be conducted by licensed individuals in such a manner as to meet or exceed Cal-OSHA requirements. MCC has three individuals licensed through BATF&E for handling explosives on staff. Blasting would typically be conducted twice each week at the South Quarry between the hours of 10:00 a.m. and 6:00 p.m. Monday through Saturday. During the initial construction of the haul road, more numerous (up to once per day) but smaller blasts would occur. Blasting materials would continue to be secured in an existing appropriate magazine located at the adjacent cement plant facilities.

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 BATF&E for handling explosives. All explosives and detonators would 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 would only be conducted by a licensed blaster upon issuance of a blasting permit and a site-specific blasting permit. Additionally, Alternative 1 – Proposed Action would not require additional blasting than the existing number of blasts. A significant hazard risk to the public is not anticipated from blasting activities; a less than significant impact would occur.

Alternative 1 – Proposed Action is not anticipated to result in a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Based on a review of historical aerial photographs and topographic maps, the Project area has historically been undeveloped. Hazardous materials, wastes, structures, dumps, mines/prospects, or other man-made features were not observed at the Project area during the Project area reconnaissance conducted on May 14, 2012. Properties or features of potential environmental concern were not identified within the Project area during a database search. One facility, the Mitsubishi Cement Plant Cushenbury landfill, located at 5808 State Highway 18, approximately 0.75 mile north-northeast of the Project area, was listed in the EMI, FINDS, LUST, SWEEPS UST, and WDS databases. According to the LUST database, the facility has a closed unauthorized release case involving removal of underground storage tanks that contained fuels and motor oil. Based on the distance to the Project area (greater than 0.5

mile), the LUST case closed status, and downgradient hydrologic position, this facility is not considered an environmental concern that may be disturbed by mining at the South Quarry site.

Based on the depth to groundwater (greater than approximately 85 feet) and the proposed depth of the mine, encountering groundwater during implementation of Alternative 1 – Proposed Action is unlikely. It is unlikely that excavation of the mine would disturb contaminated soils or groundwater based on the historic undeveloped use of the property and lack of environmental concerns identified during the database search and site visit. A less than significant impact would occur.

Alternative 1 – Proposed Action is located in Fire Safety Review Area 1 (FS-1), which includes areas within the mountains and valley foothills. It also includes all the land generally within the SBNF boundary and is characterized by areas with moderate and steep terrain and moderate to heavy fuel loading contributing to high fire hazard conditions. The design of Alternative 1 – Proposed Action includes internal haul roads to allow for emergency egress and safe zones in the event of a wildfire. Alternative 1 – Proposed Action would not contribute to or be affected by surrounding fuel loads and a fuel modification zone would not be required. No human-occupied structures are proposed as part of Alternative 1 – Proposed Action. Alternative 1 – Proposed Action would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, therefore, impacts would be less than significant.

Cumulative Impacts

The cumulative projects listed in Table 3.1-1 include alternative energy, limestone mining, communication and electrical infrastructure, hazardous fuels reduction, and residential and commercial development projects. All of these projects would be subject to the federal, state, and local laws, regulations and standards listed in Section 3.7.2. These projects would not produce or emit hazardous substances or waste, and are not expected to cumulatively create a significant hazard to the public or the environment through routine transportation or risk of upset related to hazardous materials or waste generated by these projects. Alternative 1 – Proposed Action is not anticipated to create a significant hazard to the public or the environment through routine transportation or risk of upset or accident of hazardous waste or materials. There would be no existing hazardous waste sites that would be disturbed by Alternative 1 – Proposed Action. Alternative 1 – Proposed Action's contribution to hazards to the public or environment related to hazardous materials or wastes is not anticipated to be cumulatively considerable.

Alternative 1 – Proposed Action is in compliance with the requirements of the FS1 overlay, and other projects listed on Table 3.1-1 would also be required to comply with the FS overlay, as applicable. Additionally, two of the projects listed in Table 3.1-1 are fuels reduction projects designed to reduce wildland fire impacts in the region. Alternative 1- Proposed Action would comply with the applicable FS1 overlay development requirements and would not contribute to or be affected by surrounding wildfire fuel loads and would not create a significant wildland fire risk to people or structures. Alternative 1 – Proposed Action's contribution to wildland fire risk is not anticipated to be cumulatively considerable.

The projects listed in Table 3.1-1 include seven mining projects. All of these projects would include blasting, which involves handling hazardous explosives during the blasting process, and potentially storing the hazardous explosives on the site. Cumulative impacts from blasting operations would be less than significant, because blasting activities, including handling explosives, placement of charges, detonation of charges, and transporting and storing explosives and detonators, are heavily regulated by the BATF&E, State and County. While Alternative 1 -

Proposed Action would require two blasts per week, blasts would be reduced from existing mining operations, and overall current levels of blasting would remain the same. Therefore, the Proposed Action would not contribute to cumulative impacts to public health and safety from potential blasting hazards.

Mitigation Measures

No significant impacts have been identified and no mitigation measures are required.

Residual Impacts after Mitigation

No significant impacts have been identified.

3.7.4.3 Alternative 2 – Partial Implementation

This alternative was developed in response to public comments requesting an alternative with a shorter duration and/or smaller footprint. The footprint of the quarry would be approximately 20 acres smaller and would not be as deep as with Alternative 1 – Proposed Action. Mining in the quarry would last 40 years rather than 120 years. As a result, reclamation and revegetation at the South Quarry site would be completed nearly 80 years sooner and localized impacts related to mining, such as fugitive dust and noise, would also end earlier at this site. With this alternative, a higher grade limestone would still be required for blending at the existing Cushenbury cement plant and would be trucked to the plant after Phase 2 is completed, from approximately year 40 through year 120.

Direct and Indirect Impacts

Direct and indirect effects from hazards and hazardous materials with Alternative 2 – Partial Implementation would be similar to those of Alternative 1 – Proposed Action. Restoration activity would be completed 80 years sooner in this alternative than in the Proposed Action. The impacts from hazards and hazardous materials (diesel fuel and lubricants) and blasting on the Project site would be the same during operation, but use of blasting and equipment-related fuels, oils, and lubricants would end earlier. As with Alternative 1 – Proposed Action, impacts would be less than significant. The effects of trucking limestone from an off-site location after Phase 2 (years 40 to 120) would also be less than significant, as blasting (if required) and maintenance and fueling of equipment at the off-site location would also be subject to all federal, state, and local environmental regulations.

Cumulative Impacts

The cumulative impacts analysis for Alternative 2 – Partial Implementation would be similar to that described for Alternative 1 – Proposed Action. Cumulative impacts from Alternative 2 – Partial Implementation would be shorter in duration and would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures would occur.

Residual Impacts after Mitigation

Impacts would be less than significant.

3.7.4.4 Alternative 3 – No Action/No Project

If Alternative 3 – No Action/No Project is implemented and the South Quarry is not developed with the proposed Plan of Operations, there would be no direct or indirect adverse effects from hazards or hazardous materials associated with mining at this location under this Plan of Operations. With this alternative, high-grade limestone would be trucked to the Cushenbury cement plant from an off-site location. The effects of trucking limestone from an off-site location would also be less than significant, as blasting (if required) and maintenance and fueling of equipment at the off-site location would also be subject to all federal, state, and local environmental regulations. Transporting limestone from an offsite location is not expected to result in significant effects relating to hazards or hazardous materials because limestone is not a hazardous substance.

Direct and Indirect Impacts

No impacts would occur.

Cumulative Impacts

No impacts would occur.

Mitigation Measures

No impacts would occur therefore mitigation measures would not be required.

Residual Impacts after Mitigation

No impacts would occur.